flask_api

Rubén Rodríguez Ramírez

Dec 28, 2021

CONTENTS

Flask-api is a small API project for creating users and files (Microsoft Word and PDF). These files contain data about users registered in the project.

The project is developed in Python 3.7 and use next main libraries:

- : microframework.
- : SQL database engine.
- : simple and small ORM.
- : asynchronous task queue/job.
- : message broker.
- : web server, reverse proxy, etc.
- : Web Server Gateway Interface (WSGI) server implementation.
- : monitoring and administrating Celery clusters.
- : client/server system that allows its users to monitor and control a number of processes on UNIX-like operating systems.

CHAPTER

ONE

INSTALLATION

1.1 1. Linux packages

These packages are required for the project installation:

```
sudo add-apt-repository ppa:deadsnakes/ppa
sudo apt-get update
sudo apt-get install autoconf build-essential cmake libcap-dev libffi-dev libpcre3-dev␣
↪librabbitmq-dev libreoffice-writer libtool libxml2-dev libxslt1-dev libxslt1.1 pkg-
↪config magic nginx python3-distutils python3.7 python3.7-dev python3.7-venv rabbitmq-
↪server uuid-dev uwsgi uwsgi-src
sudo reboot
```

1.2 2. RabbitMQ configuration

Required plugins for monitoring our brokers in Flower:

```
sudo rabbitmq-plugins enable rabbitmq_management
sudo service rabbitmq-server restart
```

1.3 3. Python dependencies

Install Python dependencies:

```
python3.7 -m venv venv
source venv/bin/activate
pip install -r requirements.txt --no-cache-dir
```

1.4 4. Domain configuration

Add local domain to our */etc/hosts* file:

```
127.0.0.1 flask-api.prod
```

1.5 5. Environment configuration

Create a new **.env** file based on *.env.example* file.

1.6 6. uWSGI configuration

Create a new **uwsgi.ini** file based on *uwsgi.ini.example*.

username and *project_path* must to be filled with appropiate values.

www-data group must to be added to your user:

```
sudo usermod -a -G www-data username
```

1.7 7. Nginx configuration

Create a new **flask_api** file based on *docs/examples/flask_api.nginx.example* file.

Replace *uwsgi_pass* variable with the value in *socket* variable from **uwsgi.ini** file.

Move **flask_api** file to */etc/nginx/sites-available* directory:

```
sudo mv docs/examples/flask_api /etc/nginx/sites-available
sudo ln -s /etc/nginx/sites-available/flask_api /etc/nginx/sites-enabled/flask_api
sudo systemctl restart nginx
```

1.8 8. Supervisor configuration

1.8.1 8.1 Main configuration

Create a new **supervisord.conf** file based on *docs/examples/supervisor/supervisord.conf.example* file in the root project.

command, *directory* and *username* variables must to be filles with appropriate values. These variables are below *Mr Developer* comment.

1.8.2 8.2 Other configurations

Create a new directory named *supervisor* in the root path and create next files based on *docs/examples/supervisor* example files:

1. celery.conf
2. flower.conf
3. uwsgi.conf

username and *path* variables must to be replaced with appropriate values.

1.9 9. Log directories

Create next log directories:

1. log/app
2. log/celery
3. log/flower
4. log/uwsgi

1.10 10. Supervisor systemd unit file

Create a new **flask_api_supervisor.service** file based on *docs/examples/flask_api_supervisor.service.example* file.

username, *usergroup* and *path* variables must to be filled with appropiate values.

Move file to */etc/systemd/system* directory and we run next commands:

```
sudo systemctl enable flask_api_supervisor.service
sudo systemctl daemon-reload
sudo systemctl start flask_api_supervisor.service
```

The systemd unit file start up the project if the system is reboot or shutdown.

For checking process status in command line:

```
sudo systemctl status flask_api_supervisor.service
```

For restart all processes in command line:

```
sudo systemctl restart flask_api_supervisor.service
```

This command reread the supervisor configuration files, stop all processes and start them again.

1.11 How to usage

The setup is finished, we only need to create the database tables and fill them with fake data. We open a terminal in the root project and run next commands:

```
./venv/bin/flask init-db
./venv/bin/flask migrate
./venv/bin/flask seed
```

You can use an API client such as Insomnia or Postman and starting to consume the API!

You can see the processes status here: http://flask-api.prod/supervisor

The credentials are user:123 by default, you can change the credentials in supervisord.conf file in *inet_http_server* section.

You can management the Celery tasks status here: http://flask-api.prod:5555/flower/

1.12 Optional installation

This project use for logging configuration. The config file is already defined you only need to do these steps:

1. Create new **flask_api.logrotate** file based on *docs/examples/flask_api.logrotate.example*.
2. *path*, *username* and *usergroup* variables must to be filled with appropiate values.
3. Move flask_api_logrotate to */etc/logrotate.d*:

```
sudo mv docs/examples/flask_api.logrotate /etc/logrotate.d
```

4. Restart logrotate service:

```
sudo service log rotate restart
```

A new log file will be created every day.

CHAPTER

TWO

SKELETON APP STRUCTURE

The project structure looks like this:

```
flask_api
├── /app
│   ├── /blueprints
│   │   └── ...
│   ├── /celery
│   │   └── ...
│   ├── /models
│   │   └── ...
│   ├── /templates
│   │   └── ...
│   ├── /utils
│   │   └── ...
│   ├── __init__.py
│   ├── extensions.py
│   └── middleware.py
├── /database
│   ├── factories
│   │   └── ...
│   ├── migrations
│   │   └── ...
│   ├── seeds
│   │   └── ...
│   └── __init__.py
├── /log
│   └── ...
├── /storage
│   └── ...
├── /tests
│   └── ...
├── config.py
├── manage.py
└── requirements.txt
```

app	Package for building a Flask application.
database	Package for managing the database.
tests	Package for testing the application.
config	Module loads the application's configuration.

2.1 app

Description

Package for building a Flask application.

The app package loads application configuration and registers middleware, blueprints, database models, etc.

Modules

app.blueprints	Registers Flask blueprints.
app.celery	Runs Celery and registers Celery tasks.
app.exceptions	Module for managing exceptions.
app.extensions	Registers third party extensions.
app.managers	Registers database managers.
app.middleware	WSGI middleware for validating requests content type.
app.models	Registers database models.
app.serializers	Modules for managing data from requests and responses.
app.services	Registers services for managing business logic.
app.swagger	Models registered in Swagger.
app.utils	Collection of functions and classes which make common patterns shorter and easier.

2.1.1 app.blueprints

Description

Registers Flask blueprints.

Modules

app.blueprints.auth
app.blueprints.base
app.blueprints.documents
app.blueprints.roles
app.blueprints.tasks
app.blueprints.users

app.blueprints.auth

Description

Classes

AuthBaseResource([api])	
AuthUserLoginResource([api])	
AuthUserLogoutResource([api])	
RequestResetPasswordResource([api])	
ResetPasswordResource([api])	

app.blueprints.auth.AuthBaseResource

class app.blueprints.auth.**AuthBaseResource**(*api=None*, **args*, ***kwargs*)

Bases: flask_restx.resource.Resource

Attributes

AuthBaseResource.auth_service	
AuthBaseResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
AuthBaseResource.method_decorators	
AuthBaseResource.methods	A list of methods this view can handle.
AuthBaseResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
AuthBaseResource.representations	

app.blueprints.auth.AuthBaseResource.auth_service

AuthBaseResource.**auth_service** = <app.services.auth.AuthService object>

app.blueprints.auth.AuthBaseResource.decorators

AuthBaseResource.**decorators: List[Callable] = []**

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.auth.AuthBaseResource.method_decorators

AuthBaseResource.**method_decorators = []**

app.blueprints.auth.AuthBaseResource.methods

AuthBaseResource.**methods: Optional[List[str]] = None**

A list of methods this view can handle.

app.blueprints.auth.AuthBaseResource.provide_automatic_options

AuthBaseResource.**provide_automatic_options: Optional[bool] = None**

Setting this disables or force-enables the automatic options handling.

app.blueprints.auth.AuthBaseResource.representations

AuthBaseResource.**representations = None**

Methods

AuthBaseResource.__init__([api])	
AuthBaseResource.as_view(name, *class_args, ...)	Converts the class into an actual view function that can be used with the routing system.
AuthBaseResource.dispatch_request(*args, ...)	Subclasses have to override this method to implement the actual view function code.
AuthBaseResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.auth.AuthBaseResource.__init__

AuthBaseResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.auth.AuthBaseResource.as_view

classmethod AuthBaseResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.auth.AuthBaseResource.dispatch_request

AuthBaseResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.auth.AuthBaseResource.validate_payload

AuthBaseResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

app.blueprints.auth.AuthUserLoginResource

class app.blueprints.auth.**AuthUserLoginResource**(*api=None*, **args*, ***kwargs*)

Bases: *app.blueprints.auth.AuthBaseResource*

Attributes

AuthUserLoginResource.auth_service	
AuthUserLoginResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
AuthUserLoginResource.method_decorators	
AuthUserLoginResource.methods	A list of methods this view can handle.
AuthUserLoginResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
AuthUserLoginResource.representations	

app.blueprints.auth.AuthUserLoginResource.auth_service

AuthUserLoginResource.**auth_service = <app.services.auth.AuthService object>**

app.blueprints.auth.AuthUserLoginResource.decorators

AuthUserLoginResource.**decorators: List[Callable] = []**

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.auth.AuthUserLoginResource.method_decorators

AuthUserLoginResource.**method_decorators = []**

app.blueprints.auth.AuthUserLoginResource.methods

AuthUserLoginResource.**methods: Optional[List[str]] = {'POST'}**

A list of methods this view can handle.

app.blueprints.auth.AuthUserLoginResource.provide_automatic_options

AuthUserLoginResource.**provide_automatic_options: Optional[bool] = None**

Setting this disables or force-enables the automatic options handling.

app.blueprints.auth.AuthUserLoginResource.representations

AuthUserLoginResource.**representations = None**

Methods

AuthUserLoginResource.__init__([api])	
AuthUserLoginResource.as_view(name, ...)	Converts the class into an actual view function that can be used with the routing system.
AuthUserLoginResource.dispatch_request(...)	Subclasses have to override this method to implement the actual view function code.
AuthUserLoginResource.post()	
AuthUserLoginResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.auth.AuthUserLoginResource.__init__

AuthUserLoginResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.auth.AuthUserLoginResource.as_view

classmethod AuthUserLoginResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.auth.AuthUserLoginResource.dispatch_request

AuthUserLoginResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.auth.AuthUserLoginResource.post

AuthUserLoginResource.**post**() → tuple

app.blueprints.auth.AuthUserLoginResource.validate_payload

AuthUserLoginResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

app.blueprints.auth.AuthUserLogoutResource

class app.blueprints.auth.**AuthUserLogoutResource**(*api=None*, **args*, ***kwargs*)

Bases: *app.blueprints.auth.AuthBaseResource*

Attributes

AuthUserLogoutResource.auth_service	
AuthUserLogoutResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
AuthUserLogoutResource.method_decorators	
AuthUserLogoutResource.methods	A list of methods this view can handle.
AuthUserLogoutResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.

continues on next page

Table 9 – continued from previous page

AuthUserLogoutResource.representations

app.blueprints.auth.AuthUserLogoutResource.auth_service

AuthUserLogoutResource.**auth_service = <app.services.auth.AuthService object>**

app.blueprints.auth.AuthUserLogoutResource.decorators

AuthUserLogoutResource.**decorators: List[Callable] = []**

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.auth.AuthUserLogoutResource.method_decorators

AuthUserLogoutResource.**method_decorators = []**

app.blueprints.auth.AuthUserLogoutResource.methods

AuthUserLogoutResource.**methods: Optional[List[str]] = {'POST'}**

A list of methods this view can handle.

app.blueprints.auth.AuthUserLogoutResource.provide_automatic_options

AuthUserLogoutResource.**provide_automatic_options: Optional[bool] = None**

Setting this disables or force-enables the automatic options handling.

app.blueprints.auth.AuthUserLogoutResource.representations

AuthUserLogoutResource.**representations = None**

Methods

AuthUserLogoutResource.__init__([api])	
AuthUserLogoutResource.as_view(name, ...)	Converts the class into an actual view function that can be used with the routing system.
AuthUserLogoutResource.dispatch_request(...)	Subclasses have to override this method to implement the actual view function code.

continues on next page

Table 10 – continued from previous page

AuthUserLogoutResource.post()	
AuthUserLogoutResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.auth.AuthUserLogoutResource.__init__

AuthUserLogoutResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.auth.AuthUserLogoutResource.as_view

classmethod AuthUserLogoutResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.auth.AuthUserLogoutResource.dispatch_request

AuthUserLogoutResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.auth.AuthUserLogoutResource.post

AuthUserLogoutResource.**post**() → tuple

app.blueprints.auth.AuthUserLogoutResource.validate_payload

AuthUserLogoutResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

app.blueprints.auth.RequestResetPasswordResource

class app.blueprints.auth.**RequestResetPasswordResource**(*api=None*, **args*, ***kwargs*)

Bases: *app.blueprints.auth.AuthBaseResource*

Attributes

RequestResetPasswordResource.auth_service	
RequestResetPasswordResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
RequestResetPasswordResource.method_decorators	
RequestResetPasswordResource.methods	A list of methods this view can handle.
RequestResetPasswordResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
RequestResetPasswordResource.representations	

app.blueprints.auth.RequestResetPasswordResource.auth_service

RequestResetPasswordResource.**auth_service = <app.services.auth.AuthService object>**

app.blueprints.auth.RequestResetPasswordResource.decorators

RequestResetPasswordResource.**decorators: List[Callable] = []**

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.auth.RequestResetPasswordResource.method_decorators

RequestResetPasswordResource.**method_decorators = []**

app.blueprints.auth.RequestResetPasswordResource.methods

RequestResetPasswordResource.**methods: Optional[List[str]] = {'POST'}**

A list of methods this view can handle.

app.blueprints.auth.RequestResetPasswordResource.provide_automatic_options

RequestResetPasswordResource.**provide_automatic_options: Optional[bool] = None**

Setting this disables or force-enables the automatic options handling.

app.blueprints.auth.RequestResetPasswordResource.representations

RequestResetPasswordResource.**representations = None**

Methods

RequestResetPasswordResource.__init__([api])	
RequestResetPasswordResource.as_view(name, ...)	Converts the class into an actual view function that can be used with the routing system.
RequestResetPasswordResource.dispatch_request(...)	Subclasses have to override this method to implement the actual view function code.
RequestResetPasswordResource.post()	
RequestResetPasswordResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.auth.RequestResetPasswordResource.__init__

RequestResetPasswordResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.auth.RequestResetPasswordResource.as_view

classmethod RequestResetPasswordResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.auth.RequestResetPasswordResource.dispatch_request

RequestResetPasswordResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.auth.RequestResetPasswordResource.post

RequestResetPasswordResource.**post**() → tuple

app.blueprints.auth.RequestResetPasswordResource.validate_payload

RequestResetPasswordResource.**validate_payload**(*func*)
Perform a payload validation on expected model if necessary

app.blueprints.auth.ResetPasswordResource

class app.blueprints.auth.**ResetPasswordResource**(*api=None*, **args*, ***kwargs*)
Bases: *app.blueprints.auth.AuthBaseResource*

Attributes

ResetPasswordResource.auth_service	
ResetPasswordResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
ResetPasswordResource.method_decorators	
ResetPasswordResource.methods	A list of methods this view can handle.
ResetPasswordResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
ResetPasswordResource.representations	

app.blueprints.auth.ResetPasswordResource.auth_service

ResetPasswordResource.**auth_service = <app.services.auth.AuthService object>**

app.blueprints.auth.ResetPasswordResource.decorators

ResetPasswordResource.**decorators: List[Callable] = []**
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.auth.ResetPasswordResource.method_decorators

ResetPasswordResource.**method_decorators = []**

app.blueprints.auth.ResetPasswordResource.methods

ResetPasswordResource.**methods: Optional[List[str]] = {'GET', 'POST'}**
A list of methods this view can handle.

app.blueprints.auth.ResetPasswordResource.provide_automatic_options

ResetPasswordResource.**provide_automatic_options: Optional[bool] = None**
Setting this disables or force-enables the automatic options handling.

app.blueprints.auth.ResetPasswordResource.representations

ResetPasswordResource.**representations = None**

Methods

ResetPasswordResource.__init__([api])	
ResetPasswordResource.as_view(name, ...)	Converts the class into an actual view function that can be used with the routing system.
ResetPasswordResource.dispatch_request(...)	Subclasses have to override this method to implement the actual view function code.
ResetPasswordResource.get(token)	
ResetPasswordResource.post(token)	
ResetPasswordResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.auth.ResetPasswordResource.__init__

ResetPasswordResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.auth.ResetPasswordResource.as_view

classmethod ResetPasswordResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.auth.ResetPasswordResource.dispatch_request

ResetPasswordResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.auth.ResetPasswordResource.get

ResetPasswordResource.**get**(*token: str*) → tuple

app.blueprints.auth.ResetPasswordResource.post

ResetPasswordResource.**post**(*token: str*) → tuple

app.blueprints.auth.ResetPasswordResource.validate_payload

ResetPasswordResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

class app.blueprints.auth.**AuthBaseResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

auth_service = <app.services.auth.AuthService object>

decorators: List[Callable] = []

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = None
A list of methods this view can handle.

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.auth.**AuthUserLoginResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

auth_service = <app.services.auth.AuthService object>

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = {'POST'}
A list of methods this view can handle.

post() → tuple

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.auth.**AuthUserLogoutResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

auth_service = <app.services.auth.AuthService object>

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = {'POST'}
A list of methods this view can handle.

post() → tuple

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.auth.**RequestResetPasswordResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

auth_service = <app.services.auth.AuthService object>

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = {'POST'}
A list of methods this view can handle.

post() → tuple

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.auth.**ResetPasswordResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

auth_service = <app.services.auth.AuthService object>

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

get(*token: str*) → tuple

method_decorators = []

methods: Optional[List[str]] = {'GET', 'POST'}
A list of methods this view can handle.

post(*token: str*) → tuple

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

validate_payload(*func*)
Perform a payload validation on expected model if necessary

app.blueprints.base

Description

Classes

BaseResource([api])
WelcomeResource([api])

app.blueprints.base.BaseResource

class app.blueprints.base.**BaseResource**(*api=None*, **args*, ***kwargs*)
Bases: flask_restx.resource.Resource

Attributes

BaseResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
BaseResource.method_decorators	
BaseResource.methods	A list of methods this view can handle.
BaseResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
BaseResource.representations	

app.blueprints.base.BaseResource.decorators

BaseResource.**decorators: List[Callable] = []**
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.base.BaseResource.method_decorators

BaseResource.**method_decorators = []**

app.blueprints.base.BaseResource.methods

BaseResource.**methods: Optional[List[str]] = None**
A list of methods this view can handle.

app.blueprints.base.BaseResource.provide_automatic_options

BaseResource.**provide_automatic_options: Optional[bool] = None**
Setting this disables or force-enables the automatic options handling.

app.blueprints.base.BaseResource.representations

BaseResource.**representations = None**

Methods

BaseResource.__init__([api])	

BaseResource.as_view(name, *class_args, ...)	Converts the class into an actual view function that can be used with the routing system.
BaseResource.dispatch_request(*args, **kwargs)	Subclasses have to override this method to implement the actual view function code.
BaseResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.base.BaseResource.__init__

BaseResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.base.BaseResource.as_view

classmethod BaseResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.base.BaseResource.dispatch_request

BaseResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.base.BaseResource.validate_payload

BaseResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

app.blueprints.base.WelcomeResource

class app.blueprints.base.**WelcomeResource**(*api=None*, **args*, ***kwargs*)
Bases: flask_restx.resource.Resource

Attributes

WelcomeResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
WelcomeResource.method_decorators	
WelcomeResource.methods	A list of methods this view can handle.
WelcomeResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
WelcomeResource.representations	

app.blueprints.base.WelcomeResource.decorators

WelcomeResource.**decorators: List[Callable] = []**
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.base.WelcomeResource.method_decorators

WelcomeResource.**method_decorators = []**

app.blueprints.base.WelcomeResource.methods

WelcomeResource.**methods: Optional[List[str]] = {'GET'}**
A list of methods this view can handle.

app.blueprints.base.WelcomeResource.provide_automatic_options

WelcomeResource.**provide_automatic_options: Optional[bool] = None**
Setting this disables or force-enables the automatic options handling.

app.blueprints.base.WelcomeResource.representations

WelcomeResource.**representations = None**

Methods

WelcomeResource.__init__([api])	

WelcomeResource.as_view(name, *class_args, ...)	Converts the class into an actual view function that can be used with the routing system.
WelcomeResource.dispatch_request(*args, **kwargs)	Subclasses have to override this method to implement the actual view function code.
WelcomeResource.get()	
WelcomeResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.base.WelcomeResource.__init__

WelcomeResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.base.WelcomeResource.as_view

classmethod WelcomeResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.base.WelcomeResource.dispatch_request

WelcomeResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.base.WelcomeResource.get

WelcomeResource.**get**() → tuple

app.blueprints.base.WelcomeResource.validate_payload

WelcomeResource.**validate_payload**(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.base.**BaseResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = None
A list of methods this view can handle.

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.base.**WelcomeResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

get() → tuple

method_decorators = []

methods: Optional[List[str]] = {'GET'}
A list of methods this view can handle.

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

validate_payload(*func*)
Perform a payload validation on expected model if necessary

app.blueprints.documents

Description

Classes

DocumentBaseResource([api])	
DocumentResource([api])	
NewDocumentResource([api])	
SearchDocumentResource([api])	

app.blueprints.documents.DocumentBaseResource

class app.blueprints.documents.**DocumentBaseResource**(*api=None*, **args*, ***kwargs*)
Bases: *app.blueprints.base.BaseResource*

Attributes

DocumentBaseResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
DocumentBaseResource.doc_serializer	
DocumentBaseResource.doc_service	
DocumentBaseResource.method_decorators	
DocumentBaseResource.methods	A list of methods this view can handle.

continues on next page

Table 21 – continued from previous page

DocumentBaseResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
DocumentBaseResource.representations	

app.blueprints.documents.DocumentBaseResource.decorators

DocumentBaseResource.**decorators: List[Callable] = []**

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.documents.DocumentBaseResource.doc_serializer

DocumentBaseResource.**doc_serializer = <DocumentSerializer(many=False)>**

app.blueprints.documents.DocumentBaseResource.doc_service

DocumentBaseResource.**doc_service = <app.services.document.DocumentService object>**

app.blueprints.documents.DocumentBaseResource.method_decorators

DocumentBaseResource.**method_decorators = []**

app.blueprints.documents.DocumentBaseResource.methods

DocumentBaseResource.**methods: Optional[List[str]] = None**

A list of methods this view can handle.

app.blueprints.documents.DocumentBaseResource.provide_automatic_options

DocumentBaseResource.**provide_automatic_options: Optional[bool] = None**

Setting this disables or force-enables the automatic options handling.

app.blueprints.documents.DocumentBaseResource.representations

DocumentBaseResource.**representations = None**

Methods

DocumentBaseResource.__init__([api])	

DocumentBaseResource.as_view(name, ...)	Converts the class into an actual view function that can be used with the routing system.
DocumentBaseResource.dispatch_request(*args, ...)	Subclasses have to override this method to implement the actual view function code.
DocumentBaseResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.documents.DocumentBaseResource.__init__

DocumentBaseResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.documents.DocumentBaseResource.as_view

classmethod DocumentBaseResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.documents.DocumentBaseResource.dispatch_request

DocumentBaseResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.documents.DocumentBaseResource.validate_payload

DocumentBaseResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

app.blueprints.documents.DocumentResource

class app.blueprints.documents.**DocumentResource**(*api=None*, **args*, ***kwargs*)
Bases: *app.blueprints.documents.DocumentBaseResource*

Attributes

DocumentResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
DocumentResource.doc_serializer	
DocumentResource.doc_service	
DocumentResource.method_decorators	
DocumentResource.methods	A list of methods this view can handle.
DocumentResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
DocumentResource.representations	

app.blueprints.documents.DocumentResource.decorators

DocumentResource.**decorators: List[Callable] = []**
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.documents.DocumentResource.doc_serializer

DocumentResource.**doc_serializer = <DocumentSerializer(many=False)>**

app.blueprints.documents.DocumentResource.doc_service

DocumentResource.**doc_service = <app.services.document.DocumentService object>**

app.blueprints.documents.DocumentResource.method_decorators

DocumentResource.**method_decorators = []**

app.blueprints.documents.DocumentResource.methods

DocumentResource.**methods: Optional[List[str]] = {'DELETE', 'GET', 'PUT'}**
A list of methods this view can handle.

app.blueprints.documents.DocumentResource.provide_automatic_options

DocumentResource.**provide_automatic_options: Optional[bool] = None**
Setting this disables or force-enables the automatic options handling.

app.blueprints.documents.DocumentResource.representations

DocumentResource.**representations = None**

Methods

DocumentResource.__init__([api])	
DocumentResource.as_view(name, *class_args, ...)	Converts the class into an actual view function that can be used with the routing system.
DocumentResource.delete(document_id)	
DocumentResource.dispatch_request(*args, ...)	Subclasses have to override this method to implement the actual view function code.
DocumentResource.get(document_id)	
DocumentResource.put(document_id)	
DocumentResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.documents.DocumentResource.__init__

DocumentResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.documents.DocumentResource.as_view

classmethod DocumentResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.documents.DocumentResource.delete

DocumentResource.**delete**(*document_id: int*) → tuple

app.blueprints.documents.DocumentResource.dispatch_request

DocumentResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.documents.DocumentResource.get

DocumentResource.**get**(*document_id: int*) → tuple

app.blueprints.documents.DocumentResource.put

DocumentResource.**put**(*document_id: int*) → tuple

app.blueprints.documents.DocumentResource.validate_payload

DocumentResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

app.blueprints.documents.NewDocumentResource

class app.blueprints.documents.**NewDocumentResource**(*api=None*, **args*, ***kwargs*)

Bases: *app.blueprints.documents.DocumentBaseResource*

Attributes

NewDocumentResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
NewDocumentResource.doc_serializer	
NewDocumentResource.doc_service	
NewDocumentResource.method_decorators	
NewDocumentResource.methods	A list of methods this view can handle.
NewDocumentResource.parser	
NewDocumentResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
NewDocumentResource.representations	

app.blueprints.documents.NewDocumentResource.decorators

NewDocumentResource.**decorators: List[Callable] = []**

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.documents.NewDocumentResource.doc_serializer

NewDocumentResource.**doc_serializer = <DocumentSerializer(many=False)>**

app.blueprints.documents.NewDocumentResource.doc_service

NewDocumentResource.**doc_service = <app.services.document.DocumentService object>**

app.blueprints.documents.NewDocumentResource.method_decorators

NewDocumentResource.**method_decorators = []**

app.blueprints.documents.NewDocumentResource.methods

NewDocumentResource.**methods: Optional[List[str]] = {'POST'}**
A list of methods this view can handle.

app.blueprints.documents.NewDocumentResource.parser

NewDocumentResource.**parser = <flask_restx.reqparse.RequestParser object>**

app.blueprints.documents.NewDocumentResource.provide_automatic_options

NewDocumentResource.**provide_automatic_options: Optional[bool] = None**
Setting this disables or force-enables the automatic options handling.

app.blueprints.documents.NewDocumentResource.representations

NewDocumentResource.**representations = None**

Methods

NewDocumentResource.__init__([api])	
NewDocumentResource.as_view(name, ...)	Converts the class into an actual view function that can be used with the routing system.
NewDocumentResource.dispatch_request(*args, ...)	Subclasses have to override this method to implement the actual view function code.
NewDocumentResource.post()	
NewDocumentResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.documents.NewDocumentResource.__init__

NewDocumentResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.documents.NewDocumentResource.as_view

classmethod NewDocumentResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.documents.NewDocumentResource.dispatch_request

NewDocumentResource.**dispatch_request**(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.documents.NewDocumentResource.post

NewDocumentResource.**post**() → tuple

app.blueprints.documents.NewDocumentResource.validate_payload

NewDocumentResource.**validate_payload**(*func*)
Perform a payload validation on expected model if necessary

app.blueprints.documents.SearchDocumentResource

class app.blueprints.documents.**SearchDocumentResource**(*api=None*, **args*, ***kwargs*)
Bases: *app.blueprints.documents.DocumentBaseResource*

Attributes

SearchDocumentResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
SearchDocumentResource.doc_serializer	
SearchDocumentResource.doc_service	
SearchDocumentResource.method_decorators	
SearchDocumentResource.methods	A list of methods this view can handle.
SearchDocumentResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
SearchDocumentResource.representations	

app.blueprints.documents.SearchDocumentResource.decorators

SearchDocumentResource.**decorators: List[Callable] = []**
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.documents.SearchDocumentResource.doc_serializer

SearchDocumentResource.**doc_serializer = <DocumentSerializer(many=False)>**

app.blueprints.documents.SearchDocumentResource.doc_service

SearchDocumentResource.**doc_service = <app.services.document.DocumentService object>**

app.blueprints.documents.SearchDocumentResource.method_decorators

SearchDocumentResource.**method_decorators = []**

app.blueprints.documents.SearchDocumentResource.methods

SearchDocumentResource.**methods: Optional[List[str]] = {'POST'}**
A list of methods this view can handle.

app.blueprints.documents.SearchDocumentResource.provide_automatic_options

SearchDocumentResource.**provide_automatic_options: Optional[bool] = None**
Setting this disables or force-enables the automatic options handling.

app.blueprints.documents.SearchDocumentResource.representations

SearchDocumentResource.**representations = None**

Methods

SearchDocumentResource.__init__([api])	
SearchDocumentResource.as_view(name, ...)	Converts the class into an actual view function that can be used with the routing system.
SearchDocumentResource.dispatch_request(...)	Subclasses have to override this method to implement the actual view function code.
SearchDocumentResource.post()	
SearchDocumentResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.documents.SearchDocumentResource.__init__

SearchDocumentResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.documents.SearchDocumentResource.as_view

classmethod SearchDocumentResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.documents.SearchDocumentResource.dispatch_request

SearchDocumentResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.documents.SearchDocumentResource.post

SearchDocumentResource.**post**() → tuple

app.blueprints.documents.SearchDocumentResource.validate_payload

SearchDocumentResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

class app.blueprints.documents.**DocumentBaseResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

doc_serializer = <DocumentSerializer(many=False)>

doc_service = <app.services.document.DocumentService object>

method_decorators = []

methods: Optional[List[str]] = None
A list of methods this view can handle.

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.documents.**DocumentResource**(*api=None*, **args*, ***kwargs*)

_parser = <flask_restx.reqparse.RequestParser object>

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

delete(*document_id: int*) → tuple

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

doc_serializer = <DocumentSerializer(many=False)>

doc_service = <app.services.document.DocumentService object>

get(*document_id: int*) → tuple

method_decorators = []

methods: Optional[List[str]] = {'DELETE', 'GET', 'PUT'}
A list of methods this view can handle.

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

put(*document_id: int*) → tuple

representations = None

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.documents.**NewDocumentResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

doc_serializer = <DocumentSerializer(many=False)>

doc_service = <app.services.document.DocumentService object>

method_decorators = []

methods: Optional[List[str]] = {'POST'}
A list of methods this view can handle.

parser = <flask_restx.reqparse.RequestParser object>

post() → tuple

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.documents.**SearchDocumentResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

doc_serializer = <DocumentSerializer(many=False)>

doc_service = <app.services.document.DocumentService object>

method_decorators = []

methods: Optional[List[str]] = {'POST'}
A list of methods this view can handle.

post() → tuple

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

validate_payload(*func*)
Perform a payload validation on expected model if necessary

app.blueprints.roles

Description

Classes

NewRoleResource([api])	
RoleBaseResource([api])	
RoleResource([api])	
RolesSearchResource([api])	

app.blueprints.roles.NewRoleResource

class app.blueprints.roles.**NewRoleResource**(*api=None*, **args*, ***kwargs*)
Bases: *app.blueprints.roles.RoleBaseResource*

Attributes

NewRoleResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
NewRoleResource.method_decorators	
NewRoleResource.methods	A list of methods this view can handle.

continues on next page

Table 30 – continued from previous page

NewRoleResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
NewRoleResource.representations	
NewRoleResource.role_serializer	
NewRoleResource.role_service	

app.blueprints.roles.NewRoleResource.decorators

NewRoleResource.**decorators: List[Callable] = []**

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.roles.NewRoleResource.method_decorators

NewRoleResource.**method_decorators = []**

app.blueprints.roles.NewRoleResource.methods

NewRoleResource.**methods: Optional[List[str]] = {'POST'}**

A list of methods this view can handle.

app.blueprints.roles.NewRoleResource.provide_automatic_options

NewRoleResource.**provide_automatic_options: Optional[bool] = None**

Setting this disables or force-enables the automatic options handling.

app.blueprints.roles.NewRoleResource.representations

NewRoleResource.**representations = None**

app.blueprints.roles.NewRoleResource.role_serializer

NewRoleResource.**role_serializer = <RoleSerializer(many=False)>**

app.blueprints.roles.NewRoleResource.role_service

NewRoleResource.**role_service = <app.services.role.RoleService object>**

Methods

NewRoleResource.__init__([api])	
NewRoleResource.as_view(name, *class_args, ...)	Converts the class into an actual view function that can be used with the routing system.
NewRoleResource.dispatch_request(*args, **kwargs)	Subclasses have to override this method to implement the actual view function code.
NewRoleResource.post()	
NewRoleResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.roles.NewRoleResource.__init__

NewRoleResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.roles.NewRoleResource.as_view

classmethod NewRoleResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.roles.NewRoleResource.dispatch_request

NewRoleResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.roles.NewRoleResource.post

NewRoleResource.**post**() → tuple

app.blueprints.roles.NewRoleResource.validate_payload

NewRoleResource.**validate_payload**(*func*)
Perform a payload validation on expected model if necessary

app.blueprints.roles.RoleBaseResource

class app.blueprints.roles.**RoleBaseResource**(*api=None*, **args*, ***kwargs*)
Bases: *app.blueprints.base.BaseResource*

Attributes

RoleBaseResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
RoleBaseResource.method_decorators	
RoleBaseResource.methods	A list of methods this view can handle.
RoleBaseResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
RoleBaseResource.representations	
RoleBaseResource.role_serializer	
RoleBaseResource.role_service	

app.blueprints.roles.RoleBaseResource.decorators

RoleBaseResource.**decorators: List[Callable] = []**
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.roles.RoleBaseResource.method_decorators

RoleBaseResource.**method_decorators = []**

app.blueprints.roles.RoleBaseResource.methods

RoleBaseResource.**methods: Optional[List[str]] = None**
A list of methods this view can handle.

app.blueprints.roles.RoleBaseResource.provide_automatic_options

RoleBaseResource.**provide_automatic_options: Optional[bool] = None**
Setting this disables or force-enables the automatic options handling.

app.blueprints.roles.RoleBaseResource.representations

RoleBaseResource.**representations = None**

app.blueprints.roles.RoleBaseResource.role_serializer

RoleBaseResource.**role_serializer = <RoleSerializer(many=False)>**

app.blueprints.roles.RoleBaseResource.role_service

RoleBaseResource.**role_service = <app.services.role.RoleService object>**

Methods

RoleBaseResource.__init__([api])

RoleBaseResource.as_view(name, *class_args, ...)	Converts the class into an actual view function that can be used with the routing system.
RoleBaseResource.dispatch_request(*args, ...)	Subclasses have to override this method to implement the actual view function code.
RoleBaseResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.roles.RoleBaseResource.__init__

RoleBaseResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.roles.RoleBaseResource.as_view

classmethod RoleBaseResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.roles.RoleBaseResource.dispatch_request

RoleBaseResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.roles.RoleBaseResource.validate_payload

RoleBaseResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

app.blueprints.roles.RoleResource

class app.blueprints.roles.**RoleResource**(*api=None*, **args*, ***kwargs*)

Bases: *app.blueprints.roles.RoleBaseResource*

Attributes

RoleResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
RoleResource.method_decorators	
RoleResource.methods	A list of methods this view can handle.
RoleResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
RoleResource.representations	
RoleResource.role_serializer	
RoleResource.role_service	

app.blueprints.roles.RoleResource.decorators

RoleResource.**decorators: List[Callable] = []**

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.roles.RoleResource.method_decorators

RoleResource.**method_decorators = []**

app.blueprints.roles.RoleResource.methods

RoleResource.**methods: Optional[List[str]] = {'DELETE', 'GET', 'PUT'}**

A list of methods this view can handle.

app.blueprints.roles.RoleResource.provide_automatic_options

RoleResource.**provide_automatic_options: Optional[bool] = None**

Setting this disables or force-enables the automatic options handling.

app.blueprints.roles.RoleResource.representations

RoleResource.**representations = None**

app.blueprints.roles.RoleResource.role_serializer

RoleResource.**role_serializer = <RoleSerializer(many=False)>**

app.blueprints.roles.RoleResource.role_service

RoleResource.**role_service = <app.services.role.RoleService object>**

Methods

RoleResource.__init__([api])	
RoleResource.as_view(name, *class_args, ...)	Converts the class into an actual view function that can be used with the routing system.
RoleResource.delete(role_id)	

continues on next page

Table 35 – continued from previous page

RoleResource.dispatch_request(*args, **kwargs)	Subclasses have to override this method to implement the actual view function code.
RoleResource.get(role_id)	
RoleResource.put(role_id)	
RoleResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.roles.RoleResource.__init__

RoleResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.roles.RoleResource.as_view

classmethod RoleResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.roles.RoleResource.delete

RoleResource.**delete**(*role_id: int*) → tuple

app.blueprints.roles.RoleResource.dispatch_request

RoleResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.roles.RoleResource.get

RoleResource.**get**(*role_id: int*) → tuple

app.blueprints.roles.RoleResource.put

RoleResource.**put**(*role_id: int*) → tuple

app.blueprints.roles.RoleResource.validate_payload

RoleResource.**validate_payload**(*func*)
Perform a payload validation on expected model if necessary

app.blueprints.roles.RolesSearchResource

class app.blueprints.roles.**RolesSearchResource**(*api=None*, **args*, ***kwargs*)
Bases: *app.blueprints.roles.RoleBaseResource*

Attributes

RolesSearchResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
RolesSearchResource.method_decorators	
RolesSearchResource.methods	A list of methods this view can handle.
RolesSearchResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
RolesSearchResource.representations	
RolesSearchResource.role_serializer	
RolesSearchResource.role_service	

app.blueprints.roles.RolesSearchResource.decorators

RolesSearchResource.**decorators: List[Callable] = []**
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.roles.RolesSearchResource.method_decorators

RolesSearchResource.**method_decorators = []**

app.blueprints.roles.RolesSearchResource.methods

RolesSearchResource.**methods: Optional[List[str]] = {'POST'}**
A list of methods this view can handle.

app.blueprints.roles.RolesSearchResource.provide_automatic_options

RolesSearchResource.**provide_automatic_options: Optional[bool] = None**
Setting this disables or force-enables the automatic options handling.

app.blueprints.roles.RolesSearchResource.representations

RolesSearchResource.**representations = None**

app.blueprints.roles.RolesSearchResource.role_serializer

RolesSearchResource.**role_serializer = <RoleSerializer(many=False)>**

app.blueprints.roles.RolesSearchResource.role_service

RolesSearchResource.**role_service = <app.services.role.RoleService object>**

Methods

RolesSearchResource.__init__([api])	
RolesSearchResource.as_view(name, ...)	Converts the class into an actual view function that can be used with the routing system.
RolesSearchResource.dispatch_request(*args, ...)	Subclasses have to override this method to implement the actual view function code.
RolesSearchResource.post()	
RolesSearchResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.roles.RolesSearchResource.__init__

RolesSearchResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.roles.RolesSearchResource.as_view

classmethod RolesSearchResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.roles.RolesSearchResource.dispatch_request

RolesSearchResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.roles.RolesSearchResource.post

RolesSearchResource.**post**() → tuple

app.blueprints.roles.RolesSearchResource.validate_payload

RolesSearchResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

class app.blueprints.roles.**NewRoleResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = {'POST'}
A list of methods this view can handle.

post() → tuple

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

role_serializer = <RoleSerializer(many=False)>

role_service = <app.services.role.RoleService object>

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.roles.**RoleBaseResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = None
A list of methods this view can handle.

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

role_serializer = <RoleSerializer(many=False)>

role_service = <app.services.role.RoleService object>

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.roles.**RoleResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

delete(*role_id: int*) → tuple

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

get(*role_id: int*) → tuple

method_decorators = []

methods: Optional[List[str]] = {'DELETE', 'GET', 'PUT'}
A list of methods this view can handle.

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

put(*role_id: int*) → tuple

representations = None

role_serializer = <RoleSerializer(many=False)>

role_service = <app.services.role.RoleService object>

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.roles.**RolesSearchResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = {'POST'}
A list of methods this view can handle.

post() → tuple

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

role_serializer = <RoleSerializer(many=False)>

role_service = <app.services.role.RoleService object>

validate_payload(*func*)
Perform a payload validation on expected model if necessary

app.blueprints.tasks

Description

Classes

TaskResource([api])	
TaskStatusResource([api])	

app.blueprints.tasks.TaskResource

class app.blueprints.tasks.**TaskResource**(*api=None*, **args*, ***kwargs*)
Bases: flask_restx.resource.Resource

Attributes

TaskResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
TaskResource.method_decorators	
TaskResource.methods	A list of methods this view can handle.
TaskResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
TaskResource.representations	
TaskResource.task_service	

app.blueprints.tasks.TaskResource.decorators

TaskResource.**decorators: List[Callable] = []**

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.tasks.TaskResource.method_decorators

TaskResource.**method_decorators = []**

app.blueprints.tasks.TaskResource.methods

TaskResource.**methods: Optional[List[str]] = None**

A list of methods this view can handle.

app.blueprints.tasks.TaskResource.provide_automatic_options

TaskResource.**provide_automatic_options: Optional[bool] = None**

Setting this disables or force-enables the automatic options handling.

app.blueprints.tasks.TaskResource.representations

TaskResource.**representations = None**

app.blueprints.tasks.TaskResource.task_service

TaskResource.**task_service = <app.services.task.TaskService object>**

Methods

TaskResource.__init__([api])	
TaskResource.as_view(name, *class_args, ...)	Converts the class into an actual view function that can be used with the routing system.
TaskResource.dispatch_request(*args, **kwargs)	Subclasses have to override this method to implement the actual view function code.
TaskResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.tasks.TaskResource.__init__

TaskResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.tasks.TaskResource.as_view

classmethod TaskResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.tasks.TaskResource.dispatch_request

TaskResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.tasks.TaskResource.validate_payload

TaskResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

app.blueprints.tasks.TaskStatusResource

class app.blueprints.tasks.**TaskStatusResource**(*api=None*, **args*, ***kwargs*)

Bases: *app.blueprints.tasks.TaskResource*

Attributes

TaskStatusResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
TaskStatusResource.method_decorators	
TaskStatusResource.methods	A list of methods this view can handle.
TaskStatusResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
TaskStatusResource.representations	
TaskStatusResource.task_service	

app.blueprints.tasks.TaskStatusResource.decorators

TaskStatusResource.**decorators: List[Callable] = []**

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.tasks.TaskStatusResource.method_decorators

TaskStatusResource.**method_decorators = []**

app.blueprints.tasks.TaskStatusResource.methods

TaskStatusResource.**methods: Optional[List[str]] = {'GET'}**

A list of methods this view can handle.

app.blueprints.tasks.TaskStatusResource.provide_automatic_options

TaskStatusResource.**provide_automatic_options: Optional[bool] = None**

Setting this disables or force-enables the automatic options handling.

app.blueprints.tasks.TaskStatusResource.representations

TaskStatusResource.**representations = None**

app.blueprints.tasks.TaskStatusResource.task_service

TaskStatusResource.**task_service = <app.services.task.TaskService object>**

Methods

TaskStatusResource.__init__([api])	
TaskStatusResource.as_view(name, ...)	Converts the class into an actual view function that can be used with the routing system.
TaskStatusResource.dispatch_request(*args, ...)	Subclasses have to override this method to implement the actual view function code.
TaskStatusResource.get(task_id)	
TaskStatusResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.tasks.TaskStatusResource.__init__

TaskStatusResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.tasks.TaskStatusResource.as_view

classmethod TaskStatusResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.tasks.TaskStatusResource.dispatch_request

TaskStatusResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.tasks.TaskStatusResource.get

TaskStatusResource.**get**(*task_id: str*)

app.blueprints.tasks.TaskStatusResource.validate_payload

TaskStatusResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

class app.blueprints.tasks.**TaskResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = None
A list of methods this view can handle.

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

task_service = <app.services.task.TaskService object>

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.tasks.**TaskStatusResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

get(*task_id: str*)

method_decorators = []

methods: Optional[List[str]] = {'GET'}
A list of methods this view can handle.

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

task_service = <app.services.task.TaskService object>

validate_payload(*func*)
Perform a payload validation on expected model if necessary

app.blueprints.users

Description

Classes

ExportUsersExcelAndWordResource([api])
ExportUsersExcelResource([api])
ExportUsersWordResource([api])
NewUserResource([api])
UserBaseResource([api])
UserResource([api])
UsersSearchResource([api])

app.blueprints.users.ExportUsersExcelAndWordResource

class app.blueprints.users.**ExportUsersExcelAndWordResource**(*api=None*, **args*, ***kwargs*)

Bases: *app.blueprints.users.UserBaseResource*

Attributes

ExportUsersExcelAndWordResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
ExportUsersExcelAndWordResource.method_decorators	
ExportUsersExcelAndWordResource.methods	A list of methods this view can handle.
ExportUsersExcelAndWordResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
ExportUsersExcelAndWordResource.representations	
ExportUsersExcelAndWordResource.task_service	
ExportUsersExcelAndWordResource.user_serializer	
ExportUsersExcelAndWordResource.user_service	

app.blueprints.users.ExportUsersExcelAndWordResource.decorators

ExportUsersExcelAndWordResource.**decorators: List[Callable] = []**

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.users.ExportUsersExcelAndWordResource.method_decorators

ExportUsersExcelAndWordResource.**method_decorators = []**

app.blueprints.users.ExportUsersExcelAndWordResource.methods

ExportUsersExcelAndWordResource.**methods: Optional[List[str]] = {'POST'}**

A list of methods this view can handle.

app.blueprints.users.ExportUsersExcelAndWordResource.provide_automatic_options

ExportUsersExcelAndWordResource.**provide_automatic_options: Optional[bool] = None**

Setting this disables or force-enables the automatic options handling.

app.blueprints.users.ExportUsersExcelAndWordResource.representations

ExportUsersExcelAndWordResource.**representations = None**

app.blueprints.users.ExportUsersExcelAndWordResource.task_service

ExportUsersExcelAndWordResource.**task_service = <app.services.task.TaskService object>**

app.blueprints.users.ExportUsersExcelAndWordResource.user_serializer

ExportUsersExcelAndWordResource.**user_serializer = <UserSerializer(many=False)>**

app.blueprints.users.ExportUsersExcelAndWordResource.user_service

ExportUsersExcelAndWordResource.**user_service** =
<app.services.user.UserService object>

Methods

ExportUsersExcelAndWordResource.__init__([api])	
ExportUsersExcelAndWordResource.as_view(...)	Converts the class into an actual view function that can be used with the routing system.
ExportUsersExcelAndWordResource.dispatch_request(...)	Subclasses have to override this method to implement the actual view function code.
ExportUsersExcelAndWordResource.post()	
ExportUsersExcelAndWordResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.users.ExportUsersExcelAndWordResource.__init__

ExportUsersExcelAndWordResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.users.ExportUsersExcelAndWordResource.as_view

classmethod ExportUsersExcelAndWordResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.users.ExportUsersExcelAndWordResource.dispatch_request

ExportUsersExcelAndWordResource.**dispatch_request**(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.users.ExportUsersExcelAndWordResource.post

ExportUsersExcelAndWordResource.**post**() → tuple

app.blueprints.users.ExportUsersExcelAndWordResource.validate_payload

ExportUsersExcelAndWordResource.**validate_payload**(*func*)
Perform a payload validation on expected model if necessary

app.blueprints.users.ExportUsersExcelResource

class app.blueprints.users.**ExportUsersExcelResource**(*api=None*, **args*, ***kwargs*)
Bases: *app.blueprints.users.UserBaseResource*

Attributes

ExportUsersExcelResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
ExportUsersExcelResource.method_decorators	
ExportUsersExcelResource.methods	A list of methods this view can handle.
ExportUsersExcelResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
ExportUsersExcelResource.representations	
ExportUsersExcelResource.task_service	
ExportUsersExcelResource.user_serializer	
ExportUsersExcelResource.user_service	

app.blueprints.users.ExportUsersExcelResource.decorators

ExportUsersExcelResource.**decorators: List[Callable] = []**

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.users.ExportUsersExcelResource.method_decorators

ExportUsersExcelResource.**method_decorators = []**

app.blueprints.users.ExportUsersExcelResource.methods

ExportUsersExcelResource.**methods: Optional[List[str]] = {'POST'}**

A list of methods this view can handle.

app.blueprints.users.ExportUsersExcelResource.provide_automatic_options

ExportUsersExcelResource.**provide_automatic_options: Optional[bool] = None**

Setting this disables or force-enables the automatic options handling.

app.blueprints.users.ExportUsersExcelResource.representations

ExportUsersExcelResource.**representations = None**

app.blueprints.users.ExportUsersExcelResource.task_service

ExportUsersExcelResource.**task_service = <app.services.task.TaskService object>**

app.blueprints.users.ExportUsersExcelResource.user_serializer

ExportUsersExcelResource.**user_serializer = <UserSerializer(many=False)>**

app.blueprints.users.ExportUsersExcelResource.user_service

ExportUsersExcelResource.**user_service = <app.services.user.UserService object>**

Methods

ExportUsersExcelResource.__init__([api])	
ExportUsersExcelResource.as_view(name, ...)	Converts the class into an actual view function that can be used with the routing system.
ExportUsersExcelResource.dispatch_request(...)	Subclasses have to override this method to implement the actual view function code.
ExportUsersExcelResource.post()	
ExportUsersExcelResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.users.ExportUsersExcelResource.__init__

ExportUsersExcelResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.users.ExportUsersExcelResource.as_view

classmethod ExportUsersExcelResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.users.ExportUsersExcelResource.dispatch_request

ExportUsersExcelResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.users.ExportUsersExcelResource.post

ExportUsersExcelResource.**post**() → tuple

app.blueprints.users.ExportUsersExcelResource.validate_payload

ExportUsersExcelResource.**validate_payload**(*func*)
Perform a payload validation on expected model if necessary

app.blueprints.users.ExportUsersWordResource

class app.blueprints.users.**ExportUsersWordResource**(*api=None*, **args*, ***kwargs*)
Bases: *app.blueprints.users.UserBaseResource*

Attributes

ExportUsersWordResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
ExportUsersWordResource.method_decorators	
ExportUsersWordResource.methods	A list of methods this view can handle.
ExportUsersWordResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
ExportUsersWordResource.representations	
ExportUsersWordResource.task_service	
ExportUsersWordResource.user_serializer	
ExportUsersWordResource.user_service	

app.blueprints.users.ExportUsersWordResource.decorators

ExportUsersWordResource.**decorators: List[Callable] = []**
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.users.ExportUsersWordResource.method_decorators

ExportUsersWordResource.**method_decorators = []**

app.blueprints.users.ExportUsersWordResource.methods

ExportUsersWordResource.**methods: Optional[List[str]] = {'POST'}**
A list of methods this view can handle.

app.blueprints.users.ExportUsersWordResource.provide_automatic_options

ExportUsersWordResource.**provide_automatic_options: Optional[bool] = None**
Setting this disables or force-enables the automatic options handling.

app.blueprints.users.ExportUsersWordResource.representations

ExportUsersWordResource.**representations = None**

app.blueprints.users.ExportUsersWordResource.task_service

ExportUsersWordResource.**task_service = <app.services.task.TaskService object>**

app.blueprints.users.ExportUsersWordResource.user_serializer

ExportUsersWordResource.**user_serializer = <UserSerializer(many=False)>**

app.blueprints.users.ExportUsersWordResource.user_service

ExportUsersWordResource.**user_service = <app.services.user.UserService object>**

Methods

ExportUsersWordResource.__init__([api])	
ExportUsersWordResource.as_view(name, ...)	Converts the class into an actual view function that can be used with the routing system.
ExportUsersWordResource.dispatch_request(...)	Subclasses have to override this method to implement the actual view function code.
ExportUsersWordResource.post()	
ExportUsersWordResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.users.ExportUsersWordResource.__init__

ExportUsersWordResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.users.ExportUsersWordResource.as_view

classmethod ExportUsersWordResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.users.ExportUsersWordResource.dispatch_request

ExportUsersWordResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.users.ExportUsersWordResource.post

ExportUsersWordResource.**post**() → tuple

app.blueprints.users.ExportUsersWordResource.validate_payload

ExportUsersWordResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

app.blueprints.users.NewUserResource

class app.blueprints.users.**NewUserResource**(*api=None*, **args*, ***kwargs*)

Bases: *app.blueprints.users.UserBaseResource*

Attributes

NewUserResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
NewUserResource.method_decorators	
NewUserResource.methods	A list of methods this view can handle.
NewUserResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
NewUserResource.representations	

continues on next page

Table 50 – continued from previous page

NewUserResource.task_service
NewUserResource.user_serializer
NewUserResource.user_service

app.blueprints.users.NewUserResource.decorators

NewUserResource.**decorators: List[Callable] = []**

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.users.NewUserResource.method_decorators

NewUserResource.**method_decorators = []**

app.blueprints.users.NewUserResource.methods

NewUserResource.**methods: Optional[List[str]] = {'POST'}**

A list of methods this view can handle.

app.blueprints.users.NewUserResource.provide_automatic_options

NewUserResource.**provide_automatic_options: Optional[bool] = None**

Setting this disables or force-enables the automatic options handling.

app.blueprints.users.NewUserResource.representations

NewUserResource.**representations = None**

app.blueprints.users.NewUserResource.task_service

NewUserResource.**task_service = <app.services.task.TaskService object>**

app.blueprints.users.NewUserResource.user_serializer

NewUserResource.**user_serializer = <UserSerializer(many=False)>**

app.blueprints.users.NewUserResource.user_service

NewUserResource.**user_service = <app.services.user.UserService object>**

Methods

NewUserResource.__init__([api])	
NewUserResource.as_view(name, *class_args, ...)	Converts the class into an actual view function that can be used with the routing system.
NewUserResource.dispatch_request(*args, **kwargs)	Subclasses have to override this method to implement the actual view function code.
NewUserResource.post()	
NewUserResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.users.NewUserResource.__init__

NewUserResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.users.NewUserResource.as_view

classmethod NewUserResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.users.NewUserResource.dispatch_request

NewUserResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.users.NewUserResource.post

NewUserResource.**post**() → tuple

app.blueprints.users.NewUserResource.validate_payload

NewUserResource.**validate_payload**(*func*)
Perform a payload validation on expected model if necessary

app.blueprints.users.UserBaseResource

class app.blueprints.users.**UserBaseResource**(*api=None*, **args*, ***kwargs*)
Bases: *app.blueprints.base.BaseResource*

Attributes

UserBaseResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
UserBaseResource.method_decorators	
UserBaseResource.methods	A list of methods this view can handle.
UserBaseResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
UserBaseResource.representations	
UserBaseResource.task_service	
UserBaseResource.user_serializer	
UserBaseResource.user_service	

app.blueprints.users.UserBaseResource.decorators

UserBaseResource.**decorators: List[Callable] = []**
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.users.UserBaseResource.method_decorators

UserBaseResource.**method_decorators = []**

app.blueprints.users.UserBaseResource.methods

UserBaseResource.**methods: Optional[List[str]] = None**
A list of methods this view can handle.

app.blueprints.users.UserBaseResource.provide_automatic_options

UserBaseResource.**provide_automatic_options: Optional[bool] = None**
Setting this disables or force-enables the automatic options handling.

app.blueprints.users.UserBaseResource.representations

UserBaseResource.**representations = None**

app.blueprints.users.UserBaseResource.task_service

UserBaseResource.**task_service = <app.services.task.TaskService object>**

app.blueprints.users.UserBaseResource.user_serializer

UserBaseResource.**user_serializer = <UserSerializer(many=False)>**

app.blueprints.users.UserBaseResource.user_service

UserBaseResource.**user_service = <app.services.user.UserService object>**

Methods

UserBaseResource.__init__([api])

UserBaseResource.as_view(name, *class_args, ...)	Converts the class into an actual view function that can be used with the routing system.
UserBaseResource.dispatch_request(*args, ...)	Subclasses have to override this method to implement the actual view function code.
UserBaseResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.users.UserBaseResource.__init__

UserBaseResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.users.UserBaseResource.as_view

classmethod UserBaseResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.users.UserBaseResource.dispatch_request

UserBaseResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.users.UserBaseResource.validate_payload

UserBaseResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

app.blueprints.users.UserResource

class app.blueprints.users.**UserResource**(*api=None*, **args*, ***kwargs*)

Bases: *app.blueprints.users.UserBaseResource*

Attributes

UserResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
UserResource.method_decorators	
UserResource.methods	A list of methods this view can handle.
UserResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
UserResource.representations	
UserResource.task_service	
UserResource.user_serializer	
UserResource.user_service	

app.blueprints.users.UserResource.decorators

UserResource.**decorators: List[Callable] = []**

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.users.UserResource.method_decorators

UserResource.**method_decorators = []**

app.blueprints.users.UserResource.methods

UserResource.**methods: Optional[List[str]] = {'DELETE', 'GET', 'PUT'}**

A list of methods this view can handle.

app.blueprints.users.UserResource.provide_automatic_options

UserResource.**provide_automatic_options: Optional[bool] = None**

Setting this disables or force-enables the automatic options handling.

app.blueprints.users.UserResource.representations

UserResource.**representations = None**

app.blueprints.users.UserResource.task_service

UserResource.**task_service = <app.services.task.TaskService object>**

app.blueprints.users.UserResource.user_serializer

UserResource.**user_serializer = <UserSerializer(many=False)>**

app.blueprints.users.UserResource.user_service

UserResource.**user_service = <app.services.user.UserService object>**

Methods

UserResource.__init__([api])	
UserResource.as_view(name, *class_args, ...)	Converts the class into an actual view function that can be used with the routing system.
UserResource.delete(user_id)	
UserResource.dispatch_request(*args, **kwargs)	Subclasses have to override this method to implement the actual view function code.
UserResource.get(user_id)	
UserResource.put(user_id)	
UserResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.users.UserResource.__init__

UserResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.users.UserResource.as_view

classmethod UserResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.users.UserResource.delete

UserResource.**delete**(*user_id: int*) → tuple

app.blueprints.users.UserResource.dispatch_request

UserResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.users.UserResource.get

UserResource.**get**(*user_id: int*) → tuple

app.blueprints.users.UserResource.put

UserResource.**put**(*user_id: int*) → tuple

app.blueprints.users.UserResource.validate_payload

UserResource.**validate_payload**(*func*)
Perform a payload validation on expected model if necessary

app.blueprints.users.UsersSearchResource

class app.blueprints.users.**UsersSearchResource**(*api=None*, **args*, ***kwargs*)
Bases: *app.blueprints.users.UserBaseResource*

Attributes

UsersSearchResource.decorators	The canonical way to decorate class-based views is to decorate the return value of as_view().
UsersSearchResource.method_decorators	
UsersSearchResource.methods	A list of methods this view can handle.
UsersSearchResource.provide_automatic_options	Setting this disables or force-enables the automatic options handling.
UsersSearchResource.representations	
UsersSearchResource.task_service	
UsersSearchResource.user_serializer	
UsersSearchResource.user_service	

app.blueprints.users.UsersSearchResource.decorators

UsersSearchResource.**decorators: List[Callable] = []**
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

app.blueprints.users.UsersSearchResource.method_decorators

UsersSearchResource.**method_decorators = []**

app.blueprints.users.UsersSearchResource.methods

UsersSearchResource.**methods: Optional[List[str]] = {'POST'}**
A list of methods this view can handle.

app.blueprints.users.UsersSearchResource.provide_automatic_options

UsersSearchResource.**provide_automatic_options: Optional[bool] = None**
Setting this disables or force-enables the automatic options handling.

app.blueprints.users.UsersSearchResource.representations

UsersSearchResource.**representations = None**

app.blueprints.users.UsersSearchResource.task_service

UsersSearchResource.**task_service = <app.services.task.TaskService object>**

app.blueprints.users.UsersSearchResource.user_serializer

UsersSearchResource.**user_serializer = <UserSerializer(many=False)>**

app.blueprints.users.UsersSearchResource.user_service

UsersSearchResource.**user_service = <app.services.user.UserService object>**

Methods

UsersSearchResource.__init__([api])	
UsersSearchResource.as_view(name, ...)	Converts the class into an actual view function that can be used with the routing system.
UsersSearchResource.dispatch_request(*args, ...)	Subclasses have to override this method to implement the actual view function code.
UsersSearchResource.post()	
UsersSearchResource.validate_payload(func)	Perform a payload validation on expected model if necessary

app.blueprints.users.UsersSearchResource.__init__

UsersSearchResource.**__init__**(*api=None*, **args*, ***kwargs*)

app.blueprints.users.UsersSearchResource.as_view

classmethod UsersSearchResource.**as_view**(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

app.blueprints.users.UsersSearchResource.dispatch_request

UsersSearchResource.**dispatch_request**(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

app.blueprints.users.UsersSearchResource.post

UsersSearchResource.**post**() → tuple

app.blueprints.users.UsersSearchResource.validate_payload

UsersSearchResource.**validate_payload**(*func*)

Perform a payload validation on expected model if necessary

class app.blueprints.users.**ExportUsersExcelAndWordResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable

Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []

The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)

Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = {'POST'}
A list of methods this view can handle.

post() → tuple

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

task_service = <app.services.task.TaskService object>

user_serializer = <UserSerializer(many=False)>

user_service = <app.services.user.UserService object>

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.users.**ExportUsersExcelResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = {'POST'}
A list of methods this view can handle.

post() → tuple

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

task_service = <app.services.task.TaskService object>

user_serializer = <UserSerializer(many=False)>

user_service = <app.services.user.UserService object>

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.users.**ExportUsersWordResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = {'POST'}
A list of methods this view can handle.

post() → tuple

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

task_service = <app.services.task.TaskService object>

user_serializer = <UserSerializer(many=False)>

user_service = <app.services.user.UserService object>

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.users.**NewUserResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = {'POST'}
A list of methods this view can handle.

post() → tuple

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

task_service = <app.services.task.TaskService object>

user_serializer = <UserSerializer(many=False)>

user_service = <app.services.user.UserService object>

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.users.**UserBaseResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = None
A list of methods this view can handle.

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

task_service = <app.services.task.TaskService object>

user_serializer = <UserSerializer(many=False)>

user_service = <app.services.user.UserService object>

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.users.**UserResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

delete(*user_id: int*) → tuple

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

get(*user_id: int*) → tuple

method_decorators = []

methods: Optional[List[str]] = {'DELETE', 'GET', 'PUT'}
A list of methods this view can handle.

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

put(*user_id: int*) → tuple

representations = None

task_service = <app.services.task.TaskService object>

user_serializer = <UserSerializer(many=False)>

user_service = <app.services.user.UserService object>

validate_payload(*func*)
Perform a payload validation on expected model if necessary

class app.blueprints.users.**UsersSearchResource**(*api=None*, **args*, ***kwargs*)

classmethod as_view(*name: str*, **class_args: Any*, ***class_kwargs: Any*) → Callable
Converts the class into an actual view function that can be used with the routing system. Internally this generates a function on the fly which will instantiate the `View` on each request and call the *dispatch_request()* method on it.

The arguments passed to *as_view()* are forwarded to the constructor of the class.

decorators: List[Callable] = []
The canonical way to decorate class-based views is to decorate the return value of as_view(). However

since this moves parts of the logic from the class declaration to the place where it's hooked into the routing system.

You can place one or more decorators in this list and whenever the view function is created the result is automatically decorated.

New in version 0.8.

dispatch_request(**args*, ***kwargs*)
Subclasses have to override this method to implement the actual view function code. This method is called with all the arguments from the URL rule.

method_decorators = []

methods: Optional[List[str]] = {'POST'}
A list of methods this view can handle.

post() → tuple

provide_automatic_options: Optional[bool] = None
Setting this disables or force-enables the automatic options handling.

representations = None

task_service = <app.services.task.TaskService object>

user_serializer = <UserSerializer(many=False)>

user_service = <app.services.user.UserService object>

validate_payload(*func*)
Perform a payload validation on expected model if necessary

Functions

get_blueprints()	Get Blueprints via dynamic way.

app.blueprints.get_blueprints

app.blueprints.**get_blueprints**() → list
Get Blueprints via dynamic way.

app.blueprints.**get_blueprints**() → list
Get Blueprints via dynamic way.

2.1.2 app.celery

Description

Runs Celery and registers Celery tasks.

Modules

app.celery.excel

Description

Modules

app.celery.excel.tasks

Description

app.celery.excel.tasks.**_add_excel_autofilter**(*worksheet: xlsxwriter.worksheet.Worksheet*)

app.celery.excel.tasks.**_adjust_each_column_width**(*rows: list*, *worksheet: xlsxwriter.worksheet.Worksheet*, *excel_longest_word: int*) → None

app.celery.excel.tasks.**_get_excel_column_names**(*excel_rows: list*) → None

app.celery.excel.tasks.**_get_excel_user_data**(*users: list*, *excel_rows: list*) → None

app.celery.excel.tasks.**_get_user_data**(*request_data: dict*) → list

app.celery.excel.tasks.**_parse_user_data**(*users: list*)

(task) app.celery.excel.tasks.**export_user_data_in_excel_task**(*created_by: int*, *request_data: dict*)

Proxy that evaluates object once.

Proxy will evaluate the object each time, while the promise will only evaluate it once.

app.celery.tasks

Description

(task)app.celery.tasks.**create_user_email_task**(*email_data*) → bool
Proxy that evaluates object once.

Proxy will evaluate the object each time, while the promise will only evaluate it once.

(task)app.celery.tasks.**create_word_and_excel_documents_task**(*created_by: int*, *request_data: dict*, *to_pdf: int*) → bool
Proxy that evaluates object once.

Proxy will evaluate the object each time, while the promise will only evaluate it once.

(task)app.celery.tasks.**reset_password_email_task**(*email_data*) → bool
Proxy that evaluates object once.

Proxy will evaluate the object each time, while the promise will only evaluate it once.

(task)app.celery.tasks.**send_email_with_attachments_task**(*task_data: list*) → bool
Proxy that evaluates object once.

Proxy will evaluate the object each time, while the promise will only evaluate it once.

app.celery.tests

Description

Modules

app.celery.tests.tasks

app.celery.tests.tasks

Description

(task)app.celery.tests.tasks.**create_task_table**() → None
Proxy that evaluates object once.

Proxy will evaluate the object each time, while the promise will only evaluate it once.

(task)app.celery.tests.tasks.**insert_task_record**() → None
Proxy that evaluates object once.

Proxy will evaluate the object each time, while the promise will only evaluate it once.

app.celery.word

Description

Modules

app.celery.word.tasks

app.celery.word.tasks

Description

app.celery.word.tasks.**_add_table_column_names**(*rows: list*, *original_column_names: set*) → None

app.celery.word.tasks.**_add_table_user_data**(*users_query: list*, *rows: list*) → None

app.celery.word.tasks.**_get_user_data**(*request_data: dict*) → list

(task)app.celery.word.tasks.**export_user_data_in_word_task**(*created_by: int*, *request_data: dict*, *to_pdf: int*)

Proxy that evaluates object once.

Proxy will evaluate the object each time, while the promise will only evaluate it once.

Classes

ContextTask()
MyCelery([main, loader, backend, amqp, ...])

app.celery.ContextTask

class app.celery.**ContextTask**

Bases: celery.app.task.Task

Attributes

ContextTask.Request	Request class used, or the qualified name of one.
ContextTask.Strategy	Execution strategy used, or the qualified name of one.
ContextTask.abstract	Deprecated attribute abstract here for compatibility.
ContextTask.acks_late	When enabled messages for this task will be acknowledged **after** the task has been executed, and not *just before* (the default behavior).

continues on next page

Table 64 – continued from previous page

ContextTask.acks_on_failure_or_timeout	When enabled messages for this task will be acknowledged even if it fails or times out.
ContextTask.app	
ContextTask.backend	
ContextTask.default_retry_delay	Default time in seconds before a retry of the task should be executed.
ContextTask.expires	Default task expiry time.
ContextTask.from_config	
ContextTask.ignore_result	If enabled the worker won't store task state and return values for this task. Defaults to the **:setting:`task_ignore_result`** setting.
ContextTask.max_retries	Maximum number of retries before giving up.
ContextTask.name	Name of the task.
ContextTask.priority	Default task priority.
ContextTask.rate_limit	None (no rate limit), *'100/s'* (hundred tasks a second), *'100/m'* (hundred tasks a minute),`'100/h`` (hundred tasks an hour)
ContextTask.reject_on_worker_lost	Even if *acks_late* is enabled, the worker will acknowledge tasks when the worker process executing them abruptly exits or is signaled (e.g., **:sig:`KILL`**/**:sig:`INT`**, etc).
ContextTask.request	Get current request object.
ContextTask.request_stack	Task request stack, the current request will be the topmost.
ContextTask.resultrepr_maxsize	Max length of result representation used in logs and events.
ContextTask.send_events	If enabled the worker will send monitoring events related to this task (but only if the worker is configured to send task related events).
ContextTask.serializer	The name of a serializer that are registered with kombu.serialization.registry.
ContextTask.soft_time_limit	Soft time limit. Defaults to the **:setting:`task_soft_time_limit`** setting.
ContextTask.store_eager_result	
ContextTask.store_errors_even_if_ignored	When enabled errors will be stored even if the task is otherwise configured to ignore results.
ContextTask.throws	Tuple of expected exceptions.
ContextTask.time_limit	Hard time limit. Defaults to the **:setting:`task_time_limit`** setting.
ContextTask.track_started	If enabled the task will report its status as 'started' when the task is executed by a worker.
ContextTask.trail	If enabled the request will keep track of subtasks started by this task, and this information will be sent with the result (result.children).
ContextTask.typing	Enable argument checking.

app.celery.ContextTask.Request

ContextTask.**Request = 'celery.worker.request:Request'**
Request class used, or the qualified name of one.

app.celery.ContextTask.Strategy

ContextTask.**Strategy = 'celery.worker.strategy:default'**
Execution strategy used, or the qualified name of one.

app.celery.ContextTask.abstract

ContextTask.**abstract = True**
Deprecated attribute `abstract` here for compatibility.

app.celery.ContextTask.acks_late

ContextTask.**acks_late = False**
When enabled messages for this task will be acknowledged **after** the task has been executed, and not *just before* (the default behavior).

Please note that this means the task may be executed twice if the worker crashes mid execution.

The application default can be overridden with the **:setting:`task_acks_late`** setting.

app.celery.ContextTask.acks_on_failure_or_timeout

ContextTask.**acks_on_failure_or_timeout = True**
When enabled messages for this task will be acknowledged even if it fails or times out.

Configuring this setting only applies to tasks that are acknowledged **after** they have been executed and only if **:setting:`task_acks_late`** is enabled.

The application default can be overridden with the **:setting:`task_acks_on_failure_or_timeout`** setting.

app.celery.ContextTask.app

ContextTask.**app = <MyCelery __main__>**

app.celery.ContextTask.backend

property ContextTask.**backend**

app.celery.ContextTask.default_retry_delay

ContextTask.**default_retry_delay = 180**
Default time in seconds before a retry of the task should be executed. 3 minutes by default.

app.celery.ContextTask.expires

ContextTask.**expires = None**
Default task expiry time.

app.celery.ContextTask.from_config

ContextTask.**from_config = (('serializer', 'task_serializer'), ('rate_limit', 'task_default_rate_limit'), ('priority', 'task_default_priority'), ('track_started', 'task_track_started'), ('acks_late', 'task_acks_late'), ('acks_on_failure_or_timeout', 'task_acks_on_failure_or_timeout'), ('reject_on_worker_lost', 'task_reject_on_worker_lost'), ('ignore_result', 'task_ignore_result'), ('store_eager_result', 'task_store_eager_result'), ('store_errors_even_if_ignored', 'task_store_errors_even_if_ignored'))**

app.celery.ContextTask.ignore_result

ContextTask.**ignore_result = False**
If enabled the worker won't store task state and return values for this task. Defaults to the **:setting:`task_ignore_result`** setting.

app.celery.ContextTask.max_retries

ContextTask.**max_retries = 3**
Maximum number of retries before giving up. If set to None, it will **never** stop retrying.

app.celery.ContextTask.name

ContextTask.**name = None**
Name of the task.

app.celery.ContextTask.priority

ContextTask.**priority = None**
Default task priority.

app.celery.ContextTask.rate_limit

ContextTask.**rate_limit = None**
None (no rate limit), *'100/s'* (hundred tasks a second), *'100/m'* (hundred tasks a minute),``'100/h'`` (hundred tasks an hour)
Type Rate limit for this task type. Examples

app.celery.ContextTask.reject_on_worker_lost

ContextTask.**reject_on_worker_lost = None**
Even if *acks_late* is enabled, the worker will acknowledge tasks when the worker process executing them abruptly exits or is signaled (e.g., **:sig:`KILL`/:sig:`INT`**, etc).

Setting this to true allows the message to be re-queued instead, so that the task will execute again by the same worker, or another worker.

Warning: Enabling this can cause message loops; make sure you know what you're doing.

app.celery.ContextTask.request

property ContextTask.**request**
Get current request object.

app.celery.ContextTask.request_stack

ContextTask.**request_stack = <celery.utils.threads._LocalStack object>**
Task request stack, the current request will be the topmost.

app.celery.ContextTask.resultrepr_maxsize

ContextTask.**resultrepr_maxsize = 1024**
Max length of result representation used in logs and events.

app.celery.ContextTask.send_events

ContextTask.**send_events = True**
If enabled the worker will send monitoring events related to this task (but only if the worker is configured to send task related events). Note that this has no effect on the task-failure event case where a task is not registered (as it will have no task class to check this flag).

app.celery.ContextTask.serializer

ContextTask.**serializer = 'json'**
The name of a serializer that are registered with kombu.serialization.registry. Default is *'json'*.

app.celery.ContextTask.soft_time_limit

ContextTask.**soft_time_limit = None**
Soft time limit. Defaults to the **:setting:`task_soft_time_limit`** setting.

app.celery.ContextTask.store_eager_result

ContextTask.**store_eager_result = False**

app.celery.ContextTask.store_errors_even_if_ignored

ContextTask.**store_errors_even_if_ignored = False**
When enabled errors will be stored even if the task is otherwise configured to ignore results.

app.celery.ContextTask.throws

ContextTask.**throws = ()**
Tuple of expected exceptions.

These are errors that are expected in normal operation and that shouldn't be regarded as a real error by the worker. Currently this means that the state will be updated to an error state, but the worker won't log the event as an error.

app.celery.ContextTask.time_limit

ContextTask.**time_limit = None**
Hard time limit. Defaults to the **:setting:`task_time_limit`** setting.

app.celery.ContextTask.track_started

ContextTask.**track_started = False**
If enabled the task will report its status as 'started' when the task is executed by a worker. Disabled by default as the normal behavior is to not report that level of granularity. Tasks are either pending, finished, or waiting to be retried.

Having a 'started' status can be useful for when there are long running tasks and there's a need to report what task is currently running.

The application default can be overridden using the **:setting:`task_track_started`** setting.

app.celery.ContextTask.trail

ContextTask.**trail = True**
If enabled the request will keep track of subtasks started by this task, and this information will be sent with the result (`result.children`).

app.celery.ContextTask.typing

ContextTask.**typing = True**
Enable argument checking. You can set this to false if you don't want the signature to be checked when calling the task. Defaults to `app.strict_typing`.

Methods

ContextTask.AsyncResult(task_id, **kwargs)	Get AsyncResult instance for the specified task.
ContextTask.__init__()	
ContextTask.add_around(attr, around)	
ContextTask.add_to_chord(sig[, lazy])	Add signature to the chord the current task is a member of.
ContextTask.add_trail(result)	
ContextTask.after_return(status, retval, ...)	Handler called after the task returns.
ContextTask.annotate()	
ContextTask.apply([args, kwargs, link, ...])	Execute this task locally, by blocking until the task returns.
ContextTask.apply_async([args, kwargs, ...])	Apply tasks asynchronously by sending a message.
ContextTask.before_start(task_id, args, kwargs)	Handler called before the task starts.
ContextTask.bind(app)	
ContextTask.chunks(it, n)	Create a `chunks` task for this task.
ContextTask.delay(*args, **kwargs)	Star argument version of *apply_async()*.
ContextTask.map(it)	Create a `xmap` task from `it`.
ContextTask.on_bound(app)	Called when the task is bound to an app.
ContextTask.on_failure(exc, task_id, args, ...)	Error handler.
ContextTask.on_retry(exc, task_id, args, ...)	Retry handler.
ContextTask.on_success(retval, task_id, ...)	Success handler.
ContextTask.pop_request()	
ContextTask.push_request(*args, **kwargs)	

continues on next page

Table 65 – continued from previous page

ContextTask.replace(sig)	Replace this task, with a new task inheriting the task id.
ContextTask.retry([args, kwargs, exc, ...])	Retry the task, adding it to the back of the queue.
ContextTask.run(*args, **kwargs)	The body of the task executed by workers.
ContextTask.s(*args, **kwargs)	Create signature.
ContextTask.send_event(type_[, retry, ...])	Send monitoring event message.
ContextTask.shadow_name(args, kwargs, options)	Override for custom task name in worker logs/monitoring.
ContextTask.si(*args, **kwargs)	Create immutable signature.
ContextTask.signature([args])	Create signature.
ContextTask.signature_from_request([...])	
ContextTask.starmap(it)	Create a `xstarmap` task from `it`.
ContextTask.start_strategy(app, consumer, ...)	
ContextTask.subtask([args])	Create signature.
ContextTask.subtask_from_request([request, ...])	
ContextTask.update_state([task_id, state, meta])	Update task state.

app.celery.ContextTask.AsyncResult

ContextTask.**AsyncResult**(*task_id*, ***kwargs*)

Get AsyncResult instance for the specified task.

Parameters **task_id** (*str*) – Task id to get result for.

app.celery.ContextTask.__init__

ContextTask.**__init__**()

app.celery.ContextTask.add_around

classmethod ContextTask.**add_around**(*attr*, *around*)

app.celery.ContextTask.add_to_chord

ContextTask.**add_to_chord**(*sig*, *lazy=False*)

Add signature to the chord the current task is a member of.

New in version 4.0.

Currently only supported by the Redis result backend.

Parameters

- **sig** (*Signature*) – Signature to extend chord with.
- **lazy** (*bool*) – If enabled the new task won't actually be called, and `sig.delay()` must be called manually.

app.celery.ContextTask.add_trail

ContextTask.**add_trail**(*result*)

app.celery.ContextTask.after_return

ContextTask.**after_return**(*status*, *retval*, *task_id*, *args*, *kwargs*, *einfo*)

Handler called after the task returns.

Parameters

- **status** (*str*) – Current task state.
- **retval** (*Any*) – Task return value/exception.
- **task_id** (*str*) – Unique id of the task.
- **args** (*Tuple*) – Original arguments for the task.
- **kwargs** (*Dict*) – Original keyword arguments for the task.
- **einfo** (*ExceptionInfo*) – Exception information.

Returns The return value of this handler is ignored.

Return type None

app.celery.ContextTask.annotate

classmethod ContextTask.**annotate**()

app.celery.ContextTask.apply

ContextTask.**apply**(*args=None*, *kwargs=None*, *link=None*, *link_error=None*, *task_id=None*, *retries=None*, *throw=None*, *logfile=None*, *loglevel=None*, *headers=None*, ***options*)

Execute this task locally, by blocking until the task returns.

Parameters

- **args** (*Tuple*) – positional arguments passed on to the task.
- **kwargs** (*Dict*) – keyword arguments passed on to the task.
- **throw** (*bool*) – Re-raise task exceptions. Defaults to the **:setting:`task_eager_propagates`** setting.

Returns pre-evaluated result.

Return type celery.result.EagerResult

app.celery.ContextTask.apply_async

ContextTask.**apply_async**(*args=None*, *kwargs=None*, *task_id=None*, *producer=None*, *link=None*, *link_error=None*, *shadow=None*, ***options*)

Apply tasks asynchronously by sending a message.

Parameters

- **args** (*Tuple*) – The positional arguments to pass on to the task.
- **kwargs** (*Dict*) – The keyword arguments to pass on to the task.
- **countdown** (*float*) – Number of seconds into the future that the task should execute. Defaults to immediate execution.
- **eta** (*datetime*) – Absolute time and date of when the task should be executed. May not be specified if *countdown* is also supplied.
- **expires** (*float, datetime*) – Datetime or seconds in the future for the task should expire. The task won't be executed after the expiration time.

- **shadow** (*str*) – Override task name used in logs/monitoring. Default is retrieved from *shadow_name()*.
- **connection** (*kombu.Connection*) – Re-use existing broker connection instead of acquiring one from the connection pool.
- **retry** (*bool*) – If enabled sending of the task message will be retried in the event of connection loss or failure. Default is taken from the **:setting:`task_publish_retry`** setting. Note that you need to handle the producer/connection manually for this to work.
- **retry_policy** (*Mapping*) – Override the retry policy used. See the **:setting:`task_publish_retry_policy`** setting.
- **time_limit** (*int*) – If set, overrides the default time limit.
- **soft_time_limit** (*int*) – If set, overrides the default soft time limit.
- **queue** (*str, kombu.Queue*) – The queue to route the task to. This must be a key present in **:setting:`task_queues`**, or **:setting:`task_create_missing_queues`** must be enabled. See guide-routing for more information.
- **exchange** (*str, kombu.Exchange*) – Named custom exchange to send the task to. Usually not used in combination with the `queue` argument.
- **routing_key** (*str*) – Custom routing key used to route the task to a worker server. If in combination with a `queue` argument only used to specify custom routing keys to topic exchanges.
- **priority** (*int*) – The task priority, a number between 0 and 9. Defaults to the *priority* attribute.
- **serializer** (*str*) – Serialization method to use. Can be *pickle*, *json*, *yaml*, *msgpack* or any custom serialization method that's been registered with `kombu.serialization.registry`. Defaults to the *serializer* attribute.
- **compression** (*str*) – Optional compression method to use. Can be one of `zlib`, `bzip2`, or any custom compression methods registered with `kombu.compression.register()`. Defaults to the **:setting:`task_compression`** setting.
- **link** (*Signature*) – A single, or a list of tasks signatures to apply if the task returns successfully.
- **link_error** (*Signature*) – A single, or a list of task signatures to apply if an error occurs while executing the task.
- **producer** (*kombu.Producer*) – custom producer to use when publishing the task.
- **add_to_parent** (*bool*) – If set to True (default) and the task is applied while executing another task, then the result will be appended to the parent tasks `request.children` attribute. Trailing can also be disabled by default using the *trail* attribute
- **ignore_result** (*bool*) – If set to *False* (default) the result of a task will be stored in the backend. If set to *True* the result will not be stored. This can also be set using the *ignore_result* in the *app.task* decorator.
- **publisher** (*kombu.Producer*) – Deprecated alias to `producer`.
- **headers** (*Dict*) – Message headers to be included in the message.

Returns Promise of future evaluation.

Return type celery.result.AsyncResult

Raises

- **TypeError** – If not enough arguments are passed, or too many arguments are passed. Note that signature checks may be disabled by specifying `@task(typing=False)`.
- ***kombu.exceptions.OperationalError*** – If a connection to the transport cannot be made, or if the connection is lost.

Note: Also supports all keyword arguments supported by `kombu.Producer.publish()`.

---

app.celery.ContextTask.before_start

ContextTask.**before_start**(*task_id*, *args*, *kwargs*)
Handler called before the task starts.

New in version 5.2.
Parameters
- **task_id** (*str*) – Unique id of the task to execute.
- **args** (*Tuple*) – Original arguments for the task to execute.
- **kwargs** (*Dict*) – Original keyword arguments for the task to execute.

Returns The return value of this handler is ignored.
Return type None

app.celery.ContextTask.bind

classmethod ContextTask.**bind**(*app*)

app.celery.ContextTask.chunks

ContextTask.**chunks**(*it*, *n*)
Create a chunks task for this task.

app.celery.ContextTask.delay

ContextTask.**delay**(**args*, ***kwargs*)
Star argument version of *apply_async()*.

Does not support the extra options enabled by *apply_async()*.
Parameters
- ***args** (*Any*) – Positional arguments passed on to the task.
- ****kwargs** (*Any*) – Keyword arguments passed on to the task.

Returns Future promise.
Return type celery.result.AsyncResult

app.celery.ContextTask.map

ContextTask.**map**(*it*)
Create a xmap task from it.

app.celery.ContextTask.on_bound

classmethod ContextTask.**on_bound**(*app*)
Called when the task is bound to an app.

Note: This class method can be defined to do additional actions when the task class is bound to an app.

---

app.celery.ContextTask.on_failure

ContextTask.**on_failure**(*exc*, *task_id*, *args*, *kwargs*, *einfo*) → None
Error handler.

This is run by the worker when the task fails.

Parameters
- **exc** (*Exception*) – The exception raised by the task.
- **task_id** (*str*) – Unique id of the failed task.
- **args** (*Tuple*) – Original arguments for the task that failed.
- **kwargs** (*Dict*) – Original keyword arguments for the task that failed.
- **einfo** (*ExceptionInfo*) – Exception information.

Returns The return value of this handler is ignored.
Return type None

app.celery.ContextTask.on_retry

ContextTask.**on_retry**(*exc*, *task_id*, *args*, *kwargs*, *einfo*)
Retry handler.

This is run by the worker when the task is to be retried.

Parameters
- **exc** (*Exception*) – The exception sent to *retry()*.
- **task_id** (*str*) – Unique id of the retried task.
- **args** (*Tuple*) – Original arguments for the retried task.
- **kwargs** (*Dict*) – Original keyword arguments for the retried task.
- **einfo** (*ExceptionInfo*) – Exception information.

Returns The return value of this handler is ignored.
Return type None

app.celery.ContextTask.on_success

ContextTask.**on_success**(*retval*, *task_id*, *args*, *kwargs*)
Success handler.

Run by the worker if the task executes successfully.

Parameters
- **retval** (*Any*) – The return value of the task.
- **task_id** (*str*) – Unique id of the executed task.
- **args** (*Tuple*) – Original arguments for the executed task.
- **kwargs** (*Dict*) – Original keyword arguments for the executed task.

Returns The return value of this handler is ignored.
Return type None

app.celery.ContextTask.pop_request

ContextTask.**pop_request**()

app.celery.ContextTask.push_request

ContextTask.**push_request**(**args*, ***kwargs*)

app.celery.ContextTask.replace

ContextTask.**replace**(*sig*)

Replace this task, with a new task inheriting the task id.

Execution of the host task ends immediately and no subsequent statements will be run.

New in version 4.0.

Parameters **sig** (*Signature*) – signature to replace with.

Raises

- **~@Ignore** – This is always raised when called in asynchronous context.
- **It is best to always use return self.replace(...) to convey** –
- **to the reader that the task won't continue after being replaced.** –

app.celery.ContextTask.retry

ContextTask.**retry**(*args=None*, *kwargs=None*, *exc=None*, *throw=True*, *eta=None*, *countdown=None*, *max_retries=None*, ***options*)

Retry the task, adding it to the back of the queue.

Example

```
>>> from imaginary_twitter_lib import Twitter
>>> from proj.celery import app
```

```
>>> @app.task(bind=True)
... def tweet(self, auth, message):
...     twitter = Twitter(oauth=auth)
...     try:
...         twitter.post_status_update(message)
...     except twitter.FailWhale as exc:
...         # Retry in 5 minutes.
...         self.retry(countdown=60 * 5, exc=exc)
```

Note: Although the task will never return above as *retry* raises an exception to notify the worker, we use *raise* in front of the retry to convey that the rest of the block won't be executed.

Parameters

- **args** (*Tuple*) – Positional arguments to retry with.
- **kwargs** (*Dict*) – Keyword arguments to retry with.

- **exc** (*Exception*) – Custom exception to report when the max retry limit has been exceeded (default: `@MaxRetriesExceededError`).

  If this argument is set and retry is called while an exception was raised (`sys.exc_info()` is set) it will attempt to re-raise the current exception.

  If no exception was raised it will raise the `exc` argument provided.
- **countdown** (*float*) – Time in seconds to delay the retry for.
- **eta** (*datetime*) – Explicit time and date to run the retry at.
- **max_retries** (*int*) – If set, overrides the default retry limit for this execution. Changes to this parameter don't propagate to subsequent task retry attempts. A value of `None`, means "use the default", so if you want infinite retries you'd have to set the *max_retries* attribute of the task to `None` first.
- **time_limit** (*int*) – If set, overrides the default time limit.
- **soft_time_limit** (*int*) – If set, overrides the default soft time limit.
- **throw** (*bool*) – If this is `False`, don't raise the `@Retry` exception, that tells the worker to mark the task as being retried. Note that this means the task will be marked as failed if the task raises an exception, or successful if it returns after the retry call.
- ****options** (*Any*) – Extra options to pass on to *apply_async()*.

Raises **celery.exceptions.Retry** – To tell the worker that the task has been re-sent for retry. This always happens, unless the *throw* keyword argument has been explicitly set to `False`, and is considered normal operation.

app.celery.ContextTask.run

`ContextTask.`**`run`**`(`*args*, ***kwargs*`)`

The body of the task executed by workers.

app.celery.ContextTask.s

`ContextTask.`**`s`**`(`*args*, ***kwargs*`)`

Create signature.

Shortcut for `.s(*a, **k) -> .signature(a, k)`.

app.celery.ContextTask.send_event

`ContextTask.`**`send_event`**`(`*type_*, *retry=True*, *retry_policy=None*, ***fields*`)`

Send monitoring event message.

This can be used to add custom event types in **:pypi:`Flower`** and other monitors.

Parameters **type** (*str*) – Type of event, e.g. `"task-failed"`.

Keyword Arguments

- **retry** (*bool*) – Retry sending the message if the connection is lost. Default is taken from the **:setting:`task_publish_retry`** setting.
- **retry_policy** (*Mapping*) – Retry settings. Default is taken from the **:setting:`task_publish_retry_policy`** setting.
- ****fields** (*Any*) – Map containing information about the event. Must be JSON serializable.

app.celery.ContextTask.shadow_name

ContextTask.**shadow_name**(*args*, *kwargs*, *options*)
Override for custom task name in worker logs/monitoring.

Example

```
from celery.utils.imports import qualname

def shadow_name(task, args, kwargs, options):
    return qualname(args[0])

@app.task(shadow_name=shadow_name, serializer='pickle')
def apply_function_async(fun, *args, **kwargs):
    return fun(*args, **kwargs)
```

Parameters
- **args** (*Tuple*) – Task positional arguments.
- **kwargs** (*Dict*) – Task keyword arguments.
- **options** (*Dict*) – Task execution options.

app.celery.ContextTask.si

ContextTask.**si**(**args*, ***kwargs*)
Create immutable signature.

Shortcut for `.si(*a, **k) -> .signature(a, k, immutable=True)`.

app.celery.ContextTask.signature

ContextTask.**signature**(*args=None*, **starargs*, ***starkwargs*)
Create signature.

Returns
object for this task, wrapping arguments and execution options for a single task invocation.

Return type signature

app.celery.ContextTask.signature_from_request

ContextTask.**signature_from_request**(*request=None*, *args=None*, *kwargs=None*, *queue=None*, ***extra_options*)

app.celery.ContextTask.starmap

ContextTask.**starmap**(*it*)
Create a xstarmap task from it.

app.celery.ContextTask.start_strategy

ContextTask.**start_strategy**(*app*, *consumer*, ***kwargs*)

app.celery.ContextTask.subtask

ContextTask.**subtask**(*args=None*, **starargs*, ***starkwargs*)
Create signature.
Returns
object for this task, wrapping arguments and execution options for a single task invocation.
Return type signature

app.celery.ContextTask.subtask_from_request

ContextTask.**subtask_from_request**(*request=None*, *args=None*, *kwargs=None*, *queue=None*, ***extra_options*)

app.celery.ContextTask.update_state

ContextTask.**update_state**(*task_id=None*, *state=None*, *meta=None*, ***kwargs*)
Update task state.
Parameters
- **task_id** (*str*) – Id of the task to update. Defaults to the id of the current task.
- **state** (*str*) – New state.
- **meta** (*Dict*) – State meta-data.

app.celery.MyCelery

class app.celery.**MyCelery**(*main=None*, *loader=None*, *backend=None*, *amqp=None*, *events=None*, *log=None*, *control=None*, *set_as_current=True*, *tasks=None*, *broker=None*, *include=None*, *changes=None*, *config_source=None*, *fixups=None*, *task_cls=None*, *autofinalize=True*, *namespace=None*, *strict_typing=True*, ***kwargs*)
Bases: celery.app.base.Celery

Attributes

MyCelery.AsyncResult	Create new result instance.
MyCelery.Beat	**celery beat** scheduler application.
MyCelery.GroupResult	Create new group result instance.
MyCelery.IS_WINDOWS	
MyCelery.IS_macOS	
MyCelery.ResultSet	
MyCelery.SYSTEM	
MyCelery.Task	Base task class for this app.
MyCelery.WorkController	Embeddable worker.
MyCelery.Worker	Worker application.
MyCelery.amqp	`@amqp`.
MyCelery.amqp_cls	
MyCelery.annotations	
MyCelery.backend	Current backend instance.
MyCelery.backend_cls	
MyCelery.builtin_fixups	
MyCelery.conf	Current configuration.
MyCelery.control	`@control`.
MyCelery.control_cls	
MyCelery.current_task	Instance of task being executed, or `None`.
MyCelery.current_worker_task	The task currently being executed by a worker or `None`.
MyCelery.events	`@events`.
MyCelery.events_cls	
MyCelery.loader	Current loader instance.
MyCelery.loader_cls	
MyCelery.log	`@log`.
MyCelery.log_cls	
MyCelery.main	Name of the *__main__* module.
MyCelery.oid	Universally unique identifier for this app.
MyCelery.on_after_configure	Signal sent after app has prepared the configuration.
MyCelery.on_after_finalize	Signal sent after app has been finalized.
MyCelery.on_after_fork	Signal sent by every new process after fork.
MyCelery.on_configure	Signal sent when app is loading configuration.
MyCelery.pool	`@pool`.

continues on next page

Table 66 – continued from previous page

MyCelery.producer_pool	
MyCelery.registry_cls	
MyCelery.steps	Custom bootsteps to extend and modify the worker.
MyCelery.task_cls	
MyCelery.tasks	Task registry.
MyCelery.thread_oid	Per-thread unique identifier for this app.
MyCelery.timezone	Current timezone for this app.
MyCelery.user_options	Custom options for command-line programs.

app.celery.MyCelery.AsyncResult

MyCelery.**AsyncResult**
Create new result instance.

See also:

`celery.result.AsyncResult`.

app.celery.MyCelery.Beat

MyCelery.**Beat**
`celery beat` scheduler application.

See also:

`@Beat`.

app.celery.MyCelery.GroupResult

MyCelery.**GroupResult**
Create new group result instance.

See also:

`celery.result.GroupResult`.

app.celery.MyCelery.IS_WINDOWS

MyCelery.**IS_WINDOWS = False**

app.celery.MyCelery.IS_macOS

MyCelery.**IS_macOS** = **False**

app.celery.MyCelery.ResultSet

MyCelery.**ResultSet**

app.celery.MyCelery.SYSTEM

MyCelery.**SYSTEM** = **'Linux'**

app.celery.MyCelery.Task

MyCelery.**Task**
Base task class for this app.

app.celery.MyCelery.WorkController

MyCelery.**WorkController**
Embeddable worker.

See also:

`@WorkController`.

app.celery.MyCelery.Worker

MyCelery.**Worker**
Worker application.

See also:

`@Worker`.

app.celery.MyCelery.amqp

MyCelery.**amqp**
`@amqp`.
Type AMQP related functionality

app.celery.MyCelery.amqp_cls

MyCelery.**amqp_cls** = 'celery.app.amqp:AMQP'

app.celery.MyCelery.annotations

MyCelery.**annotations**

app.celery.MyCelery.backend

property MyCelery.**backend**
Current backend instance.

app.celery.MyCelery.backend_cls

MyCelery.**backend_cls** = None

app.celery.MyCelery.builtin_fixups

MyCelery.**builtin_fixups** = {'celery.fixups.django:fixup'}

app.celery.MyCelery.conf

property MyCelery.**conf**
Current configuration.

app.celery.MyCelery.control

MyCelery.**control**
@control.
Type Remote control

app.celery.MyCelery.control_cls

MyCelery.**control_cls** = 'celery.app.control:Control'

app.celery.MyCelery.current_task

property MyCelery.**current_task**
Instance of task being executed, or None.

app.celery.MyCelery.current_worker_task

property MyCelery.current_worker_task
The task currently being executed by a worker or None.

Differs from *current_task* in that it's not affected by tasks calling other tasks directly, or eagerly.

app.celery.MyCelery.events

MyCelery.events
@events.
Type Consuming and sending events

app.celery.MyCelery.events_cls

MyCelery.events_cls = 'celery.app.events:Events'

app.celery.MyCelery.loader

MyCelery.loader
Current loader instance.

app.celery.MyCelery.loader_cls

MyCelery.loader_cls = None

app.celery.MyCelery.log

MyCelery.log
@log.
Type Logging

app.celery.MyCelery.log_cls

MyCelery.log_cls = 'celery.app.log:Logging'

app.celery.MyCelery.main

MyCelery.main = None
Name of the *__main__* module. Required for standalone scripts.

If set this will be used instead of *__main__* when automatically generating task names.

app.celery.MyCelery.oid

MyCelery.**oid**
Universally unique identifier for this app.

app.celery.MyCelery.on_after_configure

MyCelery.**on_after_configure = None**
Signal sent after app has prepared the configuration.

app.celery.MyCelery.on_after_finalize

MyCelery.**on_after_finalize = None**
Signal sent after app has been finalized.

app.celery.MyCelery.on_after_fork

MyCelery.**on_after_fork = None**
Signal sent by every new process after fork.

app.celery.MyCelery.on_configure

MyCelery.**on_configure = None**
Signal sent when app is loading configuration.

app.celery.MyCelery.pool

property MyCelery.**pool**
@pool.

Note: This attribute is not related to the workers concurrency pool.

Type Broker connection pool

app.celery.MyCelery.producer_pool

property MyCelery.**producer_pool**

app.celery.MyCelery.registry_cls

MyCelery.**registry_cls = 'celery.app.registry:TaskRegistry'**

app.celery.MyCelery.steps

MyCelery.**steps = None**
Custom bootsteps to extend and modify the worker. See extending-bootsteps.

app.celery.MyCelery.task_cls

MyCelery.**task_cls = 'celery.app.task:Task'**

app.celery.MyCelery.tasks

MyCelery.**tasks**
Task registry.

> **Warning:** Accessing this attribute will also auto-finalize the app.

app.celery.MyCelery.thread_oid

property MyCelery.**thread_oid**
Per-thread unique identifier for this app.

app.celery.MyCelery.timezone

MyCelery.**timezone**
Current timezone for this app.

This is a cached property taking the time zone from the **:setting:`timezone`** setting.

app.celery.MyCelery.user_options

MyCelery.**user_options = None**
Custom options for command-line programs. See extending-commandoptions

Methods

MyCelery.__init__([main, loader, backend, ...])	
MyCelery.add_defaults(fun)	Add default configuration from dict d.
MyCelery.add_periodic_task(schedule, sig[, ...])	
MyCelery.autodiscover_tasks([packages, ...])	Auto-discover task modules.
MyCelery.broker_connection([hostname, ...])	Establish a connection to the message broker.
MyCelery.bugreport()	Return information useful in bug reports.
MyCelery.close()	Clean up after the application.
MyCelery.config_from_cmdline(argv[, namespace])	
MyCelery.config_from_envvar(variable_name[, ...])	Read configuration from environment variable.
MyCelery.config_from_object(obj[, silent, ...])	Read configuration from object.
MyCelery.connection([hostname, userid, ...])	Establish a connection to the message broker.
MyCelery.connection_for_read([url])	Establish connection used for consuming.
MyCelery.connection_for_write([url])	Establish connection used for producing.
MyCelery.connection_or_acquire([connection, ...])	Context used to acquire a connection from the pool.
MyCelery.create_task_cls()	Create a base task class bound to this app.
MyCelery.default_connection([connection, pool])	Context used to acquire a connection from the pool.
MyCelery.default_producer([producer])	Context used to acquire a producer from the pool.
MyCelery.either(default_key, *defaults)	Get key from configuration or use default values.
MyCelery.finalize([auto])	Finalize the app.
MyCelery.gen_task_name(name, module)	New task default automatic naming.
MyCelery.now()	Return the current time and date as a datetime.
MyCelery.on_init()	Optional callback called at init.
MyCelery.prepare_config(c)	Prepare configuration before it is merged with the defaults.
MyCelery.producer_or_acquire([producer])	Context used to acquire a producer from the pool.
MyCelery.register_task(task, **options)	Utility for registering a task-based class.
MyCelery.select_queues([queues])	Select subset of queues.
MyCelery.send_task(name[, args, kwargs, ...])	Send task by name.
MyCelery.set_current()	Make this the current app for this thread.
MyCelery.set_default()	Make this the default app for all threads.
MyCelery.setup_security([...])	Setup the message-signing serializer.
MyCelery.signature(*args, **kwargs)	Return a new `Signature` bound to this app.
MyCelery.start([argv])	Run **`celery`** using *argv*.
MyCelery.subclass_with_self(Class[, name, ...])	Subclass an app-compatible class.

continues on next page

Table 67 – continued from previous page

MyCelery.task(*args, **opts)	Decorator to create a task class out of any callable.
MyCelery.uses_utc_timezone()	Check if the application uses the UTC timezone.
MyCelery.worker_main([argv])	Run **celery worker** using *argv*.

app.celery.MyCelery.__init__

MyCelery.**__init__**(*main=None*, *loader=None*, *backend=None*, *amqp=None*, *events=None*, *log=None*, *control=None*, *set_as_current=True*, *tasks=None*, *broker=None*, *include=None*, *changes=None*, *config_source=None*, *fixups=None*, *task_cls=None*, *autofinalize=True*, *namespace=None*, *strict_typing=True*, ***kwargs*)

app.celery.MyCelery.add_defaults

MyCelery.**add_defaults**(*fun*)

Add default configuration from dict d.

If the argument is a callable function then it will be regarded as a promise, and it won't be loaded until the configuration is actually needed.

This method can be compared to:

```
>>> celery.conf.update(d)
```

with a difference that 1) no copy will be made and 2) the dict will not be transferred when the worker spawns child processes, so it's important that the same configuration happens at import time when pickle restores the object on the other side.

app.celery.MyCelery.add_periodic_task

MyCelery.**add_periodic_task**(*schedule*, *sig*, *args=()*, *kwargs=()*, *name=None*, ***opts*)

app.celery.MyCelery.autodiscover_tasks

MyCelery.**autodiscover_tasks**(*packages=None*, *related_name='tasks'*, *force=False*)

Auto-discover task modules.

Searches a list of packages for a "tasks.py" module (or use related_name argument).

If the name is empty, this will be delegated to fix-ups (e.g., Django).

For example if you have a directory layout like this:

```
foo/__init__.py
   tasks.py
   models.py

bar/__init__.py
    tasks.py
```

(continues on next page)

(continued from previous page)

```
    models.py

baz/__init__.py
    models.py
```

Then calling `app.autodiscover_tasks(['foo', 'bar', 'baz'])` will result in the modules `foo.tasks` and `bar.tasks` being imported.

Parameters

- **packages** (*List[str]*) – List of packages to search. This argument may also be a callable, in which case the value returned is used (for lazy evaluation).
- **related_name** (*Optional[str]*) – The name of the module to find. Defaults to "tasks": meaning "look for 'module.tasks' for every module in `packages`.". If `None` will only try to import the package, i.e. "look for 'module'".
- **force** (*bool*) – By default this call is lazy so that the actual auto-discovery won't happen until an application imports the default modules. Forcing will cause the auto-discovery to happen immediately.

app.celery.MyCelery.broker_connection

`MyCelery.`**broker_connection**(*hostname=None*, *userid=None*, *password=None*, *virtual_host=None*, *port=None*, *ssl=None*, *connect_timeout=None*, *transport=None*, *transport_options=None*, *heartbeat=None*, *login_method=None*, *failover_strategy=None*, ***kwargs*)

Establish a connection to the message broker.

Please use *connection_for_read()* and *connection_for_write()* instead, to convey the intent of use for this connection.

Parameters

- **url** – Either the URL or the hostname of the broker to use.
- **hostname** (*str*) – URL, Hostname/IP-address of the broker. If a URL is used, then the other argument below will be taken from the URL instead.
- **userid** (*str*) – Username to authenticate as.
- **password** (*str*) – Password to authenticate with
- **virtual_host** (*str*) – Virtual host to use (domain).
- **port** (*int*) – Port to connect to.
- **ssl** (*bool, Dict*) – Defaults to the **:setting:`broker_use_ssl`** setting.
- **transport** (*str*) – defaults to the **:setting:`broker_transport`** setting.
- **transport_options** (*Dict*) – Dictionary of transport specific options.
- **heartbeat** (*int*) – AMQP Heartbeat in seconds (`pyamqp` only).
- **login_method** (*str*) – Custom login method to use (AMQP only).
- **failover_strategy** (*str, Callable*) – Custom failover strategy.
- ****kwargs** – Additional arguments to `kombu.Connection`.

Returns the lazy connection instance.

Return type kombu.Connection

app.celery.MyCelery.bugreport

MyCelery.**bugreport**()
Return information useful in bug reports.

app.celery.MyCelery.close

MyCelery.**close**()
Clean up after the application.

Only necessary for dynamically created apps, and you should probably use the `with` statement instead.

Example

```
>>> with Celery(set_as_current=False) as app:
...     with app.connection_for_write() as conn:
...         pass
```

app.celery.MyCelery.config_from_cmdline

MyCelery.**config_from_cmdline**(*argv*, *namespace='celery'*)

app.celery.MyCelery.config_from_envvar

MyCelery.**config_from_envvar**(*variable_name*, *silent=False*, *force=False*)
Read configuration from environment variable.

The value of the environment variable must be the name of a module to import.

Example

```
>>> os.environ['CELERY_CONFIG_MODULE'] = 'myapp.celeryconfig'
>>> celery.config_from_envvar('CELERY_CONFIG_MODULE')
```

app.celery.MyCelery.config_from_object

MyCelery.**config_from_object**(*obj*, *silent=False*, *force=False*, *namespace=None*)
Read configuration from object.

Object is either an actual object or the name of a module to import.

Example

```
>>> celery.config_from_object('myapp.celeryconfig')
```

```
>>> from myapp import celeryconfig
>>> celery.config_from_object(celeryconfig)
```

Parameters

- **silent** (*bool*) – If true then import errors will be ignored.
- **force** (*bool*) – Force reading configuration immediately. By default the configuration will be read only when required.

app.celery.MyCelery.connection

MyCelery.**connection**(*hostname=None*, *userid=None*, *password=None*, *virtual_host=None*, *port=None*, *ssl=None*, *connect_timeout=None*, *transport=None*, *transport_options=None*, *heartbeat=None*, *login_method=None*, *failover_strategy=None*, ***kwargs*)

Establish a connection to the message broker.

Please use *connection_for_read()* and *connection_for_write()* instead, to convey the intent of use for this connection.

Parameters

- **url** – Either the URL or the hostname of the broker to use.
- **hostname** (*str*) – URL, Hostname/IP-address of the broker. If a URL is used, then the other argument below will be taken from the URL instead.
- **userid** (*str*) – Username to authenticate as.
- **password** (*str*) – Password to authenticate with
- **virtual_host** (*str*) – Virtual host to use (domain).
- **port** (*int*) – Port to connect to.
- **ssl** (*bool, Dict*) – Defaults to the **:setting:`broker_use_ssl`** setting.
- **transport** (*str*) – defaults to the **:setting:`broker_transport`** setting.
- **transport_options** (*Dict*) – Dictionary of transport specific options.
- **heartbeat** (*int*) – AMQP Heartbeat in seconds (pyamqp only).
- **login_method** (*str*) – Custom login method to use (AMQP only).
- **failover_strategy** (*str, Callable*) – Custom failover strategy.
- ****kwargs** – Additional arguments to kombu.Connection.

Returns the lazy connection instance.

Return type kombu.Connection

app.celery.MyCelery.connection_for_read

MyCelery.**connection_for_read**(*url=None*, ***kwargs*)

Establish connection used for consuming.

See also:

connection() for supported arguments.

app.celery.MyCelery.connection_for_write

MyCelery.**connection_for_write**(*url=None*, ***kwargs*)
Establish connection used for producing.

See also:

connection() for supported arguments.

app.celery.MyCelery.connection_or_acquire

MyCelery.**connection_or_acquire**(*connection=None*, *pool=True*, *_*, ***__*)
Context used to acquire a connection from the pool.

For use within a `with` statement to get a connection from the pool if one is not already provided.
Parameters **connection** (*kombu.Connection*) – If not provided, a connection will be acquired from the connection pool.

app.celery.MyCelery.create_task_cls

MyCelery.**create_task_cls**()
Create a base task class bound to this app.

app.celery.MyCelery.default_connection

MyCelery.**default_connection**(*connection=None*, *pool=True*, *_*, ***__*)
Context used to acquire a connection from the pool.

For use within a `with` statement to get a connection from the pool if one is not already provided.
Parameters **connection** (*kombu.Connection*) – If not provided, a connection will be acquired from the connection pool.

app.celery.MyCelery.default_producer

MyCelery.**default_producer**(*producer=None*)
Context used to acquire a producer from the pool.

For use within a `with` statement to get a producer from the pool if one is not already provided
Parameters **producer** (*kombu.Producer*) – If not provided, a producer will be acquired from the producer pool.

app.celery.MyCelery.either

MyCelery.**either**(*default_key*, **defaults*)
Get key from configuration or use default values.

Fallback to the value of a configuration key if none of the **values* are true.

app.celery.MyCelery.finalize

MyCelery.**finalize**(*auto=False*)
Finalize the app.

This loads built-in tasks, evaluates pending task decorators, reads configuration, etc.

app.celery.MyCelery.gen_task_name

MyCelery.**gen_task_name**(*name*, *module*)
New task default automatic naming.

The default gen_task_name method builds task names based on absolute imports, for example:
project / /__init__.py /moduleA/
/__init.py /tasks.py

/moduleB/ /__init.py /tasks.py
The default automatic naming is "project.moduleA.tasks.taskA", "project.moduleA.tasks.taskB", etc. This new default automatic naming forget "tasks" in all task names:

DEFAULT WAY NEW WAY project.moduleA.tasks.taskA project.moduleA.taskA project.moduleA.tasks.taskA project.moduleA.taskB project.moduleB.tasks.taskA project.moduleB.taskA

This method is only used when the tasks don't have a name attribute defined, otherwise, the task name will be respect.

References

https://docs.celeryproject.org/en/stable/userguide/tasks.html?highlight=gen_task_name#changing-the-automatic-naming-behavior

app.celery.MyCelery.now

MyCelery.**now**()
Return the current time and date as a datetime.

app.celery.MyCelery.on_init

MyCelery.**on_init**()
Optional callback called at init.

app.celery.MyCelery.prepare_config

MyCelery.**prepare_config**(*c*)
Prepare configuration before it is merged with the defaults.

app.celery.MyCelery.producer_or_acquire

MyCelery.**producer_or_acquire**(*producer=None*)
Context used to acquire a producer from the pool.

For use within a `with` statement to get a producer from the pool if one is not already provided
Parameters **producer** (*kombu.Producer*) – If not provided, a producer will be acquired from the producer pool.

app.celery.MyCelery.register_task

MyCelery.**register_task**(*task*, ***options*)
Utility for registering a task-based class.

Note: This is here for compatibility with old Celery 1.0 style task classes, you should not need to use this for new projects.

---

app.celery.MyCelery.select_queues

MyCelery.**select_queues**(*queues=None*)
Select subset of queues.
Parameters **queues** (*Sequence[str]*) – a list of queue names to keep.

app.celery.MyCelery.send_task

MyCelery.**send_task**(*name*, *args=None*, *kwargs=None*, *countdown=None*, *eta=None*, *task_id=None*, *producer=None*, *connection=None*, *router=None*, *result_cls=None*, *expires=None*, *publisher=None*, *link=None*, *link_error=None*, *add_to_parent=True*, *group_id=None*, *group_index=None*, *retries=0*, *chord=None*, *reply_to=None*, *time_limit=None*, *soft_time_limit=None*, *root_id=None*, *parent_id=None*, *route_name=None*, *shadow=None*, *chain=None*, *task_type=None*, ***options*)
Send task by name.

Supports the same arguments as `@-Task.apply_async()`.
Parameters
- **name** (*str*) – Name of task to call (e.g., *"tasks.add"*).
- **result_cls** (*AsyncResult*) – Specify custom result class.

app.celery.MyCelery.set_current

MyCelery.**set_current**()
Make this the current app for this thread.

app.celery.MyCelery.set_default

MyCelery.**set_default**()
Make this the default app for all threads.

app.celery.MyCelery.setup_security

MyCelery.**setup_security**(*allowed_serializers=None*, *key=None*, *cert=None*, *store=None*, *digest='sha256'*, *serializer='json'*)
Setup the message-signing serializer.

This will affect all application instances (a global operation).

Disables untrusted serializers and if configured to use the `auth` serializer will register the `auth` serializer with the provided settings into the Kombu serializer registry.

Parameters

- **allowed_serializers** (*Set[str]*) – List of serializer names, or content_types that should be exempt from being disabled.
- **key** (*str*) – Name of private key file to use. Defaults to the **:setting:`security_key`** setting.
- **cert** (*str*) – Name of certificate file to use. Defaults to the **:setting:`security_certificate`** setting.
- **store** (*str*) – Directory containing certificates. Defaults to the **:setting:`security_cert_store`** setting.
- **digest** (*str*) – Digest algorithm used when signing messages. Default is `sha256`.
- **serializer** (*str*) – Serializer used to encode messages after they've been signed. See **:setting:`task_serializer`** for the serializers supported. Default is `json`.

app.celery.MyCelery.signature

MyCelery.**signature**(**args*, ***kwargs*)
Return a new `Signature` bound to this app.

app.celery.MyCelery.start

MyCelery.**start**(*argv=None*)
Run **celery** using *argv*.

Uses `sys.argv` if *argv* is not specified.

app.celery.MyCelery.subclass_with_self

MyCelery.**subclass_with_self**(*Class*, *name=None*, *attribute='app'*, *reverse=None*, *keep_reduce=False*, ***kw*)

Subclass an app-compatible class.

App-compatible means that the class has a class attribute that provides the default app it should use, for example: `class Foo: app = None`.

Parameters

- **Class** (*type*) – The app-compatible class to subclass.
- **name** (*str*) – Custom name for the target class.
- **attribute** (*str*) – Name of the attribute holding the app, Default is 'app'.
- **reverse** (*str*) – Reverse path to this object used for pickling purposes. For example, to get `app.AsyncResult`, use `"AsyncResult"`.
- **keep_reduce** (*bool*) – If enabled a custom `__reduce__` implementation won't be provided.

app.celery.MyCelery.task

MyCelery.**task**(**args*, ***opts*)

Decorator to create a task class out of any callable.

See Task options for a list of the arguments that can be passed to this decorator.

Examples

```
@app.task
def refresh_feed(url):
    store_feed(feedparser.parse(url))
```

with setting extra options:

```
@app.task(exchange='feeds')
def refresh_feed(url):
    return store_feed(feedparser.parse(url))
```

Note: App Binding: For custom apps the task decorator will return a proxy object, so that the act of creating the task is not performed until the task is used or the task registry is accessed.

If you're depending on binding to be deferred, then you must not access any attributes on the returned object until the application is fully set up (finalized).

---

app.celery.MyCelery.uses_utc_timezone

MyCelery.**uses_utc_timezone**()
Check if the application uses the UTC timezone.

app.celery.MyCelery.worker_main

MyCelery.**worker_main**(*argv=None*)
Run **celery worker** using *argv*.

Uses `sys.argv` if *argv* is not specified.

Functions

make_celery(app)

app.celery.make_celery

app.celery.**make_celery**(*app: flask.app.Flask*) → celery.app.base.Celery

class app.celery.**ContextTask**

AsyncResult(*task_id*, ***kwargs*)
Get AsyncResult instance for the specified task.

Parameters **task_id** (*str*) – Task id to get result for.

exception MaxRetriesExceededError(**args*, ***kwargs*)
The tasks max restart limit has been exceeded.

args

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception OperationalError
Recoverable message transport connection error.

args

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

Request = 'celery.worker.request:Request'
Request class used, or the qualified name of one.

Strategy = 'celery.worker.strategy:default'
Execution strategy used, or the qualified name of one.

_app = <MyCelery __main__>
The application instance associated with this task class.

_backend = None

_default_request = None
Some may expect a request to exist even if the task hasn't been called. This should probably be deprecated.

_exec_options = None

classmethod _get_app()

_get_exec_options()

_get_request()
Get current request object.

abstract = True
Deprecated attribute `abstract` here for compatibility.

acks_late = False
When enabled messages for this task will be acknowledged **after** the task has been executed, and not *just before* (the default behavior).

Please note that this means the task may be executed twice if the worker crashes mid execution.

The application default can be overridden with the **:setting:`task_acks_late`** setting.

acks_on_failure_or_timeout = True
When enabled messages for this task will be acknowledged even if it fails or times out.

Configuring this setting only applies to tasks that are acknowledged **after** they have been executed and only if **:setting:`task_acks_late`** is enabled.

The application default can be overridden with the **:setting:`task_acks_on_failure_or_timeout`** setting.

classmethod add_around(*attr*, *around*)

add_to_chord(*sig*, *lazy=False*)
Add signature to the chord the current task is a member of.

New in version 4.0.

Currently only supported by the Redis result backend.

Parameters

- **sig** (*Signature*) – Signature to extend chord with.
- **lazy** (*bool*) – If enabled the new task won't actually be called, and `sig.delay()` must be called manually.

add_trail(*result*)

after_return(*status*, *retval*, *task_id*, *args*, *kwargs*, *einfo*)
Handler called after the task returns.

Parameters

- **status** (*str*) – Current task state.
- **retval** (*Any*) – Task return value/exception.
- **task_id** (*str*) – Unique id of the task.
- **args** (*Tuple*) – Original arguments for the task.
- **kwargs** (*Dict*) – Original keyword arguments for the task.
- **einfo** (*ExceptionInfo*) – Exception information.

Returns The return value of this handler is ignored.

Return type None

classmethod annotate()

app = <MyCelery __main__>

apply(*args=None*, *kwargs=None*, *link=None*, *link_error=None*, *task_id=None*, *retries=None*, *throw=None*, *logfile=None*, *loglevel=None*, *headers=None*, ***options*)

Execute this task locally, by blocking until the task returns.

Parameters

- **args** (*Tuple*) – positional arguments passed on to the task.
- **kwargs** (*Dict*) – keyword arguments passed on to the task.
- **throw** (*bool*) – Re-raise task exceptions. Defaults to the **:setting:`task_eager_propagates`** setting.

Returns pre-evaluated result.

Return type celery.result.EagerResult

apply_async(*args=None*, *kwargs=None*, *task_id=None*, *producer=None*, *link=None*, *link_error=None*, *shadow=None*, ***options*)

Apply tasks asynchronously by sending a message.

Parameters

- **args** (*Tuple*) – The positional arguments to pass on to the task.
- **kwargs** (*Dict*) – The keyword arguments to pass on to the task.
- **countdown** (*float*) – Number of seconds into the future that the task should execute. Defaults to immediate execution.
- **eta** (*datetime*) – Absolute time and date of when the task should be executed. May not be specified if *countdown* is also supplied.
- **expires** (*float, datetime*) – Datetime or seconds in the future for the task should expire. The task won't be executed after the expiration time.
- **shadow** (*str*) – Override task name used in logs/monitoring. Default is retrieved from *shadow_name()*.
- **connection** (*kombu.Connection*) – Re-use existing broker connection instead of acquiring one from the connection pool.
- **retry** (*bool*) – If enabled sending of the task message will be retried in the event of connection loss or failure. Default is taken from the **:setting:`task_publish_retry`** setting. Note that you need to handle the producer/connection manually for this to work.
- **retry_policy** (*Mapping*) – Override the retry policy used. See the **:setting:`task_publish_retry_policy`** setting.
- **time_limit** (*int*) – If set, overrides the default time limit.
- **soft_time_limit** (*int*) – If set, overrides the default soft time limit.
- **queue** (*str, kombu.Queue*) – The queue to route the task to. This must be a key present in **:setting:`task_queues`**, or **:setting:`task_create_missing_queues`** must be enabled. See guide-routing for more information.
- **exchange** (*str, kombu.Exchange*) – Named custom exchange to send the task to. Usually not used in combination with the queue argument.

- **routing_key** (*str*) – Custom routing key used to route the task to a worker server. If in combination with a `queue` argument only used to specify custom routing keys to topic exchanges.
- **priority** (*int*) – The task priority, a number between 0 and 9. Defaults to the *priority* attribute.
- **serializer** (*str*) – Serialization method to use. Can be *pickle*, *json*, *yaml*, *msgpack* or any custom serialization method that's been registered with `kombu.serialization.registry`. Defaults to the *serializer* attribute.
- **compression** (*str*) – Optional compression method to use. Can be one of `zlib`, `bzip2`, or any custom compression methods registered with `kombu.compression.register()`. Defaults to the **:setting:`task_compression`** setting.
- **link** (*Signature*) – A single, or a list of tasks signatures to apply if the task returns successfully.
- **link_error** (*Signature*) – A single, or a list of task signatures to apply if an error occurs while executing the task.
- **producer** (*kombu.Producer*) – custom producer to use when publishing the task.
- **add_to_parent** (*bool*) – If set to True (default) and the task is applied while executing another task, then the result will be appended to the parent tasks `request.children` attribute. Trailing can also be disabled by default using the *trail* attribute
- **ignore_result** (*bool*) – If set to *False* (default) the result of a task will be stored in the backend. If set to *True* the result will not be stored. This can also be set using the *ignore_result* in the *app.task* decorator.
- **publisher** (*kombu.Producer*) – Deprecated alias to `producer`.
- **headers** (*Dict*) – Message headers to be included in the message.

Returns Promise of future evaluation.

Return type celery.result.AsyncResult

Raises

- **TypeError** – If not enough arguments are passed, or too many arguments are passed. Note that signature checks may be disabled by specifying `@task(typing=False)`.
- ***kombu.exceptions.OperationalError*** – If a connection to the transport cannot be made, or if the connection is lost.

Note: Also supports all keyword arguments supported by `kombu.Producer.publish()`.

---

property backend

before_start(*task_id*, *args*, *kwargs*)

Handler called before the task starts.

New in version 5.2.

Parameters

- **task_id** (*str*) – Unique id of the task to execute.
- **args** (*Tuple*) – Original arguments for the task to execute.
- **kwargs** (*Dict*) – Original keyword arguments for the task to execute.

Returns The return value of this handler is ignored.

Return type None

classmethod bind(*app*)

chunks(*it*, *n*)
Create a chunks task for this task.

default_retry_delay = 180
Default time in seconds before a retry of the task should be executed. 3 minutes by default.

delay(**args*, ***kwargs*)
Star argument version of *apply_async()*.

Does not support the extra options enabled by *apply_async()*.

Parameters

- ***args** (*Any*) – Positional arguments passed on to the task.
- ****kwargs** (*Any*) – Keyword arguments passed on to the task.

Returns Future promise.

Return type celery.result.AsyncResult

expires = None
Default task expiry time.

from_config = (('serializer', 'task_serializer'), ('rate_limit', 'task_default_rate_limit'), ('priority', 'task_default_priority'), ('track_started', 'task_track_started'), ('acks_late', 'task_acks_late'), ('acks_on_failure_or_timeout', 'task_acks_on_failure_or_timeout'), ('reject_on_worker_lost', 'task_reject_on_worker_lost'), ('ignore_result', 'task_ignore_result'), ('store_eager_result', 'task_store_eager_result'), ('store_errors_even_if_ignored', 'task_store_errors_even_if_ignored'))

ignore_result = False
If enabled the worker won't store task state and return values for this task. Defaults to the **:setting:`task_ignore_result`** setting.

map(*it*)
Create a xmap task from it.

max_retries = 3
Maximum number of retries before giving up. If set to None, it will **never** stop retrying.

name = None
Name of the task.

classmethod on_bound(*app*)
Called when the task is bound to an app.

Note: This class method can be defined to do additional actions when the task class is bound to an app.

---

on_failure(*exc*, *task_id*, *args*, *kwargs*, *einfo*) → None
Error handler.

This is run by the worker when the task fails.

Parameters

- **exc** (*Exception*) – The exception raised by the task.
- **task_id** (*str*) – Unique id of the failed task.
- **args** (*Tuple*) – Original arguments for the task that failed.
- **kwargs** (*Dict*) – Original keyword arguments for the task that failed.
- **einfo** (*ExceptionInfo*) – Exception information.

Returns The return value of this handler is ignored.

Return type None

on_retry(*exc*, *task_id*, *args*, *kwargs*, *einfo*)
Retry handler.

This is run by the worker when the task is to be retried.

Parameters

- **exc** (*Exception*) – The exception sent to *retry()*.
- **task_id** (*str*) – Unique id of the retried task.
- **args** (*Tuple*) – Original arguments for the retried task.
- **kwargs** (*Dict*) – Original keyword arguments for the retried task.
- **einfo** (*ExceptionInfo*) – Exception information.

Returns The return value of this handler is ignored.

Return type None

on_success(*retval*, *task_id*, *args*, *kwargs*)
Success handler.

Run by the worker if the task executes successfully.

Parameters

- **retval** (*Any*) – The return value of the task.
- **task_id** (*str*) – Unique id of the executed task.
- **args** (*Tuple*) – Original arguments for the executed task.
- **kwargs** (*Dict*) – Original keyword arguments for the executed task.

Returns The return value of this handler is ignored.

Return type None

pop_request()

priority = None
Default task priority.

push_request(**args*, ***kwargs*)

rate_limit = None
None (no rate limit), *'100/s'* (hundred tasks a second), *'100/m'* (hundred tasks a minute),`'100/h`` (hundred tasks an hour)

Type Rate limit for this task type. Examples

reject_on_worker_lost = None
Even if *acks_late* is enabled, the worker will acknowledge tasks when the worker process executing them abruptly exits or is signaled (e.g., **:sig:`KILL`/:sig:`INT`**, etc).

Setting this to true allows the message to be re-queued instead, so that the task will execute again by the same worker, or another worker.

Warning: Enabling this can cause message loops; make sure you know what you're doing.

replace(*sig*)
Replace this task, with a new task inheriting the task id.

Execution of the host task ends immediately and no subsequent statements will be run.

New in version 4.0.

Parameters **sig** (*Signature*) – signature to replace with.

Raises

- **~@Ignore** – This is always raised when called in asynchronous context.
- **It is best to always use return self.replace(...) to convey** –
- **to the reader that the task won't continue after being replaced.** –

property request
Get current request object.

request_stack = <celery.utils.threads._LocalStack object>
Task request stack, the current request will be the topmost.

resultrepr_maxsize = 1024
Max length of result representation used in logs and events.

retry(*args=None*, *kwargs=None*, *exc=None*, *throw=True*, *eta=None*, *countdown=None*, *max_retries=None*, ***options*)
Retry the task, adding it to the back of the queue.

Example

```
>>> from imaginary_twitter_lib import Twitter
>>> from proj.celery import app
```

```
>>> @app.task(bind=True)
... def tweet(self, auth, message):
...     twitter = Twitter(oauth=auth)
...     try:
...         twitter.post_status_update(message)
...     except twitter.FailWhale as exc:
...         # Retry in 5 minutes.
...         self.retry(countdown=60 * 5, exc=exc)
```

Note: Although the task will never return above as *retry* raises an exception to notify the worker, we use *raise* in front of the retry to convey that the rest of the block won't be executed.

Parameters

- **args** (*Tuple*) – Positional arguments to retry with.
- **kwargs** (*Dict*) – Keyword arguments to retry with.
- **exc** (*Exception*) – Custom exception to report when the max retry limit has been exceeded (default: `@MaxRetriesExceededError`).

  If this argument is set and retry is called while an exception was raised (`sys.exc_info()` is set) it will attempt to re-raise the current exception.

  If no exception was raised it will raise the `exc` argument provided.
- **countdown** (*float*) – Time in seconds to delay the retry for.
- **eta** (*datetime*) – Explicit time and date to run the retry at.
- **max_retries** (*int*) – If set, overrides the default retry limit for this execution. Changes to this parameter don't propagate to subsequent task retry attempts. A value of `None`, means "use the default", so if you want infinite retries you'd have to set the *max_retries* attribute of the task to `None` first.
- **time_limit** (*int*) – If set, overrides the default time limit.
- **soft_time_limit** (*int*) – If set, overrides the default soft time limit.
- **throw** (*bool*) – If this is `False`, don't raise the `@Retry` exception, that tells the worker to mark the task as being retried. Note that this means the task will be marked as failed if the task raises an exception, or successful if it returns after the retry call.
- ****options** (*Any*) – Extra options to pass on to *apply_async()*.

Raises **celery.exceptions.Retry** – To tell the worker that the task has been re-sent for retry. This always happens, unless the *throw* keyword argument has been explicitly set to `False`, and is considered normal operation.

run(**args*, ***kwargs*)
The body of the task executed by workers.

s(**args*, ***kwargs*)
Create signature.

Shortcut for `.s(*a, **k) -> .signature(a, k)`.

send_event(*type_*, *retry=True*, *retry_policy=None*, ***fields*)
Send monitoring event message.

This can be used to add custom event types in **:pypi:`Flower`** and other monitors.

Parameters **type** (*str*) – Type of event, e.g. `"task-failed"`.

Keyword Arguments

- **retry** (*bool*) – Retry sending the message if the connection is lost. Default is taken from the **:setting:`task_publish_retry`** setting.
- **retry_policy** (*Mapping*) – Retry settings. Default is taken from the **:setting:`task_publish_retry_policy`** setting.
- ****fields** (*Any*) – Map containing information about the event. Must be JSON serializable.

send_events = True
If enabled the worker will send monitoring events related to this task (but only if the worker is configured to send task related events). Note that this has no effect on the task-failure event case where a task is not registered (as it will have no task class to check this flag).

serializer = 'json'
The name of a serializer that are registered with `kombu.serialization.registry`. Default is *'json'*.

shadow_name(*args*, *kwargs*, *options*)
Override for custom task name in worker logs/monitoring.

Example

```
from celery.utils.imports import qualname

def shadow_name(task, args, kwargs, options):
    return qualname(args[0])

@app.task(shadow_name=shadow_name, serializer='pickle')
def apply_function_async(fun, *args, **kwargs):
    return fun(*args, **kwargs)
```

Parameters

- **args** (*Tuple*) – Task positional arguments.
- **kwargs** (*Dict*) – Task keyword arguments.
- **options** (*Dict*) – Task execution options.

si(**args*, ***kwargs*)
Create immutable signature.

Shortcut for `.si(*a, **k) -> .signature(a, k, immutable=True)`.

signature(*args=None*, **starargs*, ***starkwargs*)
Create signature.

Returns

object for this task, wrapping arguments and execution options for a single task invocation.

Return type `signature`

signature_from_request(*request=None*, *args=None*, *kwargs=None*, *queue=None*, ***extra_options*)

soft_time_limit = None
Soft time limit. Defaults to the **:setting:`task_soft_time_limit`** setting.

starmap(*it*)
Create a `xstarmap` task from `it`.

start_strategy(*app*, *consumer*, ***kwargs*)

store_eager_result = False

store_errors_even_if_ignored = False
When enabled errors will be stored even if the task is otherwise configured to ignore results.

subtask(*args=None*, **starargs*, ***starkwargs*)
Create signature.

Returns

object for this task, wrapping arguments and execution options for a single task invocation.

Return type `signature`

subtask_from_request(*request=None*, *args=None*, *kwargs=None*, *queue=None*, ***extra_options*)

throws = ()
Tuple of expected exceptions.

These are errors that are expected in normal operation and that shouldn't be regarded as a real error by the worker. Currently this means that the state will be updated to an error state, but the worker won't log the event as an error.

time_limit = None
Hard time limit. Defaults to the **:setting:`task_time_limit`** setting.

track_started = False
If enabled the task will report its status as 'started' when the task is executed by a worker. Disabled by default as the normal behavior is to not report that level of granularity. Tasks are either pending, finished, or waiting to be retried.

Having a 'started' status can be useful for when there are long running tasks and there's a need to report what task is currently running.

The application default can be overridden using the **:setting:`task_track_started`** setting.

trail = True
If enabled the request will keep track of subtasks started by this task, and this information will be sent with the result (`result.children`).

typing = True
Enable argument checking. You can set this to false if you don't want the signature to be checked when calling the task. Defaults to `app.strict_typing`.

update_state(*task_id=None*, *state=None*, *meta=None*, ***kwargs*)
Update task state.

Parameters

- **task_id** (*str*) – Id of the task to update. Defaults to the id of the current task.
- **state** (*str*) – New state.
- **meta** (*Dict*) – State meta-data.

class app.celery.**MyCelery**(*main=None*, *loader=None*, *backend=None*, *amqp=None*, *events=None*, *log=None*, *control=None*, *set_as_current=True*, *tasks=None*, *broker=None*, *include=None*, *changes=None*, *config_source=None*, *fixups=None*, *task_cls=None*, *autofinalize=True*, *namespace=None*, *strict_typing=True*, ***kwargs*)

AsyncResult
Create new result instance.

See also:

`celery.result.AsyncResult`.

Beat
celery beat scheduler application.

See also:

`@Beat`.

GroupResult
Create new group result instance.

See also:

`celery.result.GroupResult`.

IS_WINDOWS = False

IS_macOS = False

Pickler
alias of `celery.app.utils.AppPickler`

ResultSet

SYSTEM = 'Linux'

Task
Base task class for this app.

WorkController
Embeddable worker.

See also:

`@WorkController`.

Worker
Worker application.

See also:

`@Worker`.

_acquire_connection(*pool=True*)
Helper for *connection_or_acquire()*.

_add_periodic_task(*key*, *entry*)

_after_fork()

_after_fork_registered = False

_autodiscover_tasks(*packages*, *related_name*, ***kwargs*)

_autodiscover_tasks_from_fixups(*related_name*)

_autodiscover_tasks_from_names(*packages*, *related_name*)

_canvas

_conf = None

_connection(*url*, *userid=None*, *password=None*, *virtual_host=None*, *port=None*, *ssl=None*, *connect_timeout=None*, *transport=None*, *transport_options=None*, *heartbeat=None*, *login_method=None*, *failover_strategy=None*, ***kwargs*)

_ensure_after_fork()

_finalize_pending_conf()
Get config value by key and finalize loading the configuration.

Note:

This is used by PendingConfiguration: as soon as you access a key the configuration is read.

_fixups = None

_get_backend()

_get_default_loader()

_load_config()

_local = None
Thread local storage.

_pool = None

_rgetattr(*path*)

_sig_to_periodic_task_entry(*schedule*, *sig*, *args=()*, *kwargs=None*, *name=None*, ***opts*)

_task_from_fun(*fun*, *name=None*, *base=None*, *bind=False*, ***options*)

add_defaults(*fun*)
Add default configuration from dict d.

If the argument is a callable function then it will be regarded as a promise, and it won't be loaded until the configuration is actually needed.

This method can be compared to:

```
>>> celery.conf.update(d)
```

with a difference that 1) no copy will be made and 2) the dict will not be transferred when the worker spawns child processes, so it's important that the same configuration happens at import time when pickle restores the object on the other side.

add_periodic_task(*schedule*, *sig*, *args=()*, *kwargs=()*, *name=None*, ***opts*)

amqp
@amqp.

Type AMQP related functionality

amqp_cls = 'celery.app.amqp:AMQP'

annotations

autodiscover_tasks(*packages=None*, *related_name='tasks'*, *force=False*)
Auto-discover task modules.

Searches a list of packages for a "tasks.py" module (or use related_name argument).

If the name is empty, this will be delegated to fix-ups (e.g., Django).

For example if you have a directory layout like this:

```
foo/__init__.py
   tasks.py
   models.py

bar/__init__.py
    tasks.py
    models.py

baz/__init__.py
    models.py
```

Then calling `app.autodiscover_tasks(['foo', 'bar', 'baz'])` will result in the modules `foo.tasks` and `bar.tasks` being imported.

Parameters

- **packages** (*List[str]*) – List of packages to search. This argument may also be a callable, in which case the value returned is used (for lazy evaluation).
- **related_name** (*Optional[str]*) – The name of the module to find. Defaults to "tasks": meaning "look for 'module.tasks' for every module in packages.". If None will only try to import the package, i.e. "look for 'module'".
- **force** (*bool*) – By default this call is lazy so that the actual auto-discovery won't happen until an application imports the default modules. Forcing will cause the auto-discovery to happen immediately.

property backend

Current backend instance.

backend_cls = None

broker_connection(*hostname=None*, *userid=None*, *password=None*, *virtual_host=None*, *port=None*, *ssl=None*, *connect_timeout=None*, *transport=None*, *transport_options=None*, *heartbeat=None*, *login_method=None*, *failover_strategy=None*, ***kwargs*)

Establish a connection to the message broker.

Please use *connection_for_read()* and *connection_for_write()* instead, to convey the intent of use for this connection.

Parameters

- **url** – Either the URL or the hostname of the broker to use.
- **hostname** (*str*) – URL, Hostname/IP-address of the broker. If a URL is used, then the other argument below will be taken from the URL instead.
- **userid** (*str*) – Username to authenticate as.
- **password** (*str*) – Password to authenticate with
- **virtual_host** (*str*) – Virtual host to use (domain).
- **port** (*int*) – Port to connect to.
- **ssl** (*bool, Dict*) – Defaults to the **:setting:`broker_use_ssl`** setting.
- **transport** (*str*) – defaults to the **:setting:`broker_transport`** setting.
- **transport_options** (*Dict*) – Dictionary of transport specific options.
- **heartbeat** (*int*) – AMQP Heartbeat in seconds (pyamqp only).
- **login_method** (*str*) – Custom login method to use (AMQP only).
- **failover_strategy** (*str, Callable*) – Custom failover strategy.
- ****kwargs** – Additional arguments to kombu.Connection.

Returns the lazy connection instance.

Return type kombu.Connection

bugreport()

Return information useful in bug reports.

builtin_fixups = {'celery.fixups.django:fixup'}

close()

Clean up after the application.

Only necessary for dynamically created apps, and you should probably use the `with` statement instead.

Example

```
>>> with Celery(set_as_current=False) as app:
...     with app.connection_for_write() as conn:
...         pass
```

property conf
Current configuration.

config_from_cmdline(*argv*, *namespace='celery'*)

config_from_envvar(*variable_name*, *silent=False*, *force=False*)
Read configuration from environment variable.

The value of the environment variable must be the name of a module to import.

Example

```
>>> os.environ['CELERY_CONFIG_MODULE'] = 'myapp.celeryconfig'
>>> celery.config_from_envvar('CELERY_CONFIG_MODULE')
```

config_from_object(*obj*, *silent=False*, *force=False*, *namespace=None*)
Read configuration from object.

Object is either an actual object or the name of a module to import.

Example

```
>>> celery.config_from_object('myapp.celeryconfig')
```

```
>>> from myapp import celeryconfig
>>> celery.config_from_object(celeryconfig)
```

Parameters

- **silent** (*bool*) – If true then import errors will be ignored.
- **force** (*bool*) – Force reading configuration immediately. By default the configuration will be read only when required.

connection(*hostname=None*, *userid=None*, *password=None*, *virtual_host=None*, *port=None*, *ssl=None*, *connect_timeout=None*, *transport=None*, *transport_options=None*, *heartbeat=None*, *login_method=None*, *failover_strategy=None*, ***kwargs*)
Establish a connection to the message broker.

Please use *connection_for_read()* and *connection_for_write()* instead, to convey the intent of use for this connection.

Parameters

- **url** – Either the URL or the hostname of the broker to use.

- **hostname** (*str*) – URL, Hostname/IP-address of the broker. If a URL is used, then the other argument below will be taken from the URL instead.
- **userid** (*str*) – Username to authenticate as.
- **password** (*str*) – Password to authenticate with
- **virtual_host** (*str*) – Virtual host to use (domain).
- **port** (*int*) – Port to connect to.
- **ssl** (*bool, Dict*) – Defaults to the **:setting:`broker_use_ssl`** setting.
- **transport** (*str*) – defaults to the **:setting:`broker_transport`** setting.
- **transport_options** (*Dict*) – Dictionary of transport specific options.
- **heartbeat** (*int*) – AMQP Heartbeat in seconds (pyamqp only).
- **login_method** (*str*) – Custom login method to use (AMQP only).
- **failover_strategy** (*str, Callable*) – Custom failover strategy.
- ****kwargs** – Additional arguments to kombu.Connection.

Returns the lazy connection instance.

Return type kombu.Connection

connection_for_read(*url=None*, ***kwargs*)
Establish connection used for consuming.

See also:

connection() for supported arguments.

connection_for_write(*url=None*, ***kwargs*)
Establish connection used for producing.

See also:

connection() for supported arguments.

connection_or_acquire(*connection=None*, *pool=True*, **_*, ***__*)
Context used to acquire a connection from the pool.

For use within a `with` statement to get a connection from the pool if one is not already provided.

Parameters **connection** (*kombu.Connection*) – If not provided, a connection will be acquired from the connection pool.

control
`@control`.

Type Remote control

control_cls = 'celery.app.control:Control'

create_task_cls()
Create a base task class bound to this app.

property current_task
Instance of task being executed, or `None`.

property current_worker_task
The task currently being executed by a worker or `None`.

Differs from *current_task* in that it's not affected by tasks calling other tasks directly, or eagerly.

default_connection(*connection=None*, *pool=True*, *_, **__)
Context used to acquire a connection from the pool.

For use within a `with` statement to get a connection from the pool if one is not already provided.

Parameters **connection** (*kombu.Connection*) – If not provided, a connection will be acquired from the connection pool.

default_producer(*producer=None*)
Context used to acquire a producer from the pool.

For use within a `with` statement to get a producer from the pool if one is not already provided

Parameters **producer** (*kombu.Producer*) – If not provided, a producer will be acquired from the producer pool.

either(*default_key*, **defaults*)
Get key from configuration or use default values.

Fallback to the value of a configuration key if none of the **values* are true.

events
`@events`.

Type Consuming and sending events

events_cls = 'celery.app.events:Events'

finalize(*auto=False*)
Finalize the app.

This loads built-in tasks, evaluates pending task decorators, reads configuration, etc.

gen_task_name(*name*, *module*)
New task default automatic naming.

The default gen_task_name method builds task names based on absolute imports, for example:

project / /__init__.py /moduleA/

/__init.py /tasks.py

/moduleB/ /__init.py /tasks.py

The default automatic naming is “project.moduleA.tasks.taskA”, “project.moduleA.tasks.taskB”, etc. This new default automatic naming forget “tasks” in all task names:

DEFAULT WAY NEW WAY project.moduleA.tasks.taskA project.moduleA.taskA project.moduleA.tasks.taskA project.moduleA.taskB project.moduleB.tasks.taskA project.moduleB.taskA

This method is only used when the tasks don’t have a name attribute defined, otherwise, the task name will be respect.

References

https://docs.celeryproject.org/en/stable/userguide/tasks.html?highlight=gen_task_name#changing-the-automatic-naming-behavior

loader
Current loader instance.

loader_cls = None

log
@log.

Type Logging

log_cls = 'celery.app.log:Logging'

main = None
Name of the *__main__* module. Required for standalone scripts.

If set this will be used instead of *__main__* when automatically generating task names.

now()
Return the current time and date as a datetime.

oid
Universally unique identifier for this app.

on_after_configure = None
Signal sent after app has prepared the configuration.

on_after_finalize = None
Signal sent after app has been finalized.

on_after_fork = None
Signal sent by every new process after fork.

on_configure = None
Signal sent when app is loading configuration.

on_init()
Optional callback called at init.

property pool
@pool.

Note: This attribute is not related to the workers concurrency pool.

Type Broker connection pool

prepare_config(*c*)
Prepare configuration before it is merged with the defaults.

producer_or_acquire(*producer=None*)
Context used to acquire a producer from the pool.

For use within a `with` statement to get a producer from the pool if one is not already provided

Parameters **producer** (*kombu.Producer*) – If not provided, a producer will be acquired from the producer pool.

property producer_pool

register_task(*task*, ***options*)
Utility for registering a task-based class.

Note: This is here for compatibility with old Celery 1.0 style task classes, you should not need to use this for new projects.

---

registry_cls = 'celery.app.registry:TaskRegistry'

select_queues(*queues=None*)
Select subset of queues.

Parameters **queues** (*Sequence[str]*) – a list of queue names to keep.

send_task(*name*, *args=None*, *kwargs=None*, *countdown=None*, *eta=None*, *task_id=None*, *producer=None*, *connection=None*, *router=None*, *result_cls=None*, *expires=None*, *publisher=None*, *link=None*, *link_error=None*, *add_to_parent=True*, *group_id=None*, *group_index=None*, *retries=0*, *chord=None*, *reply_to=None*, *time_limit=None*, *soft_time_limit=None*, *root_id=None*, *parent_id=None*, *route_name=None*, *shadow=None*, *chain=None*, *task_type=None*, ***options*)
Send task by name.

Supports the same arguments as `@-Task.apply_async()`.

Parameters

- **name** (*str*) – Name of task to call (e.g., *"tasks.add"*).
- **result_cls** (*AsyncResult*) – Specify custom result class.

set_current()
Make this the current app for this thread.

set_default()
Make this the default app for all threads.

setup_security(*allowed_serializers=None*, *key=None*, *cert=None*, *store=None*, *digest='sha256'*, *serializer='json'*)
Setup the message-signing serializer.

This will affect all application instances (a global operation).

Disables untrusted serializers and if configured to use the `auth` serializer will register the `auth` serializer with the provided settings into the Kombu serializer registry.

Parameters

- **allowed_serializers** (*Set[str]*) – List of serializer names, or content_types that should be exempt from being disabled.
- **key** (*str*) – Name of private key file to use. Defaults to the **:setting:`security_key`** setting.
- **cert** (*str*) – Name of certificate file to use. Defaults to the **:setting:`security_certificate`** setting.
- **store** (*str*) – Directory containing certificates. Defaults to the **:setting:`security_cert_store`** setting.
- **digest** (*str*) – Digest algorithm used when signing messages. Default is `sha256`.
- **serializer** (*str*) – Serializer used to encode messages after they've been signed. See **:setting:`task_serializer`** for the serializers supported. Default is `json`.

signature(**args*, ***kwargs*)
Return a new `Signature` bound to this app.

start(*argv=None*)
Run **celery** using *argv*.

Uses `sys.argv` if *argv* is not specified.

steps = None
Custom bootsteps to extend and modify the worker. See extending-bootsteps.

subclass_with_self(*Class*, *name=None*, *attribute='app'*, *reverse=None*, *keep_reduce=False*, ***kw*)
Subclass an app-compatible class.

App-compatible means that the class has a class attribute that provides the default app it should use, for example: `class Foo: app = None`.

Parameters

- **Class** (*type*) – The app-compatible class to subclass.
- **name** (*str*) – Custom name for the target class.
- **attribute** (*str*) – Name of the attribute holding the app, Default is 'app'.
- **reverse** (*str*) – Reverse path to this object used for pickling purposes. For example, to get `app.AsyncResult`, use `"AsyncResult"`.
- **keep_reduce** (*bool*) – If enabled a custom `__reduce__` implementation won't be provided.

task(**args*, ***opts*)
Decorator to create a task class out of any callable.

See Task options for a list of the arguments that can be passed to this decorator.

Examples

```
@app.task
def refresh_feed(url):
    store_feed(feedparser.parse(url))
```

with setting extra options:

```
@app.task(exchange='feeds')
def refresh_feed(url):
    return store_feed(feedparser.parse(url))
```

Note: App Binding: For custom apps the task decorator will return a proxy object, so that the act of creating the task is not performed until the task is used or the task registry is accessed.

If you're depending on binding to be deferred, then you must not access any attributes on the returned object until the application is fully set up (finalized).

---

task_cls = 'celery.app.task:Task'

tasks
Task registry.

> **Warning:** Accessing this attribute will also auto-finalize the app.

property thread_oid
Per-thread unique identifier for this app.

timezone
Current timezone for this app.

This is a cached property taking the time zone from the **:setting:`timezone`** setting.

user_options = None
Custom options for command-line programs. See extending-commandoptions

uses_utc_timezone()
Check if the application uses the UTC timezone.

worker_main(*argv=None*)
Run **celery worker** using *argv*.

Uses `sys.argv` if *argv* is not specified.

app.celery.**make_celery**(*app: flask.app.Flask*) → celery.app.base.Celery

2.1.3 app.exceptions

Description

Module for managing exceptions.

References

flask-restx: https://flask-restx.readthedocs.io/en/latest/errors.html

Functions

init_app(app)

app.exceptions.init_app

app.exceptions.**init_app**(*app: flask.app.Flask*) → None

Exceptions

FileEmptyError

app.exceptions.FileEmptyError

exception app.exceptions.**FileEmptyError**

exception app.exceptions.**FileEmptyError**

args

characters_written

errno
POSIX exception code

filename
exception filename

filename2
second exception filename

strerror
exception strerror

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

app.exceptions.**_handle_validation_error_exception**(*ex: marshmallow.exceptions.ValidationError*) → tuple

app.exceptions.**init_app**(*app: flask.app.Flask*) → None

2.1.4 app.extensions

Description

Registers third party extensions.

Functions

init_app(app)

app.extensions.init_app

app.extensions.**init_app**(*app: flask.app.Flask*) → None

app.extensions.**init_app**(*app: flask.app.Flask*) → None

2.1.5 app.managers

Description

Registers database managers.

The managers are classes for managing database queries through database models.

Modules

app.managers.base

Description

Classes

app.managers.base.BaseManager

class app.managers.base.**BaseManager**(**args*, ***kwargs*)

Bases: object

Methods

BaseManager.__init__(*args, **kwargs)
BaseManager.create(**kwargs)
BaseManager.delete(record_id)
BaseManager.find(record_id, *args)
BaseManager.get(**kwargs)
BaseManager.raw(query)
BaseManager.save(record_id, **kwargs)

app.managers.base.BaseManager.__init__

BaseManager.**__init__**(**args*, ***kwargs*)

app.managers.base.BaseManager.create

BaseManager.**create**(***kwargs*)

app.managers.base.BaseManager.delete

BaseManager.**delete**(*record_id: int*)

app.managers.base.BaseManager.find

BaseManager.**find**(*record_id: int*, **args*)

app.managers.base.BaseManager.get

BaseManager.**get**(***kwargs*)

app.managers.base.BaseManager.raw

BaseManager.**raw**(*query: str*)

app.managers.base.BaseManager.save

BaseManager.**save**(*record_id: int*, ***kwargs*)

class app.managers.base.**BaseManager**(**args*, ***kwargs*)

create(***kwargs*)

delete(*record_id: int*)

find(*record_id: int*, **args*)

get(***kwargs*)

raw(*query: str*)

save(*record_id: int*, ***kwargs*)

app.managers.document

Description

Classes

DocumentManager()

app.managers.document.DocumentManager

class app.managers.document.**DocumentManager**

Bases: *app.managers.base.BaseManager*

Methods

DocumentManager.__init__()
DocumentManager.create(**kwargs)
DocumentManager.delete(record_id)
DocumentManager.find(record_id, *args)
DocumentManager.get(**kwargs)
DocumentManager.raw(query)
DocumentManager.save(record_id, **kwargs)

app.managers.document.DocumentManager.__init__

DocumentManager.**__init__**()

app.managers.document.DocumentManager.create

DocumentManager.**create**(***kwargs*)

app.managers.document.DocumentManager.delete

DocumentManager.**delete**(*record_id: int*)

app.managers.document.DocumentManager.find

DocumentManager.**find**(*record_id: int*, **args*)

app.managers.document.DocumentManager.get

DocumentManager.**get**(***kwargs*)

app.managers.document.DocumentManager.raw

DocumentManager.**raw**(*query: str*)

app.managers.document.DocumentManager.save

DocumentManager.**save**(*record_id: int*, ***kwargs*)

class app.managers.document.**DocumentManager**

create(***kwargs*)

delete(*record_id: int*)

find(*record_id: int*, **args*)

get(***kwargs*)

raw(*query: str*)

save(*record_id: int*, ***kwargs*)

app.managers.role

Description

Classes

RoleManager()

app.managers.role.RoleManager

class app.managers.role.**RoleManager**
Bases: *app.managers.base.BaseManager*

Methods

RoleManager.__init__()
RoleManager.create(**kwargs)
RoleManager.delete(record_id)
RoleManager.find(record_id, *args)
RoleManager.get(**kwargs)
RoleManager.raw(query)
RoleManager.save(record_id, **kwargs)

app.managers.role.RoleManager.__init__

RoleManager.**__init__**()

app.managers.role.RoleManager.create

RoleManager.**create**(***kwargs*)

app.managers.role.RoleManager.delete

RoleManager.**delete**(*record_id: int*)

app.managers.role.RoleManager.find

RoleManager.**find**(*record_id: int*, **args*)

app.managers.role.RoleManager.get

RoleManager.**get**(***kwargs*)

app.managers.role.RoleManager.raw

RoleManager.**raw**(*query: str*)

app.managers.role.RoleManager.save

RoleManager.**save**(*record_id: int*, ***kwargs*)

class app.managers.role.**RoleManager**

create(***kwargs*)

delete(*record_id: int*)

find(*record_id: int*, **args*)

get(***kwargs*)

raw(*query: str*)

save(*record_id: int*, ***kwargs*)

app.managers.user

Description

Classes

UserManager()

app.managers.user.UserManager

class app.managers.user.**UserManager**
Bases: *app.managers.base.BaseManager*

Methods

UserManager.__init__()
UserManager.create(**kwargs)
UserManager.delete(record_id)
UserManager.find(record_id, *args)
UserManager.find_by_email(email, *args)
UserManager.get(**kwargs)
UserManager.get_last_record()
UserManager.raw(query)
UserManager.save(record_id, **kwargs)

app.managers.user.UserManager.__init__

UserManager.**__init__**()

app.managers.user.UserManager.create

UserManager.**create**(***kwargs*)

app.managers.user.UserManager.delete

UserManager.**delete**(*record_id: int*)

app.managers.user.UserManager.find

UserManager.**find**(*record_id: int*, **args*)

app.managers.user.UserManager.find_by_email

UserManager.**find_by_email**(*email: str*, **args*)

app.managers.user.UserManager.get

UserManager.**get**(***kwargs*)

app.managers.user.UserManager.get_last_record

UserManager.**get_last_record**()

app.managers.user.UserManager.raw

UserManager.**raw**(*query: str*)

app.managers.user.UserManager.save

UserManager.**save**(*record_id: int*, ***kwargs*)

class app.managers.user.**UserManager**

create(***kwargs*)
delete(*record_id: int*)
find(*record_id: int*, **args*)
find_by_email(*email: str*, **args*)
get(***kwargs*)
get_last_record()
raw(*query: str*)
save(*record_id: int*, ***kwargs*)

2.1.6 app.middleware

Description

WSGI middleware for validating requests content type.

Classes

Middleware(app)	WSGI middleware for checking if the request has a valid content type.

app.middleware.Middleware

class app.middleware.**Middleware**(*app: flask.app.Flask*)
Bases: object

WSGI middleware for checking if the request has a valid content type.

Methods

Middleware.__init__(app)	
Middleware.parse_content_type(content_type)	Parser a request Content-Type.

app.middleware.Middleware.__init__

Middleware.**__init__**(*app: flask.app.Flask*)

app.middleware.Middleware.parse_content_type

static Middleware.**parse_content_type**(*content_type: str*) → str
Parser a request Content-Type.
Parameters **content_type** (*str*) – Request Content Type.
Returns Parsed request Content Type.
Return type str

References

RFC 1341 - MIME (Multipurpose Internet Mail Extensions): https://tools.ietf.org/html/rfc1341

Examples

```
>>> from app.middleware import Middleware as m
>>> m.parse_content_type('multipart/form-data; boundary=something')
multipart/form-data
>>> m.parse_content_type('text/html; charset=utf-8')
text/html
```

class app.middleware.**Middleware**(*app: flask.app.Flask*)

WSGI middleware for checking if the request has a valid content type.

static **parse_content_type**(*content_type: str*) → str

Parser a request Content-Type.

Parameters **content_type** (*str*) – Request Content Type.

Returns Parsed request Content Type.

Return type str

References

RFC 1341 - MIME (Multipurpose Internet Mail Extensions): https://tools.ietf.org/html/rfc1341

Examples

```
>>> from app.middleware import Middleware as m
>>> m.parse_content_type('multipart/form-data; boundary=something')
multipart/form-data
>>> m.parse_content_type('text/html; charset=utf-8')
text/html
```

2.1.7 app.models

Description

Registers database models.

TODO: pending to define models with suffix "Model".

There is not posible to rename the models with suffix "Model" because Flask-Security-Too doesn't allow it. Maybe in the next major version could be available. https://github.com/Flask-Middleware/flask-security/issues/395

Modules

app.models.base

app.models.document

app.models.role

continues on next page

Table 83 – continued from previous page

app.models.user
app.models.user_roles

app.models.base

Description

Classes

Base(*args, **kwargs)

app.models.base.Base

class app.models.base.**Base**(**args*, ***kwargs*)

Bases: playhouse.flask_utils.FlaskDB.get_model_class.<locals>.BaseModel

Attributes

Base.dirty_fields
Base.id

app.models.base.Base.dirty_fields

property Base.**dirty_fields**

app.models.base.Base.id

Base.**id = <AutoField: Base.id>**

Methods

Base.__init__(*args, **kwargs)
Base.add_index(*fields, **kwargs)
Base.alias([alias])
Base.bind(database[, bind_refs, ...])

continues on next page

Table 86 – continued from previous page

Base.bind_ctx(database[, bind_refs, ...])
Base.bulk_create(model_list[, batch_size])
Base.bulk_update(model_list, fields[, ...])
Base.clone()
Base.coerce([_coerce])
Base.copy(method)
Base.create(**query)
Base.create_table([safe])
Base.delete()
Base.delete_by_id(pk)
Base.delete_instance([recursive, ...])
Base.dependencies([search_nullable])
Base.drop_table([safe, drop_sequences])
Base.filter(*dq_nodes, **filters)
Base.get(*query, **filters)
Base.get_by_id(pk)
Base.get_fields([exclude, include, sort_order])
Base.get_id()
Base.get_or_create(**kwargs)
Base.get_or_none(*query, **filters)
Base.index(*fields, **kwargs)
Base.insert([_Model__data])
Base.insert_from(query, fields)
Base.insert_many(rows[, fields])
Base.is_alias()

continues on next page

Table 86 – continued from previous page

Base.is_dirty()
Base.noop()
Base.raw(query)
Base.reload()
Base.replace([_Model__data])
Base.replace_many(rows[, fields])
Base.save(*args, **kwargs)
Base.select(*fields)
Base.set_by_id(key, value)
Base.table_exists()
Base.truncate_table(**options)
Base.unwrap()
Base.update([_Model__data])
Base.validate_model()

app.models.base.Base.__init__

Base.**__init__**(**args*, ***kwargs*)

app.models.base.Base.add_index

classmethod Base.**add_index**(**fields*, ***kwargs*)

app.models.base.Base.alias

classmethod Base.**alias**(*alias=None*)

app.models.base.Base.bind

classmethod Base.**bind**(*database*, *bind_refs=True*, *bind_backrefs=True*, *_exclude=None*)

app.models.base.Base.bind_ctx

classmethod Base.**bind_ctx**(*database*, *bind_refs=True*, *bind_backrefs=True*)

app.models.base.Base.bulk_create

classmethod Base.**bulk_create**(*model_list*, *batch_size=None*)

app.models.base.Base.bulk_update

classmethod Base.**bulk_update**(*model_list*, *fields*, *batch_size=None*)

app.models.base.Base.clone

Base.**clone**()

app.models.base.Base.coerce

Base.**coerce**(*_coerce=True*)

app.models.base.Base.copy

static Base.**copy**(*method*)

app.models.base.Base.create

classmethod Base.**create**(***query*)

app.models.base.Base.create_table

classmethod Base.**create_table**(*safe=True*, ***options*)

app.models.base.Base.delete

classmethod Base.**delete**()

app.models.base.Base.delete_by_id

classmethod Base.**delete_by_id**(*pk*)

app.models.base.Base.delete_instance

Base.**delete_instance**(*recursive=False*, *delete_nullable=False*)

app.models.base.Base.dependencies

Base.**dependencies**(*search_nullable=False*)

app.models.base.Base.drop_table

classmethod Base.**drop_table**(*safe=True*, *drop_sequences=True*, ***options*)

app.models.base.Base.filter

classmethod Base.**filter**(**dq_nodes*, ***filters*)

app.models.base.Base.get

classmethod Base.**get**(**query*, ***filters*)

app.models.base.Base.get_by_id

classmethod Base.**get_by_id**(*pk*)

app.models.base.Base.get_fields

classmethod Base.**get_fields**(*exclude: Optional[list] = None*, *include: Optional[list] = None*, *sort_order: Optional[list] = None*) → set

app.models.base.Base.get_id

Base.**get_id**()

app.models.base.Base.get_or_create

classmethod Base.**get_or_create**(***kwargs*)

app.models.base.Base.get_or_none

classmethod Base.**get_or_none**(**query*, ***filters*)

app.models.base.Base.index

classmethod Base.**index**(**fields*, ***kwargs*)

app.models.base.Base.insert

classmethod Base.**insert**(*_Model__data=None*, ***insert*)

app.models.base.Base.insert_from

classmethod Base.**insert_from**(*query*, *fields*)

app.models.base.Base.insert_many

classmethod Base.**insert_many**(*rows*, *fields=None*)

app.models.base.Base.is_alias

Base.**is_alias**()

app.models.base.Base.is_dirty

Base.**is_dirty**()

app.models.base.Base.noop

classmethod Base.**noop**()

app.models.base.Base.raw

static Base.**raw**(*query: str*)

app.models.base.Base.reload

Base.**reload**()

app.models.base.Base.replace

classmethod Base.**replace**(*_Model__data=None*, ***insert*)

app.models.base.Base.replace_many

classmethod Base.**replace_many**(*rows*, *fields=None*)

app.models.base.Base.save

abstract Base.**save**(**args: list*, ***kwargs: dict*) → int

app.models.base.Base.select

classmethod Base.**select**(**fields*)

app.models.base.Base.set_by_id

classmethod Base.**set_by_id**(*key*, *value*)

app.models.base.Base.table_exists

classmethod Base.**table_exists**()

app.models.base.Base.truncate_table

classmethod Base.**truncate_table**(***options*)

app.models.base.Base.unwrap

Base.**unwrap**()

app.models.base.Base.update

classmethod Base.**update**(*_Model__data=None*, ***update*)

app.models.base.Base.validate_model

classmethod Base.**validate_model**()

class app.models.base.**Base**(**args*, ***kwargs*)

DoesNotExist
alias of app.models.base.BaseDoesNotExist

_coerce = True

_meta = <peewee.Metadata object>

classmethod _normalize_data(*data*, *kwargs*)

property _pk

_pk_expr()

_populate_unsaved_relations(*field_dict*)

_prune_fields(*field_dict*, *only*)

_schema = <peewee.SchemaManager object>

classmethod add_index(**fields*, ***kwargs*)

classmethod alias(*alias=None*)

classmethod bind(*database*, *bind_refs=True*, *bind_backrefs=True*, *_exclude=None*)

classmethod bind_ctx(*database*, *bind_refs=True*, *bind_backrefs=True*)

classmethod bulk_create(*model_list*, *batch_size=None*)

classmethod bulk_update(*model_list*, *fields*, *batch_size=None*)

clone()

coerce(*_coerce=True*)

static copy(*method*)

classmethod create(***query*)

classmethod create_table(*safe=True*, ***options*)

classmethod delete()

classmethod delete_by_id(*pk*)

delete_instance(*recursive=False*, *delete_nullable=False*)

dependencies(*search_nullable=False*)

property dirty_fields

classmethod drop_table(*safe=True*, *drop_sequences=True*, ***options*)

classmethod filter(**dq_nodes*, ***filters*)

classmethod get(**query*, ***filters*)

classmethod get_by_id(*pk*)

classmethod get_fields(*exclude: Optional[list] = None*, *include: Optional[list] = None*, *sort_order: Optional[list] = None*) → set

get_id()

classmethod get_or_create(***kwargs*)

classmethod get_or_none(**query*, ***filters*)

id = <AutoField: Base.id>

classmethod index(**fields*, ***kwargs*)

classmethod insert(*_Model__data=None*, ***insert*)

classmethod insert_from(*query*, *fields*)

classmethod insert_many(*rows*, *fields=None*)

is_alias()

is_dirty()

classmethod noop()

static raw(*query: str*)

reload()

classmethod replace(*_Model__data=None*, ***insert*)

classmethod replace_many(*rows*, *fields=None*)

abstract save(**args: list*, ***kwargs: dict*) → int

classmethod select(**fields*)

classmethod set_by_id(*key*, *value*)

classmethod table_exists()

classmethod truncate_table(***options*)

unwrap()

classmethod update(*_Model__data=None*, ***update*)

classmethod validate_model()

app.models.document

Description

Classes

Document(*args, **kwargs)	

app.models.document.Document

class app.models.document.**Document**(**args*, ***kwargs*)

Bases: *app.models.base.Base*

Attributes

Document.created_at
Document.created_by
Document.created_by_id
Document.deleted_at
Document.directory_path
Document.dirty_fields
Document.id
Document.internal_filename
Document.mime_type
Document.name
Document.size
Document.updated_at
Document.url

app.models.document.Document.created_at

Document.**created_at** = <**TimestampField**: Document.created_at>

app.models.document.Document.created_by

Document.**created_by** = <**ForeignKeyField**: Document.created_by>

app.models.document.Document.created_by_id

Document.**created_by_id** = <**ForeignKeyField**: Document.created_by>

app.models.document.Document.deleted_at

Document.**deleted_at** = <**TimestampField**: Document.deleted_at>

app.models.document.Document.directory_path

Document.**directory_path** = <**CharField**: Document.directory_path>

app.models.document.Document.dirty_fields

property Document.**dirty_fields**

app.models.document.Document.id

Document.**id** = <**AutoField**: Document.id>

app.models.document.Document.internal_filename

Document.**internal_filename** = <**CharField**: Document.internal_filename>

app.models.document.Document.mime_type

Document.**mime_type** = <**CharField**: Document.mime_type>

app.models.document.Document.name

Document.**name** = <CharField: Document.name>

app.models.document.Document.size

Document.**size** = <IntegerField: Document.size>

app.models.document.Document.updated_at

Document.**updated_at** = <TimestampField: Document.updated_at>

app.models.document.Document.url

property Document.**url**

Methods

Document.__init__(*args, **kwargs)
Document.add_index(*fields, **kwargs)
Document.alias([alias])
Document.bind(database[, bind_refs, ...])
Document.bind_ctx(database[, bind_refs, ...])
Document.bulk_create(model_list[, batch_size])
Document.bulk_update(model_list, fields[, ...])
Document.clone()
Document.coerce([_coerce])
Document.copy(method)
Document.create(**query)
Document.create_table([safe])
Document.delete()
Document.delete_by_id(pk)
Document.delete_instance([recursive, ...])

continues on next page

Table 89 – continued from previous page

Document.dependencies([search_nullable])
Document.drop_table([safe, drop_sequences])
Document.filter(*dq_nodes, **filters)
Document.get(*query, **filters)
Document.get_by_id(pk)
Document.get_fields([exclude, include, ...])
Document.get_filepath()
Document.get_id()
Document.get_or_create(**kwargs)
Document.get_or_none(*query, **filters)
Document.index(*fields, **kwargs)
Document.insert([_Model__data])
Document.insert_from(query, fields)
Document.insert_many(rows[, fields])
Document.is_alias()
Document.is_dirty()
Document.noop()
Document.raw(query)
Document.reload()
Document.replace([_Model__data])
Document.replace_many(rows[, fields])
Document.save(*args, **kwargs)
Document.select(*fields)
Document.set_by_id(key, value)
Document.table_exists()

continues on next page

Table 89 – continued from previous page

Document.truncate_table(**options)
Document.unwrap()
Document.update([_Model__data])
Document.validate_model()

app.models.document.Document.__init__

Document.**__init__**(**args*, ***kwargs*)

app.models.document.Document.add_index

classmethod Document.**add_index**(**fields*, ***kwargs*)

app.models.document.Document.alias

classmethod Document.**alias**(*alias=None*)

app.models.document.Document.bind

classmethod Document.**bind**(*database*, *bind_refs=True*, *bind_backrefs=True*, *_exclude=None*)

app.models.document.Document.bind_ctx

classmethod Document.**bind_ctx**(*database*, *bind_refs=True*, *bind_backrefs=True*)

app.models.document.Document.bulk_create

classmethod Document.**bulk_create**(*model_list*, *batch_size=None*)

app.models.document.Document.bulk_update

classmethod Document.**bulk_update**(*model_list*, *fields*, *batch_size=None*)

app.models.document.Document.clone

Document.**clone**()

app.models.document.Document.coerce

Document.**coerce**(*_coerce=True*)

app.models.document.Document.copy

static Document.**copy**(*method*)

app.models.document.Document.create

classmethod Document.**create**(***query*)

app.models.document.Document.create_table

classmethod Document.**create_table**(*safe=True*, ***options*)

app.models.document.Document.delete

classmethod Document.**delete**()

app.models.document.Document.delete_by_id

classmethod Document.**delete_by_id**(*pk*)

app.models.document.Document.delete_instance

Document.**delete_instance**(*recursive=False*, *delete_nullable=False*)

app.models.document.Document.dependencies

Document.**dependencies**(*search_nullable=False*)

app.models.document.Document.drop_table

classmethod Document.**drop_table**(*safe=True*, *drop_sequences=True*, ***options*)

app.models.document.Document.filter

classmethod Document.**filter**(**dq_nodes*, ***filters*)

app.models.document.Document.get

classmethod Document.**get**(**query*, ***filters*)

app.models.document.Document.get_by_id

classmethod Document.**get_by_id**(*pk*)

app.models.document.Document.get_fields

classmethod Document.**get_fields**(*exclude: Optional[list] = None*, *include: Optional[list] = None*, *sort_order: Optional[list] = None*) → set

app.models.document.Document.get_filepath

Document.**get_filepath**()

app.models.document.Document.get_id

Document.**get_id**()

app.models.document.Document.get_or_create

classmethod Document.**get_or_create**(***kwargs*)

app.models.document.Document.get_or_none

classmethod Document.**get_or_none**(**query*, ***filters*)

app.models.document.Document.index

classmethod Document.**index**(**fields*, ***kwargs*)

app.models.document.Document.insert

classmethod Document.**insert**(*_Model__data=None*, ***insert*)

app.models.document.Document.insert_from

classmethod Document.**insert_from**(*query*, *fields*)

app.models.document.Document.insert_many

classmethod Document.**insert_many**(*rows*, *fields=None*)

app.models.document.Document.is_alias

Document.**is_alias**()

app.models.document.Document.is_dirty

Document.**is_dirty**()

app.models.document.Document.noop

classmethod Document.**noop**()

app.models.document.Document.raw

static Document.**raw**(*query: str*)

app.models.document.Document.reload

Document.**reload**()

app.models.document.Document.replace

classmethod Document.**replace**(*_Model__data=None*, ***insert*)

app.models.document.Document.replace_many

classmethod Document.**replace_many**(*rows*, *fields=None*)

app.models.document.Document.save

abstract Document.**save**(**args: list*, ***kwargs: dict*) → int

app.models.document.Document.select

classmethod Document.**select**(**fields*)

app.models.document.Document.set_by_id

classmethod Document.**set_by_id**(*key*, *value*)

app.models.document.Document.table_exists

classmethod Document.**table_exists**()

app.models.document.Document.truncate_table

classmethod Document.**truncate_table**(***options*)

app.models.document.Document.unwrap

Document.**unwrap**()

app.models.document.Document.update

classmethod Document.**update**(*_Model__data=None*, ***update*)

app.models.document.Document.validate_model

classmethod Document.validate_model()

class app.models.document.Document(*args, **kwargs)

DoesNotExist
alias of app.models.document.DocumentDoesNotExist

_coerce = True

_meta = <peewee.Metadata object>

classmethod _normalize_data(*data*, *kwargs*)

property _pk

_pk_expr()

_populate_unsaved_relations(*field_dict*)

_prune_fields(*field_dict*, *only*)

_schema = <peewee.SchemaManager object>

classmethod add_index(**fields*, ***kwargs*)

classmethod alias(*alias=None*)

classmethod bind(*database*, *bind_refs=True*, *bind_backrefs=True*, *_exclude=None*)

classmethod bind_ctx(*database*, *bind_refs=True*, *bind_backrefs=True*)

classmethod bulk_create(*model_list*, *batch_size=None*)

classmethod bulk_update(*model_list*, *fields*, *batch_size=None*)

clone()

coerce(*_coerce=True*)

static copy(*method*)

classmethod create(***query*)

classmethod create_table(*safe=True*, ***options*)

created_at = <TimestampField: Document.created_at>

created_by = <ForeignKeyField: Document.created_by>

created_by_id = <ForeignKeyField: Document.created_by>

classmethod delete()

classmethod delete_by_id(*pk*)

delete_instance(*recursive=False*, *delete_nullable=False*)

deleted_at = <TimestampField: Document.deleted_at>

dependencies(*search_nullable=False*)

directory_path = <CharField: Document.directory_path>

property dirty_fields

classmethod drop_table(*safe=True*, *drop_sequences=True*, ***options*)

classmethod filter(**dq_nodes*, ***filters*)

classmethod get(**query*, ***filters*)

classmethod get_by_id(*pk*)

classmethod get_fields(*exclude: Optional[list] = None*, *include: Optional[list] = None*, *sort_order: Optional[list] = None*) → set

get_filepath()

get_id()

classmethod get_or_create(***kwargs*)

classmethod get_or_none(**query*, ***filters*)

id = <AutoField: Document.id>

classmethod index(**fields*, ***kwargs*)

classmethod insert(*_Model__data=None*, ***insert*)

classmethod insert_from(*query*, *fields*)

classmethod insert_many(*rows*, *fields=None*)

internal_filename = <CharField: Document.internal_filename>

is_alias()

is_dirty()

mime_type = <CharField: Document.mime_type>

name = <CharField: Document.name>

classmethod noop()

static raw(*query: str*)

reload()

classmethod replace(*_Model__data=None*, ***insert*)

classmethod replace_many(*rows*, *fields=None*)

abstract save(**args: list*, ***kwargs: dict*) → int

classmethod select(**fields*)

classmethod set_by_id(*key*, *value*)

size = <IntegerField: Document.size>

classmethod table_exists()

classmethod truncate_table(***options*)

unwrap()

classmethod update(*_Model__data=None*, ***update*)

updated_at = <TimestampField: Document.updated_at>

property url

classmethod validate_model()

app.models.role

Description

Classes

Role(*args, **kwargs)	

app.models.role.Role

class app.models.role.**Role**(**args*, ***kwargs*)

Bases: *app.models.base.Base*, flask_security.core.RoleMixin

Attributes

Role.created_at	
Role.deleted_at	
Role.description	
Role.dirty_fields	
Role.id	
Role.label	
Role.name	
Role.roles	
Role.updated_at	
Role.userrolethrough_set	
Role.users	

app.models.role.Role.created_at

Role.**created_at** = <**TimestampField**: Role.created_at>

app.models.role.Role.deleted_at

Role.**deleted_at** = <**TimestampField**: Role.deleted_at>

app.models.role.Role.description

Role.**description** = <**TextField**: Role.description>

app.models.role.Role.dirty_fields

property Role.**dirty_fields**

app.models.role.Role.id

Role.**id** = <**AutoField**: Role.id>

app.models.role.Role.label

Role.**label** = <**CharField**: Role.label>

app.models.role.Role.name

Role.**name** = <**CharField**: Role.name>

app.models.role.Role.roles

Role.**roles**

app.models.role.Role.updated_at

Role.**updated_at** = <**TimestampField**: Role.updated_at>

app.models.role.Role.userrolethrough_set

Role.**userrolethrough_set**

app.models.role.Role.users

Role.**users = <ManyToManyField: Role.users>**

Methods

Role.__init__(*args, **kwargs)	
Role.add_index(*fields, **kwargs)	
Role.add_permissions(permissions)	Add one or more permissions to role.
Role.alias([alias])	
Role.bind(database[, bind_refs, ...])	
Role.bind_ctx(database[, bind_refs, ...])	
Role.bulk_create(model_list[, batch_size])	
Role.bulk_update(model_list, fields[, ...])	
Role.clone()	
Role.coerce([_coerce])	
Role.copy(method)	
Role.create(**query)	
Role.create_table([safe])	
Role.delete()	
Role.delete_by_id(pk)	
Role.delete_instance([recursive, ...])	
Role.dependencies([search_nullable])	
Role.drop_table([safe, drop_sequences])	
Role.filter(*dq_nodes, **filters)	
Role.get(*query, **filters)	

continues on next page

Table 92 – continued from previous page

Role.get_by_id(pk)	
Role.get_fields([exclude, include, sort_order])	
Role.get_id()	
Role.get_or_create(**kwargs)	
Role.get_or_none(*query, **filters)	
Role.get_permissions()	Return set of permissions associated with role.
Role.index(*fields, **kwargs)	
Role.insert([_Model__data])	
Role.insert_from(query, fields)	
Role.insert_many(rows[, fields])	
Role.is_alias()	
Role.is_dirty()	
Role.noop()	
Role.raw(query)	
Role.reload()	
Role.remove_permissions(permissions)	Remove one or more permissions from role.
Role.replace([_Model__data])	
Role.replace_many(rows[, fields])	
Role.save(*args, **kwargs)	
Role.select(*fields)	
Role.set_by_id(key, value)	
Role.table_exists()	
Role.truncate_table(**options)	
Role.unwrap()	
Role.update([_Model__data])	
Role.validate_model()	

app.models.role.Role.__init__

Role.__init__(*args, **kwargs)

app.models.role.Role.add_index

classmethod Role.add_index(*fields, **kwargs)

app.models.role.Role.add_permissions

Role.add_permissions(*permissions: Union[set, list, str]*) → None

Add one or more permissions to role.

Parameters **permissions** – a set, list, or single string.

New in version 3.3.0.

Deprecated since version 3.4.4: Use `UserDatastore.add_permissions_to_role()`

app.models.role.Role.alias

classmethod Role.alias(*alias=None*)

app.models.role.Role.bind

classmethod Role.bind(*database*, *bind_refs=True*, *bind_backrefs=True*, *_exclude=None*)

app.models.role.Role.bind_ctx

classmethod Role.bind_ctx(*database*, *bind_refs=True*, *bind_backrefs=True*)

app.models.role.Role.bulk_create

classmethod Role.bulk_create(*model_list*, *batch_size=None*)

app.models.role.Role.bulk_update

classmethod Role.bulk_update(*model_list*, *fields*, *batch_size=None*)

app.models.role.Role.clone

Role.**clone**()

app.models.role.Role.coerce

Role.**coerce**(*_coerce=True*)

app.models.role.Role.copy

static Role.**copy**(*method*)

app.models.role.Role.create

classmethod Role.**create**(***query*)

app.models.role.Role.create_table

classmethod Role.**create_table**(*safe=True*, ***options*)

app.models.role.Role.delete

classmethod Role.**delete**()

app.models.role.Role.delete_by_id

classmethod Role.**delete_by_id**(*pk*)

app.models.role.Role.delete_instance

Role.**delete_instance**(*recursive=False*, *delete_nullable=False*)

app.models.role.Role.dependencies

Role.**dependencies**(*search_nullable=False*)

app.models.role.Role.drop_table

classmethod Role.**drop_table**(*safe=True*, *drop_sequences=True*, ***options*)

app.models.role.Role.filter

classmethod Role.**filter**(**dq_nodes*, ***filters*)

app.models.role.Role.get

classmethod Role.**get**(**query*, ***filters*)

app.models.role.Role.get_by_id

classmethod Role.**get_by_id**(*pk*)

app.models.role.Role.get_fields

classmethod Role.**get_fields**(*exclude: Optional[list] = None*, *include: Optional[list] = None*, *sort_order: Optional[list] = None*) → set

app.models.role.Role.get_id

Role.**get_id**()

app.models.role.Role.get_or_create

classmethod Role.**get_or_create**(***kwargs*)

app.models.role.Role.get_or_none

classmethod Role.**get_or_none**(**query*, ***filters*)

app.models.role.Role.get_permissions

Role.**get_permissions**() → set

Return set of permissions associated with role.

Supports permissions being a comma separated string, an iterable, or a set based on how the underlying DB model was built.

New in version 3.3.0.

app.models.role.Role.index

classmethod Role.**index**(**fields*, ***kwargs*)

app.models.role.Role.insert

classmethod Role.**insert**(*_Model__data=None*, ***insert*)

app.models.role.Role.insert_from

classmethod Role.**insert_from**(*query*, *fields*)

app.models.role.Role.insert_many

classmethod Role.**insert_many**(*rows*, *fields=None*)

app.models.role.Role.is_alias

Role.**is_alias**()

app.models.role.Role.is_dirty

Role.**is_dirty**()

app.models.role.Role.noop

classmethod Role.**noop**()

app.models.role.Role.raw

static Role.**raw**(*query: str*)

app.models.role.Role.reload

Role.**reload**()

app.models.role.Role.remove_permissions

Role.**remove_permissions**(*permissions: Union[set, list, str]*) → None

Remove one or more permissions from role.

Parameters **permissions** – a set, list, or single string.

New in version 3.3.0.

Deprecated since version 3.4.4: Use `UserDatastore.remove_permissions_from_role()`

app.models.role.Role.replace

classmethod Role.**replace**(*_Model__data=None*, ***insert*)

app.models.role.Role.replace_many

classmethod Role.**replace_many**(*rows*, *fields=None*)

app.models.role.Role.save

abstract Role.**save**(**args: list*, ***kwargs: dict*) → int

app.models.role.Role.select

classmethod Role.**select**(**fields*)

app.models.role.Role.set_by_id

classmethod Role.**set_by_id**(*key*, *value*)

app.models.role.Role.table_exists

classmethod Role.**table_exists**()

app.models.role.Role.truncate_table

classmethod Role.**truncate_table**(***options*)

app.models.role.Role.unwrap

Role.**unwrap**()

app.models.role.Role.update

classmethod Role.**update**(*_Model__data=None*, ***update*)

app.models.role.Role.validate_model

classmethod Role.**validate_model**()

class app.models.role.**Role**(**args*, ***kwargs*)

DoesNotExist
alias of app.models.role.RoleDoesNotExist

_coerce = True

_meta = <peewee.Metadata object>

classmethod _normalize_data(*data*, *kwargs*)

property _pk

_pk_expr()

_populate_unsaved_relations(*field_dict*)

_prune_fields(*field_dict*, *only*)

_schema = <peewee.SchemaManager object>

classmethod add_index(**fields*, ***kwargs*)

add_permissions(*permissions: Union[set, list, str]*) → None
Add one or more permissions to role.

Parameters permissions – a set, list, or single string.

New in version 3.3.0.

Deprecated since version 3.4.4: Use UserDatastore.add_permissions_to_role()

classmethod alias(*alias=None*)

classmethod bind(*database*, *bind_refs=True*, *bind_backrefs=True*, *_exclude=None*)

classmethod bind_ctx(*database*, *bind_refs=True*, *bind_backrefs=True*)

classmethod bulk_create(*model_list*, *batch_size=None*)

classmethod bulk_update(*model_list*, *fields*, *batch_size=None*)

clone()

coerce(*_coerce=True*)

static copy(*method*)

classmethod create(***query*)

classmethod create_table(*safe=True*, ***options*)

created_at = <TimestampField: Role.created_at>

classmethod delete()

classmethod delete_by_id(*pk*)

delete_instance(*recursive=False*, *delete_nullable=False*)

deleted_at = <TimestampField: Role.deleted_at>

dependencies(*search_nullable=False*)

description = <TextField: Role.description>

property dirty_fields

classmethod drop_table(*safe=True*, *drop_sequences=True*, ***options*)

classmethod filter(**dq_nodes*, ***filters*)

classmethod get(**query*, ***filters*)

classmethod get_by_id(*pk*)

classmethod get_fields(*exclude: Optional[list] = None*, *include: Optional[list] = None*, *sort_order: Optional[list] = None*) → set

get_id()

classmethod get_or_create(***kwargs*)

classmethod get_or_none(**query*, ***filters*)

get_permissions() → set
Return set of permissions associated with role.

Supports permissions being a comma separated string, an iterable, or a set based on how the underlying DB model was built.

New in version 3.3.0.

id = <AutoField: Role.id>

classmethod index(**fields*, ***kwargs*)

classmethod insert(*_Model__data=None*, ***insert*)

classmethod insert_from(*query*, *fields*)

classmethod insert_many(*rows*, *fields=None*)

is_alias()

is_dirty()

label = <CharField: Role.label>

name = <CharField: Role.name>

classmethod noop()

static raw(*query: str*)

reload()

remove_permissions(*permissions: Union[set, list, str]*) → None
Remove one or more permissions from role.

Parameters **permissions** – a set, list, or single string.

New in version 3.3.0.

Deprecated since version 3.4.4: Use `UserDatastore.remove_permissions_from_role()`

classmethod replace(*_Model__data=None*, ***insert*)

classmethod replace_many(*rows*, *fields=None*)

roles

abstract save(**args: list*, ***kwargs: dict*) → int

classmethod select(**fields*)

classmethod set_by_id(*key*, *value*)

classmethod table_exists()

classmethod truncate_table(***options*)

unwrap()

classmethod update(*_Model__data=None*, ***update*)

updated_at = <TimestampField: Role.updated_at>

userrolethrough_set

users = <ManyToManyField: Role.users>

classmethod validate_model()

app.models.user

Description

Classes

User(*args, **kwargs)	User database model.

app.models.user.User

class app.models.user.**User**(**args*, ***kwargs*)

Bases: *app.models.base.Base*, flask_security.core.UserMixin

User database model.

References

fs_uniquier field is required by flask-security-too: https://flask-security-too.readthedocs.io/en/stable/changelog.html#version-4-0-0

Attributes

User.active	
User.birth_date	
User.children	
User.created_at	
User.created_by	
User.created_by_id	
User.deleted_at	
User.dirty_fields	
User.document_set	
User.email	
User.fs_uniquifier	
User.genre	
User.id	
User.is_active	Returns *True* if the user is active.
User.is_anonymous	
User.is_authenticated	
User.last_name	
User.name	
User.password	
User.roles	
User.updated_at	
User.userrolethrough_set	

app.models.user.User.active

User.**active** = <BooleanField: User.active>

app.models.user.User.birth_date

User.**birth_date** = <DateField: User.birth_date>

app.models.user.User.children

User.**children**

app.models.user.User.created_at

User.**created_at** = <TimestampField: User.created_at>

app.models.user.User.created_by

User.**created_by** = <ForeignKeyField: User.created_by>

app.models.user.User.created_by_id

User.**created_by_id** = <ForeignKeyField: User.created_by>

app.models.user.User.deleted_at

User.**deleted_at** = <TimestampField: User.deleted_at>

app.models.user.User.dirty_fields

property User.**dirty_fields**

app.models.user.User.document_set

User.**document_set**

app.models.user.User.email

User.email = <CharField: User.email>

app.models.user.User.fs_uniquifier

User.fs_uniquifier = <TextField: User.fs_uniquifier>

app.models.user.User.genre

User.genre = <FixedCharField: User.genre>

app.models.user.User.id

User.id = <AutoField: User.id>

app.models.user.User.is_active

property User.is_active: bool
Returns *True* if the user is active.

app.models.user.User.is_anonymous

property User.is_anonymous

app.models.user.User.is_authenticated

property User.is_authenticated

app.models.user.User.last_name

User.last_name = <CharField: User.last_name>

app.models.user.User.name

User.name = <CharField: User.name>

app.models.user.User.password

User.**password = <CharField: User.password>**

app.models.user.User.roles

User.**roles = <ManyToManyField: User.roles>**

app.models.user.User.updated_at

User.**updated_at = <TimestampField: User.updated_at>**

app.models.user.User.userrolethrough_set

User.**userrolethrough_set**

Methods

User.__init__(*args, **kwargs)	
User.add_index(*fields, **kwargs)	
User.alias([alias])	
User.bind(database[, bind_refs, ...])	
User.bind_ctx(database[, bind_refs, ...])	
User.bulk_create(model_list[, batch_size])	
User.bulk_update(model_list, fields[, ...])	
User.calc_username()	Come up with the best 'username' based on how the app is configured (via SECURITY_USER_IDENTITY_ATTRIBUTES).
User.clone()	
User.coerce([_coerce])	
User.copy(method)	
User.create(**query)	
User.create_table([safe])	
User.delete()	

continues on next page

Table 95 – continued from previous page

User.delete_by_id(pk)	
User.delete_instance([recursive, ...])	
User.dependencies([search_nullable])	
User.drop_table([safe, drop_sequences])	
User.ensure_password(plain_text)	
User.filter(*dq_nodes, **filters)	
User.get(*query, **filters)	
User.get_auth_token()	Constructs the user's authentication token.
User.get_by_id(pk)	
User.get_fields([exclude, include, sort_order])	
User.get_id()	Returns the user identification attribute.
User.get_or_create(**kwargs)	
User.get_or_none(*query, **filters)	
User.get_redirect_qparams([existing])	Return user info that will be added to redirect query params.
User.get_reset_token()	
User.get_security_payload()	Serialize user object as response payload.
User.has_permission(permission)	Returns *True* if user has this permission (via a role it has).
User.has_role(role)	Returns *True* if the user identifies with the specified role.
User.index(*fields, **kwargs)	
User.insert([_Model__data])	
User.insert_from(query, fields)	
User.insert_many(rows[, fields])	
User.is_alias()	
User.is_dirty()	
User.noop()	
User.raw(query)	
User.reload()	

continues on next page

Table 95 – continued from previous page

User.replace([_Model__data])	
User.replace_many(rows[, fields])	
User.save(*args, **kwargs)	
User.select(*fields)	
User.set_by_id(key, value)	
User.table_exists()	
User.tf_send_security_token(method, **kwargs)	Generate and send the security code for two-factor.
User.truncate_table(**options)	
User.unwrap()	
User.update([_Model__data])	
User.us_send_security_token(method, **kwargs)	Generate and send the security code for unified sign in.
User.validate_model()	
User.verify_and_update_password(password)	Returns `True` if the password is valid for the specified user.
User.verify_auth_token(data)	Perform additional verification of contents of auth token.
User.verify_reset_token(token)	

app.models.user.User.__init__

User.**__init__**(**args*, ***kwargs*)

app.models.user.User.add_index

classmethod User.**add_index**(**fields*, ***kwargs*)

app.models.user.User.alias

classmethod User.**alias**(*alias=None*)

app.models.user.User.bind

classmethod User.**bind**(*database*, *bind_refs=True*, *bind_backrefs=True*, *_exclude=None*)

app.models.user.User.bind_ctx

classmethod User.**bind_ctx**(*database*, *bind_refs=True*, *bind_backrefs=True*)

app.models.user.User.bulk_create

classmethod User.**bulk_create**(*model_list*, *batch_size=None*)

app.models.user.User.bulk_update

classmethod User.**bulk_update**(*model_list*, *fields*, *batch_size=None*)

app.models.user.User.calc_username

User.**calc_username**() → str

Come up with the best 'username' based on how the app is configured (via SECURITY_USER_IDENTITY_ATTRIBUTES). Returns the first non-null match (and converts to string). In theory this should NEVER be the empty string unless the user record isn't actually valid.

New in version 3.4.0.

app.models.user.User.clone

User.**clone**()

app.models.user.User.coerce

User.**coerce**(*_coerce=True*)

app.models.user.User.copy

static User.**copy**(*method*)

app.models.user.User.create

classmethod User.**create**(***query*)

app.models.user.User.create_table

classmethod User.**create_table**(*safe=True*, ***options*)

app.models.user.User.delete

classmethod User.**delete**()

app.models.user.User.delete_by_id

classmethod User.**delete_by_id**(*pk*)

app.models.user.User.delete_instance

User.**delete_instance**(*recursive=False*, *delete_nullable=False*)

app.models.user.User.dependencies

User.**dependencies**(*search_nullable=False*)

app.models.user.User.drop_table

classmethod User.**drop_table**(*safe=True*, *drop_sequences=True*, ***options*)

app.models.user.User.ensure_password

static User.**ensure_password**(*plain_text: str*) → str

app.models.user.User.filter

classmethod User.**filter**(**dq_nodes*, ***filters*)

app.models.user.User.get

classmethod User.**get**(**query*, ***filters*)

app.models.user.User.get_auth_token

User.**get_auth_token**() → Union[str, bytes]
Constructs the user's authentication token.
Raises **ValueError** – If `fs_token_uniquifier` is part of model but not set.
Optionally use a separate uniquifier so that changing password doesn't invalidate auth tokens.

This data MUST be securely signed using the `remember_token_serializer`

Changed in version 4.0.0: If user model has `fs_token_uniquifier` - use that (raise ValueError if not set). Otherwise fallback to using `fs_uniqifier`.

app.models.user.User.get_by_id

classmethod User.**get_by_id**(*pk*)

app.models.user.User.get_fields

classmethod User.**get_fields**(*exclude: Optional[list] = None*, *include: Optional[list] = None*, *sort_order: Optional[list] = None*) → set

app.models.user.User.get_id

User.**get_id**()
Returns the user identification attribute. 'Alternative-token' for Flask-Login. This is always `fs_uniquifier`.

New in version 3.4.0.

app.models.user.User.get_or_create

classmethod User.**get_or_create**(***kwargs*)

app.models.user.User.get_or_none

classmethod User.**get_or_none**(**query*, ***filters*)

app.models.user.User.get_redirect_qparams

User.**get_redirect_qparams**(*existing: Optional[Dict[str, Any]] = None*) → Dict[str, Any]

Return user info that will be added to redirect query params.

Parameters **existing** – A dict that will be updated.

Returns A dict whose keys will be query params and values will be query values.

The returned dict will always have an 'identity' key/value. If the User Model contains 'email', an 'email' key/value will added. All keys provided in 'existing' will also be merged in.

New in version 3.2.0.

Changed in version 4.0.0: Add 'identity' using UserMixin.calc_username() - email is optional.

app.models.user.User.get_reset_token

User.**get_reset_token**() → str

app.models.user.User.get_security_payload

User.**get_security_payload**() → Dict[str, Any]

Serialize user object as response payload. Override this to return any/all of the user object in JSON responses. Return a dict.

app.models.user.User.has_permission

User.**has_permission**(*permission: str*) → bool

Returns *True* if user has this permission (via a role it has).

Parameters **permission** – permission string name

New in version 3.3.0.

app.models.user.User.has_role

User.**has_role**(*role: Union[str, Role]*) → bool

Returns *True* if the user identifies with the specified role.

Parameters **role** – A role name or *Role* instance

app.models.user.User.index

classmethod User.**index**(**fields*, ***kwargs*)

app.models.user.User.insert

classmethod User.**insert**(*_Model__data=None*, ***insert*)

app.models.user.User.insert_from

classmethod User.**insert_from**(*query*, *fields*)

app.models.user.User.insert_many

classmethod User.**insert_many**(*rows*, *fields=None*)

app.models.user.User.is_alias

User.**is_alias**()

app.models.user.User.is_dirty

User.**is_dirty**()

app.models.user.User.noop

classmethod User.**noop**()

app.models.user.User.raw

static User.**raw**(*query: str*)

app.models.user.User.reload

User.**reload**()

app.models.user.User.replace

classmethod User.**replace**(*_Model__data=None*, ***insert*)

app.models.user.User.replace_many

classmethod User.**replace_many**(*rows*, *fields=None*)

app.models.user.User.save

User.**save**(**args: list*, ***kwargs: dict*) → int

app.models.user.User.select

classmethod User.**select**(**fields*)

app.models.user.User.set_by_id

classmethod User.**set_by_id**(*key*, *value*)

app.models.user.User.table_exists

classmethod User.**table_exists**()

app.models.user.User.tf_send_security_token

User.**tf_send_security_token**(*method: str*, ***kwargs: Any*) → Optional[str]

Generate and send the security code for two-factor.

Parameters

- **method** – The method in which the code will be sent
- **kwargs** – Opaque parameters that are subject to change at any time

Returns None if successful, error message if not.

This is a wrapper around *tf_send_security_token()* that can be overridden to manage any errors.

New in version 3.4.0.

app.models.user.User.truncate_table

classmethod User.**truncate_table**(***options*)

app.models.user.User.unwrap

User.**unwrap**()

app.models.user.User.update

classmethod User.**update**(*_Model__data=None*, ***update*)

app.models.user.User.us_send_security_token

User.**us_send_security_token**(*method: str*, ***kwargs: Any*) → Optional[str]

Generate and send the security code for unified sign in.

Parameters

- **method** – The method in which the code will be sent
- **kwargs** – Opaque parameters that are subject to change at any time

Returns None if successful, error message if not.

This is a wrapper around *us_send_security_token()* that can be overridden to manage any errors.

New in version 3.4.0.

app.models.user.User.validate_model

classmethod User.**validate_model**()

app.models.user.User.verify_and_update_password

User.**verify_and_update_password**(*password: str*) → bool

Returns `True` if the password is valid for the specified user.

Additionally, the hashed password in the database is updated if the hashing algorithm happens to have changed.

N.B. you MUST call DB commit if you are using a session-based datastore (such as SqlAlchemy) since the user instance might have been altered (i.e. `app.security.datastore.commit()`). This is usually handled in the view.

Parameters **password** – A plaintext password to verify

New in version 3.2.0.

app.models.user.User.verify_auth_token

User.**verify_auth_token**(*data: Union[str, bytes]*) → bool

Perform additional verification of contents of auth token. Prior to this being called the token has been validated (via signing) and has not expired.

Parameters **data** – the data as formulated by *get_auth_token()*

New in version 3.3.0.

Changed in version 4.0.0: If user model has `fs_token_uniquifier` - use that otherwise use `fs_uniquifier`.

app.models.user.User.verify_reset_token

static User.verify_reset_token(*token: str*) → any

class app.models.user.User(**args*, ***kwargs*)
User database model.

References

fs_uniquier field is required by flask-security-too: https://flask-security-too.readthedocs.io/en/stable/changelog.html#version-4-0-0

DoesNotExist
alias of app.models.user.UserDoesNotExist

_coerce = True

_meta = <peewee.Metadata object>

classmethod _normalize_data(*data*, *kwargs*)

property _pk

_pk_expr()

_populate_unsaved_relations(*field_dict*)

_prune_fields(*field_dict*, *only*)

_schema = <peewee.SchemaManager object>

active = <BooleanField: User.active>

classmethod add_index(**fields*, ***kwargs*)

classmethod alias(*alias=None*)

classmethod bind(*database*, *bind_refs=True*, *bind_backrefs=True*, *_exclude=None*)

classmethod bind_ctx(*database*, *bind_refs=True*, *bind_backrefs=True*)

birth_date = <DateField: User.birth_date>

classmethod bulk_create(*model_list*, *batch_size=None*)

classmethod bulk_update(*model_list*, *fields*, *batch_size=None*)

calc_username() → str
Come up with the best 'username' based on how the app is configured (via SECURITY_USER_IDENTITY_ATTRIBUTES). Returns the first non-null match (and converts to string). In theory this should NEVER be the empty string unless the user record isn't actually valid.

New in version 3.4.0.

children

clone()

coerce(*_coerce=True*)

static copy(*method*)

classmethod create(***query*)

classmethod create_table(*safe=True*, ***options*)

created_at = <TimestampField: User.created_at>

created_by = <ForeignKeyField: User.created_by>

created_by_id = <ForeignKeyField: User.created_by>

classmethod delete()

classmethod delete_by_id(*pk*)

delete_instance(*recursive=False*, *delete_nullable=False*)

deleted_at = <TimestampField: User.deleted_at>

dependencies(*search_nullable=False*)

property dirty_fields

document_set

classmethod drop_table(*safe=True*, *drop_sequences=True*, ***options*)

email = <CharField: User.email>

static ensure_password(*plain_text: str*) → str

classmethod filter(**dq_nodes*, ***filters*)

fs_uniquifier = <TextField: User.fs_uniquifier>

genre = <FixedCharField: User.genre>

classmethod get(**query*, ***filters*)

get_auth_token() → Union[str, bytes]
Constructs the user's authentication token.

Raises **ValueError** – If `fs_token_uniquifier` is part of model but not set.

Optionally use a separate uniquifier so that changing password doesn't invalidate auth tokens.

This data MUST be securely signed using the `remember_token_serializer`

Changed in version 4.0.0: If user model has `fs_token_uniquifier` - use that (raise ValueError if not set). Otherwise fallback to using `fs_uniqifier`.

classmethod get_by_id(*pk*)

classmethod get_fields(*exclude: Optional[list] = None*, *include: Optional[list] = None*, *sort_order: Optional[list] = None*) → set

get_id()
Returns the user identification attribute. 'Alternative-token' for Flask-Login. This is always `fs_uniquifier`.

New in version 3.4.0.

classmethod get_or_create(***kwargs*)

classmethod get_or_none(**query*, ***filters*)

get_redirect_qparams(*existing: Optional[Dict[str, Any]] = None*) → Dict[str, Any]
Return user info that will be added to redirect query params.

Parameters **existing** – A dict that will be updated.

Returns A dict whose keys will be query params and values will be query values.

The returned dict will always have an 'identity' key/value. If the User Model contains 'email', an 'email' key/value will added. All keys provided in 'existing' will also be merged in.

New in version 3.2.0.

Changed in version 4.0.0: Add 'identity' using UserMixin.calc_username() - email is optional.

get_reset_token() → str

get_security_payload() → Dict[str, Any]
Serialize user object as response payload. Override this to return any/all of the user object in JSON responses. Return a dict.

has_permission(*permission: str*) → bool
Returns *True* if user has this permission (via a role it has).

Parameters **permission** – permission string name

New in version 3.3.0.

has_role(*role: Union[str, Role]*) → bool
Returns *True* if the user identifies with the specified role.

Parameters **role** – A role name or *Role* instance

id = <AutoField: User.id>

classmethod index(**fields*, ***kwargs*)

classmethod insert(*_Model__data=None*, ***insert*)

classmethod insert_from(*query*, *fields*)

classmethod insert_many(*rows*, *fields=None*)

property is_active: bool
Returns *True* if the user is active.

is_alias()

property is_anonymous

property is_authenticated

is_dirty()

last_name = <CharField: User.last_name>

name = <CharField: User.name>

classmethod noop()

password = <CharField: User.password>

static raw(*query: str*)

reload()

classmethod replace(*_Model__data=None*, ***insert*)

classmethod replace_many(*rows*, *fields=None*)

roles = <ManyToManyField: User.roles>

save(**args: list*, ***kwargs: dict*) → int

classmethod select(**fields*)

classmethod set_by_id(*key*, *value*)

classmethod table_exists()

tf_send_security_token(*method: str*, ***kwargs: Any*) → Optional[str]
Generate and send the security code for two-factor.

Parameters

- **method** – The method in which the code will be sent
- **kwargs** – Opaque parameters that are subject to change at any time

Returns None if successful, error message if not.

This is a wrapper around *tf_send_security_token()* that can be overridden to manage any errors.

New in version 3.4.0.

classmethod truncate_table(***options*)

unwrap()

classmethod update(*_Model__data=None*, ***update*)

updated_at = <TimestampField: User.updated_at>

us_send_security_token(*method: str*, ***kwargs: Any*) → Optional[str]
Generate and send the security code for unified sign in.

Parameters

- **method** – The method in which the code will be sent
- **kwargs** – Opaque parameters that are subject to change at any time

Returns None if successful, error message if not.

This is a wrapper around *us_send_security_token()* that can be overridden to manage any errors.

New in version 3.4.0.

userrolethrough_set

classmethod validate_model()

verify_and_update_password(*password: str*) → bool
Returns `True` if the password is valid for the specified user.

Additionally, the hashed password in the database is updated if the hashing algorithm happens to have changed.

N.B. you MUST call DB commit if you are using a session-based datastore (such as SqlAlchemy) since the user instance might have been altered (i.e. `app.security.datastore.commit()`). This is usually handled in the view.

Parameters **password** – A plaintext password to verify

New in version 3.2.0.

verify_auth_token(*data: Union[str, bytes]*) → bool
Perform additional verification of contents of auth token. Prior to this being called the token has been validated (via signing) and has not expired.

Parameters **data** – the data as formulated by *get_auth_token()*

New in version 3.3.0.

Changed in version 4.0.0: If user model has `fs_token_uniquifier` - use that otherwise use `fs_uniquifier`.

static verify_reset_token(*token: str*) → any

app.models.user_roles

Description

Functions

get_db_models()

app.models.get_db_models

app.models.**get_db_models**() → list

app.models.**get_db_models**() → list

2.1.8 app.serializers

Description

Modules for managing data from requests and responses.

Serializers are modules based on Marshmallow.

Marshmallow is an ORM/ODM/framework-agnostic library for converting complex datatypes, such as objects, to and from native Python datatypes.

In short, marshmallow schemas can be used to:

- Validate input data.
- Deserialize input data to app-level objects.
- Serialize app-level objects to primitive Python types. The serialized objects can then be rendered to standard formats such as JSON for use in an HTTP API.

References

Pre-/Post-processor Invocation Order: https://marshmallow.readthedocs.io/en/stable/extending.html?highlight=step1#pre-post-processor-invocation-order

Modules

app.serializers.auth

app.serializers.core

app.serializers.document

continues on next page

Table 97 – continued from previous page

app.serializers.role
app.serializers.user

app.serializers.auth

Description

Classes

AuthUserConfirmResetPasswordSerializer(*[, ...])	
AuthUserLoginSerializer(*[, only, exclude, ...])	

app.serializers.auth.AuthUserConfirmResetPasswordSerializer

class app.serializers.auth.**AuthUserConfirmResetPasswordSerializer**(*, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

Bases: flask_marshmallow.schema.Schema

Attributes

AuthUserConfirmResetPasswordSerializer.TYPE_MAPPING	
AuthUserConfirmResetPasswordSerializer.dict_class	
AuthUserConfirmResetPasswordSerializer.error_messages	Overrides for default schema-level error messages
AuthUserConfirmResetPasswordSerializer.opts	
AuthUserConfirmResetPasswordSerializer.set_class	

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.TYPE_MAPPING

AuthUserConfirmResetPasswordSerializer.**TYPE_MAPPING** = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.dict_class

property AuthUserConfirmResetPasswordSerializer.**dict_class**: type

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.error_messages

AuthUserConfirmResetPasswordSerializer.**error_messages** = {}

Overrides for default schema-level error messages

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.opts

AuthUserConfirmResetPasswordSerializer.**opts** = <marshmallow.schema.SchemaOpts object>

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.set_class

property AuthUserConfirmResetPasswordSerializer.**set_class**: type

Methods

AuthUserConfirmResetPasswordSerializer.__init__(*)	
AuthUserConfirmResetPasswordSerializer.dump(obj, *)	Serialize an object to native Python data types according to this Schema's fields.
AuthUserConfirmResetPasswordSerializer.dumps(...)	Same as *dump()*, except return a JSON-encoded string.
AuthUserConfirmResetPasswordSerializer.from_dict(...)	Generate a *Schema* class given a dictionary of fields.
AuthUserConfirmResetPasswordSerializer.get_attribute(...)	Defines how to pull values from an object to serialize.

continues on next page

Table 100 – continued from previous page

AuthUserConfirmResetPasswordSerializer.handle_error(...)	Custom error handler function for the schema.
AuthUserConfirmResetPasswordSerializer.jsonify(obj)	Return a JSON response containing the serialized data.
AuthUserConfirmResetPasswordSerializer.load(data, *)	Deserialize a data structure to an object defined by this Schema's fields.
AuthUserConfirmResetPasswordSerializer.loads(...)	Same as *load()*, except it takes a JSON string as input.
AuthUserConfirmResetPasswordSerializer.make_object(...)	
AuthUserConfirmResetPasswordSerializer.on_bind_field(...)	Hook to modify a field when it is bound to the *Schema*.
AuthUserConfirmResetPasswordSerializer.validate(data, *)	Validate *data* against the schema, returning a dictionary of validation errors.
AuthUserConfirmResetPasswordSerializer.validate_token(token)	

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.__init__

AuthUserConfirmResetPasswordSerializer.**__init__**(*, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.dump

AuthUserConfirmResetPasswordSerializer.**dump**(*obj: Any*, *, *many: Optional[bool] = None*)

Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.dumps

AuthUserConfirmResetPasswordSerializer.**dumps**(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)

Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.from_dict

classmethod AuthUserConfirmResetPasswordSerializer.**from_dict**(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, ***, *name: str = 'GeneratedSchema'*) → type

Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.get_attribute

AuthUserConfirmResetPasswordSerializer.**get_attribute**(*obj: Any*, *attr: str*, *default: Any*)

Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.handle_error

AuthUserConfirmResetPasswordSerializer.**handle_error**(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)

Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.
- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.jsonify

AuthUserConfirmResetPasswordSerializer.**jsonify**(*obj*, *many=<object object>*, **args*, ***kwargs*)

Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.load

AuthUserConfirmResetPasswordSerializer.**load**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)

Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.loads

AuthUserConfirmResetPasswordSerializer.**loads**(*json_data: str*, *, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)

Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.make_object

AuthUserConfirmResetPasswordSerializer.**make_object**(*data*, ***kwargs*)

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.on_bind_field

AuthUserConfirmResetPasswordSerializer.**on_bind_field**(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None

Hook to modify a field when it is bound to the *Schema*.

No-op by default.

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.validate

AuthUserConfirmResetPasswordSerializer.**validate**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]

Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

app.serializers.auth.AuthUserConfirmResetPasswordSerializer.validate_token

AuthUserConfirmResetPasswordSerializer.**validate_token**(*token*)

app.serializers.auth.AuthUserLoginSerializer

class app.serializers.auth.**AuthUserLoginSerializer**(***, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

Bases: `flask_marshmallow.schema.Schema`

Attributes

AuthUserLoginSerializer.TYPE_MAPPING	
AuthUserLoginSerializer.dict_class	
AuthUserLoginSerializer.error_messages	Overrides for default schema-level error messages
AuthUserLoginSerializer.opts	
AuthUserLoginSerializer.set_class	

app.serializers.auth.AuthUserLoginSerializer.TYPE_MAPPING

AuthUserLoginSerializer.**TYPE_MAPPING** = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}

app.serializers.auth.AuthUserLoginSerializer.dict_class

property AuthUserLoginSerializer.**dict_class**: type

app.serializers.auth.AuthUserLoginSerializer.error_messages

AuthUserLoginSerializer.**error_messages** = {}

Overrides for default schema-level error messages

app.serializers.auth.AuthUserLoginSerializer.opts

AuthUserLoginSerializer.**opts** = <marshmallow.schema.SchemaOpts object>

app.serializers.auth.AuthUserLoginSerializer.set_class

property AuthUserLoginSerializer.**set_class**: type

Methods

AuthUserLoginSerializer.__init__(*[, only, ...])	
AuthUserLoginSerializer.dump(obj, *[, many])	Serialize an object to native Python data types according to this Schema's fields.
AuthUserLoginSerializer.dumps(obj, *args[, many])	Same as *dump()*, except return a JSON-encoded string.
AuthUserLoginSerializer.from_dict(fields, *)	Generate a *Schema* class given a dictionary of fields.
AuthUserLoginSerializer.get_attribute(obj, ...)	Defines how to pull values from an object to serialize.

continues on next page

Table 102 – continued from previous page

AuthUserLoginSerializer.handle_error(error, ...)	Custom error handler function for the schema.
AuthUserLoginSerializer.jsonify(obj[, many])	Return a JSON response containing the serialized data.
AuthUserLoginSerializer.load(data, *[, ...])	Deserialize a data structure to an object defined by this Schema's fields.
AuthUserLoginSerializer.loads(json_data, *)	Same as *load()*, except it takes a JSON string as input.
AuthUserLoginSerializer.make_object(data, ...)	
AuthUserLoginSerializer.on_bind_field(...)	Hook to modify a field when it is bound to the *Schema*.
AuthUserLoginSerializer.validate(data, *[, ...])	Validate *data* against the schema, returning a dictionary of validation errors.
AuthUserLoginSerializer.validate_email(email)	
AuthUserLoginSerializer.validate_password(...)	

app.serializers.auth.AuthUserLoginSerializer.__init__

AuthUserLoginSerializer.**__init__**(*, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

app.serializers.auth.AuthUserLoginSerializer.dump

AuthUserLoginSerializer.**dump**(*obj: Any*, *, *many: Optional[bool] = None*)

Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

app.serializers.auth.AuthUserLoginSerializer.dumps

AuthUserLoginSerializer.**dumps**(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)

Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

app.serializers.auth.AuthUserLoginSerializer.from_dict

classmethod AuthUserLoginSerializer.**from_dict**(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, ***, *name: str = 'GeneratedSchema'*) → type

Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

app.serializers.auth.AuthUserLoginSerializer.get_attribute

AuthUserLoginSerializer.**get_attribute**(*obj: Any*, *attr: str*, *default: Any*)

Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

app.serializers.auth.AuthUserLoginSerializer.handle_error

AuthUserLoginSerializer.**handle_error**(*error: marshmallow.exceptions.ValidationError*, *data: Any*, *, *many: bool*, ***kwargs*)

Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.
- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

app.serializers.auth.AuthUserLoginSerializer.jsonify

AuthUserLoginSerializer.**jsonify**(*obj*, *many=<object object>*, **args*, ***kwargs*)

Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

app.serializers.auth.AuthUserLoginSerializer.load

AuthUserLoginSerializer.**load**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, *, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)

Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.auth.AuthUserLoginSerializer.loads

`AuthUserLoginSerializer.`**`loads`**(*json_data: str*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)

Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.auth.AuthUserLoginSerializer.make_object

`AuthUserLoginSerializer.`**`make_object`**(*data*, ***kwargs*)

app.serializers.auth.AuthUserLoginSerializer.on_bind_field

`AuthUserLoginSerializer.`**`on_bind_field`**(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None

Hook to modify a field when it is bound to the *Schema*.

No-op by default.

app.serializers.auth.AuthUserLoginSerializer.validate

`AuthUserLoginSerializer.`**`validate`**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]

Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.

- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

app.serializers.auth.AuthUserLoginSerializer.validate_email

AuthUserLoginSerializer.**validate_email**(*email*)

app.serializers.auth.AuthUserLoginSerializer.validate_password

AuthUserLoginSerializer.**validate_password**(*password*)

class app.serializers.auth.**AuthUserConfirmResetPasswordSerializer**(*, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

class Meta

Options object for a Schema.

Example usage:

```
class Meta:
    fields = ("id", "email", "date_created")
    exclude = ("password", "secret_attribute")
```

Available options:

- `fields`: Tuple or list of fields to include in the serialized result.
- **additional: Tuple or list of fields to include *in addition* to the** explicitly declared fields. `additional` and `fields` are mutually-exclusive options.
- **include: Dictionary of additional fields to include in the schema. It is** usually better to define fields as class variables, but you may need to use this option, e.g., if your fields are Python keywords. May be an *OrderedDict*.
- **exclude: Tuple or list of fields to exclude in the serialized result.** Nested fields can be represented with dot delimiters.
- `dateformat`: Default format for *Date* <*fields.Date*> fields.
- `datetimeformat`: Default format for *DateTime* <*fields.DateTime*> fields.

- `timeformat`: Default format for *Time* <*fields.Time*> fields.
- **`render_module`: Module to use for *loads* <*Schema.loads*> and *dumps* <*Schema.dumps*>.** Defaults to *json* from the standard library.
- **`ordered`: If *True*, order serialization output according to the** order in which fields were declared. Output of *Schema.dump* will be a *collections.OrderedDict*.
- **`index_errors`: If *True*, errors dictionaries will include the index** of invalid items in a collection.
- `load_only`: Tuple or list of fields to exclude from serialized results.
- `dump_only`: Tuple or list of fields to exclude from deserialization
- **`unknown`: Whether to exclude, include, or raise an error for unknown** fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **`register`: Whether to register the *Schema* with marshmallow's internal** class registry. Must be *True* if you intend to refer to this *Schema* by class name in *Nested* fields. Only set this to *False* when memory usage is critical. Defaults to *True*.

`OPTIONS_CLASS`
alias of `marshmallow.schema.SchemaOpts`

`TYPE_MAPPING = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}`

`_bind_field`(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Bind field to the schema, setting any necessary attributes on the field (e.g. parent and name).

Also set field load_only and dump_only values if field_name was specified in `class Meta`.

`static _call_and_store`(*getter_func*, *data*, ***, *field_name*, *error_store*, *index=None*)
Call `getter_func` with `data` as its argument, and store any *ValidationErrors*.

Parameters

- **`getter_func`** (*callable*) – Function for getting the serialized/deserialized value from `data`.
- **`data`** – The data passed to `getter_func`.
- **`field_name`** (*str*) – Field name.
- **`index`** (*int*) – Index of the item being validated, if validating a collection, otherwise *None*.

_declared_fields = {'password': <fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=<Length(min=8, max=50, equal=None, error=None)>, required=True, load_only=True, dump_only=False, load_default=<marshmallow.missing>, allow_none=False, error_messages={'required': 'Missing data for required field.', 'null': 'Field may not be null.', 'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.', 'invalid_utf8': 'Not a valid utf-8 string.'})>, 'token': <fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=None, required=True, load_only=False, dump_only=False, load_default=<marshmallow.missing>, allow_none=False, error_messages={'required': 'Missing data for required field.', 'null': 'Field may not be null.', 'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.', 'invalid_utf8': 'Not a valid utf-8 string.'})>}

_default_error_messages = {'type': 'Invalid input type.', 'unknown': 'Unknown field.'}

_deserialize(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *error_store: marshmallow.error_store.ErrorStore*, *many: bool = False*, *partial=False*, *unknown='raise'*, *index=None*) → Union[marshmallow.schema._T, List[marshmallow.schema._T]]

Deserialize `data`.

Parameters

- **data** (*dict*) – The data to deserialize.
- **error_store** (*ErrorStore*) – Structure to store errors.
- **many** (*bool*) – *True* if `data` should be deserialized as a collection.
- **partial** (*bool | tuple*) – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **index** (*int*) – Index of the item being serialized (for storing errors) if serializing a collection, otherwise *None*.

Returns A dictionary of the deserialized data.

_do_load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, *postprocess: bool = True*)

Deserialize *data*, returning the deserialized result. This method is private API.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to validate required fields. If its value is an iterable, only fields listed in that iterable will be ignored will be allowed missing. If *True*, all fields will be allowed missing. If *None*, the value for *self.partial* is used.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.
- **postprocess** – Whether to run post_load methods..

Returns Deserialized data

_has_processors(*tag*) → bool

_hooks = defaultdict(<class 'list'>, {('post_load', False): ['make_object'], 'validates': ['validate_token']})

_init_fields() → None
Update self.fields, self.load_fields, and self.dump_fields based on schema options. This method is private API.

_invoke_dump_processors(*tag: str*, *data*, ***, *many: bool*, *original_data=None*)

_invoke_field_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *data*, *many: bool*)

_invoke_load_processors(*tag: str*, *data*, ***, *many: bool*, *original_data*, *partial: Union[bool, Sequence[str], Set[str]]*)

_invoke_processors(*tag: str*, ***, *pass_many: bool*, *data*, *many: bool*, *original_data=None*, ***kwargs*)

_invoke_schema_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *pass_many: bool*, *data*, *original_data*, *many: bool*, *partial: Union[bool, Sequence[str], Set[str]]*, *field_errors: bool = False*)

_normalize_nested_options() → None
Apply then flatten nested schema options. This method is private API.

_run_validator(*validator_func*, *output*, ***, *original_data*, *error_store*, *many*, *partial*, *pass_original*, *index=None*)

_serialize(*obj: Union[marshmallow.schema._T, Iterable[marshmallow.schema._T]]*, ***, *many: bool = False*)
Serialize `obj`.

Parameters

- **obj** – The object(s) to serialize.
- **many** (*bool*) – *True* if `data` should be serialized as a collection.

Returns A dictionary of the serialized data

Changed in version 1.0.0: Renamed from `marshal`.

property dict_class: type

dump(*obj: Any*, ***, *many: Optional[bool] = None*)
Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

dumps(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)
Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.

- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

error_messages = {}
Overrides for default schema-level error messages

fields
Dictionary mapping field_names -> `Field` objects

classmethod from_dict(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, ***, *name: str = 'GeneratedSchema'*) → type
Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

get_attribute(*obj: Any*, *attr: str*, *default: Any*)
Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

handle_error(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)
Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.
- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

jsonify(*obj*, *many=<object object>*, **args*, ***kwargs*)
Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.

- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)
Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

loads(*json_data: str*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)
Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

make_object(*data*, ***kwargs*)

on_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Hook to modify a field when it is bound to the *Schema*.

No-op by default.

opts = <marshmallow.schema.SchemaOpts object>

property set_class: type

validate(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]

Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

validate_token(*token*)

class app.serializers.auth.**AuthUserLoginSerializer**(***, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

class Meta

Options object for a Schema.

Example usage:

```
class Meta:
    fields = ("id", "email", "date_created")
    exclude = ("password", "secret_attribute")
```

Available options:

- `fields`: Tuple or list of fields to include in the serialized result.
- **additional: Tuple or list of fields to include *in addition* to the** explicitly declared fields. `additional` and `fields` are mutually-exclusive options.
- **include: Dictionary of additional fields to include in the schema. It is** usually better to define fields as class variables, but you may need to use this option, e.g., if your fields are Python keywords. May be an *OrderedDict*.
- **exclude: Tuple or list of fields to exclude in the serialized result.** Nested fields can be represented with dot delimiters.
- `dateformat`: Default format for *Date* <*fields.Date*> fields.
- `datetimeformat`: Default format for *DateTime* <*fields.DateTime*> fields.
- `timeformat`: Default format for *Time* <*fields.Time*> fields.

- **render_module: Module to use for *loads* <*Schema.loads*> and *dumps* <*Schema.dumps*>.** Defaults to *json* from the standard library.
- **ordered: If *True*, order serialization output according to the** order in which fields were declared. Output of *Schema.dump* will be a *collections.OrderedDict*.
- **index_errors: If *True*, errors dictionaries will include the index** of invalid items in a collection.
- load_only: Tuple or list of fields to exclude from serialized results.
- dump_only: Tuple or list of fields to exclude from deserialization
- **unknown: Whether to exclude, include, or raise an error for unknown** fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **register: Whether to register the *Schema* with marshmallow's internal** class registry. Must be *True* if you intend to refer to this *Schema* by class name in *Nested* fields. Only set this to *False* when memory usage is critical. Defaults to *True*.

OPTIONS_CLASS
alias of marshmallow.schema.SchemaOpts

TYPE_MAPPING = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}

__user = None

_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Bind field to the schema, setting any necessary attributes on the field (e.g. parent and name).

Also set field load_only and dump_only values if field_name was specified in class Meta.

static _call_and_store(*getter_func*, *data*, ***, *field_name*, *error_store*, *index=None*)
Call getter_func with data as its argument, and store any *ValidationErrors*.

Parameters

- **getter_func** (*callable*) – Function for getting the serialized/deserialized value from data.
- **data** – The data passed to getter_func.
- **field_name** (*str*) – Field name.
- **index** (*int*) – Index of the item being validated, if validating a collection, otherwise *None*.

_declared_fields = {'email': <fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=None, required=True, load_only=True, dump_only=False, load_default=<marshmallow.missing>, allow_none=False, error_messages={'required': 'Missing data for required field.', 'null': 'Field may not be null.', 'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.', 'invalid_utf8': 'Not a valid utf-8 string.'})>, 'password': <fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=<Length(min=8, max=50, equal=None, error=None)>, required=True, load_only=True, dump_only=False, load_default=<marshmallow.missing>, allow_none=False, error_messages={'required': 'Missing data for required field.', 'null': 'Field may not be null.', 'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.', 'invalid_utf8': 'Not a valid utf-8 string.'})>}

_default_error_messages = {'type': 'Invalid input type.', 'unknown': 'Unknown field.'}

_deserialize(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *error_store: marshmallow.error_store.ErrorStore*, *many: bool = False*, *partial=False*, *unknown='raise'*, *index=None*) → Union[marshmallow.schema._T, List[marshmallow.schema._T]]

Deserialize `data`.

Parameters

- **data** (*dict*) – The data to deserialize.
- **error_store** (*ErrorStore*) – Structure to store errors.
- **many** (*bool*) – *True* if `data` should be deserialized as a collection.
- **partial** (*bool | tuple*) – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **index** (*int*) – Index of the item being serialized (for storing errors) if serializing a collection, otherwise *None*.

Returns A dictionary of the deserialized data.

_do_load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, *postprocess: bool = True*)

Deserialize *data*, returning the deserialized result. This method is private API.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to validate required fields. If its value is an iterable, only fields listed in that iterable will be ignored will be allowed missing. If *True*, all fields will be allowed missing. If *None*, the value for *self.partial* is used.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.
- **postprocess** – Whether to run post_load methods..

Returns Deserialized data

_has_processors(*tag*) → bool

_hooks = defaultdict(<class 'list'>, {('post_load', False): ['make_object'], 'validates': ['validate_email', 'validate_password']})

_init_fields() → None
Update self.fields, self.load_fields, and self.dump_fields based on schema options. This method is private API.

_invoke_dump_processors(*tag: str*, *data*, ***, *many: bool*, *original_data=None*)

_invoke_field_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *data*, *many: bool*)

_invoke_load_processors(*tag: str*, *data*, ***, *many: bool*, *original_data*, *partial: Union[bool, Sequence[str], Set[str]]*)

_invoke_processors(*tag: str*, ***, *pass_many: bool*, *data*, *many: bool*, *original_data=None*, ***kwargs*)

_invoke_schema_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *pass_many: bool*, *data*, *original_data*, *many: bool*, *partial: Union[bool, Sequence[str], Set[str]]*, *field_errors: bool = False*)

_normalize_nested_options() → None
Apply then flatten nested schema options. This method is private API.

_run_validator(*validator_func*, *output*, ***, *original_data*, *error_store*, *many*, *partial*, *pass_original*, *index=None*)

_serialize(*obj: Union[marshmallow.schema._T, Iterable[marshmallow.schema._T]]*, ***, *many: bool = False*)
Serialize `obj`.

Parameters

- **obj** – The object(s) to serialize.
- **many** (*bool*) – *True* if `data` should be serialized as a collection.

Returns A dictionary of the serialized data

Changed in version 1.0.0: Renamed from `marshal`.

property dict_class: type

dump(*obj: Any*, ***, *many: Optional[bool] = None*)
Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

dumps(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)
Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

error_messages = {}
Overrides for default schema-level error messages

fields
Dictionary mapping field_names -> `Field` objects

classmethod from_dict(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, ***, *name: str = 'GeneratedSchema'*) → type
Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

get_attribute(*obj: Any*, *attr: str*, *default: Any*)
Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

handle_error(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)
Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.
- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

jsonify(*obj*, *many=<object object>*, **args*, ***kwargs*)
Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.

- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)
Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

loads(*json_data: str*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)
Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

make_object(*data*, ***kwargs*)

on_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Hook to modify a field when it is bound to the *Schema*.

No-op by default.

opts = <marshmallow.schema.SchemaOpts object>

property set_class: type

validate(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]

Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

validate_email(*email*)

validate_password(*password*)

app.serializers.core

Description

Classes

SearchSerializer(*[, only, exclude, many, ...])	
TimestampField(*, load_default, missing, ...)	Field that serializes to timestamp integer and deserializes to a datetime.datetime class.

app.serializers.core.SearchSerializer

class app.serializers.core.**SearchSerializer**(***, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

Bases: `flask_marshmallow.schema.Schema`

Attributes

SearchSerializer.TYPE_MAPPING	
SearchSerializer.dict_class	
SearchSerializer.error_messages	Overrides for default schema-level error messages
SearchSerializer.opts	
SearchSerializer.set_class	

app.serializers.core.SearchSerializer.TYPE_MAPPING

SearchSerializer.**TYPE_MAPPING** = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}

app.serializers.core.SearchSerializer.dict_class

property SearchSerializer.**dict_class**: type

app.serializers.core.SearchSerializer.error_messages

SearchSerializer.**error_messages** = {}

Overrides for default schema-level error messages

app.serializers.core.SearchSerializer.opts

SearchSerializer.**opts** = <marshmallow.schema.SchemaOpts object>

app.serializers.core.SearchSerializer.set_class

property SearchSerializer.**set_class: type**

Methods

SearchSerializer.__init__(*[, only, ...])	

SearchSerializer.dump(obj, *[, many])	Serialize an object to native Python data types according to this Schema's fields.
SearchSerializer.dumps(obj, *args[, many])	Same as *dump()*, except return a JSON-encoded string.
SearchSerializer.from_dict(fields, *[, name])	Generate a *Schema* class given a dictionary of fields.
SearchSerializer.get_attribute(obj, attr, ...)	Defines how to pull values from an object to serialize.
SearchSerializer.handle_error(error, data, ...)	Custom error handler function for the schema.
SearchSerializer.jsonify(obj[, many])	Return a JSON response containing the serialized data.
SearchSerializer.load(data, *[, many, ...])	Deserialize a data structure to an object defined by this Schema's fields.
SearchSerializer.loads(json_data, *[, many, ...])	Same as *load()*, except it takes a JSON string as input.
SearchSerializer.on_bind_field(field_name, ...)	Hook to modify a field when it is bound to the *Schema*.
SearchSerializer.validate(data, *[, many, ...])	Validate *data* against the schema, returning a dictionary of validation errors.

app.serializers.core.SearchSerializer.__init__

SearchSerializer.**__init__**(*, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

app.serializers.core.SearchSerializer.dump

SearchSerializer.**dump**(*obj: Any*, *, *many: Optional[bool] = None*)

Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

app.serializers.core.SearchSerializer.dumps

`SearchSerializer.`**`dumps`**(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)

Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

app.serializers.core.SearchSerializer.from_dict

`classmethod` `SearchSerializer.`**`from_dict`**(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, ***, *name: str = 'GeneratedSchema'*) → type

Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

app.serializers.core.SearchSerializer.get_attribute

`SearchSerializer.`**`get_attribute`**(*obj: Any*, *attr: str*, *default: Any*)

Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

app.serializers.core.SearchSerializer.handle_error

SearchSerializer.**handle_error**(*error: marshmallow.exceptions.ValidationError*, *data: Any*, **, many: bool*, ***kwargs*)

Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.
- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

app.serializers.core.SearchSerializer.jsonify

SearchSerializer.**jsonify**(*obj*, *many=<object object>*, **args*, ***kwargs*)

Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

app.serializers.core.SearchSerializer.load

SearchSerializer.**load**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)

Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.core.SearchSerializer.loads

SearchSerializer.**loads**(*json_data: str*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)

Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.core.SearchSerializer.on_bind_field

SearchSerializer.**on_bind_field**(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None

Hook to modify a field when it is bound to the *Schema*.

No-op by default.

app.serializers.core.SearchSerializer.validate

SearchSerializer.**validate**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]

Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

app.serializers.core.TimestampField

class app.serializers.core.**TimestampField**(**, load_default: Any = <marshmallow.missing>, missing: Any = <marshmallow.missing>, dump_default: Any = <marshmallow.missing>, default: Any = <marshmallow.missing>, data_key: Optional[str] = None, attribute: Optional[str] = None, validate: Optional[Union[Callable[[Any], Any], Iterable[Callable[[Any], Any]]]] = None, required: bool = False, allow_none: Optional[bool] = None, load_only: bool = False, dump_only: bool = False, error_messages: Optional[Dict[str, str]] = None, metadata: Optional[Mapping[str, Any]] = None, **additional_metadata*)

Bases: marshmallow.fields.Field

Field that serializes to timestamp integer and deserializes to a datetime.datetime class.

Attributes

TimestampField.context	The context dictionary for the parent Schema.
TimestampField.default	
TimestampField.default_error_messages	Default error messages for various kinds of errors.
TimestampField.missing	
TimestampField.name	
TimestampField.parent	
TimestampField.root	

app.serializers.core.TimestampField.context

property TimestampField.**context**

The context dictionary for the parent Schema.

app.serializers.core.TimestampField.default

property TimestampField.**default**

app.serializers.core.TimestampField.default_error_messages

TimestampField.**default_error_messages = {'null': 'Field may not be null.', 'required': 'Missing data for required field.', 'validator_failed': 'Invalid value.'}**

Default error messages for various kinds of errors. The keys in this dictionary are passed to *Field.make_error*. The values are error messages passed to `marshmallow.exceptions.ValidationError`.

app.serializers.core.TimestampField.missing

property TimestampField.**missing**

app.serializers.core.TimestampField.name

TimestampField.**name = None**

app.serializers.core.TimestampField.parent

TimestampField.**parent = None**

app.serializers.core.TimestampField.root

TimestampField.**root = None**

Methods

TimestampField.__init__(*[, load_default, ...])	
TimestampField.deserialize(value[, attr, data])	Deserialize `value`.
TimestampField.fail(key, **kwargs)	Helper method that raises a *ValidationError* with an error message from `self.error_messages`.
TimestampField.get_value(obj, attr[, ...])	Return the value for a given key from an object.
TimestampField.make_error(key, **kwargs)	Helper method to make a *ValidationError* with an error message from `self.error_messages`.
TimestampField.serialize(attr, obj[, accessor])	Pulls the value for the given key from the object, applies the field's formatting and returns the result.

app.serializers.core.TimestampField.__init__

TimestampField.**__init__**(**, load_default: Any = <marshmallow.missing>, missing: Any = <marshmallow.missing>, dump_default: Any = <marshmallow.missing>, default: Any = <marshmallow.missing>, data_key: Optional[str] = None, attribute: Optional[str] = None, validate: Optional[Union[Callable[[Any], Any], Iterable[Callable[[Any], Any]]]] = None, required: bool = False, allow_none: Optional[bool] = None, load_only: bool = False, dump_only: bool = False, error_messages: Optional[Dict[str, str]] = None, metadata: Optional[Mapping[str, Any]] = None, **additional_metadata*) → None

app.serializers.core.TimestampField.deserialize

TimestampField.**deserialize**(*value: Any*, *attr: Optional[str] = None*, *data: Optional[Mapping[str, Any]] = None*, ***kwargs*)

Deserialize `value`.

Parameters

- **value** – The value to deserialize.
- **attr** – The attribute/key in *data* to deserialize.
- **data** – The raw input data passed to *Schema.load*.
- **kwargs** – Field-specific keyword arguments.

Raises **ValidationError** – If an invalid value is passed or if a required value is missing.

app.serializers.core.TimestampField.fail

TimestampField.**fail**(*key: str*, ***kwargs*)

Helper method that raises a *ValidationError* with an error message from `self.error_messages`.

Deprecated since version 3.0.0: Use *make_error <marshmallow.fields.Field.make_error>* instead.

app.serializers.core.TimestampField.get_value

TimestampField.**get_value**(*obj*, *attr*, *accessor=None*, *default=<marshmallow.missing>*)

Return the value for a given key from an object.

Parameters

- **obj** (*object*) – The object to get the value from.
- **attr** (*str*) – The attribute/key in *obj* to get the value from.
- **accessor** (*callable*) – A callable used to retrieve the value of *attr* from the object *obj*. Defaults to *marshmallow.utils.get_value*.

app.serializers.core.TimestampField.make_error

TimestampField.**make_error**(*key: str*, ***kwargs*) → marshmallow.exceptions.ValidationError
Helper method to make a *ValidationError* with an error message from `self.error_messages`.

app.serializers.core.TimestampField.serialize

TimestampField.**serialize**(*attr: str*, *obj: Any*, *accessor: Optional[Callable[[Any, str, Any], Any]] = None*, ***kwargs*)
Pulls the value for the given key from the object, applies the field's formatting and returns the result.

Parameters

- **attr** – The attribute/key to get from the object.
- **obj** – The object to access the attribute/key from.
- **accessor** – Function used to access values from `obj`.
- **kwargs** – Field-specific keyword arguments.

class app.serializers.core.**SearchSerializer**(**, only: Optional[Union[Sequence[str], Set[str]]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Optional[Dict] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: Optional[str] = None*)

class Meta
Options object for a Schema.

Example usage:

```
class Meta:
    fields = ("id", "email", "date_created")
    exclude = ("password", "secret_attribute")
```

Available options:

- `fields`: Tuple or list of fields to include in the serialized result.
- **additional: Tuple or list of fields to include *in addition* to the** explicitly declared fields. `additional` and `fields` are mutually-exclusive options.
- **include: Dictionary of additional fields to include in the schema. It is** usually better to define fields as class variables, but you may need to use this option, e.g., if your fields are Python keywords. May be an *OrderedDict*.
- **exclude: Tuple or list of fields to exclude in the serialized result.** Nested fields can be represented with dot delimiters.
- `dateformat`: Default format for *Date* <*fields.Date*> fields.
- `datetimeformat`: Default format for *DateTime* <*fields.DateTime*> fields.
- `timeformat`: Default format for *Time* <*fields.Time*> fields.
- **render_module: Module to use for *loads* <*Schema.loads*> and *dumps* <*Schema.dumps*>.** Defaults to *json* from the standard library.

- **ordered: If *True*, order serialization output according to the** order in which fields were declared. Output of *Schema.dump* will be a *collections.OrderedDict*.
- **index_errors: If *True*, errors dictionaries will include the index** of invalid items in a collection.
- load_only: Tuple or list of fields to exclude from serialized results.
- dump_only: Tuple or list of fields to exclude from deserialization
- **unknown: Whether to exclude, include, or raise an error for unknown** fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **register: Whether to register the *Schema* with marshmallow's internal** class registry. Must be *True* if you intend to refer to this *Schema* by class name in *Nested* fields. Only set this to *False* when memory usage is critical. Defaults to *True*.

OPTIONS_CLASS
alias of marshmallow.schema.SchemaOpts

TYPE_MAPPING = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}

_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Bind field to the schema, setting any necessary attributes on the field (e.g. parent and name).

Also set field load_only and dump_only values if field_name was specified in class Meta.

static _call_and_store(*getter_func*, *data*, ***, *field_name*, *error_store*, *index=None*)
Call getter_func with data as its argument, and store any *ValidationErrors*.

Parameters

- **getter_func** (*callable*) – Function for getting the serialized/deserialized value from data.
- **data** – The data passed to getter_func.
- **field_name** (*str*) – Field name.
- **index** (*int*) – Index of the item being validated, if validating a collection, otherwise *None*.

```
_declared_fields = {'items_per_page':
<fields.Integer(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid integer.',
'too_large': 'Number too large.'})>, 'order':
<fields.List(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid list.'})>,
'page_number': <fields.Integer(dump_default=<marshmallow.missing>, attribute=None,
validate=None, required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid integer.',
'too_large': 'Number too large.'})>, 'search':
<fields.List(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid list.'})>}
```

```
_default_error_messages = {'type': 'Invalid input type.', 'unknown': 'Unknown
field.'}
```

_deserialize(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *error_store: marshmallow.error_store.ErrorStore*, *many: bool = False*, *partial=False*, *unknown='raise'*, *index=None*) → Union[marshmallow.schema._T, List[marshmallow.schema._T]]

Deserialize `data`.

Parameters

- **data** (*dict*) – The data to deserialize.
- **error_store** (*ErrorStore*) – Structure to store errors.
- **many** (*bool*) – *True* if `data` should be deserialized as a collection.
- **partial** (*bool | tuple*) – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **index** (*int*) – Index of the item being serialized (for storing errors) if serializing a collection, otherwise *None*.

Returns A dictionary of the deserialized data.

_do_load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, *postprocess: bool = True*)

Deserialize *data*, returning the deserialized result. This method is private API.

Parameters

- **data** – The data to deserialize.

- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to validate required fields. If its value is an iterable, only fields listed in that iterable will be ignored will be allowed missing. If *True*, all fields will be allowed missing. If *None*, the value for *self.partial* is used.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.
- **postprocess** – Whether to run post_load methods..

Returns Deserialized data

_has_processors(*tag*) → bool

_hooks = {}

_init_fields() → None
Update self.fields, self.load_fields, and self.dump_fields based on schema options. This method is private API.

_invoke_dump_processors(*tag: str*, *data*, ***, *many: bool*, *original_data=None*)

_invoke_field_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *data*, *many: bool*)

_invoke_load_processors(*tag: str*, *data*, ***, *many: bool*, *original_data*, *partial: Union[bool, Sequence[str], Set[str]]*)

_invoke_processors(*tag: str*, ***, *pass_many: bool*, *data*, *many: bool*, *original_data=None*, ***kwargs*)

_invoke_schema_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *pass_many: bool*, *data*, *original_data*, *many: bool*, *partial: Union[bool, Sequence[str], Set[str]]*, *field_errors: bool = False*)

_normalize_nested_options() → None
Apply then flatten nested schema options. This method is private API.

_run_validator(*validator_func*, *output*, ***, *original_data*, *error_store*, *many*, *partial*, *pass_original*, *index=None*)

_serialize(*obj: Union[marshmallow.schema._T, Iterable[marshmallow.schema._T]]*, ***, *many: bool = False*)
Serialize `obj`.

Parameters

- **obj** – The object(s) to serialize.
- **many** (*bool*) – *True* if `data` should be serialized as a collection.

Returns A dictionary of the serialized data

Changed in version 1.0.0: Renamed from `marshal`.

property dict_class: type

dump(*obj: Any*, ***, *many: Optional[bool] = None*)
Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

dumps(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)
Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

error_messages = {}
Overrides for default schema-level error messages

fields
Dictionary mapping field_names -> `Field` objects

classmethod from_dict(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, ***, *name: str = 'GeneratedSchema'*) → type
Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

get_attribute(*obj: Any*, *attr: str*, *default: Any*)
Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

handle_error(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)
Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.

- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

jsonify(*obj*, *many=<object object>*, **args*, ***kwargs*)
Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)
Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

loads(*json_data: str*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)
Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

on_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Hook to modify a field when it is bound to the *Schema*.

No-op by default.

opts = <marshmallow.schema.SchemaOpts object>

property set_class: type

validate(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]
Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

class app.serializers.core.**TimestampField**(**, load_default: Any = <marshmallow.missing>, missing: Any = <marshmallow.missing>, dump_default: Any = <marshmallow.missing>, default: Any = <marshmallow.missing>, data_key: Optional[str] = None, attribute: Optional[str] = None, validate: Optional[Union[Callable[[Any], Any], Iterable[Callable[[Any], Any]]]] = None, required: bool = False, allow_none: Optional[bool] = None, load_only: bool = False, dump_only: bool = False, error_messages: Optional[Dict[str, str]] = None, metadata: Optional[Mapping[str, Any]] = None, **additional_metadata*)
Field that serializes to timestamp integer and deserializes to a datetime.datetime class.

_CHECK_ATTRIBUTE = True

_bind_to_schema(*field_name*, *schema*)
Update field with values from its parent schema. Called by `Schema._bind_field`.

Parameters

- **field_name** (*str*) – Field name set in schema.
- **schema** (*Schema | Field*) – Parent object.

_creation_index = 129

_deserialize(*value*, *attr*, *data*, ***kwargs*)
Deserialize value. Concrete `Field` classes should implement this method.

Parameters

- **value** – The value to be deserialized.
- **attr** – The attribute/key in *data* to be deserialized.
- **data** – The raw input data passed to the *Schema.load*.
- **kwargs** – Field-specific keyword arguments.

Raises **ValidationError** – In case of formatting or validation failure.

Returns The deserialized value.

Changed in version 2.0.0: Added `attr` and `data` parameters.

Changed in version 3.0.0: Added `**kwargs` to signature.

_serialize(*value*, *attr*, *obj*, ***kwargs*)

Serializes `value` to a basic Python datatype. Noop by default. Concrete `Field` classes should implement this method.

Example:

```
class TitleCase(Field):
    def _serialize(self, value, attr, obj, **kwargs):
        if not value:
            return ''
        return str(value).title()
```

Parameters

- **value** – The value to be serialized.
- **attr** (*str*) – The attribute or key on the object to be serialized.
- **obj** (*object*) – The object the value was pulled from.
- **kwargs** (*dict*) – Field-specific keyword arguments.

Returns The serialized value

_validate(*value*)

Perform validation on `value`. Raise a `ValidationError` if validation does not succeed.

property _validate_all

_validate_missing(*value*)

Validate missing values. Raise a `ValidationError` if *value* should be considered missing.

property context

The context dictionary for the parent `Schema`.

property default

default_error_messages = {'null': 'Field may not be null.', 'required': 'Missing data for required field.', 'validator_failed': 'Invalid value.'}

Default error messages for various kinds of errors. The keys in this dictionary are passed to *Field.make_error*. The values are error messages passed to `marshmallow.exceptions.ValidationError`.

deserialize(*value: Any*, *attr: Optional[str] = None*, *data: Optional[Mapping[str, Any]] = None*, ***kwargs*)

Deserialize `value`.

Parameters

- **value** – The value to deserialize.

- **attr** – The attribute/key in *data* to deserialize.
- **data** – The raw input data passed to *Schema.load*.
- **kwargs** – Field-specific keyword arguments.

Raises **ValidationError** – If an invalid value is passed or if a required value is missing.

fail(*key: str*, ***kwargs*)
Helper method that raises a *ValidationError* with an error message from `self.error_messages`.

Deprecated since version 3.0.0: Use *make_error <marshmallow.fields.Field.make_error>* instead.

get_value(*obj*, *attr*, *accessor=None*, *default=<marshmallow.missing>*)
Return the value for a given key from an object.

Parameters

- **obj** (*object*) – The object to get the value from.
- **attr** (*str*) – The attribute/key in *obj* to get the value from.
- **accessor** (*callable*) – A callable used to retrieve the value of *attr* from the object *obj*. Defaults to *marshmallow.utils.get_value*.

make_error(*key: str*, ***kwargs*) → marshmallow.exceptions.ValidationError
Helper method to make a *ValidationError* with an error message from `self.error_messages`.

property missing

name = None

parent = None

root = None

serialize(*attr: str*, *obj: Any*, *accessor: Optional[Callable[[Any, str, Any], Any]] = None*, ***kwargs*)
Pulls the value for the given key from the object, applies the field's formatting and returns the result.

Parameters

- **attr** – The attribute/key to get from the object.
- **obj** – The object to access the attribute/key from.
- **accessor** – Function used to access values from `obj`.
- **kwargs** – Field-specific keyword arguments.

class app.serializers.core.**_SearchOrderSerializer**(**, only: Optional[Union[Sequence[str], Set[str]]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Optional[Dict] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: Optional[str] = None*)

class Meta
Options object for a Schema.

Example usage:

```
class Meta:
    fields = ("id", "email", "date_created")
    exclude = ("password", "secret_attribute")
```

Available options:

- `fields`: Tuple or list of fields to include in the serialized result.
- **`additional`: Tuple or list of fields to include *in addition* to the** explicitly declared fields. `additional` and `fields` are mutually-exclusive options.
- **`include`: Dictionary of additional fields to include in the schema. It is** usually better to define fields as class variables, but you may need to use this option, e.g., if your fields are Python keywords. May be an *OrderedDict*.
- **`exclude`: Tuple or list of fields to exclude in the serialized result.** Nested fields can be represented with dot delimiters.
- `dateformat`: Default format for *Date* <*fields.Date*> fields.
- `datetimeformat`: Default format for *DateTime* <*fields.DateTime*> fields.
- `timeformat`: Default format for *Time* <*fields.Time*> fields.
- **`render_module`: Module to use for *loads* <*Schema.loads*> and *dumps* <*Schema.dumps*>.** Defaults to *json* from the standard library.
- **`ordered`: If *True*, order serialization output according to the** order in which fields were declared. Output of *Schema.dump* will be a *collections.OrderedDict*.
- **`index_errors`: If *True*, errors dictionaries will include the index** of invalid items in a collection.
- `load_only`: Tuple or list of fields to exclude from serialized results.
- `dump_only`: Tuple or list of fields to exclude from deserialization
- **`unknown`: Whether to exclude, include, or raise an error for unknown** fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **`register`: Whether to register the *Schema* with marshmallow's internal** class registry. Must be *True* if you intend to refer to this *Schema* by class name in *Nested* fields. Only set this to *False* when memory usage is critical. Defaults to *True*.

`OPTIONS_CLASS`
alias of `marshmallow.schema.SchemaOpts`

`TYPE_MAPPING = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}`

`_bind_field`(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Bind field to the schema, setting any necessary attributes on the field (e.g. parent and name).

Also set field load_only and dump_only values if field_name was specified in `class Meta`.

`static _call_and_store`(*getter_func*, *data*, ***, *field_name*, *error_store*, *index=None*)
Call `getter_func` with `data` as its argument, and store any *ValidationErrors*.

Parameters

- **getter_func** (*callable*) – Function for getting the serialized/deserialized value from `data`.
- **data** – The data passed to `getter_func`.
- **field_name** (*str*) – Field name.
- **index** (*int*) – Index of the item being validated, if validating a collection, otherwise *None*.

```
_declared_fields = {'field_name':
<fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.',
'invalid_utf8': 'Not a valid utf-8 string.'})>, 'sorting':
<fields.String(dump_default=<marshmallow.missing>, attribute=None,
validate=<OneOf(choices=['asc', 'desc'], labels=[], error='Must be one of:
{choices}.')>, required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.',
'invalid_utf8': 'Not a valid utf-8 string.'})>}
```

```
_default_error_messages = {'type': 'Invalid input type.', 'unknown': 'Unknown
field.'}
```

_deserialize(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *error_store: marshmallow.error_store.ErrorStore*, *many: bool = False*, *partial=False*, *unknown='raise'*, *index=None*) → Union[marshmallow.schema._T, List[marshmallow.schema._T]]

Deserialize `data`.

Parameters

- **data** (*dict*) – The data to deserialize.
- **error_store** (*ErrorStore*) – Structure to store errors.
- **many** (*bool*) – *True* if `data` should be deserialized as a collection.
- **partial** (*bool | tuple*) – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **index** (*int*) – Index of the item being serialized (for storing errors) if serializing a collection, otherwise *None*.

Returns A dictionary of the deserialized data.

_do_load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, *postprocess: bool = True*)

Deserialize *data*, returning the deserialized result. This method is private API.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.

- **partial** – Whether to validate required fields. If its value is an iterable, only fields listed in that iterable will be ignored will be allowed missing. If *True*, all fields will be allowed missing. If *None*, the value for *self.partial* is used.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.
- **postprocess** – Whether to run post_load methods..

Returns Deserialized data

_has_processors(*tag*) → bool

_hooks = {}

_init_fields() → None
Update self.fields, self.load_fields, and self.dump_fields based on schema options. This method is private API.

_invoke_dump_processors(*tag: str*, *data*, ***, *many: bool*, *original_data=None*)

_invoke_field_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *data*, *many: bool*)

_invoke_load_processors(*tag: str*, *data*, ***, *many: bool*, *original_data*, *partial: Union[bool, Sequence[str], Set[str]]*)

_invoke_processors(*tag: str*, ***, *pass_many: bool*, *data*, *many: bool*, *original_data=None*, ***kwargs*)

_invoke_schema_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *pass_many: bool*, *data*, *original_data*, *many: bool*, *partial: Union[bool, Sequence[str], Set[str]]*, *field_errors: bool = False*)

_normalize_nested_options() → None
Apply then flatten nested schema options. This method is private API.

_run_validator(*validator_func*, *output*, ***, *original_data*, *error_store*, *many*, *partial*, *pass_original*, *index=None*)

_serialize(*obj: Union[marshmallow.schema._T, Iterable[marshmallow.schema._T]]*, ***, *many: bool = False*)
Serialize `obj`.

Parameters

- **obj** – The object(s) to serialize.
- **many** (*bool*) – *True* if `data` should be serialized as a collection.

Returns A dictionary of the serialized data

Changed in version 1.0.0: Renamed from `marshal`.

property dict_class: type

dump(*obj: Any*, ***, *many: Optional[bool] = None*)
Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

dumps(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)
Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

error_messages = {}
Overrides for default schema-level error messages

fields
Dictionary mapping field_names -> `Field` objects

classmethod from_dict(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, ***, *name: str = 'GeneratedSchema'*) → type
Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

get_attribute(*obj: Any*, *attr: str*, *default: Any*)
Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

handle_error(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)
Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.

- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

jsonify(*obj*, *many=<object object>*, **args*, ***kwargs*)
Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)
Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

loads(*json_data: str*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)
Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

on_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Hook to modify a field when it is bound to the *Schema*.

No-op by default.

opts = <marshmallow.schema.SchemaOpts object>

property set_class: type

validate(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]
Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

class app.serializers.core.**_SearchValueSerializer**(***, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

class Meta
Options object for a Schema.

Example usage:

```
class Meta:
    fields = ("id", "email", "date_created")
    exclude = ("password", "secret_attribute")
```

Available options:

- `fields`: Tuple or list of fields to include in the serialized result.
- **additional: Tuple or list of fields to include *in addition* to the** explicitly declared fields. `additional` and `fields` are mutually-exclusive options.
- **include: Dictionary of additional fields to include in the schema. It is** usually better to define fields as class variables, but you may need to use this option, e.g., if your fields are Python keywords. May be an *OrderedDict*.

- **exclude: Tuple or list of fields to exclude in the serialized result.** Nested fields can be represented with dot delimiters.
- dateformat: Default format for *Date* <*fields.Date*> fields.
- datetimeformat: Default format for *DateTime* <*fields.DateTime*> fields.
- timeformat: Default format for *Time* <*fields.Time*> fields.
- **render_module: Module to use for *loads* <*Schema.loads*> and *dumps* <*Schema.dumps*>.** Defaults to *json* from the standard library.
- **ordered: If *True*, order serialization output according to the** order in which fields were declared. Output of *Schema.dump* will be a *collections.OrderedDict*.
- **index_errors: If *True*, errors dictionaries will include the index** of invalid items in a collection.
- load_only: Tuple or list of fields to exclude from serialized results.
- dump_only: Tuple or list of fields to exclude from deserialization
- **unknown: Whether to exclude, include, or raise an error for unknown** fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **register: Whether to register the *Schema* with marshmallow's internal** class registry. Must be *True* if you intend to refer to this *Schema* by class name in *Nested* fields. Only set this to *False* when memory usage is critical. Defaults to *True*.

OPTIONS_CLASS
alias of marshmallow.schema.SchemaOpts

TYPE_MAPPING = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}

_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Bind field to the schema, setting any necessary attributes on the field (e.g. parent and name).

Also set field load_only and dump_only values if field_name was specified in class Meta.

static _call_and_store(*getter_func*, *data*, ***, *field_name*, *error_store*, *index=None*)
Call getter_func with data as its argument, and store any *ValidationErrors*.

Parameters

- **getter_func** (*callable*) – Function for getting the serialized/deserialized value from data.
- **data** – The data passed to getter_func.
- **field_name** (*str*) – Field name.
- **index** (*int*) – Index of the item being validated, if validating a collection, otherwise *None*.

```
_declared_fields = {'field_name':
<fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.',
'invalid_utf8': 'Not a valid utf-8 string.'})>, 'field_operator':
<fields.String(dump_default=<marshmallow.missing>, attribute=None,
validate=<OneOf(choices={'in', 'gt', 'eq', 'gte', 'lte', 'nin', 'contains',
'startswith', 'ne', 'between', 'endswith', 'lt', 'ncontains'}, labels=[],
error='Must be one of: {choices}.')>, required=False, load_only=False,
dump_only=False, load_default=<marshmallow.missing>, allow_none=False,
error_messages={'required': 'Missing data for required field.', 'null': 'Field may
not be null.', 'validator_failed': 'Invalid value.', 'invalid': 'Not a valid
string.', 'invalid_utf8': 'Not a valid utf-8 string.'})>, 'field_value':
<fields.Raw(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.'})>}

_default_error_messages = {'type': 'Invalid input type.', 'unknown': 'Unknown
field.'}
```

_deserialize(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *error_store: marshmallow.error_store.ErrorStore*, *many: bool = False*, *partial=False*, *unknown='raise'*, *index=None*) → Union[marshmallow.schema._T, List[marshmallow.schema._T]]

Deserialize `data`.

Parameters

- **data** (*dict*) – The data to deserialize.
- **error_store** (*ErrorStore*) – Structure to store errors.
- **many** (*bool*) – *True* if `data` should be deserialized as a collection.
- **partial** (*bool | tuple*) – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **index** (*int*) – Index of the item being serialized (for storing errors) if serializing a collection, otherwise *None*.

Returns A dictionary of the deserialized data.

_do_load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, *postprocess: bool = True*)

Deserialize *data*, returning the deserialized result. This method is private API.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.

- **partial** – Whether to validate required fields. If its value is an iterable, only fields listed in that iterable will be ignored will be allowed missing. If *True*, all fields will be allowed missing. If *None*, the value for *self.partial* is used.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.
- **postprocess** – Whether to run post_load methods..

Returns Deserialized data

_has_processors(*tag*) → bool

_hooks = {}

_init_fields() → None
Update self.fields, self.load_fields, and self.dump_fields based on schema options. This method is private API.

_invoke_dump_processors(*tag: str*, *data*, ***, *many: bool*, *original_data=None*)

_invoke_field_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *data*, *many: bool*)

_invoke_load_processors(*tag: str*, *data*, ***, *many: bool*, *original_data*, *partial: Union[bool, Sequence[str], Set[str]]*)

_invoke_processors(*tag: str*, ***, *pass_many: bool*, *data*, *many: bool*, *original_data=None*, ***kwargs*)

_invoke_schema_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *pass_many: bool*, *data*, *original_data*, *many: bool*, *partial: Union[bool, Sequence[str], Set[str]]*, *field_errors: bool = False*)

_normalize_nested_options() → None
Apply then flatten nested schema options. This method is private API.

_run_validator(*validator_func*, *output*, ***, *original_data*, *error_store*, *many*, *partial*, *pass_original*, *index=None*)

_serialize(*obj: Union[marshmallow.schema._T, Iterable[marshmallow.schema._T]]*, ***, *many: bool = False*)
Serialize `obj`.

Parameters

- **obj** – The object(s) to serialize.
- **many** (*bool*) – *True* if `data` should be serialized as a collection.

Returns A dictionary of the serialized data

Changed in version 1.0.0: Renamed from `marshal`.

property dict_class: type

dump(*obj: Any*, ***, *many: Optional[bool] = None*)
Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

dumps(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)
Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

error_messages = {}
Overrides for default schema-level error messages

fields
Dictionary mapping field_names -> `Field` objects

classmethod from_dict(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, ***, *name: str = 'GeneratedSchema'*) → type
Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

get_attribute(*obj: Any*, *attr: str*, *default: Any*)
Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

handle_error(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)
Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.

- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

jsonify(*obj*, *many=<object object>*, **args*, ***kwargs*)
Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)
Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

loads(*json_data: str*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)
Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

on_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Hook to modify a field when it is bound to the *Schema*.

No-op by default.

opts = <marshmallow.schema.SchemaOpts object>

property set_class: type

validate(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]
Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

app.serializers.document

Description

Classes

DocumentAttachmentSerializer(*[, only, ...])
DocumentSerializer(*[, only, exclude, many, ...])

app.serializers.document.DocumentAttachmentSerializer

class app.serializers.document.**DocumentAttachmentSerializer**(*, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

Bases: flask_marshmallow.schema.Schema

Attributes

DocumentAttachmentSerializer.TYPE_MAPPING	
DocumentAttachmentSerializer.dict_class	
DocumentAttachmentSerializer.error_messages	Overrides for default schema-level error messages
DocumentAttachmentSerializer.opts	
DocumentAttachmentSerializer.set_class	

app.serializers.document.DocumentAttachmentSerializer.TYPE_MAPPING

DocumentAttachmentSerializer.**TYPE_MAPPING** = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}

app.serializers.document.DocumentAttachmentSerializer.dict_class

property DocumentAttachmentSerializer.**dict_class**: **type**

app.serializers.document.DocumentAttachmentSerializer.error_messages

DocumentAttachmentSerializer.**error_messages** = {}
Overrides for default schema-level error messages

app.serializers.document.DocumentAttachmentSerializer.opts

DocumentAttachmentSerializer.**opts** = <**marshmallow.schema.SchemaOpts object**>

app.serializers.document.DocumentAttachmentSerializer.set_class

property DocumentAttachmentSerializer.**set_class**: **type**

Methods

DocumentAttachmentSerializer.__init__(*[, ...])	
DocumentAttachmentSerializer.dump(obj, *[, many])	Serialize an object to native Python data types according to this Schema's fields.
DocumentAttachmentSerializer.dumps(obj, *args)	Same as *dump()*, except return a JSON-encoded string.
DocumentAttachmentSerializer.from_dict(fields, *)	Generate a *Schema* class given a dictionary of fields.
DocumentAttachmentSerializer.get_attribute(...)	Defines how to pull values from an object to serialize.
DocumentAttachmentSerializer.handle_error(...)	Custom error handler function for the schema.
DocumentAttachmentSerializer.jsonify(obj[, many])	Return a JSON response containing the serialized data.
DocumentAttachmentSerializer.load(data, *[, ...])	Deserialize a data structure to an object defined by this Schema's fields.
DocumentAttachmentSerializer.loads(json_data, *)	Same as *load()*, except it takes a JSON string as input.
DocumentAttachmentSerializer.on_bind_field(...)	Hook to modify a field when it is bound to the *Schema*.
DocumentAttachmentSerializer.process_input(...)	
DocumentAttachmentSerializer.validate(data, *)	Validate *data* against the schema, returning a dictionary of validation errors.

app.serializers.document.DocumentAttachmentSerializer.__init__

DocumentAttachmentSerializer.**__init__**(*, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

app.serializers.document.DocumentAttachmentSerializer.dump

DocumentAttachmentSerializer.**dump**(*obj: Any*, *, *many: Optional[bool] = None*)

Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

app.serializers.document.DocumentAttachmentSerializer.dumps

DocumentAttachmentSerializer.**dumps**(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)

Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

app.serializers.document.DocumentAttachmentSerializer.from_dict

classmethod DocumentAttachmentSerializer.**from_dict**(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, *, *name: str = 'GeneratedSchema'*) → type

Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

app.serializers.document.DocumentAttachmentSerializer.get_attribute

`DocumentAttachmentSerializer.`**`get_attribute`**(*obj: Any*, *attr: str*, *default: Any*)

Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

app.serializers.document.DocumentAttachmentSerializer.handle_error

`DocumentAttachmentSerializer.`**`handle_error`**(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)

Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.
- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

app.serializers.document.DocumentAttachmentSerializer.jsonify

`DocumentAttachmentSerializer.`**`jsonify`**(*obj*, *many=<object object>*, **args*, ***kwargs*)

Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

app.serializers.document.DocumentAttachmentSerializer.load

DocumentAttachmentSerializer.**load**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)

Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.document.DocumentAttachmentSerializer.loads

DocumentAttachmentSerializer.**loads**(*json_data: str*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)

Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.document.DocumentAttachmentSerializer.on_bind_field

DocumentAttachmentSerializer.**on_bind_field**(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None

Hook to modify a field when it is bound to the *Schema*.

No-op by default.

app.serializers.document.DocumentAttachmentSerializer.process_input

DocumentAttachmentSerializer.**process_input**(*value*, *many*, ***kwargs*)

app.serializers.document.DocumentAttachmentSerializer.validate

DocumentAttachmentSerializer.**validate**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]

Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

app.serializers.document.DocumentSerializer

class app.serializers.document.**DocumentSerializer**(***, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

Bases: `flask_marshmallow.schema.Schema`

Attributes

DocumentSerializer.TYPE_MAPPING	
DocumentSerializer.dict_class	
DocumentSerializer.error_messages	Overrides for default schema-level error messages
DocumentSerializer.opts	
DocumentSerializer.set_class	

app.serializers.document.DocumentSerializer.TYPE_MAPPING

DocumentSerializer.**TYPE_MAPPING** = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}

app.serializers.document.DocumentSerializer.dict_class

property DocumentSerializer.**dict_class**: type

app.serializers.document.DocumentSerializer.error_messages

DocumentSerializer.**error_messages** = {}

Overrides for default schema-level error messages

app.serializers.document.DocumentSerializer.opts

DocumentSerializer.**opts** = <marshmallow.schema.SchemaOpts object>

app.serializers.document.DocumentSerializer.set_class

property DocumentSerializer.**set_class: type**

Methods

DocumentSerializer.__init__(*[, only, ...])	
DocumentSerializer.dump(obj, *[, many])	Serialize an object to native Python data types according to this Schema's fields.
DocumentSerializer.dumps(obj, *args[, many])	Same as *dump()*, except return a JSON-encoded string.
DocumentSerializer.from_dict(fields, *[, name])	Generate a *Schema* class given a dictionary of fields.
DocumentSerializer.get_attribute(obj, attr, ...)	Defines how to pull values from an object to serialize.
DocumentSerializer.handle_error(error, data, ...)	Custom error handler function for the schema.
DocumentSerializer.jsonify(obj[, many])	Return a JSON response containing the serialized data.
DocumentSerializer.load(data, *[, many, ...])	Deserialize a data structure to an object defined by this Schema's fields.
DocumentSerializer.loads(json_data, *[, ...])	Same as *load()*, except it takes a JSON string as input.
DocumentSerializer.on_bind_field(field_name, ...)	Hook to modify a field when it is bound to the *Schema*.
DocumentSerializer.valid_request_file(data)	
DocumentSerializer.validate(data, *[, many, ...])	Validate *data* against the schema, returning a dictionary of validation errors.
DocumentSerializer.validate_id(document_id)	
DocumentSerializer.wrap(data, **kwargs)	

app.serializers.document.DocumentSerializer.__init__

DocumentSerializer.**__init__**(*, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

app.serializers.document.DocumentSerializer.dump

DocumentSerializer.**dump**(*obj: Any*, *, *many: Optional[bool] = None*)

Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

app.serializers.document.DocumentSerializer.dumps

DocumentSerializer.**dumps**(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)

Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

app.serializers.document.DocumentSerializer.from_dict

classmethod DocumentSerializer.**from_dict**(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, ***, *name: str = 'GeneratedSchema'*) → type

Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

app.serializers.document.DocumentSerializer.get_attribute

DocumentSerializer.**get_attribute**(*obj: Any*, *attr: str*, *default: Any*)

Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

app.serializers.document.DocumentSerializer.handle_error

DocumentSerializer.**handle_error**(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)

Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.
- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

app.serializers.document.DocumentSerializer.jsonify

DocumentSerializer.**jsonify**(*obj*, *many=<object object>*, **args*, ***kwargs*)

Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

app.serializers.document.DocumentSerializer.load

DocumentSerializer.**load**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)

Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing

fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.document.DocumentSerializer.loads

`DocumentSerializer.`**`loads`**(*json_data: str*, *, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)

Same as *load()*, except it takes a JSON string as input.

Parameters
- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.document.DocumentSerializer.on_bind_field

`DocumentSerializer.`**`on_bind_field`**(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None

Hook to modify a field when it is bound to the *Schema*.

No-op by default.

app.serializers.document.DocumentSerializer.valid_request_file

`static` `DocumentSerializer.`**`valid_request_file`**(*data*)

app.serializers.document.DocumentSerializer.validate

DocumentSerializer.**validate**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, **, many: Optional[bool] = None, partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]

Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

app.serializers.document.DocumentSerializer.validate_id

DocumentSerializer.**validate_id**(*document_id*)

app.serializers.document.DocumentSerializer.wrap

DocumentSerializer.**wrap**(*data*, ***kwargs*)

class app.serializers.document.**DocumentAttachmentSerializer**(**, only: Optional[Union[Sequence[str], Set[str]]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Optional[Dict] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: Optional[str] = None*)

class Meta

Options object for a Schema.

Example usage:

```
class Meta:
    fields = ("id", "email", "date_created")
    exclude = ("password", "secret_attribute")
```

Available options:

- `fields`: Tuple or list of fields to include in the serialized result.
- **additional: Tuple or list of fields to include *in addition* to the** explicitly declared fields. `additional` and `fields` are mutually-exclusive options.

- **include: Dictionary of additional fields to include in the schema. It is** usually better to define fields as class variables, but you may need to use this option, e.g., if your fields are Python keywords. May be an *OrderedDict*.
- **exclude: Tuple or list of fields to exclude in the serialized result.** Nested fields can be represented with dot delimiters.
- dateformat: Default format for *Date* <*fields.Date*> fields.
- datetimeformat: Default format for *DateTime* <*fields.DateTime*> fields.
- timeformat: Default format for *Time* <*fields.Time*> fields.
- **render_module: Module to use for *loads* <*Schema.loads*> and *dumps* <*Schema.dumps*>.** Defaults to *json* from the standard library.
- **ordered: If *True*, order serialization output according to the** order in which fields were declared. Output of *Schema.dump* will be a *collections.OrderedDict*.
- **index_errors: If *True*, errors dictionaries will include the index** of invalid items in a collection.
- load_only: Tuple or list of fields to exclude from serialized results.
- dump_only: Tuple or list of fields to exclude from deserialization
- **unknown: Whether to exclude, include, or raise an error for unknown** fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **register: Whether to register the *Schema* with marshmallow's internal** class registry. Must be *True* if you intend to refer to this *Schema* by class name in *Nested* fields. Only set this to *False* when memory usage is critical. Defaults to *True*.

OPTIONS_CLASS
alias of marshmallow.schema.SchemaOpts

TYPE_MAPPING = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}

_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Bind field to the schema, setting any necessary attributes on the field (e.g. parent and name).

Also set field load_only and dump_only values if field_name was specified in class Meta.

static _call_and_store(*getter_func*, *data*, ***, *field_name*, *error_store*, *index=None*)
Call getter_func with data as its argument, and store any *ValidationErrors*.

Parameters

- **getter_func** (*callable*) – Function for getting the serialized/deserialized value from data.
- **data** – The data passed to getter_func.
- **field_name** (*str*) – Field name.

- **index** (*int*) – Index of the item being validated, if validating a collection, otherwise *None*.

_declared_fields = {'as_attachment': <fields.Integer(dump_default=<marshmallow.missing>, attribute=None, validate=<OneOf(choices=[1, 0], labels=[], error='Must be one of: {choices}.')>, required=False, load_only=False, dump_only=False, load_default=<marshmallow.missing>, allow_none=False, error_messages={'required': 'Missing data for required field.', 'null': 'Field may not be null.', 'validator_failed': 'Invalid value.', 'invalid': 'Not a valid integer.', 'too_large': 'Number too large.'})>}

_default_error_messages = {'type': 'Invalid input type.', 'unknown': 'Unknown field.'}

_deserialize(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *error_store: marshmallow.error_store.ErrorStore*, *many: bool = False*, *partial=False*, *unknown='raise'*, *index=None*) → Union[marshmallow.schema._T, List[marshmallow.schema._T]]

Deserialize `data`.

Parameters

- **data** (*dict*) – The data to deserialize.
- **error_store** (*ErrorStore*) – Structure to store errors.
- **many** (*bool*) – *True* if `data` should be deserialized as a collection.
- **partial** (*bool | tuple*) – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **index** (*int*) – Index of the item being serialized (for storing errors) if serializing a collection, otherwise *None*.

Returns A dictionary of the deserialized data.

_do_load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, *postprocess: bool = True*)

Deserialize *data*, returning the deserialized result. This method is private API.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to validate required fields. If its value is an iterable, only fields listed in that iterable will be ignored will be allowed missing. If *True*, all fields will be allowed missing. If *None*, the value for *self.partial* is used.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.
- **postprocess** – Whether to run post_load methods..

Returns Deserialized data

_has_processors(*tag*) → bool

_hooks = {('pre_load', False): ['process_input']}

_init_fields() → None
Update self.fields, self.load_fields, and self.dump_fields based on schema options. This method is private API.

_invoke_dump_processors(*tag: str*, *data*, *, *many: bool*, *original_data=None*)

_invoke_field_validators(*, *error_store: marshmallow.error_store.ErrorStore*, *data*, *many: bool*)

_invoke_load_processors(*tag: str*, *data*, *, *many: bool*, *original_data*, *partial: Union[bool, Sequence[str], Set[str]]*)

_invoke_processors(*tag: str*, *, *pass_many: bool*, *data*, *many: bool*, *original_data=None*, ***kwargs*)

_invoke_schema_validators(*, *error_store: marshmallow.error_store.ErrorStore*, *pass_many: bool*, *data*, *original_data*, *many: bool*, *partial: Union[bool, Sequence[str], Set[str]]*, *field_errors: bool = False*)

_normalize_nested_options() → None
Apply then flatten nested schema options. This method is private API.

_run_validator(*validator_func*, *output*, *, *original_data*, *error_store*, *many*, *partial*, *pass_original*, *index=None*)

_serialize(*obj: Union[marshmallow.schema._T, Iterable[marshmallow.schema._T]]*, *, *many: bool = False*)
Serialize `obj`.

Parameters

- **obj** – The object(s) to serialize.
- **many** (*bool*) – *True* if `data` should be serialized as a collection.

Returns A dictionary of the serialized data

Changed in version 1.0.0: Renamed from `marshal`.

property dict_class: type

dump(*obj: Any*, *, *many: Optional[bool] = None*)
Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

dumps(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)
Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

error_messages = {}
Overrides for default schema-level error messages

fields
Dictionary mapping field_names -> `Field` objects

classmethod from_dict(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, *, *name: str = 'GeneratedSchema'*) → type
Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

get_attribute(*obj: Any*, *attr: str*, *default: Any*)
Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

handle_error(*error: marshmallow.exceptions.ValidationError*, *data: Any*, *, *many: bool*, ***kwargs*)
Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.
- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

jsonify(*obj*, *many=<object object>*, **args*, ***kwargs*)
Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)
Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

loads(*json_data: str*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)
Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

on_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Hook to modify a field when it is bound to the *Schema*.

No-op by default.

opts = <marshmallow.schema.SchemaOpts object>

process_input(*value*, *many*, ***kwargs*)

property set_class: type

validate(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]

Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

class app.serializers.document.**DocumentSerializer**(***, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

class Meta

```
ordered = True
```

OPTIONS_CLASS

alias of `marshmallow.schema.SchemaOpts`

```
TYPE_MAPPING = {<class 'str'>: <class 'marshmallow.fields.String'>, <class
'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class
'marshmallow.fields.DateTime'>, <class 'float'>: <class
'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>,
<class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class
'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class
'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class
'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class
'marshmallow.fields.Time'>, <class 'datetime.date'>: <class
'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class
'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class
'marshmallow.fields.Decimal'>}
```

_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None

Bind field to the schema, setting any necessary attributes on the field (e.g. parent and name).

Also set field load_only and dump_only values if field_name was specified in `class Meta`.

static _call_and_store(*getter_func*, *data*, ***, *field_name*, *error_store*, *index=None*)

Call `getter_func` with `data` as its argument, and store any *ValidationErrors*.

Parameters

- **getter_func** (*callable*) – Function for getting the serialized/deserialized value from `data`.
- **data** – The data passed to `getter_func`.

- **field_name** (*str*) – Field name.
- **index** (*int*) – Index of the item being validated, if validating a collection, otherwise *None*.

```
_declared_fields = {'created_at':
<fields.TimestampField(dump_default=<marshmallow.missing>, attribute=None,
validate=None, required=False, load_only=False, dump_only=True,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.'})>, 'created_by':
<fields.Nested(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'type': 'Invalid type.'})>, 'deleted_at':
<fields.TimestampField(dump_default=<marshmallow.missing>, attribute=None,
validate=None, required=False, load_only=False, dump_only=True,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.'})>, 'directory_path':
<fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=True, dump_only=False, load_default=<marshmallow.missing>,
allow_none=False, error_messages={'required': 'Missing data for required field.',
'null': 'Field may not be null.', 'validator_failed': 'Invalid value.', 'invalid':
'Not a valid string.', 'invalid_utf8': 'Not a valid utf-8 string.'})>, 'id':
<fields.Integer(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid integer.',
'too_large': 'Number too large.'})>, 'internal_filename':
<fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.',
'invalid_utf8': 'Not a valid utf-8 string.'})>, 'mime_type':
<fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.',
'invalid_utf8': 'Not a valid utf-8 string.'})>, 'name':
<fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.',
'invalid_utf8': 'Not a valid utf-8 string.'})>, 'size':
<fields.Integer(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid integer.',
'too_large': 'Number too large.'})>, 'updated_at':
<fields.TimestampField(dump_default=<marshmallow.missing>, attribute=None,
validate=None, required=False, load_only=False, dump_only=True,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.'})>}
```

_default_error_messages = {'type': 'Invalid input type.', 'unknown': 'Unknown field.'}

_deserialize(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *error_store: marshmallow.error_store.ErrorStore*, *many: bool = False*, *partial=False*, *unknown='raise'*, *index=None*) → Union[marshmallow.schema._T, List[marshmallow.schema._T]]

Deserialize `data`.

Parameters

- **data** (*dict*) – The data to deserialize.
- **error_store** (*ErrorStore*) – Structure to store errors.
- **many** (*bool*) – *True* if `data` should be deserialized as a collection.
- **partial** (*bool | tuple*) – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **index** (*int*) – Index of the item being serialized (for storing errors) if serializing a collection, otherwise *None*.

Returns A dictionary of the deserialized data.

_do_load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, *postprocess: bool = True*)

Deserialize *data*, returning the deserialized result. This method is private API.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to validate required fields. If its value is an iterable, only fields listed in that iterable will be ignored will be allowed missing. If *True*, all fields will be allowed missing. If *None*, the value for *self.partial* is used.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.
- **postprocess** – Whether to run post_load methods..

Returns Deserialized data

_has_processors(*tag*) → bool

_hooks = defaultdict(<class 'list'>, {'validates': ['validate_id'], ('post_dump', False): ['wrap']})

_init_fields() → None

Update self.fields, self.load_fields, and self.dump_fields based on schema options. This method is private API.

_invoke_dump_processors(*tag: str*, *data*, ***, *many: bool*, *original_data=None*)

_invoke_field_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *data*, *many: bool*)

_invoke_load_processors(*tag: str*, *data*, ***, *many: bool*, *original_data*, *partial: Union[bool, Sequence[str], Set[str]]*)

_invoke_processors(*tag: str*, ***, *pass_many: bool*, *data*, *many: bool*, *original_data=None*, ***kwargs*)

_invoke_schema_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *pass_many: bool*, *data*, *original_data*, *many: bool*, *partial: Union[bool, Sequence[str], Set[str]]*, *field_errors: bool = False*)

_normalize_nested_options() → None
Apply then flatten nested schema options. This method is private API.

_run_validator(*validator_func*, *output*, ***, *original_data*, *error_store*, *many*, *partial*, *pass_original*, *index=None*)

_serialize(*obj: Union[marshmallow.schema._T, Iterable[marshmallow.schema._T]]*, ***, *many: bool = False*)
Serialize `obj`.

Parameters

- **obj** – The object(s) to serialize.
- **many** (*bool*) – *True* if `data` should be serialized as a collection.

Returns A dictionary of the serialized data

Changed in version 1.0.0: Renamed from `marshal`.

property dict_class: type

dump(*obj: Any*, ***, *many: Optional[bool] = None*)
Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

dumps(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)
Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

error_messages = {}
Overrides for default schema-level error messages

fields
Dictionary mapping field_names -> `Field` objects

classmethod from_dict(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, ***, *name: str = 'GeneratedSchema'*) → type

Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

get_attribute(*obj: Any*, *attr: str*, *default: Any*)

Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

handle_error(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)

Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.
- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

jsonify(*obj*, *many=<object object>*, **args*, ***kwargs*)

Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)

Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

loads(*json_data: str*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)
Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

on_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Hook to modify a field when it is bound to the *Schema*.

No-op by default.

opts = <marshmallow.schema.SchemaOpts object>

property set_class: type

static valid_request_file(*data*)

validate(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]
Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.

- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

validate_id(*document_id*)

wrap(*data*, ***kwargs*)

app.serializers.role

Description

Classes

RoleName(*, load_default, missing, ...)	
RoleSerializer(*[, only, exclude, many, ...])	

app.serializers.role.RoleName

class app.serializers.role.**RoleName**(**, load_default: Any = <marshmallow.missing>, missing: Any = <marshmallow.missing>, dump_default: Any = <marshmallow.missing>, default: Any = <marshmallow.missing>, data_key: Optional[str] = None, attribute: Optional[str] = None, validate: Optional[Union[Callable[[Any], Any], Iterable[Callable[[Any], Any]]]] = None, required: bool = False, allow_none: Optional[bool] = None, load_only: bool = False, dump_only: bool = False, error_messages: Optional[Dict[str, str]] = None, metadata: Optional[Mapping[str, Any]] = None, **additional_metadata*)

Bases: `marshmallow.fields.Field`

Attributes

RoleName.context	The context dictionary for the parent `Schema`.
RoleName.default	
RoleName.default_error_messages	Default error messages for various kinds of errors.
RoleName.missing	
RoleName.name	
RoleName.parent	

continues on next page

Table 114 – continued from previous page

RoleName.root

app.serializers.role.RoleName.context

property RoleName.**context**
The context dictionary for the parent Schema.

app.serializers.role.RoleName.default

property RoleName.**default**

app.serializers.role.RoleName.default_error_messages

RoleName.**default_error_messages = {'null': 'Field may not be null.', 'required': 'Missing data for required field.', 'validator_failed': 'Invalid value.'}**
Default error messages for various kinds of errors. The keys in this dictionary are passed to *Field.make_error*. The values are error messages passed to marshmallow.exceptions.ValidationError.

app.serializers.role.RoleName.missing

property RoleName.**missing**

app.serializers.role.RoleName.name

RoleName.**name = None**

app.serializers.role.RoleName.parent

RoleName.**parent = None**

app.serializers.role.RoleName.root

RoleName.**root = None**

Methods

RoleName.__init__(*[, load_default, ...])	

RoleName.deserialize(value[, attr, data])	Deserialize `value`.
RoleName.fail(key, **kwargs)	Helper method that raises a *ValidationError* with an error message from `self.error_messages`.
RoleName.get_value(obj, attr[, accessor, ...])	Return the value for a given key from an object.
RoleName.make_error(key, **kwargs)	Helper method to make a *ValidationError* with an error message from `self.error_messages`.
RoleName.serialize(attr, obj[, accessor])	Pulls the value for the given key from the object, applies the field's formatting and returns the result.

app.serializers.role.RoleName.__init__

RoleName.**__init__**(**, load_default: Any = <marshmallow.missing>, missing: Any = <marshmallow.missing>, dump_default: Any = <marshmallow.missing>, default: Any = <marshmallow.missing>, data_key: Optional[str] = None, attribute: Optional[str] = None, validate: Optional[Union[Callable[[Any], Any], Iterable[Callable[[Any], Any]]]] = None, required: bool = False, allow_none: Optional[bool] = None, load_only: bool = False, dump_only: bool = False, error_messages: Optional[Dict[str, str]] = None, metadata: Optional[Mapping[str, Any]] = None, **additional_metadata*) → None

app.serializers.role.RoleName.deserialize

RoleName.**deserialize**(*value: Any*, *attr: Optional[str] = None*, *data: Optional[Mapping[str, Any]] = None*, ***kwargs*)

Deserialize `value`.

Parameters

- **value** – The value to deserialize.
- **attr** – The attribute/key in *data* to deserialize.
- **data** – The raw input data passed to *Schema.load*.
- **kwargs** – Field-specific keyword arguments.

Raises **ValidationError** – If an invalid value is passed or if a required value is missing.

app.serializers.role.RoleName.fail

RoleName.**fail**(*key: str*, ***kwargs*)

Helper method that raises a *ValidationError* with an error message from `self.error_messages`.

Deprecated since version 3.0.0: Use *make_error <marshmallow.fields.Field.make_error>* instead.

app.serializers.role.RoleName.get_value

RoleName.**get_value**(*obj*, *attr*, *accessor=None*, *default=<marshmallow.missing>*)

Return the value for a given key from an object.

Parameters

- **obj** (*object*) – The object to get the value from.
- **attr** (*str*) – The attribute/key in *obj* to get the value from.
- **accessor** (*callable*) – A callable used to retrieve the value of *attr* from the object *obj*. Defaults to *marshmallow.utils.get_value*.

app.serializers.role.RoleName.make_error

RoleName.**make_error**(*key: str*, ***kwargs*) → marshmallow.exceptions.ValidationError

Helper method to make a *ValidationError* with an error message from `self.error_messages`.

app.serializers.role.RoleName.serialize

RoleName.**serialize**(*attr: str*, *obj: Any*, *accessor: Optional[Callable[[Any, str, Any], Any]] = None*, ***kwargs*)

Pulls the value for the given key from the object, applies the field's formatting and returns the result.

Parameters

- **attr** – The attribute/key to get from the object.
- **obj** – The object to access the attribute/key from.
- **accessor** – Function used to access values from `obj`.
- **kwargs** – Field-specific keyword arguments.

app.serializers.role.RoleSerializer

class app.serializers.role.**RoleSerializer**(***, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

Bases: `flask_marshmallow.schema.Schema`

Attributes

RoleSerializer.TYPE_MAPPING	
RoleSerializer.dict_class	
RoleSerializer.error_messages	Overrides for default schema-level error messages
RoleSerializer.opts	
RoleSerializer.set_class	

app.serializers.role.RoleSerializer.TYPE_MAPPING

RoleSerializer.**TYPE_MAPPING** = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}

app.serializers.role.RoleSerializer.dict_class

property RoleSerializer.**dict_class**: type

app.serializers.role.RoleSerializer.error_messages

RoleSerializer.**error_messages** = {}

Overrides for default schema-level error messages

app.serializers.role.RoleSerializer.opts

RoleSerializer.**opts** = <marshmallow.schema.SchemaOpts object>

app.serializers.role.RoleSerializer.set_class

property RoleSerializer.**set_class: type**

Methods

RoleSerializer.__init__(*[, only, exclude, ...])	
RoleSerializer.dump(obj, *[, many])	Serialize an object to native Python data types according to this Schema's fields.
RoleSerializer.dumps(obj, *args[, many])	Same as *dump()*, except return a JSON-encoded string.
RoleSerializer.from_dict(fields, *[, name])	Generate a *Schema* class given a dictionary of fields.
RoleSerializer.get_attribute(obj, attr, default)	Defines how to pull values from an object to serialize.
RoleSerializer.handle_error(error, data, *, ...)	Custom error handler function for the schema.
RoleSerializer.jsonify(obj[, many])	Return a JSON response containing the serialized data.
RoleSerializer.load(data, *[, many, ...])	Deserialize a data structure to an object defined by this Schema's fields.
RoleSerializer.loads(json_data, *[, many, ...])	Same as *load()*, except it takes a JSON string as input.
RoleSerializer.on_bind_field(field_name, ...)	Hook to modify a field when it is bound to the *Schema*.
RoleSerializer.sluglify_name(item, many, ...)	
RoleSerializer.validate(data, *[, many, partial])	Validate *data* against the schema, returning a dictionary of validation errors.
RoleSerializer.validate_id(role_id)	
RoleSerializer.validate_name(value, **kwargs)	

app.serializers.role.RoleSerializer.__init__

RoleSerializer.**__init__**(*, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

app.serializers.role.RoleSerializer.dump

RoleSerializer.**dump**(*obj: Any*, *, *many: Optional[bool] = None*)

Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

app.serializers.role.RoleSerializer.dumps

RoleSerializer.**dumps**(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)

Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

app.serializers.role.RoleSerializer.from_dict

classmethod RoleSerializer.**from_dict**(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, *, *name: str = 'GeneratedSchema'*) → type

Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

app.serializers.role.RoleSerializer.get_attribute

RoleSerializer.**get_attribute**(*obj: Any*, *attr: str*, *default: Any*)

Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

app.serializers.role.RoleSerializer.handle_error

RoleSerializer.**handle_error**(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)

Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.
- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

app.serializers.role.RoleSerializer.jsonify

RoleSerializer.**jsonify**(*obj*, *many=<object object>*, **args*, ***kwargs*)

Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

app.serializers.role.RoleSerializer.load

RoleSerializer.**load**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)

Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing

fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.role.RoleSerializer.loads

`RoleSerializer.`**`loads`**(*json_data: str*, *, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)

Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.role.RoleSerializer.on_bind_field

`RoleSerializer.`**`on_bind_field`**(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None

Hook to modify a field when it is bound to the *Schema*.

No-op by default.

app.serializers.role.RoleSerializer.sluglify_name

`RoleSerializer.`**`sluglify_name`**(*item*, *many*, ***kwargs*)

app.serializers.role.RoleSerializer.validate

RoleSerializer.**validate**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]

Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

app.serializers.role.RoleSerializer.validate_id

RoleSerializer.**validate_id**(*role_id*)

app.serializers.role.RoleSerializer.validate_name

RoleSerializer.**validate_name**(*value*, ***kwargs*)

class app.serializers.role.**RoleName**(**, load_default: Any = <marshmallow.missing>, missing: Any = <marshmallow.missing>, dump_default: Any = <marshmallow.missing>, default: Any = <marshmallow.missing>, data_key: Optional[str] = None, attribute: Optional[str] = None, validate: Optional[Union[Callable[[Any], Any], Iterable[Callable[[Any], Any]]]] = None, required: bool = False, allow_none: Optional[bool] = None, load_only: bool = False, dump_only: bool = False, error_messages: Optional[Dict[str, str]] = None, metadata: Optional[Mapping[str, Any]] = None, **additional_metadata*)

_CHECK_ATTRIBUTE = True

_bind_to_schema(*field_name*, *schema*)

Update field with values from its parent schema. Called by `Schema._bind_field`.

Parameters

- **field_name** (*str*) – Field name set in schema.
- **schema** (*Schema | Field*) – Parent object.

_creation_index = 129

_deserialize(*value*, **args*, ***kwargs*)

Deserialize value. Concrete `Field` classes should implement this method.

Parameters

- **value** – The value to be deserialized.

- **attr** – The attribute/key in *data* to be deserialized.
- **data** – The raw input data passed to the *Schema.load*.
- **kwargs** – Field-specific keyword arguments.

Raises **ValidationError** – In case of formatting or validation failure.

Returns The deserialized value.

Changed in version 2.0.0: Added `attr` and `data` parameters.

Changed in version 3.0.0: Added `**kwargs` to signature.

_serialize(*value*, **args*, ***kwargs*)

Serializes `value` to a basic Python datatype. Noop by default. Concrete `Field` classes should implement this method.

Example:

```
class TitleCase(Field):
    def _serialize(self, value, attr, obj, **kwargs):
        if not value:
            return ''
        return str(value).title()
```

Parameters

- **value** – The value to be serialized.
- **attr** (*str*) – The attribute or key on the object to be serialized.
- **obj** (*object*) – The object the value was pulled from.
- **kwargs** (*dict*) – Field-specific keyword arguments.

Returns The serialized value

_validate(*value*)

Perform validation on `value`. Raise a `ValidationError` if validation does not succeed.

property _validate_all

_validate_missing(*value*)

Validate missing values. Raise a `ValidationError` if *value* should be considered missing.

property context

The context dictionary for the parent `Schema`.

property default

default_error_messages = {'null': 'Field may not be null.', 'required': 'Missing data for required field.', 'validator_failed': 'Invalid value.'}

Default error messages for various kinds of errors. The keys in this dictionary are passed to *Field.make_error*. The values are error messages passed to `marshmallow.exceptions.ValidationError`.

deserialize(*value: Any*, *attr: Optional[str] = None*, *data: Optional[Mapping[str, Any]] = None*, ***kwargs*)

Deserialize `value`.

Parameters

- **value** – The value to deserialize.
- **attr** – The attribute/key in *data* to deserialize.

- **data** – The raw input data passed to *Schema.load*.
- **kwargs** – Field-specific keyword arguments.

Raises **ValidationError** – If an invalid value is passed or if a required value is missing.

fail(*key: str*, ***kwargs*)
Helper method that raises a *ValidationError* with an error message from `self.error_messages`.

Deprecated since version 3.0.0: Use *make_error <marshmallow.fields.Field.make_error>* instead.

get_value(*obj*, *attr*, *accessor=None*, *default=<marshmallow.missing>*)
Return the value for a given key from an object.

Parameters

- **obj** (*object*) – The object to get the value from.
- **attr** (*str*) – The attribute/key in *obj* to get the value from.
- **accessor** (*callable*) – A callable used to retrieve the value of *attr* from the object *obj*. Defaults to *marshmallow.utils.get_value*.

make_error(*key: str*, ***kwargs*) → marshmallow.exceptions.ValidationError
Helper method to make a *ValidationError* with an error message from `self.error_messages`.

property missing

name = None

parent = None

root = None

serialize(*attr: str*, *obj: Any*, *accessor: Optional[Callable[[Any, str, Any], Any]] = None*, ***kwargs*)
Pulls the value for the given key from the object, applies the field's formatting and returns the result.

Parameters

- **attr** – The attribute/key to get from the object.
- **obj** – The object to access the attribute/key from.
- **accessor** – Function used to access values from `obj`.
- **kwargs** – Field-specific keyword arguments.

class app.serializers.role.**RoleSerializer**(**, only: Optional[Union[Sequence[str], Set[str]]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Optional[Dict] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: Optional[str] = None*)

class Meta

ordered = True

OPTIONS_CLASS
alias of `marshmallow.schema.SchemaOpts`

```
TYPE_MAPPING = {<class 'str'>: <class 'marshmallow.fields.String'>, <class
'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class
'marshmallow.fields.DateTime'>, <class 'float'>: <class
'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>,
<class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class
'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class
'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class
'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class
'marshmallow.fields.Time'>, <class 'datetime.date'>: <class
'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class
'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class
'marshmallow.fields.Decimal'>}
```

_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Bind field to the schema, setting any necessary attributes on the field (e.g. parent and name).

Also set field load_only and dump_only values if field_name was specified in `class Meta`.

static _call_and_store(*getter_func*, *data*, ***, *field_name*, *error_store*, *index=None*)
Call `getter_func` with `data` as its argument, and store any *ValidationErrors*.

Parameters

- **getter_func** (*callable*) – Function for getting the serialized/deserialized value from `data`.
- **data** – The data passed to `getter_func`.
- **field_name** (*str*) – Field name.
- **index** (*int*) – Index of the item being validated, if validating a collection, otherwise *None*.

```
_declared_fields = {'created_at':
<fields.TimestampField(dump_default=<marshmallow.missing>, attribute=None,
validate=None, required=False, load_only=False, dump_only=True,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.'})>, 'deleted_at':
<fields.TimestampField(dump_default=<marshmallow.missing>, attribute=None,
validate=None, required=False, load_only=False, dump_only=True,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.'})>, 'description':
<fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.',
'invalid_utf8': 'Not a valid utf-8 string.'})>, 'id':
<fields.Integer(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid integer.',
'too_large': 'Number too large.'})>, 'label':
<fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.',
'invalid_utf8': 'Not a valid utf-8 string.'})>, 'name':
<fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=True, load_default=<marshmallow.missing>,
allow_none=False, error_messages={'required': 'Missing data for required field.',
'null': 'Field may not be null.', 'validator_failed': 'Invalid value.', 'invalid':
'Not a valid string.', 'invalid_utf8': 'Not a valid utf-8 string.'})>,
'updated_at': <fields.TimestampField(dump_default=<marshmallow.missing>,
attribute=None, validate=None, required=False, load_only=False, dump_only=True,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.'})>}
```

```
_default_error_messages = {'type': 'Invalid input type.', 'unknown': 'Unknown
field.'}
```

_deserialize(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *error_store: marshmallow.error_store.ErrorStore*, *many: bool = False*, *partial=False*, *unknown='raise'*, *index=None*) → Union[marshmallow.schema._T, List[marshmallow.schema._T]]

Deserialize `data`.

Parameters

- **data** (*dict*) – The data to deserialize.
- **error_store** (*ErrorStore*) – Structure to store errors.
- **many** (*bool*) – *True* if `data` should be deserialized as a collection.
- **partial** (*bool | tuple*) – Whether to ignore missing fields and not require any fields de-

clared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **index** (*int*) – Index of the item being serialized (for storing errors) if serializing a collection, otherwise *None*.

Returns A dictionary of the deserialized data.

_do_load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, *postprocess: bool = True*)

Deserialize *data*, returning the deserialized result. This method is private API.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to validate required fields. If its value is an iterable, only fields listed in that iterable will be ignored will be allowed missing. If *True*, all fields will be allowed missing. If *None*, the value for *self.partial* is used.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.
- **postprocess** – Whether to run post_load methods..

Returns Deserialized data

_has_processors(*tag*) → bool

_hooks = defaultdict(<class 'list'>, {('post_load', False): ['sluglify_name'], 'validates': ['validate_id', 'validate_name']})

_init_fields() → None

Update self.fields, self.load_fields, and self.dump_fields based on schema options. This method is private API.

_invoke_dump_processors(*tag: str*, *data*, ***, *many: bool*, *original_data=None*)

_invoke_field_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *data*, *many: bool*)

_invoke_load_processors(*tag: str*, *data*, ***, *many: bool*, *original_data*, *partial: Union[bool, Sequence[str], Set[str]]*)

_invoke_processors(*tag: str*, ***, *pass_many: bool*, *data*, *many: bool*, *original_data=None*, ***kwargs*)

_invoke_schema_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *pass_many: bool*, *data*, *original_data*, *many: bool*, *partial: Union[bool, Sequence[str], Set[str]]*, *field_errors: bool = False*)

_normalize_nested_options() → None

Apply then flatten nested schema options. This method is private API.

_run_validator(*validator_func*, *output*, ***, *original_data*, *error_store*, *many*, *partial*, *pass_original*, *index=None*)

_serialize(*obj: Union[marshmallow.schema._T, Iterable[marshmallow.schema._T]]*, ***, *many: bool = False*)

Serialize `obj`.

Parameters

- **obj** – The object(s) to serialize.
- **many** (*bool*) – *True* if `data` should be serialized as a collection.

Returns A dictionary of the serialized data

Changed in version 1.0.0: Renamed from `marshal`.

property dict_class: type

dump(*obj: Any*, *, *many: Optional[bool] = None*)
Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

dumps(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)
Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

error_messages = {}
Overrides for default schema-level error messages

fields
Dictionary mapping field_names -> `Field` objects

classmethod from_dict(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, *, *name: str = 'GeneratedSchema'*) → type
Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.

- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

get_attribute(*obj: Any*, *attr: str*, *default: Any*)
Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

handle_error(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)
Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.
- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

jsonify(*obj*, *many=<object object>*, **args*, ***kwargs*)
Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)
Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

loads(*json_data: str*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)
Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

on_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Hook to modify a field when it is bound to the *Schema*.

No-op by default.

opts = <marshmallow.schema.SchemaOpts object>

property set_class: type

sluglify_name(*item*, *many*, ***kwargs*)

validate(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]
Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

validate_id(*role_id*)

validate_name(*value*, ***kwargs*)

app.serializers.user

Description

Classes

UserExportWordSerializer(*[, only, exclude, ...])	
UserSerializer(*[, only, exclude, many, ...])	
VerifyRoleId(*, load_default, missing, ...)	

app.serializers.user.UserExportWordSerializer

class app.serializers.user.**UserExportWordSerializer**(*, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

Bases: flask_marshmallow.schema.Schema

Attributes

UserExportWordSerializer.TYPE_MAPPING	
UserExportWordSerializer.dict_class	
UserExportWordSerializer.error_messages	Overrides for default schema-level error messages
UserExportWordSerializer.opts	
UserExportWordSerializer.set_class	

app.serializers.user.UserExportWordSerializer.TYPE_MAPPING

UserExportWordSerializer.**TYPE_MAPPING** = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}

app.serializers.user.UserExportWordSerializer.dict_class

property UserExportWordSerializer.**dict_class**: **type**

app.serializers.user.UserExportWordSerializer.error_messages

UserExportWordSerializer.**error_messages** = {}

Overrides for default schema-level error messages

app.serializers.user.UserExportWordSerializer.opts

UserExportWordSerializer.**opts** = <marshmallow.schema.SchemaOpts object>

app.serializers.user.UserExportWordSerializer.set_class

property UserExportWordSerializer.**set_class**: **type**

Methods

UserExportWordSerializer.__init__(*[, only, ...])	
UserExportWordSerializer.dump(obj, *[, many])	Serialize an object to native Python data types according to this Schema's fields.
UserExportWordSerializer.dumps(obj, *args[, ...])	Same as *dump()*, except return a JSON-encoded string.
UserExportWordSerializer.from_dict(fields, *)	Generate a *Schema* class given a dictionary of fields.
UserExportWordSerializer.get_attribute(obj, ...)	Defines how to pull values from an object to serialize.

continues on next page

Table 120 – continued from previous page

UserExportWordSerializer.handle_error(error, ...)	Custom error handler function for the schema.
UserExportWordSerializer.jsonify(obj[, many])	Return a JSON response containing the serialized data.
UserExportWordSerializer.load(data, *[, ...])	Deserialize a data structure to an object defined by this Schema's fields.
UserExportWordSerializer.loads(json_data, *)	Same as *load()*, except it takes a JSON string as input.
UserExportWordSerializer.on_bind_field(...)	Hook to modify a field when it is bound to the *Schema*.
UserExportWordSerializer.process_input(...)	
UserExportWordSerializer.validate(data, *[, ...])	Validate *data* against the schema, returning a dictionary of validation errors.

app.serializers.user.UserExportWordSerializer.__init__

UserExportWordSerializer.**__init__**(*, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

app.serializers.user.UserExportWordSerializer.dump

UserExportWordSerializer.**dump**(*obj: Any*, *, *many: Optional[bool] = None*)

Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

app.serializers.user.UserExportWordSerializer.dumps

UserExportWordSerializer.**dumps**(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)

Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

app.serializers.user.UserExportWordSerializer.from_dict

classmethod UserExportWordSerializer.**from_dict**(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, ***, *name: str = 'GeneratedSchema'*) → type

Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

app.serializers.user.UserExportWordSerializer.get_attribute

UserExportWordSerializer.**get_attribute**(*obj: Any*, *attr: str*, *default: Any*)

Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

app.serializers.user.UserExportWordSerializer.handle_error

UserExportWordSerializer.**handle_error**(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)

Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.
- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

app.serializers.user.UserExportWordSerializer.jsonify

UserExportWordSerializer.**jsonify**(*obj*, *many=<object object>*, **args*, ***kwargs*)

Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

app.serializers.user.UserExportWordSerializer.load

UserExportWordSerializer.**load**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)

Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.user.UserExportWordSerializer.loads

`UserExportWordSerializer.`**`loads`**(*json_data: str*, *, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)

Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.user.UserExportWordSerializer.on_bind_field

`UserExportWordSerializer.`**`on_bind_field`**(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None

Hook to modify a field when it is bound to the *Schema*.

No-op by default.

app.serializers.user.UserExportWordSerializer.process_input

`UserExportWordSerializer.`**`process_input`**(*value*, *many*, ***kwargs*)

app.serializers.user.UserExportWordSerializer.validate

`UserExportWordSerializer.`**`validate`**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, *, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]

Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.

- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

app.serializers.user.UserSerializer

class app.serializers.user.**UserSerializer**(*, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

Bases: `flask_marshmallow.schema.Schema`

Attributes

UserSerializer.TYPE_MAPPING	
UserSerializer.dict_class	
UserSerializer.error_messages	Overrides for default schema-level error messages
UserSerializer.opts	
UserSerializer.set_class	

app.serializers.user.UserSerializer.TYPE_MAPPING

UserSerializer.**TYPE_MAPPING** = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}

app.serializers.user.UserSerializer.dict_class

property UserSerializer.**dict_class: type**

app.serializers.user.UserSerializer.error_messages

UserSerializer.**error_messages = {}**

Overrides for default schema-level error messages

app.serializers.user.UserSerializer.opts

UserSerializer.**opts = <marshmallow.schema.SchemaOpts object>**

app.serializers.user.UserSerializer.set_class

property UserSerializer.**set_class: type**

Methods

UserSerializer.__init__(*[, only, exclude, ...])	
UserSerializer.dump(obj, *[, many])	Serialize an object to native Python data types according to this Schema's fields.
UserSerializer.dumps(obj, *args[, many])	Same as *dump()*, except return a JSON-encoded string.
UserSerializer.from_dict(fields, *[, name])	Generate a *Schema* class given a dictionary of fields.
UserSerializer.get_attribute(obj, attr, default)	Defines how to pull values from an object to serialize.
UserSerializer.handle_error(error, data, *, ...)	Custom error handler function for the schema.
UserSerializer.jsonify(obj[, many])	Return a JSON response containing the serialized data.
UserSerializer.load(data, *[, many, ...])	Deserialize a data structure to an object defined by this Schema's fields.
UserSerializer.loads(json_data, *[, many, ...])	Same as *load()*, except it takes a JSON string as input.
UserSerializer.on_bind_field(field_name, ...)	Hook to modify a field when it is bound to the *Schema*.
UserSerializer.validate(data, *[, many, partial])	Validate *data* against the schema, returning a dictionary of validation errors.
UserSerializer.validate_email(email)	
UserSerializer.validate_id(user_id)	

app.serializers.user.UserSerializer.__init__

UserSerializer.__init__(*, only: Optional[Union[Sequence[str], Set[str]]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Optional[Dict] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: Optional[str] = None)

app.serializers.user.UserSerializer.dump

UserSerializer.**dump**(*obj: Any*, *, *many: Optional[bool] = None*)

Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

app.serializers.user.UserSerializer.dumps

UserSerializer.**dumps**(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)

Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

app.serializers.user.UserSerializer.from_dict

classmethod UserSerializer.**from_dict**(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, ***, *name: str = 'GeneratedSchema'*) → type

Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters
- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

app.serializers.user.UserSerializer.get_attribute

`UserSerializer.`**`get_attribute`**(*obj: Any*, *attr: str*, *default: Any*)

Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

app.serializers.user.UserSerializer.handle_error

`UserSerializer.`**`handle_error`**(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)

Custom error handler function for the schema.

Parameters
- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.
- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

app.serializers.user.UserSerializer.jsonify

`UserSerializer.`**`jsonify`**(*obj*, *many=<object object>*, **args*, ***kwargs*)

Return a JSON response containing the serialized data.

Parameters
- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

app.serializers.user.UserSerializer.load

UserSerializer.**load**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)

Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.user.UserSerializer.loads

UserSerializer.**loads**(*json_data: str*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)

Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

app.serializers.user.UserSerializer.on_bind_field

UserSerializer.**on_bind_field**(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None

Hook to modify a field when it is bound to the *Schema*.

No-op by default.

app.serializers.user.UserSerializer.validate

UserSerializer.**validate**(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]

Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

app.serializers.user.UserSerializer.validate_email

UserSerializer.**validate_email**(*email: str*)

app.serializers.user.UserSerializer.validate_id

UserSerializer.**validate_id**(*user_id: int*)

app.serializers.user.VerifyRoleId

class app.serializers.user.**VerifyRoleId**(**, load_default: Any = <marshmallow.missing>, missing: Any = <marshmallow.missing>, dump_default: Any = <marshmallow.missing>, default: Any = <marshmallow.missing>, data_key: Optional[str] = None, attribute: Optional[str] = None, validate: Optional[Union[Callable[[Any], Any], Iterable[Callable[[Any], Any]]]] = None, required: bool = False, allow_none: Optional[bool] = None, load_only: bool = False, dump_only: bool = False, error_messages: Optional[Dict[str, str]] = None, metadata: Optional[Mapping[str, Any]] = None, **additional_metadata*)

Bases: `marshmallow.fields.Field`

Attributes

VerifyRoleId.context	The context dictionary for the parent Schema.
VerifyRoleId.default	
VerifyRoleId.default_error_messages	Default error messages for various kinds of errors.
VerifyRoleId.missing	
VerifyRoleId.name	
VerifyRoleId.parent	
VerifyRoleId.root	

app.serializers.user.VerifyRoleId.context

property VerifyRoleId.**context**
The context dictionary for the parent Schema.

app.serializers.user.VerifyRoleId.default

property VerifyRoleId.**default**

app.serializers.user.VerifyRoleId.default_error_messages

VerifyRoleId.**default_error_messages = {'null': 'Field may not be null.', 'required': 'Missing data for required field.', 'validator_failed': 'Invalid value.'}**
Default error messages for various kinds of errors. The keys in this dictionary are passed to *Field.make_error*. The values are error messages passed to marshmallow.exceptions.ValidationError.

app.serializers.user.VerifyRoleId.missing

property VerifyRoleId.**missing**

app.serializers.user.VerifyRoleId.name

VerifyRoleId.**name = None**

app.serializers.user.VerifyRoleId.parent

VerifyRoleId.**parent = None**

app.serializers.user.VerifyRoleId.root

VerifyRoleId.**root = None**

Methods

VerifyRoleId.__init__(*[, load_default, ...])	
VerifyRoleId.deserialize(value[, attr, data])	Deserialize `value`.
VerifyRoleId.fail(key, **kwargs)	Helper method that raises a *ValidationError* with an error message from `self.error_messages`.
VerifyRoleId.get_value(obj, attr[, ...])	Return the value for a given key from an object.
VerifyRoleId.make_error(key, **kwargs)	Helper method to make a *ValidationError* with an error message from `self.error_messages`.
VerifyRoleId.serialize(attr, obj[, accessor])	Pulls the value for the given key from the object, applies the field's formatting and returns the result.

app.serializers.user.VerifyRoleId.__init__

VerifyRoleId.**__init__**(**, load_default: Any = <marshmallow.missing>, missing: Any = <marshmallow.missing>, dump_default: Any = <marshmallow.missing>, default: Any = <marshmallow.missing>, data_key: Optional[str] = None, attribute: Optional[str] = None, validate: Optional[Union[Callable[[Any], Any], Iterable[Callable[[Any], Any]]]] = None, required: bool = False, allow_none: Optional[bool] = None, load_only: bool = False, dump_only: bool = False, error_messages: Optional[Dict[str, str]] = None, metadata: Optional[Mapping[str, Any]] = None, **additional_metadata*) → None

app.serializers.user.VerifyRoleId.deserialize

VerifyRoleId.**deserialize**(*value: Any*, *attr: Optional[str] = None*, *data: Optional[Mapping[str, Any]] = None*, ***kwargs*)

Deserialize `value`.

Parameters

- **value** – The value to deserialize.
- **attr** – The attribute/key in *data* to deserialize.
- **data** – The raw input data passed to *Schema.load*.
- **kwargs** – Field-specific keyword arguments.

Raises **ValidationError** – If an invalid value is passed or if a required value is missing.

app.serializers.user.VerifyRoleId.fail

VerifyRoleId.**fail**(*key: str*, ***kwargs*)

Helper method that raises a *ValidationError* with an error message from `self.error_messages`.

Deprecated since version 3.0.0: Use *make_error <marshmallow.fields.Field.make_error>* instead.

app.serializers.user.VerifyRoleId.get_value

VerifyRoleId.**get_value**(*obj*, *attr*, *accessor=None*, *default=<marshmallow.missing>*)

Return the value for a given key from an object.

Parameters

- **obj** (*object*) – The object to get the value from.
- **attr** (*str*) – The attribute/key in *obj* to get the value from.
- **accessor** (*callable*) – A callable used to retrieve the value of *attr* from the object *obj*. Defaults to *marshmallow.utils.get_value*.

app.serializers.user.VerifyRoleId.make_error

VerifyRoleId.**make_error**(*key: str*, ***kwargs*) → marshmallow.exceptions.ValidationError

Helper method to make a *ValidationError* with an error message from `self.error_messages`.

app.serializers.user.VerifyRoleId.serialize

VerifyRoleId.**serialize**(*attr: str*, *obj: Any*, *accessor: Optional[Callable[[Any, str, Any], Any]] = None*, ***kwargs*)

Pulls the value for the given key from the object, applies the field's formatting and returns the result.

Parameters

- **attr** – The attribute/key to get from the object.
- **obj** – The object to access the attribute/key from.
- **accessor** – Function used to access values from `obj`.
- **kwargs** – Field-specific keyword arguments.

class app.serializers.user.**UserExportWordSerializer**(**, only: Optional[Union[Sequence[str], Set[str]]] = None, exclude: Union[Sequence[str], Set[str]] = (), many: bool = False, context: Optional[Dict] = None, load_only: Union[Sequence[str], Set[str]] = (), dump_only: Union[Sequence[str], Set[str]] = (), partial: Union[bool, Sequence[str], Set[str]] = False, unknown: Optional[str] = None*)

class Meta

Options object for a Schema.

Example usage:

```
class Meta:
    fields = ("id", "email", "date_created")
    exclude = ("password", "secret_attribute")
```

Available options:

- `fields`: Tuple or list of fields to include in the serialized result.
- **`additional`: Tuple or list of fields to include *in addition* to the** explicitly declared fields. `additional` and `fields` are mutually-exclusive options.
- **`include`: Dictionary of additional fields to include in the schema. It is** usually better to define fields as class variables, but you may need to use this option, e.g., if your fields are Python keywords. May be an *OrderedDict*.
- **`exclude`: Tuple or list of fields to exclude in the serialized result.** Nested fields can be represented with dot delimiters.
- `dateformat`: Default format for *Date* <*fields.Date*> fields.
- `datetimeformat`: Default format for *DateTime* <*fields.DateTime*> fields.
- `timeformat`: Default format for *Time* <*fields.Time*> fields.
- **`render_module`: Module to use for *loads* <*Schema.loads*> and *dumps* <*Schema.dumps*>.** Defaults to *json* from the standard library.
- **`ordered`: If *True*, order serialization output according to the** order in which fields were declared. Output of *Schema.dump* will be a *collections.OrderedDict*.
- **`index_errors`: If *True*, errors dictionaries will include the index** of invalid items in a collection.
- `load_only`: Tuple or list of fields to exclude from serialized results.
- `dump_only`: Tuple or list of fields to exclude from deserialization
- **`unknown`: Whether to exclude, include, or raise an error for unknown** fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **`register`: Whether to register the *Schema* with marshmallow's internal** class registry. Must be *True* if you intend to refer to this *Schema* by class name in *Nested* fields. Only set this to *False* when memory usage is critical. Defaults to *True*.

`OPTIONS_CLASS`
alias of `marshmallow.schema.SchemaOpts`

`TYPE_MAPPING = {<class 'str'>: <class 'marshmallow.fields.String'>, <class 'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class 'marshmallow.fields.DateTime'>, <class 'float'>: <class 'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>, <class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class 'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class 'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class 'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class 'marshmallow.fields.Time'>, <class 'datetime.date'>: <class 'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class 'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class 'marshmallow.fields.Decimal'>}`

_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Bind field to the schema, setting any necessary attributes on the field (e.g. parent and name).

Also set field load_only and dump_only values if field_name was specified in `class Meta`.

static _call_and_store(*getter_func*, *data*, ***, *field_name*, *error_store*, *index=None*)
Call `getter_func` with `data` as its argument, and store any *ValidationErrors*.

Parameters

- **getter_func** (*callable*) – Function for getting the serialized/deserialized value from `data`.
- **data** – The data passed to `getter_func`.
- **field_name** (*str*) – Field name.
- **index** (*int*) – Index of the item being validated, if validating a collection, otherwise *None*.

_declared_fields = {'to_pdf': <fields.Integer(dump_default=<marshmallow.missing>, attribute=None, validate=<OneOf(choices=[1, 0], labels=[], error='Must be one of: {choices}.')>, required=False, load_only=False, dump_only=False, load_default=<marshmallow.missing>, allow_none=False, error_messages={'required': 'Missing data for required field.', 'null': 'Field may not be null.', 'validator_failed': 'Invalid value.', 'invalid': 'Not a valid integer.', 'too_large': 'Number too large.'})>}

_default_error_messages = {'type': 'Invalid input type.', 'unknown': 'Unknown field.'}

_deserialize(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *error_store: marshmallow.error_store.ErrorStore*, *many: bool = False*, *partial=False*, *unknown='raise'*, *index=None*) → Union[marshmallow.schema._T, List[marshmallow.schema._T]]
Deserialize `data`.

Parameters

- **data** (*dict*) – The data to deserialize.
- **error_store** (*ErrorStore*) – Structure to store errors.
- **many** (*bool*) – *True* if `data` should be deserialized as a collection.
- **partial** (*bool | tuple*) – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **index** (*int*) – Index of the item being serialized (for storing errors) if serializing a collection, otherwise *None*.

Returns A dictionary of the deserialized data.

_do_load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, *postprocess: bool = True*)
Deserialize *data*, returning the deserialized result. This method is private API.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.

- **partial** – Whether to validate required fields. If its value is an iterable, only fields listed in that iterable will be ignored will be allowed missing. If *True*, all fields will be allowed missing. If *None*, the value for *self.partial* is used.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.
- **postprocess** – Whether to run post_load methods..

Returns Deserialized data

_has_processors(*tag*) → bool

_hooks = {('pre_load', False): ['process_input']}

_init_fields() → None
Update self.fields, self.load_fields, and self.dump_fields based on schema options. This method is private API.

_invoke_dump_processors(*tag: str*, *data*, ***, *many: bool*, *original_data=None*)

_invoke_field_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *data*, *many: bool*)

_invoke_load_processors(*tag: str*, *data*, ***, *many: bool*, *original_data*, *partial: Union[bool, Sequence[str], Set[str]]*)

_invoke_processors(*tag: str*, ***, *pass_many: bool*, *data*, *many: bool*, *original_data=None*, ***kwargs*)

_invoke_schema_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *pass_many: bool*, *data*, *original_data*, *many: bool*, *partial: Union[bool, Sequence[str], Set[str]]*, *field_errors: bool = False*)

_normalize_nested_options() → None
Apply then flatten nested schema options. This method is private API.

_run_validator(*validator_func*, *output*, ***, *original_data*, *error_store*, *many*, *partial*, *pass_original*, *index=None*)

_serialize(*obj: Union[marshmallow.schema._T, Iterable[marshmallow.schema._T]]*, ***, *many: bool = False*)
Serialize `obj`.

Parameters

- **obj** – The object(s) to serialize.
- **many** (*bool*) – *True* if `data` should be serialized as a collection.

Returns A dictionary of the serialized data

Changed in version 1.0.0: Renamed from `marshal`.

property dict_class: type

dump(*obj: Any*, ***, *many: Optional[bool] = None*)
Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

dumps(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)
Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

error_messages = {}
Overrides for default schema-level error messages

fields
Dictionary mapping field_names -> `Field` objects

classmethod from_dict(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, ***, *name: str = 'GeneratedSchema'*) → type
Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

get_attribute(*obj: Any*, *attr: str*, *default: Any*)
Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

handle_error(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)
Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.

- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

jsonify(*obj*, *many=<object object>*, **args*, ***kwargs*)
Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)
Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

loads(*json_data: str*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)
Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

on_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Hook to modify a field when it is bound to the *Schema*.

No-op by default.

opts = <marshmallow.schema.SchemaOpts object>

process_input(*value*, *many*, ***kwargs*)

property set_class: type

validate(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]
Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

class app.serializers.user.**UserSerializer**(***, *only: Optional[Union[Sequence[str], Set[str]]] = None*, *exclude: Union[Sequence[str], Set[str]] = ()*, *many: bool = False*, *context: Optional[Dict] = None*, *load_only: Union[Sequence[str], Set[str]] = ()*, *dump_only: Union[Sequence[str], Set[str]] = ()*, *partial: Union[bool, Sequence[str], Set[str]] = False*, *unknown: Optional[str] = None*)

class Meta

ordered = True

OPTIONS_CLASS
alias of `marshmallow.schema.SchemaOpts`

```
TYPE_MAPPING = {<class 'str'>: <class 'marshmallow.fields.String'>, <class
'bytes'>: <class 'marshmallow.fields.String'>, <class 'datetime.datetime'>: <class
'marshmallow.fields.DateTime'>, <class 'float'>: <class
'marshmallow.fields.Float'>, <class 'bool'>: <class 'marshmallow.fields.Boolean'>,
<class 'tuple'>: <class 'marshmallow.fields.Raw'>, <class 'list'>: <class
'marshmallow.fields.Raw'>, <class 'set'>: <class 'marshmallow.fields.Raw'>, <class
'int'>: <class 'marshmallow.fields.Integer'>, <class 'uuid.UUID'>: <class
'marshmallow.fields.UUID'>, <class 'datetime.time'>: <class
'marshmallow.fields.Time'>, <class 'datetime.date'>: <class
'marshmallow.fields.Date'>, <class 'datetime.timedelta'>: <class
'marshmallow.fields.TimeDelta'>, <class 'decimal.Decimal'>: <class
'marshmallow.fields.Decimal'>}
```

_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Bind field to the schema, setting any necessary attributes on the field (e.g. parent and name).

Also set field load_only and dump_only values if field_name was specified in `class Meta`.

static _call_and_store(*getter_func*, *data*, ***, *field_name*, *error_store*, *index=None*)
Call `getter_func` with `data` as its argument, and store any *ValidationErrors*.

Parameters

- **getter_func** (*callable*) – Function for getting the serialized/deserialized value from `data`.
- **data** – The data passed to `getter_func`.
- **field_name** (*str*) – Field name.
- **index** (*int*) – Index of the item being validated, if validating a collection, otherwise *None*.

```
_declared_fields = {'active': <fields.Boolean(dump_default=<marshmallow.missing>,
attribute=None, validate=None, required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid boolean.'})>,
'birth_date': <fields.Date(dump_default=<marshmallow.missing>, attribute=None,
validate=None, required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid date.',
'invalid_awareness': 'Not a valid {awareness} {obj_type}.', 'format': '"{input}"
cannot be formatted as a date.'})>, 'created_at':
<fields.TimestampField(dump_default=<marshmallow.missing>, attribute=None,
validate=None, required=False, load_only=False, dump_only=True,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.'})>, 'created_by':
<fields.Nested(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'type': 'Invalid type.'})>, 'deleted_at':
<fields.TimestampField(dump_default=<marshmallow.missing>, attribute=None,
validate=None, required=False, load_only=False, dump_only=True,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.'})>, 'email':
<fields.Email(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=True, load_only=False, dump_only=False, load_default=<marshmallow.missing>,
allow_none=False, error_messages={'required': 'Missing data for required field.',
'null': 'Field may not be null.', 'validator_failed': 'Invalid value.', 'invalid':
'Not a valid email address.', 'invalid_utf8': 'Not a valid utf-8 string.'})>,
'genre': <fields.String(dump_default=<marshmallow.missing>, attribute=None,
validate=<OneOf(choices=['m', 'f'], labels=[], error='Must be one of:
{choices}.')>, required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.',
'invalid_utf8': 'Not a valid utf-8 string.'})>, 'id':
<fields.Integer(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid integer.',
'too_large': 'Number too large.'})>, 'last_name':
<fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.',
'invalid_utf8': 'Not a valid utf-8 string.'})>, 'name':
<fields.String(dump_default=<marshmallow.missing>, attribute=None, validate=None,
required=False, load_only=False, dump_only=False,
load_default=<marshmallow.missing>, allow_none=False, error_messages={'required':
'Missing data for required field.', 'null': 'Field may not be null.',
'validator_failed': 'Invalid value.', 'invalid': 'Not a valid string.',
'invalid_utf8': 'Not a valid utf-8 string.'})>, 'password':
<fields.String(dump_default=<marshmallow.missing>, attribute=None,
validate=<Length(min=8, max=50, equal=None, error=None)>, required=False,
load_only=True, dump_only=False, load_default=<marshmallow.missing>,
```

_default_error_messages = {'type': 'Invalid input type.', 'unknown': 'Unknown field.'}

_deserialize(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *error_store: marshmallow.error_store.ErrorStore*, *many: bool = False*, *partial=False*, *unknown='raise'*, *index=None*) → Union[marshmallow.schema._T, List[marshmallow.schema._T]]

Deserialize `data`.

Parameters

- **data** (*dict*) – The data to deserialize.
- **error_store** (*ErrorStore*) – Structure to store errors.
- **many** (*bool*) – *True* if `data` should be deserialized as a collection.
- **partial** (*bool | tuple*) – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*.
- **index** (*int*) – Index of the item being serialized (for storing errors) if serializing a collection, otherwise *None*.

Returns A dictionary of the deserialized data.

_do_load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, *postprocess: bool = True*)

Deserialize *data*, returning the deserialized result. This method is private API.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to validate required fields. If its value is an iterable, only fields listed in that iterable will be ignored will be allowed missing. If *True*, all fields will be allowed missing. If *None*, the value for *self.partial* is used.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.
- **postprocess** – Whether to run post_load methods..

Returns Deserialized data

_has_processors(*tag*) → bool

_hooks = {'validates': ['validate_email', 'validate_id']}

_init_fields() → None

Update self.fields, self.load_fields, and self.dump_fields based on schema options. This method is private API.

_invoke_dump_processors(*tag: str*, *data*, ***, *many: bool*, *original_data=None*)

_invoke_field_validators(***, *error_store: marshmallow.error_store.ErrorStore*, *data*, *many: bool*)

_invoke_load_processors(*tag: str*, *data*, ***, *many: bool*, *original_data*, *partial: Union[bool, Sequence[str], Set[str]]*)

_invoke_processors(*tag: str*, ***, *pass_many: bool*, *data*, *many: bool*, *original_data=None*, ***kwargs*)

_invoke_schema_validators(*, *error_store: marshmallow.error_store.ErrorStore*, *pass_many: bool*, *data*, *original_data*, *many: bool*, *partial: Union[bool, Sequence[str], Set[str]]*, *field_errors: bool = False*)

_normalize_nested_options() → None
Apply then flatten nested schema options. This method is private API.

_run_validator(*validator_func*, *output*, *, *original_data*, *error_store*, *many*, *partial*, *pass_original*, *index=None*)

_serialize(*obj: Union[marshmallow.schema._T, Iterable[marshmallow.schema._T]]*, *, *many: bool = False*)
Serialize `obj`.

Parameters

- **obj** – The object(s) to serialize.
- **many** (*bool*) – *True* if `data` should be serialized as a collection.

Returns A dictionary of the serialized data

Changed in version 1.0.0: Renamed from `marshal`.

property dict_class: type

dump(*obj: Any*, *, *many: Optional[bool] = None*)
Serialize an object to native Python data types according to this Schema's fields.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns Serialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

Changed in version 3.0.0rc9: Validation no longer occurs upon serialization.

dumps(*obj: Any*, **args*, *many: Optional[bool] = None*, ***kwargs*)
Same as *dump()*, except return a JSON-encoded string.

Parameters

- **obj** – The object to serialize.
- **many** – Whether to serialize *obj* as a collection. If *None*, the value for *self.many* is used.

Returns A `json` string

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the serialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if `obj` is invalid.

error_messages = {}
Overrides for default schema-level error messages

fields
Dictionary mapping field_names -> `Field` objects

classmethod from_dict(*fields: Dict[str, Union[marshmallow.fields.Field, type]]*, ***, *name: str = 'GeneratedSchema'*) → type

Generate a *Schema* class given a dictionary of fields.

```
from marshmallow import Schema, fields

PersonSchema = Schema.from_dict({"name": fields.Str()})
print(PersonSchema().load({"name": "David"}))  # => {'name': 'David'}
```

Generated schemas are not added to the class registry and therefore cannot be referred to by name in *Nested* fields.

Parameters

- **fields** (*dict*) – Dictionary mapping field names to field instances.
- **name** (*str*) – Optional name for the class, which will appear in the `repr` for the class.

New in version 3.0.0.

get_attribute(*obj: Any*, *attr: str*, *default: Any*)

Defines how to pull values from an object to serialize.

New in version 2.0.0.

Changed in version 3.0.0a1: Changed position of `obj` and `attr`.

handle_error(*error: marshmallow.exceptions.ValidationError*, *data: Any*, ***, *many: bool*, ***kwargs*)

Custom error handler function for the schema.

Parameters

- **error** – The *ValidationError* raised during (de)serialization.
- **data** – The original input data.
- **many** – Value of `many` on dump or load.
- **partial** – Value of `partial` on load.

New in version 2.0.0.

Changed in version 3.0.0rc9: Receives *many* and *partial* (on deserialization) as keyword arguments.

jsonify(*obj*, *many=<object object>*, **args*, ***kwargs*)

Return a JSON response containing the serialized data.

Parameters

- **obj** – Object to serialize.
- **many** (*bool*) – Whether *obj* should be serialized as an instance or as a collection. If unset, defaults to the value of the *many* attribute on this Schema.
- **kwargs** – Additional keyword arguments passed to *flask.jsonify*.

Changed in version 0.6.0: Takes the same arguments as *marshmallow.Schema.dump*. Additional keyword arguments are passed to *flask.jsonify*.

Changed in version 0.6.3: The *many* argument for this method defaults to the value of the *many* attribute on the Schema. Previously, the *many* argument of this method defaulted to False, regardless of the value of *Schema.many*.

load(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*)

Deserialize a data structure to an object defined by this Schema's fields.

Parameters

- **data** – The data to deserialize.
- **many** – Whether to deserialize *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

loads(*json_data: str*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*, *unknown: Optional[str] = None*, ***kwargs*)
Same as *load()*, except it takes a JSON string as input.

Parameters

- **json_data** – A JSON string of the data to deserialize.
- **many** – Whether to deserialize *obj* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.
- **unknown** – Whether to exclude, include, or raise an error for unknown fields in the data. Use *EXCLUDE*, *INCLUDE* or *RAISE*. If *None*, the value for *self.unknown* is used.

Returns Deserialized data

New in version 1.0.0.

Changed in version 3.0.0b7: This method returns the deserialized data rather than a `(data, errors)` duple. A `ValidationError` is raised if invalid data are passed.

on_bind_field(*field_name: str*, *field_obj: marshmallow.fields.Field*) → None
Hook to modify a field when it is bound to the *Schema*.

No-op by default.

opts = <marshmallow.schema.SchemaOpts object>

property set_class: type

validate(*data: Union[Mapping[str, Any], Iterable[Mapping[str, Any]]]*, ***, *many: Optional[bool] = None*, *partial: Optional[Union[bool, Sequence[str], Set[str]]] = None*) → Dict[str, List[str]]
Validate *data* against the schema, returning a dictionary of validation errors.

Parameters

- **data** – The data to validate.
- **many** – Whether to validate *data* as a collection. If *None*, the value for *self.many* is used.
- **partial** – Whether to ignore missing fields and not require any fields declared. Propagates down to `Nested` fields as well. If its value is an iterable, only missing fields listed in that iterable will be ignored. Use dot delimiters to specify nested fields.

Returns A dictionary of validation errors.

New in version 1.1.0.

validate_email(*email: str*)

validate_id(*user_id: int*)

class app.serializers.user.**VerifyRoleId**(**, load_default: Any = <marshmallow.missing>, missing: Any = <marshmallow.missing>, dump_default: Any = <marshmallow.missing>, default: Any = <marshmallow.missing>, data_key: Optional[str] = None, attribute: Optional[str] = None, validate: Optional[Union[Callable[[Any], Any], Iterable[Callable[[Any], Any]]]] = None, required: bool = False, allow_none: Optional[bool] = None, load_only: bool = False, dump_only: bool = False, error_messages: Optional[Dict[str, str]] = None, metadata: Optional[Mapping[str, Any]] = None, **additional_metadata*)

_CHECK_ATTRIBUTE = True

_bind_to_schema(*field_name*, *schema*)

Update field with values from its parent schema. Called by `Schema._bind_field`.

Parameters

- **field_name** (*str*) – Field name set in schema.
- **schema** (*Schema | Field*) – Parent object.

_creation_index = 129

_deserialize(*value*, **args*, ***kwargs*)

Deserialize value. Concrete `Field` classes should implement this method.

Parameters

- **value** – The value to be deserialized.
- **attr** – The attribute/key in *data* to be deserialized.
- **data** – The raw input data passed to the *Schema.load*.
- **kwargs** – Field-specific keyword arguments.

Raises **ValidationError** – In case of formatting or validation failure.

Returns The deserialized value.

Changed in version 2.0.0: Added `attr` and `data` parameters.

Changed in version 3.0.0: Added `**kwargs` to signature.

_serialize(*value: Any*, *attr: str*, *obj: Any*, ***kwargs*)

Serializes `value` to a basic Python datatype. Noop by default. Concrete `Field` classes should implement this method.

Example:

```
class TitleCase(Field):
    def _serialize(self, value, attr, obj, **kwargs):
        if not value:
```

(continues on next page)

(continued from previous page)

```
            return ''
        return str(value).title()
```

Parameters

- **value** – The value to be serialized.
- **attr** (*str*) – The attribute or key on the object to be serialized.
- **obj** (*object*) – The object the value was pulled from.
- **kwargs** (*dict*) – Field-specific keyword arguments.

Returns The serialized value

_validate(*value*)
Perform validation on `value`. Raise a `ValidationError` if validation does not succeed.

property _validate_all

_validate_missing(*value*)
Validate missing values. Raise a `ValidationError` if *value* should be considered missing.

property context
The context dictionary for the parent `Schema`.

property default

default_error_messages = {'null': 'Field may not be null.', 'required': 'Missing data for required field.', 'validator_failed': 'Invalid value.'}
Default error messages for various kinds of errors. The keys in this dictionary are passed to *Field.make_error*. The values are error messages passed to `marshmallow.exceptions.ValidationError`.

deserialize(*value: Any*, *attr: Optional[str] = None*, *data: Optional[Mapping[str, Any]] = None*, ***kwargs*)
Deserialize `value`.

Parameters

- **value** – The value to deserialize.
- **attr** – The attribute/key in *data* to deserialize.
- **data** – The raw input data passed to *Schema.load*.
- **kwargs** – Field-specific keyword arguments.

Raises **ValidationError** – If an invalid value is passed or if a required value is missing.

fail(*key: str*, ***kwargs*)
Helper method that raises a *ValidationError* with an error message from `self.error_messages`.

Deprecated since version 3.0.0: Use *make_error <marshmallow.fields.Field.make_error>* instead.

get_value(*obj*, *attr*, *accessor=None*, *default=<marshmallow.missing>*)
Return the value for a given key from an object.

Parameters

- **obj** (*object*) – The object to get the value from.
- **attr** (*str*) – The attribute/key in *obj* to get the value from.

- **accessor** (*callable*) – A callable used to retrieve the value of *attr* from the object *obj*. Defaults to *marshmallow.utils.get_value*.

make_error(*key: str*, ***kwargs*) → marshmallow.exceptions.ValidationError
Helper method to make a *ValidationError* with an error message from `self.error_messages`.

property missing

name = None

parent = None

root = None

serialize(*attr: str*, *obj: Any*, *accessor: Optional[Callable[[Any, str, Any], Any]] = None*, ***kwargs*)
Pulls the value for the given key from the object, applies the field's formatting and returns the result.

Parameters

- **attr** – The attribute/key to get from the object.
- **obj** – The object to access the attribute/key from.
- **accessor** – Function used to access values from `obj`.
- **kwargs** – Field-specific keyword arguments.

2.1.9 app.services

Description

Registers services for managing business logic.

Modules

app.services.auth

app.services.base

app.services.document

app.services.role

app.services.task

app.services.user

app.services.auth

Description

Classes

AuthService()

app.services.auth.AuthService

class app.services.auth.**AuthService**
Bases: object

Methods

AuthService.__init__()
AuthService.check_token_status(token)
AuthService.confirm_request_reset_password(...)
AuthService.login_user(**kwargs)
AuthService.logout_user()
AuthService.request_reset_password(**kwargs)

app.services.auth.AuthService.__init__

AuthService.**__init__**()

app.services.auth.AuthService.check_token_status

AuthService.**check_token_status**(*token*)

app.services.auth.AuthService.confirm_request_reset_password

AuthService.**confirm_request_reset_password**(*token: str*, *password: str*) → str

app.services.auth.AuthService.login_user

AuthService.**login_user**(***kwargs*) → str

app.services.auth.AuthService.logout_user

static AuthService.**logout_user**()

app.services.auth.AuthService.request_reset_password

AuthService.**request_reset_password**(***kwargs*)

class app.services.auth.**AuthService**

check_token_status(*token*)

confirm_request_reset_password(*token: str*, *password: str*) → str

login_user(***kwargs*) → str

static logout_user()

request_reset_password(***kwargs*)

app.services.base

Description

Classes

BaseService(*args, **kwargs)

app.services.base.BaseService

class app.services.base.**BaseService**(**args*, ***kwargs*)

Bases: object

Methods

BaseService.__init__(*args, **kwargs)
BaseService.create(**kwargs)
BaseService.delete(record_id)
BaseService.find(record_id, *args)

continues on next page

Table 129 – continued from previous page

BaseService.get(**kwargs)
BaseService.save(record_id, **kwargs)

app.services.base.BaseService.__init__

BaseService.**__init__**(**args*, ***kwargs*)

app.services.base.BaseService.create

BaseService.**create**(***kwargs*)

app.services.base.BaseService.delete

BaseService.**delete**(*record_id: int*)

app.services.base.BaseService.find

BaseService.**find**(*record_id: int*, **args*)

app.services.base.BaseService.get

BaseService.**get**(***kwargs*)

app.services.base.BaseService.save

BaseService.**save**(*record_id: int*, ***kwargs*)

class app.services.base.**BaseService**(**args*, ***kwargs*)

create(***kwargs*)

delete(*record_id: int*)

find(*record_id: int*, **args*)

get(***kwargs*)

save(*record_id: int*, ***kwargs*)

app.services.document

Description

Classes

DocumentService()

app.services.document.DocumentService

class app.services.document.**DocumentService**
Bases: *app.services.base.BaseService*

Methods

DocumentService.__init__()
DocumentService.create(**kwargs)
DocumentService.delete(document_id)
DocumentService.find(document_id, *args)
DocumentService.get(**kwargs)
DocumentService.get_document_content(...)
DocumentService.save(document_id, **kwargs)

app.services.document.DocumentService.__init__

DocumentService.**__init__**()

app.services.document.DocumentService.create

DocumentService.**create**(***kwargs*)

app.services.document.DocumentService.delete

DocumentService.**delete**(*document_id: int*)

app.services.document.DocumentService.find

DocumentService.**find**(*document_id: int*, **args*)

app.services.document.DocumentService.get

DocumentService.**get**(***kwargs*)

app.services.document.DocumentService.get_document_content

DocumentService.**get_document_content**(*document_id: int*, ***kwargs*)

app.services.document.DocumentService.save

DocumentService.**save**(*document_id: int*, ***kwargs*)

class app.services.document.**DocumentService**

create(***kwargs*)

delete(*document_id: int*)

find(*document_id: int*, **args*)

get(***kwargs*)

get_document_content(*document_id: int*, ***kwargs*)

save(*document_id: int*, ***kwargs*)

app.services.role

Description

Classes

RoleService()

app.services.role.RoleService

class app.services.role.**RoleService**
Bases: *app.services.base.BaseService*

Methods

RoleService.__init__()
RoleService.create(**kwargs)
RoleService.delete(role_id)
RoleService.find(role_id, *args)
RoleService.get(**kwargs)
RoleService.save(role_id, **kwargs)

app.services.role.RoleService.__init__

RoleService.**__init__**()

app.services.role.RoleService.create

RoleService.**create**(***kwargs*)

app.services.role.RoleService.delete

RoleService.**delete**(*role_id: int*)

app.services.role.RoleService.find

RoleService.**find**(*role_id: int*, **args*)

app.services.role.RoleService.get

RoleService.**get**(***kwargs*)

app.services.role.RoleService.save

RoleService.**save**(*role_id: int*, ***kwargs*)

class app.services.role.**RoleService**

create(***kwargs*)

delete(*role_id: int*)

find(*role_id: int*, **args*)

get(***kwargs*)

save(*role_id: int*, ***kwargs*)

app.services.task

Description

Classes

TaskService()

app.services.task.TaskService

class app.services.task.**TaskService**

Bases: object

Methods

TaskService.__init__()
TaskService.check_task_status(task_id)
TaskService.export_user_data_in_excel(data)
TaskService.export_user_data_in_excel_and_word(...)
TaskService.export_user_data_in_word(data, args)
TaskService.find_by_id(task_id)
TaskService.reset_password_email(**kwargs)
TaskService.send_create_user_email(**kwargs)

app.services.task.TaskService.__init__

TaskService.**__init__**()

app.services.task.TaskService.check_task_status

TaskService.**check_task_status**(*task_id: str*) → dict

app.services.task.TaskService.export_user_data_in_excel

TaskService.**export_user_data_in_excel**(*data*)

app.services.task.TaskService.export_user_data_in_excel_and_word

TaskService.**export_user_data_in_excel_and_word**(*data*, *args*)

app.services.task.TaskService.export_user_data_in_word

TaskService.**export_user_data_in_word**(*data: dict*, *args: dict*)

app.services.task.TaskService.find_by_id

TaskService.**find_by_id**(*task_id: str*) → celery.local.PromiseProxy

app.services.task.TaskService.reset_password_email

TaskService.**reset_password_email**(***kwargs*)

app.services.task.TaskService.send_create_user_email

TaskService.**send_create_user_email**(***kwargs*)

class app.services.task.**TaskService**

check_task_status(*task_id: str*) → dict

export_user_data_in_excel(*data*)

export_user_data_in_excel_and_word(*data*, *args*)

export_user_data_in_word(*data: dict*, *args: dict*)

find_by_id(*task_id: str*) → celery.local.PromiseProxy

reset_password_email(***kwargs*)

send_create_user_email(***kwargs*)

app.services.user

Description

Classes

UserService(*args, **kwargs)

app.services.user.UserService

class app.services.user.**UserService**(**args*, ***kwargs*)
Bases: *app.services.base.BaseService*

Methods

UserService.__init__(*args, **kwargs)
UserService.create(user_data)
UserService.delete(user_id)
UserService.find(user_id, *args)
UserService.get(**kwargs)
UserService.save(user_id, **kwargs)

app.services.user.UserService.__init__

UserService.**__init__**(**args*, ***kwargs*)

app.services.user.UserService.create

UserService.**create**(*user_data*)

app.services.user.UserService.delete

UserService.**delete**(*user_id: int*)

app.services.user.UserService.find

UserService.**find**(*user_id: int*, **args*)

app.services.user.UserService.get

UserService.**get**(***kwargs*)

app.services.user.UserService.save

UserService.**save**(*user_id: int*, ***kwargs*)

class app.services.user.**UserService**(**args*, ***kwargs*)

create(*user_data*)

delete(*user_id: int*)

find(*user_id: int*, **args*)

get(***kwargs*)

save(*user_id: int*, ***kwargs*)

2.1.10 app.swagger

Description

Models registered in Swagger.

Modules

app.swagger.auth

app.swagger.core

app.swagger.document

app.swagger.role

app.swagger.user

app.swagger.auth

Description

app.swagger.core

Description

app.swagger.document

Description

app.swagger.role

Description

app.swagger.user

Description

2.1.11 app.utils

Description

Collection of functions and classes which make common patterns shorter and easier.

Modules

app.utils.constants	
app.utils.decorators	
app.utils.file_storage	
app.utils.libreoffice	
app.utils.request_query_operator	Module for creating a Peewee filter query via dynamic way.

app.utils.constants

Description

Attributes

MS_EXCEL_MIME_TYPE	REQUEST_QUERY_DELIMITER is used for converting requests field values to a list, for example: Request send these values: field_operator: contains field_values: valueA;valueB;valueC

app.utils.constants.MS_EXCEL_MIME_TYPE

app.utils.constants.**MS_EXCEL_MIME_TYPE** = 'application/vnd.openxmlformats-officedocument.spreadsheetml.sheet'

REQUEST_QUERY_DELIMITER is used for converting requests field values to a list, for example:

Request send these values: field_operator: contains field_values: valueA;valueB;valueC

The delimiter operator splits values to a list of values: field_values: [valueA, valueB, valueC]

app.utils.constants.**MS_EXCEL_MIME_TYPE** = 'application/vnd.openxmlformats-officedocument.spreadsheetml.sheet'

REQUEST_QUERY_DELIMITER is used for converting requests field values to a list, for example:

Request send these values: field_operator: contains field_values: valueA;valueB;valueC

The delimiter operator splits values to a list of values: field_values: [valueA, valueB, valueC]

app.utils.decorators

Description

Functions

token_required(fnc)	

app.utils.decorators.token_required

app.utils.decorators.**token_required**(*fnc*)

app.utils.decorators.**token_required**(*fnc*)

app.utils.file_storage

Description

Classes

FileStorage()	

app.utils.file_storage.FileStorage

class app.utils.file_storage.**FileStorage**
Bases: object

Methods

FileStorage.__init__()
FileStorage.copy_file(src, dst)
FileStorage.get_basename(filename[, ...])
FileStorage.get_filesize(filename)
FileStorage.rename(src, dst)
FileStorage.save_bytes(file_content, filename)

app.utils.file_storage.FileStorage.__init__

FileStorage.**__init__**()

app.utils.file_storage.FileStorage.copy_file

static FileStorage.**copy_file**(*src: str*, *dst: str*) → None

app.utils.file_storage.FileStorage.get_basename

static FileStorage.**get_basename**(*filename: str*, *include_path: bool = False*) → str

app.utils.file_storage.FileStorage.get_filesize

static FileStorage.**get_filesize**(*filename: str*) → int

app.utils.file_storage.FileStorage.rename

static FileStorage.**rename**(*src: str*, *dst: str*) → None

app.utils.file_storage.FileStorage.save_bytes

FileStorage.**save_bytes**(*file_content: bytes*, *filename: str*, *override: bool = False*)

class app.utils.file_storage.**FileStorage**

static copy_file(*src: str*, *dst: str*) → None

static get_basename(*filename: str*, *include_path: bool = False*) → str

static get_filesize(*filename: str*) → int

static rename(*src: str*, *dst: str*) → None

save_bytes(*file_content: bytes*, *filename: str*, *override: bool = False*)

app.utils.libreoffice

Description

Functions

convert_to(folder, source)

libreoffice_exec()

app.utils.libreoffice.convert_to

app.utils.libreoffice.**convert_to**(*folder: str*, *source: str*) → str

app.utils.libreoffice.libreoffice_exec

app.utils.libreoffice.**libreoffice_exec**() → str

Exceptions

LibreOfficeError(output)

app.utils.libreoffice.LibreOfficeError

exception app.utils.libreoffice.**LibreOfficeError**(*output*)

exception app.utils.libreoffice.**LibreOfficeError**(*output*)

args

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

app.utils.libreoffice.**convert_to**(*folder: str*, *source: str*) → str

app.utils.libreoffice.**libreoffice_exec**() → str

app.utils.request_query_operator

Description

Module for creating a Peewee filter query via dynamic way.

Next module is used for creating a Peewee query based on request fields.

References

Query operators http://docs.peewee-orm.com/en/latest/peewee/query_operators.html

Classes

Helper()	
RequestQueryOperator()	

app.utils.request_query_operator.Helper

class app.utils.request_query_operator.**Helper**
Bases: object

Methods

Helper.__init__()	
Helper.build_clause_operators(field, ...)	
Helper.build_order_by(db_model, request_data)	Build sorting fields with zero or more Column-like objects to order by.
Helper.build_sql_expression(field, ...)	

continues on next page

Table 147 – continued from previous page

Helper.build_string_clause(field, ...)	Build string clauses.

app.utils.request_query_operator.Helper.__init__

Helper.**__init__**()

app.utils.request_query_operator.Helper.build_clause_operators

Helper.**build_clause_operators**(*field: peewee.Field*, *field_operator: str*, *field_value*) → tuple

app.utils.request_query_operator.Helper.build_order_by

static Helper.**build_order_by**(*db_model: Type[peewee.Model]*, *request_data: dict*) → list
Build sorting fields with zero or more Column-like objects to order by.

Example

Peewee query: User.select().order_by(User.created_at.asc())

Request fields: >>> from app.models.user import User >>> db_model = User >>> request_data = {'order': [{'sorting': 'asc', 'field_name': 'created_at'}]} >>> Helper.build_order_by(db_model, request_data) [<peewee.Ordering object at ...>]

Notes

Actually is not posible to order across joins.

References

http://docs.peewee-orm.com/en/latest/peewee/querying.html#sorting-records http://docs.peewee-orm.com/en/latest/peewee/api.html#Query.order_by

app.utils.request_query_operator.Helper.build_sql_expression

Helper.**build_sql_expression**(*field: peewee.Field*, *field_operator: str*, *field_value*)

app.utils.request_query_operator.Helper.build_string_clause

Helper.**build_string_clause**(*field: peewee.Field*, *field_operator: str*, *field_value*) → tuple
Build string clauses.

You can find next string operators: +————+————————————————+ | Name | Description | +============+==+ | eq | x equals y | +————+————————————————+ | ne | x is not equal to y | +————+————————————————+ | contains | Wild-card search for substring | +————+————————————————+ | ncontains | Wild-card not search for substring | +————+————————————————+ | startswith | Search for values beginning with

prefix | +————+————————————+ | endswith | Search for values ending with suffix | +————+————————————+

Example

TODO: Pending to define

app.utils.request_query_operator.RequestQueryOperator

class app.utils.request_query_operator.**RequestQueryOperator**
Bases: object

Methods

RequestQueryOperator.__init__()
RequestQueryOperator.create_search_query(...)
RequestQueryOperator.get_request_query_fields(...)

app.utils.request_query_operator.RequestQueryOperator.__init__

RequestQueryOperator.**__init__**()

app.utils.request_query_operator.RequestQueryOperator.create_search_query

static RequestQueryOperator.**create_search_query**(*db_model: Type[peewee.Model]*, *query: peewee.ModelSelect*, *data: Optional[dict] = None*) → peewee.ModelSelect

app.utils.request_query_operator.RequestQueryOperator.get_request_query_fields

static RequestQueryOperator.**get_request_query_fields**(*db_model: Type[peewee.Model]*, *request_data=None*) → tuple

class app.utils.request_query_operator.**Helper**

build_clause_operators(*field: peewee.Field*, *field_operator: str*, *field_value*) → tuple

static build_order_by(*db_model: Type[peewee.Model]*, *request_data: dict*) → list
Build sorting fields with zero or more Column-like objects to order by.

Example

Peewee query: User.select().order_by(User.created_at.asc())

Request fields: >>> from app.models.user import User >>> db_model = User >>> request_data = {'order': [{'sorting': 'asc', 'field_name': 'created_at'}]} >>> Helper.build_order_by(db_model, request_data) [<peewee.Ordering object at ...>]

Notes

Actually is not posible to order across joins.

References

http://docs.peewee-orm.com/en/latest/peewee/querying.html#sorting-records http://docs.peewee-orm.com/en/latest/peewee/api.html#Query.order_by

build_sql_expression(*field: peewee.Field*, *field_operator: str*, *field_value*)

build_string_clause(*field: peewee.Field*, *field_operator: str*, *field_value*) → tuple

Build string clauses.

You can find next string operators: +————+————————————+ | Name | Description | +============+==+ | eq | x equals y | +————+————————————+ | ne | x is not equal to y | +————+————————————+ | contains | Wild-card search for substring | +————+————————————+ | ncontains | Wild-card not search for substring | +————+————————————+ | startswith | Search for values beginning with prefix | +————+————————————+ | endswith | Search for values ending with suffix | +————+————————————+

Example

TODO: Pending to define

class app.utils.request_query_operator.**RequestQueryOperator**

static create_search_query(*db_model: Type[peewee.Model]*, *query: peewee.ModelSelect*, *data: Optional[dict] = None*) → peewee.ModelSelect

static get_request_query_fields(*db_model: Type[peewee.Model]*, *request_data=None*) → tuple

Functions

filter_by_keys(data, keys)	
find_longest_word(word_list)	
get_attr_from_module(module, attr)	Get attribute from a module.
get_request_file([field_name])	

continues on next page

Table 149 – continued from previous page

ignore_keys(data, exclude)
pos_to_char(pos)
to_readable(obj)

app.utils.filter_by_keys

app.utils.**filter_by_keys**(*data: dict*, *keys: list*) → dict

app.utils.find_longest_word

app.utils.**find_longest_word**(*word_list: list*) → str

app.utils.get_attr_from_module

app.utils.**get_attr_from_module**(*module: str*, *attr: str*) → any

Get attribute from a module.

Parameters

- **module** (*str*) – Module absolute path.
- **attr** (*str*) – Module's attribute. It could be any kind of variable belongs to module.

Examples

```
>>> from app.utils import get_attr_from_module
>>> module_path = 'app.blueprints.base'
>>> module_attr = 'blueprint'
>>> get_attr_from_module(module_path, module_attr)
<flask.blueprints.Blueprint object at ...>
```

Raises

- **ImportError** – Module doesn't exist.
- **AttributeError** – Attribute doesn't exist in module.

app.utils.get_request_file

app.utils.**get_request_file**(*field_name: Optional[str] = None*) → dict

app.utils.ignore_keys

app.utils.**ignore_keys**(*data: dict*, *exclude: list*) → dict

app.utils.pos_to_char

app.utils.**pos_to_char**(*pos: int*) → str

app.utils.to_readable

app.utils.**to_readable**(*obj: object*) → object

app.utils.**filter_by_keys**(*data: dict*, *keys: list*) → dict

app.utils.**find_longest_word**(*word_list: list*) → str

app.utils.**get_attr_from_module**(*module: str*, *attr: str*) → any

Get attribute from a module.

Parameters

- **module** (*str*) – Module absolute path.
- **attr** (*str*) – Module's attribute. It could be any kind of variable belongs to module.

Examples

```
>>> from app.utils import get_attr_from_module
>>> module_path = 'app.blueprints.base'
>>> module_attr = 'blueprint'
>>> get_attr_from_module(module_path, module_attr)
<flask.blueprints.Blueprint object at ...>
```

Raises

- **ImportError** – Module doesn't exist.
- **AttributeError** – Attribute doesn't exist in module.

app.utils.**get_request_file**(*field_name: Optional[str] = None*) → dict

app.utils.**ignore_keys**(*data: dict*, *exclude: list*) → dict

app.utils.**pos_to_char**(*pos: int*) → str

app.utils.**to_readable**(*obj: object*) → object

Functions

create_app(env_config)	Builds an application based on environment configuration.

2.1.12 app.create_app

app.**create_app**(*env_config: str*) → flask.app.Flask
Builds an application based on environment configuration.

Parameters **env_config** – Environment configuration.

Returns A *flask.flask* instance.

Return type Flask

Notes

Environment configuration values could be:

```
config.ProdConfig
config.DevConfig
config.TestConfig
```

app.**_init_logging**(*app: flask.app.Flask*) → None

app.**_register_blueprints**(*app: flask.app.Flask*) → None

app.**create_app**(*env_config: str*) → flask.app.Flask
Builds an application based on environment configuration.

Parameters **env_config** – Environment configuration.

Returns A *flask.flask* instance.

Return type Flask

Notes

Environment configuration values could be:

```
config.ProdConfig
config.DevConfig
config.TestConfig
```

2.2 database

Description

Package for managing the database.

The database package can creates and migrates tables and it can fills them with fake data.

Modules

database.factories	Package contains factories modules.
database.migrations	
database.seeds	

2.2.1 database.factories

Description

Package contains factories modules.

A factory is a database model filled with fake data. The factory purposes is creating records in a simple way.

The module is used in testing and seeds.

References

The factory concept is based on Laravel factories

Classes

Factory(model_name[, records])	Class for managing factories based on database models.

database.factories.Factory

class database.factories.**Factory**(*model_name: str*, *records: int = 1*)

Bases: `object`

Class for managing factories based on database models.

Create and save instances of database models or dicts based on database models registered in the application.

make(*self*, *params: dict = None*, *to_dict: bool = False*, *exclude: list = None*)

Create instances of database models with fake data.

save(*self*, *params: dict = None*)

Save instances of database models in the database.

Examples

How to create a fake user without save in database from command line:

```
source venv/bin/activate
flask shell
>>> user_factory = Factory('User')
>>> user = user_factory.make()  # An instance of database model
<User: None>
>>> user.__data__  # You can see user data on this way
```

Oh, Wait!

```
>>> from pprint import pprint
>>> pprint(user.__data__)  # Even better!
```

You can save the user in the database.

```
>>> user.save()
1
```

Factory can create a dictionary instead of an instance of database model.

```
>>> user = user_factory.make(to_dict=True)
>>> pprint(user)
```

Also can set params too.

```
>>> user_factory = Factory('User')
>>> user = user_factory.make({'name': 'Ruben', 'last_name': 'Rodriguez'})
>>> user.name
'Ruben'
>>> user.last_name
'Rodriguez'
```

Factory allow to make many users in once time.

```
>>> user_factory = Factory('User', 3)
>>> users = user_factory.make()
[<User: None>, <User: None>, <User: None>]
```

If you want to fill some params later then you can pass a fieldnames list to the factory of thats fields that you don't want to fill yet.

```
>>> user_factory = Factory('User')
>>> user = user_factory.make(exclude=['name', 'birth_date'])
>>> user.name
None
>>> user.birth_date
None
```

If you only need to save data you can do it.

```
>>> Factory('User', 3).save()
[<User: 1>, <User: 2>, <User: 3>]
```

And you can set params for all users.

```
>>> Factory('User', 3).save({'name': 'Ruben'})
[<User: 4>, <User: 5>, <User: 6>]
```

Methods

Factory.__init__(model_name[, records])	Register as many factories as given records.
Factory.make([params, to_dict, exclude])	Create instances of database model with fake data.
Factory.save([params])	Save instances of database model in the database.

database.factories.Factory.__init__

Factory.**__init__**(*model_name: str*, *records: int = 1*)
Register as many factories as given records.

database.factories.Factory.make

Factory.**make**(*params: Optional[dict] = None*, *to_dict: bool = False*, *exclude: Optional[list] = None*) → any
Create instances of database model with fake data.

Parameters
- **params** (*dict*) – Params to set when an instance of database model is created.
- **to_dict** (*bool*) – If is True returns a dict otherwise is an instance of database model. By default is False.
- **exclude** (*list*) – Params are not going to be filled. These fields are equals to None.

Returns Could be a dict, a list or an instance of database model.
Return type any

database.factories.Factory.save

Factory.**save**(*params: Optional[dict] = None*) → any
Save instances of database model in the database.

Parameters **params** (*dict*) – Params to set when an instance of database model is created.
Returns Could be a list or an instance of database model.
Return type any

class database.factories.**Factory**(*model_name: str*, *records: int = 1*)
Class for managing factories based on database models.

Create and save instances of database models or dicts based on database models registered in the application.

make(*self*, *params: dict = None*, *to_dict: bool = False*, *exclude: list = None*)
Create instances of database models with fake data.

save(*self*, *params: dict = None*)
Save instances of database models in the database.

Examples

How to create a fake user without save in database from command line:

```
source venv/bin/activate
flask shell
>>> user_factory = Factory('User')
>>> user = user_factory.make()  # An instance of database model
<User: None>
>>> user.__data__  # You can see user data on this way
```

Oh, Wait!

```
>>> from pprint import pprint
>>> pprint(user.__data__)  # Even better!
```

You can save the user in the database.

```
>>> user.save()
1
```

Factory can create a dictionary instead of an instance of database model.

```
>>> user = user_factory.make(to_dict=True)
>>> pprint(user)
```

Also can set params too.

```
>>> user_factory = Factory('User')
>>> user = user_factory.make({'name': 'Ruben', 'last_name': 'Rodriguez'})
>>> user.name
'Ruben'
>>> user.last_name
'Rodriguez'
```

Factory allow to make many users in once time.

```
>>> user_factory = Factory('User', 3)
>>> users = user_factory.make()
[<User: None>, <User: None>, <User: None>]
```

If you want to fill some params later then you can pass a fieldnames list to the factory of thats fields that you don't want to fill yet.

```
>>> user_factory = Factory('User')
>>> user = user_factory.make(exclude=['name', 'birth_date'])
>>> user.name
None
>>> user.birth_date
None
```

If you only need to save data you can do it.

```
>>> Factory('User', 3).save()
[<User: 1>, <User: 2>, <User: 3>]
```

And you can set params for all users.

```
>>> Factory('User', 3).save({'name': 'Ruben'})
[<User: 4>, <User: 5>, <User: 6>]
```

__check_exists_factory(*factory_classname: str*, *model_name: str*) → None

__current_module = 'database.factories'

__models: list = None

make(*params: Optional[dict] = None*, *to_dict: bool = False*, *exclude: Optional[list] = None*) → any
Create instances of database model with fake data.

Parameters

- **params** (*dict*) – Params to set when an instance of database model is created.
- **to_dict** (*bool*) – If is True returns a dict otherwise is an instance of database model. By default is False.
- **exclude** (*list*) – Params are not going to be filled. These fields are equals to None.

Returns Could be a dict, a list or an instance of database model.

Return type any

save(*params: Optional[dict] = None*) → any
Save instances of database model in the database.

Parameters **params** (*dict*) – Params to set when an instance of database model is created.

Returns Could be a list or an instance of database model.

Return type any

2.2.2 database.migrations

Description

Modules

database.migrations. *aaa_add_genre_column_on_user_table*
database.migrations. *aab_add_created_by_column_on_user_table*
database.migrations. *aac_create_documents_table*
database.migrations. *aad_create_user_roles_table*
database.migrations. *aaf_remove_role_slug_column*
database.migrations. *aag_add_fs_uniquifier_column_on_users_table*

database.migrations.aaa_add_genre_column_on_user_table

Description

Classes

AddGenreColumnOnUserTable()	

database.migrations.aaa_add_genre_column_on_user_table.AddGenreColumnOnUserTable

class database.migrations.aaa_add_genre_column_on_user_table.**AddGenreColumnOnUserTable**
Bases: object

Methods

AddGenreColumnOnUserTable.__init__()	
AddGenreColumnOnUserTable.down()	
AddGenreColumnOnUserTable.up()	

database.migrations.aaa_add_genre_column_on_user_table.AddGenreColumnOnUserTable.__init__

AddGenreColumnOnUserTable.**__init__**()

database.migrations.aaa_add_genre_column_on_user_table.AddGenreColumnOnUserTable.down

AddGenreColumnOnUserTable.**down**()

database.migrations.aaa_add_genre_column_on_user_table.AddGenreColumnOnUserTable.up

AddGenreColumnOnUserTable.**up**()

class database.migrations.aaa_add_genre_column_on_user_table.**AddGenreColumnOnUserTable**

_exists_column() → bool

down()

up()

database.migrations.aab_add_created_by_column_on_user_table

Description

Classes

AddCreatedByColumnOnUserTable()	

database.migrations.aab_add_created_by_column_on_user_table.AddCreatedByColumnOnUserTable

class database.migrations.aab_add_created_by_column_on_user_table.**AddCreatedByColumnOnUserTable**

Bases: object

Methods

AddCreatedByColumnOnUserTable.__init__()	
AddCreatedByColumnOnUserTable.down()	
AddCreatedByColumnOnUserTable.up()	

database.migrations.aab_add_created_by_column_on_user_table.AddCreatedByColumnOnUserTable.__

AddCreatedByColumnOnUserTable.**__init__**()

database.migrations.aab_add_created_by_column_on_user_table.AddCreatedByColumnOnUserTable.do

AddCreatedByColumnOnUserTable.**down**()

database.migrations.aab_add_created_by_column_on_user_table.AddCreatedByColumnOnUserTable.up

AddCreatedByColumnOnUserTable.**up**()

class database.migrations.aab_add_created_by_column_on_user_table.**AddCreatedByColumnOnUserTable**

_exists_column() → bool

down()

up()

database.migrations.aac_create_documents_table

Description

Classes

CreateDocumentsTable()	

database.migrations.aac_create_documents_table.CreateDocumentsTable

class database.migrations.aac_create_documents_table.**CreateDocumentsTable**
Bases: object

Methods

CreateDocumentsTable.__init__()	
CreateDocumentsTable.down()	
CreateDocumentsTable.up()	

database.migrations.aac_create_documents_table.CreateDocumentsTable.__init__

CreateDocumentsTable.**__init__**()

database.migrations.aac_create_documents_table.CreateDocumentsTable.down

CreateDocumentsTable.**down**()

database.migrations.aac_create_documents_table.CreateDocumentsTable.up

CreateDocumentsTable.**up**()

class database.migrations.aac_create_documents_table.**CreateDocumentsTable**

_exists_table() → bool

down()

up()

database.migrations.aad_create_user_roles_table

Description

Classes

CreateUserRolesTable()	

database.migrations.aad_create_user_roles_table.CreateUserRolesTable

class database.migrations.aad_create_user_roles_table.**CreateUserRolesTable**
Bases: object

Methods

CreateUserRolesTable.__init__()	
CreateUserRolesTable.down()	
CreateUserRolesTable.up()	

database.migrations.aad_create_user_roles_table.CreateUserRolesTable.__init__

CreateUserRolesTable.**__init__**()

database.migrations.aad_create_user_roles_table.CreateUserRolesTable.down

CreateUserRolesTable.**down**()

database.migrations.aad_create_user_roles_table.CreateUserRolesTable.up

CreateUserRolesTable.**up**()

class database.migrations.aad_create_user_roles_table.**CreateUserRolesTable**

static _add_foreign_key_constraint_users_table() → None
https://www.sqlite.org/lang_altertable.html

static _drop_foreign_key_constraint_users_table() → list
https://www.sqlite.org/lang_altertable.html

_exists_table() → bool

down()

up()

class database.migrations.aad_create_user_roles_table._OldUser(*args, **kwargs)

DoesNotExist
alias of database.migrations.aad_create_user_roles_table._OldUserDoesNotExist

_coerce = True

_meta = <peewee.Metadata object>

classmethod _normalize_data(*data*, *kwargs*)

property _pk

_pk_expr()

_populate_unsaved_relations(*field_dict*)

_prune_fields(*field_dict*, *only*)

_schema = <peewee.SchemaManager object>

active = <BooleanField: _OldUser.active>

classmethod add_index(**fields*, ***kwargs*)

classmethod alias(*alias=None*)

classmethod bind(*database*, *bind_refs=True*, *bind_backrefs=True*, *_exclude=None*)

classmethod bind_ctx(*database*, *bind_refs=True*, *bind_backrefs=True*)

birth_date = <DateField: _OldUser.birth_date>

classmethod bulk_create(*model_list*, *batch_size=None*)

classmethod bulk_update(*model_list*, *fields*, *batch_size=None*)

children

clone()

coerce(*_coerce=True*)

static copy(*method*)

classmethod create(***query*)

classmethod create_table(*safe=True*, ***options*)

created_at = <TimestampField: _OldUser.created_at>

created_by = <ForeignKeyField: _OldUser.created_by>

created_by_id = <ForeignKeyField: _OldUser.created_by>

classmethod delete()

classmethod delete_by_id(*pk*)

delete_instance(*recursive=False*, *delete_nullable=False*)

deleted_at = <TimestampField: _OldUser.deleted_at>

dependencies(*search_nullable=False*)

property dirty_fields

classmethod drop_table(*safe=True*, *drop_sequences=True*, ***options*)

email = <CharField: _OldUser.email>

classmethod filter(**dq_nodes*, ***filters*)

genre = <FixedCharField: _OldUser.genre>

classmethod get(**query*, ***filters*)

classmethod get_by_id(*pk*)

classmethod get_fields(*exclude: Optional[list] = None*, *include: Optional[list] = None*, *sort_order: Optional[list] = None*) → set

get_id()

classmethod get_or_create(***kwargs*)

classmethod get_or_none(**query*, ***filters*)

id = <AutoField: _OldUser.id>

classmethod index(**fields*, ***kwargs*)

classmethod insert(*_Model__data=None*, ***insert*)

classmethod insert_from(*query*, *fields*)

classmethod insert_many(*rows*, *fields=None*)

property is_active

is_alias()

property is_anonymous

property is_authenticated

is_dirty()

last_name = <CharField: _OldUser.last_name>

name = <CharField: _OldUser.name>

classmethod noop()

password = <CharField: _OldUser.password>

static raw(*query: str*)

reload()

classmethod replace(*_Model__data=None*, ***insert*)

classmethod replace_many(*rows*, *fields=None*)

role = <ForeignKeyField: _OldUser.role>

role_id = <ForeignKeyField: _OldUser.role>

abstract save(**args: list*, ***kwargs: dict*) → int

classmethod select(**fields*)

classmethod set_by_id(*key*, *value*)

classmethod table_exists()

classmethod truncate_table(***options*)

unwrap()

classmethod update(*_Model__data=None*, ***update*)

updated_at = <TimestampField: _OldUser.updated_at>

classmethod validate_model()

database.migrations.aaf_remove_role_slug_column

Description

Classes

RemoveRoleSlugColumn()

database.migrations.aaf_remove_role_slug_column.RemoveRoleSlugColumn

class database.migrations.aaf_remove_role_slug_column.**RemoveRoleSlugColumn**
Bases: object

Methods

RemoveRoleSlugColumn.__init__()
RemoveRoleSlugColumn.down()
RemoveRoleSlugColumn.up()

database.migrations.aaf_remove_role_slug_column.RemoveRoleSlugColumn.__init__

RemoveRoleSlugColumn.**__init__**()

database.migrations.aaf_remove_role_slug_column.RemoveRoleSlugColumn.down

RemoveRoleSlugColumn.**down**()

database.migrations.aaf_remove_role_slug_column.RemoveRoleSlugColumn.up

RemoveRoleSlugColumn.**up**()

class database.migrations.aaf_remove_role_slug_column.**RemoveRoleSlugColumn**

static **_add_unique_constraint_roles_table**() → None
https://www.sqlite.org/lang_altertable.html

static **_drop_unique_constraint_roles_table**() → None
https://www.sqlite.org/lang_altertable.html

_exists_column() → bool

down()

up()

class database.migrations.aaf_remove_role_slug_column._OldRole(*args, **kwargs)

DoesNotExist
alias of database.migrations.aaf_remove_role_slug_column._OldRoleDoesNotExist

_coerce = True

_meta = <peewee.Metadata object>

classmethod _normalize_data(*data*, *kwargs*)

property _pk

_pk_expr()

_populate_unsaved_relations(*field_dict*)

_prune_fields(*field_dict*, *only*)

_schema = <peewee.SchemaManager object>

classmethod add_index(**fields*, ***kwargs*)

add_permissions(*permissions: Union[set, list, str]*) → None
Add one or more permissions to role.

Parameters **permissions** – a set, list, or single string.

New in version 3.3.0.

Deprecated since version 3.4.4: Use UserDatastore.add_permissions_to_role()

classmethod alias(*alias=None*)

classmethod bind(*database*, *bind_refs=True*, *bind_backrefs=True*, *_exclude=None*)

classmethod bind_ctx(*database*, *bind_refs=True*, *bind_backrefs=True*)

classmethod bulk_create(*model_list*, *batch_size=None*)

classmethod bulk_update(*model_list*, *fields*, *batch_size=None*)

clone()

coerce(*_coerce=True*)

static copy(*method*)

classmethod create(***query*)

classmethod create_table(*safe=True*, ***options*)

created_at = <TimestampField: _OldRole.created_at>

classmethod delete()

classmethod delete_by_id(*pk*)

delete_instance(*recursive=False*, *delete_nullable=False*)

deleted_at = <TimestampField: _OldRole.deleted_at>

dependencies(*search_nullable=False*)

description = <TextField: _OldRole.description>

property dirty_fields

classmethod drop_table(*safe=True*, *drop_sequences=True*, ***options*)

classmethod filter(**dq_nodes*, ***filters*)

classmethod get(**query*, ***filters*)

classmethod get_by_id(*pk*)

classmethod get_fields(*exclude: Optional[list] = None*, *include: Optional[list] = None*, *sort_order: Optional[list] = None*) → set

get_id()

classmethod get_or_create(***kwargs*)

classmethod get_or_none(**query*, ***filters*)

get_permissions() → set
Return set of permissions associated with role.

Supports permissions being a comma separated string, an iterable, or a set based on how the underlying DB model was built.

New in version 3.3.0.

id = <AutoField: _OldRole.id>

classmethod index(**fields*, ***kwargs*)

classmethod insert(*_Model__data=None*, ***insert*)

classmethod insert_from(*query*, *fields*)

classmethod insert_many(*rows*, *fields=None*)

is_alias()

is_dirty()

name = <CharField: _OldRole.name>

classmethod noop()

static raw(*query: str*)

reload()

remove_permissions(*permissions: Union[set, list, str]*) → None
Remove one or more permissions from role.

Parameters **permissions** – a set, list, or single string.

New in version 3.3.0.

Deprecated since version 3.4.4: Use `UserDatastore.remove_permissions_from_role()`

classmethod replace(*_Model__data=None*, ***insert*)

classmethod replace_many(*rows*, *fields=None*)

abstract save(**args: list*, ***kwargs: dict*) → int

classmethod select(**fields*)

classmethod set_by_id(*key*, *value*)

slug = <CharField: _OldRole.slug>

classmethod table_exists()

classmethod truncate_table(***options*)

unwrap()

classmethod update(*_Model__data=None*, ***update*)

updated_at = <TimestampField: _OldRole.updated_at>

classmethod validate_model()

database.migrations.aag_add_fs_uniquifier_column_on_users_table

Description

Classes

AddFsUniquifierColumnOnUsersTable()

database.migrations.aag_add_fs_uniquifier_column_on_users_table.AddFsUniquifierColumnOnUsersTable

class database.migrations.aag_add_fs_uniquifier_column_on_users_table.
AddFsUniquifierColumnOnUsersTable
Bases: object

Methods

AddFsUniquifierColumnOnUsersTable.__init__()
AddFsUniquifierColumnOnUsersTable.down()
AddFsUniquifierColumnOnUsersTable.up()

database.migrations.aag_add_fs_uniquifier_column_on_users_table.AddFsUniquifierColumnOnUsersTa

AddFsUniquifierColumnOnUsersTable.__init__()

database.migrations.aag_add_fs_uniquifier_column_on_users_table.AddFsUniquifierColumnOnUsersTa

AddFsUniquifierColumnOnUsersTable.**down**()

database.migrations.aag_add_fs_uniquifier_column_on_users_table.AddFsUniquifierColumnOnUsersTa

AddFsUniquifierColumnOnUsersTable.**up**()

class database.migrations.aag_add_fs_uniquifier_column_on_users_table.
AddFsUniquifierColumnOnUsersTable

_exists_column() → bool

down()

up()

Classes

Migration(*args, **kwargs)

database.migrations.Migration

class database.migrations.**Migration**(**args*, ***kwargs*)
Bases: playhouse.flask_utils.FlaskDB.get_model_class.<locals>.BaseModel

Attributes

Migration.dirty_fields
Migration.id
Migration.name

database.migrations.Migration.dirty_fields

property Migration.**dirty_fields**

database.migrations.Migration.id

Migration.**id = <AutoField: BaseModel.id>**

database.migrations.Migration.name

Migration.**name = <CharField: Migration.name>**

Methods

Migration.__init__(*args, **kwargs)
Migration.add_index(*fields, **kwargs)
Migration.alias([alias])
Migration.bind(database[, bind_refs, ...])
Migration.bind_ctx(database[, bind_refs, ...])
Migration.bulk_create(model_list[, batch_size])
Migration.bulk_update(model_list, fields[, ...])
Migration.clone()
Migration.coerce([_coerce])
Migration.copy(method)
Migration.create(**query)
Migration.create_table([safe])
Migration.delete()
Migration.delete_by_id(pk)
Migration.delete_instance([recursive, ...])
Migration.dependencies([search_nullable])
Migration.drop_table([safe, drop_sequences])
Migration.filter(*dq_nodes, **filters)
Migration.get(*query, **filters)
Migration.get_by_id(pk)

continues on next page

Table 169 – continued from previous page

Migration.get_id()
Migration.get_or_create(**kwargs)
Migration.get_or_none(*query, **filters)
Migration.index(*fields, **kwargs)
Migration.insert([_Model__data])
Migration.insert_from(query, fields)
Migration.insert_many(rows[, fields])
Migration.is_alias()
Migration.is_dirty()
Migration.noop()
Migration.raw(sql, *params)
Migration.replace([_Model__data])
Migration.replace_many(rows[, fields])
Migration.save([force_insert, only])
Migration.select(*fields)
Migration.set_by_id(key, value)
Migration.table_exists()
Migration.truncate_table(**options)
Migration.unwrap()
Migration.update([_Model__data])
Migration.validate_model()

database.migrations.Migration.__init__

Migration.**__init__**(**args*, ***kwargs*)

database.migrations.Migration.add_index

classmethod Migration.**add_index**(**fields*, ***kwargs*)

database.migrations.Migration.alias

classmethod Migration.**alias**(*alias=None*)

database.migrations.Migration.bind

classmethod Migration.**bind**(*database*, *bind_refs=True*, *bind_backrefs=True*, *_exclude=None*)

database.migrations.Migration.bind_ctx

classmethod Migration.**bind_ctx**(*database*, *bind_refs=True*, *bind_backrefs=True*)

database.migrations.Migration.bulk_create

classmethod Migration.**bulk_create**(*model_list*, *batch_size=None*)

database.migrations.Migration.bulk_update

classmethod Migration.**bulk_update**(*model_list*, *fields*, *batch_size=None*)

database.migrations.Migration.clone

Migration.**clone**()

database.migrations.Migration.coerce

Migration.**coerce**(*_coerce=True*)

database.migrations.Migration.copy

static Migration.**copy**(*method*)

database.migrations.Migration.create

classmethod Migration.**create**(***query*)

database.migrations.Migration.create_table

classmethod Migration.**create_table**(*safe=True*, ***options*)

database.migrations.Migration.delete

classmethod Migration.**delete**()

database.migrations.Migration.delete_by_id

classmethod Migration.**delete_by_id**(*pk*)

database.migrations.Migration.delete_instance

Migration.**delete_instance**(*recursive=False*, *delete_nullable=False*)

database.migrations.Migration.dependencies

Migration.**dependencies**(*search_nullable=False*)

database.migrations.Migration.drop_table

classmethod Migration.**drop_table**(*safe=True*, *drop_sequences=True*, ***options*)

database.migrations.Migration.filter

classmethod Migration.**filter**(**dq_nodes*, ***filters*)

database.migrations.Migration.get

classmethod Migration.**get**(**query*, ***filters*)

database.migrations.Migration.get_by_id

classmethod Migration.**get_by_id**(*pk*)

database.migrations.Migration.get_id

Migration.**get_id**()

database.migrations.Migration.get_or_create

classmethod Migration.**get_or_create**(***kwargs*)

database.migrations.Migration.get_or_none

classmethod Migration.**get_or_none**(**query*, ***filters*)

database.migrations.Migration.index

classmethod Migration.**index**(**fields*, ***kwargs*)

database.migrations.Migration.insert

classmethod Migration.**insert**(*_Model__data=None*, ***insert*)

database.migrations.Migration.insert_from

classmethod Migration.**insert_from**(*query*, *fields*)

database.migrations.Migration.insert_many

classmethod Migration.**insert_many**(*rows*, *fields=None*)

database.migrations.Migration.is_alias

Migration.**is_alias**()

database.migrations.Migration.is_dirty

Migration.**is_dirty**()

database.migrations.Migration.noop

classmethod Migration.**noop**()

database.migrations.Migration.raw

classmethod Migration.**raw**(*sql*, **params*)

database.migrations.Migration.replace

classmethod Migration.**replace**(*_Model__data=None*, ***insert*)

database.migrations.Migration.replace_many

classmethod Migration.**replace_many**(*rows*, *fields=None*)

database.migrations.Migration.save

Migration.**save**(*force_insert=False*, *only=None*)

database.migrations.Migration.select

classmethod Migration.**select**(**fields*)

database.migrations.Migration.set_by_id

classmethod Migration.**set_by_id**(*key*, *value*)

database.migrations.Migration.table_exists

classmethod Migration.**table_exists**()

database.migrations.Migration.truncate_table

classmethod Migration.**truncate_table**(***options*)

database.migrations.Migration.unwrap

Migration.**unwrap**()

database.migrations.Migration.update

classmethod Migration.**update**(*_Model__data=None*, ***update*)

database.migrations.Migration.validate_model

classmethod Migration.**validate_model**()

Functions

get_migration_names()
init_migrations([rollback])
migrate_actions(fnc)
rollback_actions(fnc)

database.migrations.get_migration_names

database.migrations.**get_migration_names**() → list

database.migrations.init_migrations

database.migrations.**init_migrations**(*rollback: bool = False*) → None

database.migrations.migrate_actions

database.migrations.**migrate_actions**(*fnc*)

database.migrations.rollback_actions

database.migrations.**rollback_actions**(*fnc*)

class database.migrations.**Migration**(**args*, ***kwargs*)

DoesNotExist
alias of database.migrations.MigrationDoesNotExist

_coerce = True

_meta = <peewee.Metadata object>

classmethod _normalize_data(*data*, *kwargs*)

property _pk

_pk_expr()

_populate_unsaved_relations(*field_dict*)

_prune_fields(*field_dict*, *only*)

_schema = <peewee.SchemaManager object>

classmethod add_index(**fields*, ***kwargs*)

classmethod alias(*alias=None*)

classmethod bind(*database*, *bind_refs=True*, *bind_backrefs=True*, *_exclude=None*)

classmethod bind_ctx(*database*, *bind_refs=True*, *bind_backrefs=True*)

classmethod bulk_create(*model_list*, *batch_size=None*)

classmethod bulk_update(*model_list*, *fields*, *batch_size=None*)

clone()

coerce(*_coerce=True*)

static copy(*method*)

classmethod create(***query*)

classmethod create_table(*safe=True*, ***options*)

classmethod delete()

classmethod delete_by_id(*pk*)

delete_instance(*recursive=False*, *delete_nullable=False*)

dependencies(*search_nullable=False*)

property dirty_fields

classmethod drop_table(*safe=True*, *drop_sequences=True*, ***options*)

classmethod filter(**dq_nodes*, ***filters*)

classmethod get(**query*, ***filters*)

classmethod get_by_id(*pk*)

get_id()

classmethod get_or_create(***kwargs*)

classmethod get_or_none(**query*, ***filters*)

id = <AutoField: BaseModel.id>

classmethod index(**fields*, ***kwargs*)

classmethod insert(*_Model__data=None*, ***insert*)

classmethod insert_from(*query*, *fields*)

classmethod insert_many(*rows*, *fields=None*)

is_alias()

is_dirty()

name = <CharField: Migration.name>

classmethod noop()

classmethod raw(*sql*, **params*)

classmethod replace(*_Model__data=None*, ***insert*)

classmethod replace_many(*rows*, *fields=None*)

save(*force_insert=False*, *only=None*)

classmethod select(**fields*)

classmethod set_by_id(*key*, *value*)

classmethod table_exists()

classmethod truncate_table(***options*)

unwrap()

classmethod update(*_Model__data=None*, ***update*)

classmethod validate_model()

database.migrations.**get_migration_names**() → list

database.migrations.**init_migrations**(*rollback: bool = False*) → None

database.migrations.**migrate_actions**(*fnc*)

database.migrations.**rollback_actions**(*fnc*)

2.2.3 database.seeds

Description

Modules

database.seeds.document_seeder

database.seeds.role_seeder

database.seeds.user_seeder

database.seeds.document_seeder

Description

Classes

DocumentSeeder([rows])

database.seeds.document_seeder.DocumentSeeder

class database.seeds.document_seeder.**DocumentSeeder**(*rows: int = 30*)
Bases: object

Attributes

DocumentSeeder.name

database.seeds.document_seeder.DocumentSeeder.name

DocumentSeeder.**name** = **'DocumentSeeder'**

Methods

DocumentSeeder.__init__([rows])

database.seeds.document_seeder.DocumentSeeder.__init__

DocumentSeeder.**__init__**(*rows: int = 30*)

class database.seeds.document_seeder.**DocumentSeeder**(*rows: int = 30*)

name = 'DocumentSeeder'

database.seeds.role_seeder

Description

Classes

RoleSeeder()

database.seeds.role_seeder.RoleSeeder

class database.seeds.role_seeder.**RoleSeeder**

Bases: object

Attributes

RoleSeeder.name

database.seeds.role_seeder.RoleSeeder.name

RoleSeeder.**name = 'RoleSeeder'**

Methods

RoleSeeder.__init__()

database.seeds.role_seeder.RoleSeeder.__init__

RoleSeeder.**__init__**()

class database.seeds.role_seeder.**RoleSeeder**

static _create_admin_role() → None

static _create_team_leader() → None

static _create_worker_role() → None

name = 'RoleSeeder'

database.seeds.user_seeder

Description

Classes

UserSeeder([rows])	

database.seeds.user_seeder.UserSeeder

class database.seeds.user_seeder.**UserSeeder**(*rows: int = 30*)

Bases: object

Attributes

UserSeeder.name	

database.seeds.user_seeder.UserSeeder.name

UserSeeder.**name = 'UserSeeder'**

Methods

UserSeeder.__init__([rows])	

database.seeds.user_seeder.UserSeeder.__init__

UserSeeder.**__init__**(*rows: int = 30*)

class database.seeds.user_seeder.**UserSeeder**(*rows: int = 30*)

static _create_admin_user()

name = 'UserSeeder'

Functions

get_seeders()

init_seed()

database.seeds.get_seeders

database.seeds.**get_seeders**() → list

database.seeds.init_seed

database.seeds.**init_seed**() → None

database.seeds.**get_seeders**() → list

database.seeds.**init_seed**() → None

Functions

init_database()

seed_actions(fnc)

2.2.4 database.init_database

database.**init_database**() → None

2.2.5 database.seed_actions

database.**seed_actions**(*fnc*)

database.**init_database**() → None

database.**seed_actions**(*fnc*)

2.3 tests

Description

Package for testing the application.

The tests package storages the application's tests that them are executed for ensuring the proper behaviour of the application.

You can get report coverage stadistics with coverage package.

Notes

There are three kinds of tests created:

1. **Unit testing** Unit testing means testing individual modules of an application in isolation (without any interaction with dependencies) to confirm that the code is doing things right.
2. **Integration testing** Integration testing means checking if different modules are working fine when combined together as a group.
3. **Functional testing** Functional testing means testing a slice of functionality in the system (may interact with dependencies) to confirm that the code is doing the right things.

Let us understand these three types of testing with an oversimplified example.

E.g. For a functional mobile phone, the main parts required are "battery" and "sim card".

Unit testing Example – The battery is checked for its life, capacity and other parameters. Sim card is checked for its activation.

Integration Testing Example – Battery and sim card are integrated i.e. assembled in order to start the mobile phone.

Functional Testing Example – The functionality of a mobile phone is checked in terms of its features and battery usage as well as sim card facilities.

References

The Differences Between Unit Testing, Integration Testing and Functional Testing.

Examples

How to usage:

```
source venv/bin/activate
pytest
```

How to call a specific test:

```
source venv/bin/activate
pytest tests/blueprints/test_base.py
```

How to call a specific test function:

```
source venv/bin/activate
pytest -k test_welcome_api
```

You can use coverage package for running tests as well:

```
source venv/bin/activate
coverage run -m pytest
```

And get a report coverage stadistics on modules:

```
source venv/bin/activate
coverage report -m
```

For a nicer presentation, use coverage html to get annotated HTML listings detailing missed lines:

```
source venv/bin/activate
coverage html
```

References

How can I test Celery tasks?

Depends on what exactly you want to be testing.

- Test the task code directly. Don't call "task.delay(...)" just call "task(...)" from your unit tests.
- Use CELERY_ALWAYS_EAGER. This will cause your tasks to be called immediately at the point you say "task.delay(...)", so you can test the whole path (but not any asynchronous behavior).

https://stackoverflow.com/questions/12078667/how-do-you-unit-test-a-celery-task

Modules

tests.blueprints	Package for testing blueprints.
tests.celery	Package for testing Celery tasks.
tests.conftest	Module for configuring Pytest.
tests.custom_flask_client	
tests.test_config	Module for testing Config module.

continues on next page

Table 183 – continued from previous page

tests.test_db	Module for testing database.
tests.test_mail	Module for testing mail.
tests.test_middleware	

2.3.1 tests.blueprints

Description

Package for testing blueprints.

Modules

tests.blueprints.test_auth	Module for testing auth blueprint.
tests.blueprints.test_base	Module for testing base blueprint.
tests.blueprints.test_documents	Module for testing documents blueprint.
tests.blueprints.test_roles	Module for testing roles blueprint.
tests.blueprints.test_tasks	
tests.blueprints.test_users	Module for testing users blueprint.

tests.blueprints.test_auth

Description

Module for testing auth blueprint.

Functions

test_request_reset_password(client)

test_reset_password(client)

test_user_login(client)

test_user_logout(client, auth_header)

test_validate_reset_password(client, app)

tests.blueprints.test_auth.test_request_reset_password

tests.blueprints.test_auth.**test_request_reset_password**(*client:* tests.custom_flask_client.CustomFlaskClient)

tests.blueprints.test_auth.test_reset_password

tests.blueprints.test_auth.**test_reset_password**(*client:* tests.custom_flask_client.CustomFlaskClient)

tests.blueprints.test_auth.test_user_login

tests.blueprints.test_auth.**test_user_login**(*client:* tests.custom_flask_client.CustomFlaskClient)

tests.blueprints.test_auth.test_user_logout

tests.blueprints.test_auth.**test_user_logout**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_auth.test_validate_reset_password

tests.blueprints.test_auth.**test_validate_reset_password**(*client:* tests.custom_flask_client.CustomFlaskClient, *app: flask.app.Flask*)

tests.blueprints.test_auth.**test_request_reset_password**(*client:* tests.custom_flask_client.CustomFlaskClient)

tests.blueprints.test_auth.**test_reset_password**(*client:* tests.custom_flask_client.CustomFlaskClient)

tests.blueprints.test_auth.**test_user_login**(*client:* tests.custom_flask_client.CustomFlaskClient)

tests.blueprints.test_auth.**test_user_logout**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_auth.**test_validate_reset_password**(*client:* tests.custom_flask_client.CustomFlaskClient, *app: flask.app.Flask*)

tests.blueprints.test_base

Description

Module for testing base blueprint.

Functions

test_welcome_api(client)

tests.blueprints.test_base.test_welcome_api

tests.blueprints.test_base.**test_welcome_api**(*client:* tests.custom_flask_client.CustomFlaskClient)

tests.blueprints.test_base.**test_welcome_api**(*client:* tests.custom_flask_client.CustomFlaskClient)

tests.blueprints.test_documents

Description

Module for testing documents blueprint.

Functions

test_delete_document(client, auth_header)

test_get_document_data(client, auth_header)

test_get_document_file(client, auth_header)

test_save_document(client, auth_header)

test_search_document(client, auth_header)

test_update_document(client, auth_header)

tests.blueprints.test_documents.test_delete_document

tests.blueprints.test_documents.**test_delete_document**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_documents.test_get_document_data

tests.blueprints.test_documents.**test_get_document_data**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_documents.test_get_document_file

tests.blueprints.test_documents.**test_get_document_file**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_documents.test_save_document

tests.blueprints.test_documents.**test_save_document**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_documents.test_search_document

tests.blueprints.test_documents.**test_search_document**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_documents.test_update_document

tests.blueprints.test_documents.**test_update_document**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_documents.**test_delete_document**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_documents.**test_get_document_data**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_documents.**test_get_document_file**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_documents.**test_save_document**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_documents.**test_search_document**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_documents.**test_update_document**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_roles

Description

Module for testing roles blueprint.

Functions

test_delete_role_endpoint(client, auth_header)
test_get_role_endpoint(client, auth_header)
test_save_role_endpoint(client, auth_header, ...)
test_search_roles_endpoint(client, auth_header)
test_update_role_endpoint(client, ...)

tests.blueprints.test_roles.test_delete_role_endpoint

tests.blueprints.test_roles.**test_delete_role_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_roles.test_get_role_endpoint

tests.blueprints.test_roles.**test_get_role_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_roles.test_save_role_endpoint

tests.blueprints.test_roles.**test_save_role_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*, *factory: any*)

tests.blueprints.test_roles.test_search_roles_endpoint

tests.blueprints.test_roles.**test_search_roles_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_roles.test_update_role_endpoint

tests.blueprints.test_roles.**test_update_role_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*, *factory: any*)

tests.blueprints.test_roles.**test_delete_role_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_roles.**test_get_role_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_roles.**test_save_role_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*, *factory: any*)

tests.blueprints.test_roles.**test_search_roles_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_roles.**test_update_role_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*, *factory: any*)

tests.blueprints.test_tasks

Description

Functions

test_check_task_status(client, auth_header)

tests.blueprints.test_tasks.test_check_task_status

tests.blueprints.test_tasks.**test_check_task_status**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_tasks.**_create_task_record**()

tests.blueprints.test_tasks.**test_check_task_status**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_users

Description

Module for testing users blueprint.

Functions

test_create_invalid_user_endpoint(client, ...)
test_create_user_endpoint(client, ...)
test_delete_user_endpoint(client, auth_header)
test_export_excel_and_word_endpoint(client, ...)
test_export_excel_endpoint(client, auth_header)
test_export_word_endpoint(client, auth_header)
test_get_user_endpoint(client, auth_header)
test_search_users_endpoint(client, auth_header)
test_update_user_endpoint(client, ...)

tests.blueprints.test_users.test_create_invalid_user_endpoint

tests.blueprints.test_users.**test_create_invalid_user_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_users.test_create_user_endpoint

tests.blueprints.test_users.**test_create_user_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*, *factory: any*)

tests.blueprints.test_users.test_delete_user_endpoint

tests.blueprints.test_users.**test_delete_user_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_users.test_export_excel_and_word_endpoint

tests.blueprints.test_users.**test_export_excel_and_word_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_users.test_export_excel_endpoint

tests.blueprints.test_users.**test_export_excel_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_users.test_export_word_endpoint

tests.blueprints.test_users.**test_export_word_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_users.test_get_user_endpoint

tests.blueprints.test_users.**test_get_user_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_users.test_search_users_endpoint

tests.blueprints.test_users.**test_search_users_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_users.test_update_user_endpoint

tests.blueprints.test_users.**test_update_user_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*, *factory: any*)

tests.blueprints.test_users.**test_create_invalid_user_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_users.**test_create_user_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*, *factory: any*)

tests.blueprints.test_users.**test_delete_user_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_users.**test_export_excel_and_word_endpoint**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.blueprints.test_users.**test_export_excel_endpoint**(*client: tests.custom_flask_client.CustomFlaskClient*, *auth_header: any*)

tests.blueprints.test_users.**test_export_word_endpoint**(*client: tests.custom_flask_client.CustomFlaskClient*, *auth_header: any*)

tests.blueprints.test_users.**test_get_user_endpoint**(*client: tests.custom_flask_client.CustomFlaskClient*, *auth_header: any*)

tests.blueprints.test_users.**test_search_users_endpoint**(*client: tests.custom_flask_client.CustomFlaskClient*, *auth_header: any*)

tests.blueprints.test_users.**test_update_user_endpoint**(*client: tests.custom_flask_client.CustomFlaskClient*, *auth_header: any*, *factory: any*)

2.3.2 tests.celery

Description

Package for testing Celery tasks.

Modules

tests.celery.test_celery	

tests.celery.test_excel	Module for testing excel module.
tests.celery.test_tasks	Module for testing task module.
tests.celery.test_word	Module for testing word module.

tests.celery.test_celery

Description

Functions

test_register_context_task(app)

tests.celery.test_celery.test_register_context_task

tests.celery.test_celery.**test_register_context_task**(*app: flask.app.Flask*)

tests.celery.test_celery.**test_register_context_task**(*app: flask.app.Flask*)

tests.celery.test_excel

Description

Module for testing excel module.

Functions

test_export_excel_task(app)

tests.celery.test_excel.test_export_excel_task

tests.celery.test_excel.**test_export_excel_task**(*app: flask.app.Flask*)

tests.celery.test_excel.**test_export_excel_task**(*app: flask.app.Flask*)

tests.celery.test_tasks

Description

Module for testing task module.

Functions

test_create_user_email_task(factory)

test_create_word_and_excel_documents(app)

test_reset_password_email_task(app)

test_send_email_with_attachments_task(app)

tests.celery.test_tasks.test_create_user_email_task

tests.celery.test_tasks.**test_create_user_email_task**(*factory: any*)

tests.celery.test_tasks.test_create_word_and_excel_documents

tests.celery.test_tasks.**test_create_word_and_excel_documents**(*app: flask.app.Flask*)

tests.celery.test_tasks.test_reset_password_email_task

tests.celery.test_tasks.**test_reset_password_email_task**(*app: flask.app.Flask*)

tests.celery.test_tasks.test_send_email_with_attachments_task

tests.celery.test_tasks.**test_send_email_with_attachments_task**(*app: flask.app.Flask*)

tests.celery.test_tasks.**test_create_user_email_task**(*factory: any*)

tests.celery.test_tasks.**test_create_word_and_excel_documents**(*app: flask.app.Flask*)

tests.celery.test_tasks.**test_reset_password_email_task**(*app: flask.app.Flask*)

tests.celery.test_tasks.**test_send_email_with_attachments_task**(*app: flask.app.Flask*)

tests.celery.test_word

Description

Module for testing word module.

Functions

test_export_word_task(app)

tests.celery.test_word.test_export_word_task

tests.celery.test_word.**test_export_word_task**(*app: flask.app.Flask*)

tests.celery.test_word.**test_export_word_task**(*app: flask.app.Flask*)

2.3.3 tests.conftest

Description

Module for configuring Pytest.

Functions

app()	Create an app with testing environment.
auth_header(app, client)	Create an auth header from a given user that can be added to an http requests.
client(app)	Create a test client for making http requests.
factory(app)	Create a Factory from a database model.
runner(app)	Create a CLI runner for testing CLI commands.

tests.conftest.app

tests.conftest.**app**()
Create an app with testing environment.

tests.conftest.auth_header

tests.conftest.**auth_header**(*app: flask.app.Flask*, *client:* tests.custom_flask_client.CustomFlaskClient)
Create an auth header from a given user that can be added to an http requests.

tests.conftest.client

tests.conftest.**client**(*app: flask.app.Flask*)
Create a test client for making http requests.

tests.conftest.factory

tests.conftest.**factory**(*app: flask.app.Flask*)
Create a Factory from a database model.

tests.conftest.runner

tests.conftest.**runner**(*app: flask.app.Flask*)
Create a CLI runner for testing CLI commands.

tests.conftest.**_remove_test_files**(*storage_path: str*) → None
Remove test files created in storage path.

tests.conftest.**app**()
Create an app with testing environment.

tests.conftest.**auth_header**(*app: flask.app.Flask*, *client:* tests.custom_flask_client.CustomFlaskClient)
Create an auth header from a given user that can be added to an http requests.

tests.conftest.**client**(*app: flask.app.Flask*)
Create a test client for making http requests.

tests.conftest.**factory**(*app: flask.app.Flask*)
Create a Factory from a database model.

tests.conftest.**runner**(*app: flask.app.Flask*)
Create a CLI runner for testing CLI commands.

2.3.4 tests.custom_flask_client

Description

Classes

CustomFlaskClient(*args, **kwargs)

tests.custom_flask_client.CustomFlaskClient

class tests.custom_flask_client.**CustomFlaskClient**(**args: Any*, ***kwargs: Any*)
Bases: flask.testing.FlaskClient

Attributes

CustomFlaskClient.preserve_context

tests.custom_flask_client.CustomFlaskClient.preserve_context

CustomFlaskClient.**preserve_context = False**

Methods

CustomFlaskClient.__init__(*args, **kwargs)	
CustomFlaskClient.after_request(response)	
CustomFlaskClient.before_request(*args, **kwargs)	
CustomFlaskClient.delete(*args, **kwargs)	Like open but method is enforced to DELETE.
CustomFlaskClient.delete_cookie(server_name, key)	Deletes a cookie in the test client.
CustomFlaskClient.get(*args, **kwargs)	Like open but method is enforced to GET.
CustomFlaskClient.head(*args, **kw)	Call *open()* with method set to HEAD.

continues on next page

Table 199 – continued from previous page

CustomFlaskClient.make_request(method, ...)	
CustomFlaskClient.open(*args[, as_tuple, ...])	Generate an environ dict from the given arguments, make a request to the application using it, and return the response.
CustomFlaskClient.options(*args, **kw)	Call *open()* with `method` set to `OPTIONS`.
CustomFlaskClient.patch(*args, **kw)	Call *open()* with `method` set to `PATCH`.
CustomFlaskClient.post(*args, **kwargs)	Like open but method is enforced to POST.
CustomFlaskClient.put(*args, **kwargs)	Like open but method is enforced to PUT.
CustomFlaskClient.resolve_redirect(response)	Perform a new request to the location given by the redirect response to the previous request.
CustomFlaskClient.run_wsgi_app(environ[, ...])	Runs the wrapped WSGI app with the given environment.
CustomFlaskClient.session_transaction(*args, ...)	When used in combination with a `with` statement this opens a session transaction.
CustomFlaskClient.set_cookie(server_name, key)	Sets a cookie in the client's cookie jar.
CustomFlaskClient.trace(*args, **kw)	Call *open()* with `method` set to `TRACE`.

tests.custom_flask_client.CustomFlaskClient.__init__

CustomFlaskClient.**__init__**(**args: Any*, ***kwargs: Any*) → None

tests.custom_flask_client.CustomFlaskClient.after_request

static CustomFlaskClient.**after_request**(*response: flask.wrappers.Response*)

tests.custom_flask_client.CustomFlaskClient.before_request

static CustomFlaskClient.**before_request**(**args*, ***kwargs*)

tests.custom_flask_client.CustomFlaskClient.delete

CustomFlaskClient.**delete**(**args*, ***kwargs*)
Like open but method is enforced to DELETE.

tests.custom_flask_client.CustomFlaskClient.delete_cookie

CustomFlaskClient.**delete_cookie**(*server_name: str*, *key: str*, *path: str = '/'*, *domain: Optional[str] = None*, *secure: bool = False*, *httponly: bool = False*, *samesite: Optional[str] = None*) → None
Deletes a cookie in the test client.

tests.custom_flask_client.CustomFlaskClient.get

CustomFlaskClient.**get**(**args*, ***kwargs*)
Like open but method is enforced to GET.

tests.custom_flask_client.CustomFlaskClient.head

CustomFlaskClient.**head**(**args: Any*, ***kw: Any*) → werkzeug.test.TestResponse
Call *open()* with `method` set to `HEAD`.

tests.custom_flask_client.CustomFlaskClient.make_request

CustomFlaskClient.**make_request**(*method: str*, **args*, ***kwargs*)

tests.custom_flask_client.CustomFlaskClient.open

CustomFlaskClient.**open**(**args: Any*, *as_tuple: bool = False*, *buffered: bool = False*, *follow_redirects: bool = False*, ***kwargs: Any*) → Response
Generate an environ dict from the given arguments, make a request to the application using it, and return the response.

Parameters

- **args** – Passed to `EnvironBuilder` to create the environ for the request. If a single arg is passed, it can be an existing `EnvironBuilder` or an environ dict.
- **buffered** – Convert the iterator returned by the app into a list. If the iterator has a `close()` method, it is called automatically.
- **follow_redirects** – Make additional requests to follow HTTP redirects until a non-redirect status is returned. `TestResponse.history` lists the intermediate responses.

Changed in version 2.0: `as_tuple` is deprecated and will be removed in Werkzeug 2.1. Use `TestResponse.request` and `request.environ` instead.

Changed in version 2.0: The request input stream is closed when calling `response.close()`. Input streams for redirects are automatically closed.

Changed in version 0.5: If a dict is provided as file in the dict for the `data` parameter the content type has to be called `content_type` instead of `mimetype`. This change was made for consistency with `werkzeug.FileWrapper`.

Changed in version 0.5: Added the `follow_redirects` parameter.

tests.custom_flask_client.CustomFlaskClient.options

CustomFlaskClient.**options**(**args: Any*, ***kw: Any*) → werkzeug.test.TestResponse
Call *open()* with `method` set to `OPTIONS`.

tests.custom_flask_client.CustomFlaskClient.patch

CustomFlaskClient.**patch**(**args: Any*, ***kw: Any*) → werkzeug.test.TestResponse
Call *open()* with `method` set to `PATCH`.

tests.custom_flask_client.CustomFlaskClient.post

CustomFlaskClient.**post**(**args*, ***kwargs*)
Like open but method is enforced to POST.

tests.custom_flask_client.CustomFlaskClient.put

CustomFlaskClient.**put**(**args*, ***kwargs*)
Like open but method is enforced to PUT.

tests.custom_flask_client.CustomFlaskClient.resolve_redirect

CustomFlaskClient.**resolve_redirect**(*response: werkzeug.test.TestResponse*, *buffered: bool = False*) → werkzeug.test.TestResponse
Perform a new request to the location given by the redirect response to the previous request.

tests.custom_flask_client.CustomFlaskClient.run_wsgi_app

CustomFlaskClient.**run_wsgi_app**(*environ: WSGIEnvironment*, *buffered: bool = False*) → Tuple[Iterable[bytes], str, werkzeug.datastructures.Headers]
Runs the wrapped WSGI app with the given environment.

tests.custom_flask_client.CustomFlaskClient.session_transaction

CustomFlaskClient.**session_transaction**(**args: Any*, ***kwargs: Any*) → Generator[flask.sessions.SessionMixin, None, None]
When used in combination with a `with` statement this opens a session transaction. This can be used to modify the session that the test client uses. Once the `with` block is left the session is stored back.

```
with client.session_transaction() as session:
    session['value'] = 42
```

Internally this is implemented by going through a temporary test request context and since session handling could depend on request variables this function accepts the same arguments as `test_request_context()` which are directly passed through.

tests.custom_flask_client.CustomFlaskClient.set_cookie

CustomFlaskClient.**set_cookie**(*server_name: str*, *key: str*, *value: str = ''*, *max_age: Optional[Union[datetime.timedelta, int]] = None*, *expires: Optional[Union[str, datetime.datetime, int, float]] = None*, *path: str = '/'*, *domain: Optional[str] = None*, *secure: bool = False*, *httponly: bool = False*, *samesite: Optional[str] = None*, *charset: str = 'utf-8'*) → None

Sets a cookie in the client's cookie jar. The server name is required and has to match the one that is also passed to the open call.

tests.custom_flask_client.CustomFlaskClient.trace

CustomFlaskClient.**trace**(**args: Any*, ***kw: Any*) → werkzeug.test.TestResponse

Call *open()* with `method` set to `TRACE`.

class tests.custom_flask_client.**CustomFlaskClient**(**args: Any*, ***kwargs: Any*)

static after_request(*response: flask.wrappers.Response*)

application: Flask

static before_request(**args*, ***kwargs*)

delete(**args*, ***kwargs*)

Like open but method is enforced to DELETE.

delete_cookie(*server_name: str*, *key: str*, *path: str = '/'*, *domain: Optional[str] = None*, *secure: bool = False*, *httponly: bool = False*, *samesite: Optional[str] = None*) → None

Deletes a cookie in the test client.

get(**args*, ***kwargs*)

Like open but method is enforced to GET.

head(**args: Any*, ***kw: Any*) → werkzeug.test.TestResponse

Call *open()* with `method` set to `HEAD`.

make_request(*method: str*, **args*, ***kwargs*)

open(**args: Any*, *as_tuple: bool = False*, *buffered: bool = False*, *follow_redirects: bool = False*, ***kwargs: Any*) → Response

Generate an environ dict from the given arguments, make a request to the application using it, and return the response.

Parameters

- **args** – Passed to `EnvironBuilder` to create the environ for the request. If a single arg is passed, it can be an existing `EnvironBuilder` or an environ dict.
- **buffered** – Convert the iterator returned by the app into a list. If the iterator has a `close()` method, it is called automatically.
- **follow_redirects** – Make additional requests to follow HTTP redirects until a non-redirect status is returned. `TestResponse.history` lists the intermediate responses.

Changed in version 2.0: `as_tuple` is deprecated and will be removed in Werkzeug 2.1. Use `TestResponse.request` and `request.environ` instead.

Changed in version 2.0: The request input stream is closed when calling `response.close()`. Input streams for redirects are automatically closed.

Changed in version 0.5: If a dict is provided as file in the dict for the `data` parameter the content type has to be called `content_type` instead of `mimetype`. This change was made for consistency with `werkzeug.FileWrapper`.

Changed in version 0.5: Added the `follow_redirects` parameter.

options(**args: Any*, ***kw: Any*) → werkzeug.test.TestResponse
Call *open()* with `method` set to `OPTIONS`.

patch(**args: Any*, ***kw: Any*) → werkzeug.test.TestResponse
Call *open()* with `method` set to `PATCH`.

post(**args*, ***kwargs*)
Like open but method is enforced to POST.

preserve_context = False

put(**args*, ***kwargs*)
Like open but method is enforced to PUT.

resolve_redirect(*response: werkzeug.test.TestResponse*, *buffered: bool = False*) → werkzeug.test.TestResponse
Perform a new request to the location given by the redirect response to the previous request.

run_wsgi_app(*environ: WSGIEnvironment*, *buffered: bool = False*) → Tuple[Iterable[bytes], str, werkzeug.datastructures.Headers]
Runs the wrapped WSGI app with the given environment.

session_transaction(**args: Any*, ***kwargs: Any*) → Generator[flask.sessions.SessionMixin, None, None]
When used in combination with a `with` statement this opens a session transaction. This can be used to modify the session that the test client uses. Once the `with` block is left the session is stored back.

```
with client.session_transaction() as session:
    session['value'] = 42
```

Internally this is implemented by going through a temporary test request context and since session handling could depend on request variables this function accepts the same arguments as `test_request_context()` which are directly passed through.

set_cookie(*server_name: str*, *key: str*, *value: str = ''*, *max_age: Optional[Union[datetime.timedelta, int]] = None*, *expires: Optional[Union[str, datetime.datetime, int, float]] = None*, *path: str = '/'*, *domain: Optional[str] = None*, *secure: bool = False*, *httponly: bool = False*, *samesite: Optional[str] = None*, *charset: str = 'utf-8'*) → None
Sets a cookie in the client's cookie jar. The server name is required and has to match the one that is also passed to the open call.

trace(**args: Any*, ***kw: Any*) → werkzeug.test.TestResponse
Call *open()* with `method` set to `TRACE`.

2.3.5 tests.test_config

Description

Module for testing Config module.

Functions

test_config()	Check if TESTING attribute is enabled.

tests.test_config.test_config

tests.test_config.**test_config**()
Check if TESTING attribute is enabled.

tests.test_config.**test_config**()
Check if TESTING attribute is enabled.

2.3.6 tests.test_db

Description

Module for testing database.

Functions

test_get_close_db()	Check if a database connection is closed.

tests.test_db.test_get_close_db

tests.test_db.**test_get_close_db**()
Check if a database connection is closed.

tests.test_db.**test_get_close_db**()
Check if a database connection is closed.

2.3.7 tests.test_mail

Description

Module for testing mail.

Functions

test_mail_record_messages(app)	Check if a email is sent.

tests.test_mail.test_mail_record_messages

tests.test_mail.**test_mail_record_messages**(*app*)
Check if a email is sent.

References

Unit tests and suppressing emails

tests.test_mail.**test_mail_record_messages**(*app*)
Check if a email is sent.

References

Unit tests and suppressing emails

2.3.8 tests.test_middleware

Description

Functions

test_api_middleware(client, auth_header)	
test_no_api_middleware(client)	

tests.test_middleware.test_api_middleware

tests.test_middleware.**test_api_middleware**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.test_middleware.test_no_api_middleware

tests.test_middleware.**test_no_api_middleware**(*client:* tests.custom_flask_client.CustomFlaskClient)

tests.test_middleware.**test_api_middleware**(*client:* tests.custom_flask_client.CustomFlaskClient, *auth_header: any*)

tests.test_middleware.**test_no_api_middleware**(*client:* tests.custom_flask_client.CustomFlaskClient)

2.4 config

Description

Module loads the application's configuration.

The extension and custom configurations are defined here.

Classes

Config()	Default configuration options.
DevConfig()	Development configuration options.
Meta(name, bases, dict)	Metaclass for updating Config options.
ProdConfig()	Production configuration options.
TestConfig()	Testing configuration options.

2.4.1 config.Config

class config.**Config**

Bases: object

Default configuration options.

Attributes

Config.ALLOWED_CONTENT_TYPES
Config.ALLOWED_MIME_TYPES
Config.DATABASE
Config.DEBUG
Config.DEVELOPMENT
Config.FLASK_RESTFUL_PREFIX
Config.HOME
Config.LOGIN_DISABLED
Config.LOG_DIRECTORY
Config.MAIL_PASSWORD
Config.MAIL_PORT

continues on next page

Table 205 – continued from previous page

Config.MAIL_SERVER
Config.MAIL_USERNAME
Config.MAIL_USE_SSL
Config.MAIL_USE_TLS
Config.MOCKUP_DIRECTORY
Config.RESET_TOKEN_EXPIRES
Config.RESTX_ERROR_404_HELP
Config.RESTX_MASK_SWAGGER
Config.ROOT_DIRECTORY
Config.SECRET_KEY
Config.SECURITY_PASSWORD_HASH
Config.SECURITY_PASSWORD_LENGTH_MIN
Config.SECURITY_PASSWORD_SALT
Config.SECURITY_TOKEN_AUTHENTICATION_HEADER
Config.SECURITY_TOKEN_MAX_AGE
Config.SERVER_NAME
Config.STORAGE_DIRECTORY
Config.SWAGGER_API_URL
Config.SWAGGER_URL
Config.TESTING
Config.TEST_USER_EMAIL
Config.TEST_USER_PASSWORD
Config.accept_content
Config.broker_url
Config.enable_utc

continues on next page

Table 205 – continued from previous page

Config.include
Config.result_backend
Config.result_expires
Config.result_extended
Config.result_serializer
Config.task_always_eager
Config.task_default_rate_limit
Config.task_serializer
Config.task_track_started
Config.timezone
Config.worker_log_format
Config.worker_task_log_format

config.Config.ALLOWED_CONTENT_TYPES

Config.**ALLOWED_CONTENT_TYPES** = {'application/json',
'application/octet-stream', 'multipart/form-data'}

config.Config.ALLOWED_MIME_TYPES

Config.**ALLOWED_MIME_TYPES** = {'application/pdf', 'application/vnd.ms-excel'}

config.Config.DATABASE

```
Config.DATABASE = {'engine': 'peewee.SqliteDatabase', 'name': None,
'pragmas': {'cache_size': -64000, 'foreign_keys': 1,
'ignore_check_constraints': 0, 'journal_mode': 'wal', 'synchronous': 0}}
```

config.Config.DEBUG

```
Config.DEBUG = False
```

config.Config.DEVELOPMENT

```
Config.DEVELOPMENT = False
```

config.Config.FLASK_RESTFUL_PREFIX

```
Config.FLASK_RESTFUL_PREFIX = '/api'
```

config.Config.HOME

```
Config.HOME = '/home/docs'
```

config.Config.LOGIN_DISABLED

```
Config.LOGIN_DISABLED = False
```

config.Config.LOG_DIRECTORY

```
Config.LOG_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/
flask-api/checkouts/latest/log'
```

config.Config.MAIL_PASSWORD

```
Config.MAIL_PASSWORD = None
```

config.Config.MAIL_PORT

```
Config.MAIL_PORT = None
```

config.Config.MAIL_SERVER

Config.**MAIL_SERVER = None**

config.Config.MAIL_USERNAME

Config.**MAIL_USERNAME = None**

config.Config.MAIL_USE_SSL

Config.**MAIL_USE_SSL = False**

config.Config.MAIL_USE_TLS

Config.**MAIL_USE_TLS = True**

config.Config.MOCKUP_DIRECTORY

Config.**MOCKUP_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/storage/mockups'**

config.Config.RESET_TOKEN_EXPIRES

Config.**RESET_TOKEN_EXPIRES = 86400**

config.Config.RESTX_ERROR_404_HELP

Config.**RESTX_ERROR_404_HELP = False**

config.Config.RESTX_MASK_SWAGGER

Config.**RESTX_MASK_SWAGGER = False**

config.Config.ROOT_DIRECTORY

Config.**ROOT_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest'**

config.Config.SECRET_KEY

Config.**SECRET_KEY = None**

config.Config.SECURITY_PASSWORD_HASH

Config.**SECURITY_PASSWORD_HASH = 'pbkdf2_sha512'**

config.Config.SECURITY_PASSWORD_LENGTH_MIN

Config.**SECURITY_PASSWORD_LENGTH_MIN = 8**

config.Config.SECURITY_PASSWORD_SALT

Config.**SECURITY_PASSWORD_SALT = None**

config.Config.SECURITY_TOKEN_AUTHENTICATION_HEADER

Config.**SECURITY_TOKEN_AUTHENTICATION_HEADER = 'Authorization'**

config.Config.SECURITY_TOKEN_MAX_AGE

Config.**SECURITY_TOKEN_MAX_AGE = None**

config.Config.SERVER_NAME

Config.**SERVER_NAME = None**

config.Config.STORAGE_DIRECTORY

Config.**STORAGE_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/storage'**

config.Config.SWAGGER_API_URL

Config.**SWAGGER_API_URL = 'http://None/static/swagger.yaml'**

config.Config.SWAGGER_URL

Config.**SWAGGER_URL = '/docs'**

config.Config.TESTING

Config.**TESTING** = **False**

config.Config.TEST_USER_EMAIL

Config.**TEST_USER_EMAIL** = **None**

config.Config.TEST_USER_PASSWORD

Config.**TEST_USER_PASSWORD** = **None**

config.Config.accept_content

Config.**accept_content** = **['json']**

config.Config.broker_url

Config.**broker_url** = **'pyamqp://'**

config.Config.enable_utc

Config.**enable_utc** = **True**

config.Config.include

Config.**include** = **['app.celery.tasks']**

config.Config.result_backend

Config.**result_backend** = **'amqp://'**

config.Config.result_expires

Config.**result_expires** = **3600**

config.Config.result_extended

Config.**result_extended** = **True**

config.Config.result_serializer

```
Config.result_serializer = 'json'
```

config.Config.task_always_eager

```
Config.task_always_eager = False
```

config.Config.task_default_rate_limit

```
Config.task_default_rate_limit = 3
```

config.Config.task_serializer

```
Config.task_serializer = 'json'
```

config.Config.task_track_started

```
Config.task_track_started = True
```

config.Config.timezone

```
Config.timezone = 'UTC'
```

config.Config.worker_log_format

```
Config.worker_log_format = '%(asctime)s - %(levelname)s - %(processName)s -
%(message)s'
```

config.Config.worker_task_log_format

```
Config.worker_task_log_format = '%(asctime)s - %(levelname)s -
%(processName)s - %(task_name)s - %(task_id)s - %(message)s'
```

Methods

Config.__init__()

---

config.Config.__init__

Config.__init__()

2.4.2 config.DevConfig

class config.DevConfig
Bases: *config.Config*

Development configuration options.

Attributes

DevConfig.ALLOWED_CONTENT_TYPES
DevConfig.ALLOWED_MIME_TYPES
DevConfig.DATABASE
DevConfig.DEBUG
DevConfig.DEVELOPMENT
DevConfig.FLASK_RESTFUL_PREFIX
DevConfig.HOME
DevConfig.LOGIN_DISABLED
DevConfig.LOG_DIRECTORY
DevConfig.MAIL_PASSWORD
DevConfig.MAIL_PORT
DevConfig.MAIL_SERVER
DevConfig.MAIL_USERNAME
DevConfig.MAIL_USE_SSL
DevConfig.MAIL_USE_TLS
DevConfig.MOCKUP_DIRECTORY
DevConfig.RESET_TOKEN_EXPIRES
DevConfig.RESTX_ERROR_404_HELP

continues on next page

Table 207 – continued from previous page

DevConfig.RESTX_MASK_SWAGGER
DevConfig.ROOT_DIRECTORY
DevConfig.SECRET_KEY
DevConfig.SECURITY_PASSWORD_HASH
DevConfig.SECURITY_PASSWORD_LENGTH_MIN
DevConfig.SECURITY_PASSWORD_SALT
DevConfig.SECURITY_TOKEN_AUTHENTICATION_HEADER
DevConfig.SECURITY_TOKEN_MAX_AGE
DevConfig.SERVER_NAME
DevConfig.STORAGE_DIRECTORY
DevConfig.SWAGGER_API_URL
DevConfig.SWAGGER_URL
DevConfig.TESTING
DevConfig.TEST_USER_EMAIL
DevConfig.TEST_USER_PASSWORD
DevConfig.accept_content
DevConfig.broker_url
DevConfig.enable_utc
DevConfig.include
DevConfig.result_backend
DevConfig.result_expires
DevConfig.result_extended
DevConfig.result_serializer
DevConfig.task_always_eager
DevConfig.task_default_rate_limit

continues on next page

Table 207 – continued from previous page

DevConfig.task_serializer
DevConfig.task_track_started
DevConfig.timezone
DevConfig.worker_log_format
DevConfig.worker_task_log_format

config.DevConfig.ALLOWED_CONTENT_TYPES

DevConfig.**ALLOWED_CONTENT_TYPES** = {'application/json',
'application/octet-stream', 'multipart/form-data'}

config.DevConfig.ALLOWED_MIME_TYPES

DevConfig.**ALLOWED_MIME_TYPES** = {'application/pdf',
'application/vnd.ms-excel'}

config.DevConfig.DATABASE

DevConfig.**DATABASE** = {'engine': 'peewee.SqliteDatabase', 'name': None,
'pragmas': {'cache_size': -64000, 'foreign_keys': 1,
'ignore_check_constraints': 0, 'journal_mode': 'wal', 'synchronous': 0}}

config.DevConfig.DEBUG

DevConfig.**DEBUG** = True

config.DevConfig.DEVELOPMENT

DevConfig.**DEVELOPMENT** = True

config.DevConfig.FLASK_RESTFUL_PREFIX

DevConfig.**FLASK_RESTFUL_PREFIX** = '/api'

config.DevConfig.HOME

DevConfig.**HOME** = '/home/docs'

config.DevConfig.LOGIN_DISABLED

DevConfig.**LOGIN_DISABLED** = False

config.DevConfig.LOG_DIRECTORY

DevConfig.**LOG_DIRECTORY** = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/log'

config.DevConfig.MAIL_PASSWORD

DevConfig.**MAIL_PASSWORD** = None

config.DevConfig.MAIL_PORT

DevConfig.**MAIL_PORT** = None

config.DevConfig.MAIL_SERVER

DevConfig.**MAIL_SERVER** = None

config.DevConfig.MAIL_USERNAME

DevConfig.**MAIL_USERNAME** = None

config.DevConfig.MAIL_USE_SSL

DevConfig.**MAIL_USE_SSL** = False

config.DevConfig.MAIL_USE_TLS

DevConfig.**MAIL_USE_TLS** = True

config.DevConfig.MOCKUP_DIRECTORY

DevConfig.**MOCKUP_DIRECTORY** = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/storage/mockups'

config.DevConfig.RESET_TOKEN_EXPIRES

DevConfig.**RESET_TOKEN_EXPIRES** = **86400**

config.DevConfig.RESTX_ERROR_404_HELP

DevConfig.**RESTX_ERROR_404_HELP** = **False**

config.DevConfig.RESTX_MASK_SWAGGER

DevConfig.**RESTX_MASK_SWAGGER** = **False**

config.DevConfig.ROOT_DIRECTORY

DevConfig.**ROOT_DIRECTORY** = **'/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest'**

config.DevConfig.SECRET_KEY

DevConfig.**SECRET_KEY** = **None**

config.DevConfig.SECURITY_PASSWORD_HASH

DevConfig.**SECURITY_PASSWORD_HASH** = **'pbkdf2_sha512'**

config.DevConfig.SECURITY_PASSWORD_LENGTH_MIN

DevConfig.**SECURITY_PASSWORD_LENGTH_MIN** = **8**

config.DevConfig.SECURITY_PASSWORD_SALT

DevConfig.**SECURITY_PASSWORD_SALT** = **None**

config.DevConfig.SECURITY_TOKEN_AUTHENTICATION_HEADER

DevConfig.**SECURITY_TOKEN_AUTHENTICATION_HEADER** = **'Authorization'**

config.DevConfig.SECURITY_TOKEN_MAX_AGE

DevConfig.**SECURITY_TOKEN_MAX_AGE** = **None**

config.DevConfig.SERVER_NAME

DevConfig.**SERVER_NAME** = **None**

config.DevConfig.STORAGE_DIRECTORY

DevConfig.**STORAGE_DIRECTORY** = **'/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/storage'**

config.DevConfig.SWAGGER_API_URL

DevConfig.**SWAGGER_API_URL** = **'http://None/static/swagger.yaml'**

config.DevConfig.SWAGGER_URL

DevConfig.**SWAGGER_URL** = **'/docs'**

config.DevConfig.TESTING

DevConfig.**TESTING** = **False**

config.DevConfig.TEST_USER_EMAIL

DevConfig.**TEST_USER_EMAIL** = **None**

config.DevConfig.TEST_USER_PASSWORD

DevConfig.**TEST_USER_PASSWORD** = **None**

config.DevConfig.accept_content

DevConfig.**accept_content** = **['json']**

config.DevConfig.broker_url

DevConfig.**broker_url** = **'pyamqp://'**

config.DevConfig.enable_utc

DevConfig.**enable_utc** = **True**

config.DevConfig.include

DevConfig.include = ['app.celery.tasks']

config.DevConfig.result_backend

DevConfig.result_backend = 'amqp://'

config.DevConfig.result_expires

DevConfig.result_expires = 3600

config.DevConfig.result_extended

DevConfig.result_extended = True

config.DevConfig.result_serializer

DevConfig.result_serializer = 'json'

config.DevConfig.task_always_eager

DevConfig.task_always_eager = False

config.DevConfig.task_default_rate_limit

DevConfig.task_default_rate_limit = 3

config.DevConfig.task_serializer

DevConfig.task_serializer = 'json'

config.DevConfig.task_track_started

DevConfig.task_track_started = True

config.DevConfig.timezone

DevConfig.timezone = 'UTC'

config.DevConfig.worker_log_format

DevConfig.**worker_log_format** = '%(asctime)s - %(levelname)s - %(processName)s - %(message)s'

config.DevConfig.worker_task_log_format

DevConfig.**worker_task_log_format** = '%(asctime)s - %(levelname)s - %(processName)s - %(task_name)s - %(task_id)s - %(message)s'

Methods

DevConfig.__init__()

config.DevConfig.__init__

DevConfig.**__init__**()

2.4.3 config.Meta

class config.**Meta**(*name: str*, *bases: tuple*, *dict: dict*)

Bases: type

Metaclass for updating Config options.

Methods

Meta.__init__(*args, **kwargs)	
Meta.mro()	Return a type's method resolution order.

config.Meta.__init__

Meta.**__init__**(**args*, ***kwargs*)

config.Meta.mro

Meta.**mro**()
Return a type's method resolution order.

2.4.4 config.ProdConfig

class config.**ProdConfig**
Bases: *config.Config*

Production configuration options.

Attributes

ProdConfig.ALLOWED_CONTENT_TYPES
ProdConfig.ALLOWED_MIME_TYPES
ProdConfig.DATABASE
ProdConfig.DEBUG
ProdConfig.DEVELOPMENT
ProdConfig.FLASK_RESTFUL_PREFIX
ProdConfig.HOME
ProdConfig.LOGIN_DISABLED
ProdConfig.LOG_DIRECTORY
ProdConfig.MAIL_PASSWORD
ProdConfig.MAIL_PORT
ProdConfig.MAIL_SERVER
ProdConfig.MAIL_USERNAME
ProdConfig.MAIL_USE_SSL
ProdConfig.MAIL_USE_TLS
ProdConfig.MOCKUP_DIRECTORY
ProdConfig.RESET_TOKEN_EXPIRES
ProdConfig.RESTX_ERROR_404_HELP

continues on next page

Table 210 – continued from previous page

ProdConfig.RESTX_MASK_SWAGGER
ProdConfig.ROOT_DIRECTORY
ProdConfig.SECRET_KEY
ProdConfig.SECURITY_PASSWORD_HASH
ProdConfig.SECURITY_PASSWORD_LENGTH_MIN
ProdConfig.SECURITY_PASSWORD_SALT
ProdConfig.SECURITY_TOKEN_AUTHENTICATION_HEADER
ProdConfig.SECURITY_TOKEN_MAX_AGE
ProdConfig.SERVER_NAME
ProdConfig.STORAGE_DIRECTORY
ProdConfig.SWAGGER_API_URL
ProdConfig.SWAGGER_URL
ProdConfig.TESTING
ProdConfig.TEST_USER_EMAIL
ProdConfig.TEST_USER_PASSWORD
ProdConfig.accept_content
ProdConfig.broker_url
ProdConfig.enable_utc
ProdConfig.include
ProdConfig.result_backend
ProdConfig.result_expires
ProdConfig.result_extended
ProdConfig.result_serializer
ProdConfig.task_always_eager
ProdConfig.task_default_rate_limit

continues on next page

Table 210 – continued from previous page

ProdConfig.task_serializer
ProdConfig.task_track_started
ProdConfig.timezone
ProdConfig.worker_log_format
ProdConfig.worker_task_log_format

config.ProdConfig.ALLOWED_CONTENT_TYPES

ProdConfig.**ALLOWED_CONTENT_TYPES** = {'application/json',
'application/octet-stream', 'multipart/form-data'}

config.ProdConfig.ALLOWED_MIME_TYPES

ProdConfig.**ALLOWED_MIME_TYPES** = {'application/pdf',
'application/vnd.ms-excel'}

config.ProdConfig.DATABASE

ProdConfig.**DATABASE** = {'engine': 'peewee.SqliteDatabase', 'name': None,
'pragmas': {'cache_size': -64000, 'foreign_keys': 1,
'ignore_check_constraints': 0, 'journal_mode': 'wal', 'synchronous': 0}}

config.ProdConfig.DEBUG

ProdConfig.**DEBUG** = False

config.ProdConfig.DEVELOPMENT

ProdConfig.**DEVELOPMENT** = False

config.ProdConfig.FLASK_RESTFUL_PREFIX

ProdConfig.**FLASK_RESTFUL_PREFIX** = '/api'

config.ProdConfig.HOME

ProdConfig.**HOME** = '/home/docs'

config.ProdConfig.LOGIN_DISABLED

ProdConfig.**LOGIN_DISABLED** = False

config.ProdConfig.LOG_DIRECTORY

ProdConfig.**LOG_DIRECTORY** = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/log'

config.ProdConfig.MAIL_PASSWORD

ProdConfig.**MAIL_PASSWORD** = None

config.ProdConfig.MAIL_PORT

ProdConfig.**MAIL_PORT** = None

config.ProdConfig.MAIL_SERVER

ProdConfig.**MAIL_SERVER** = None

config.ProdConfig.MAIL_USERNAME

ProdConfig.**MAIL_USERNAME** = None

config.ProdConfig.MAIL_USE_SSL

ProdConfig.**MAIL_USE_SSL** = False

config.ProdConfig.MAIL_USE_TLS

ProdConfig.**MAIL_USE_TLS** = True

config.ProdConfig.MOCKUP_DIRECTORY

ProdConfig.**MOCKUP_DIRECTORY** = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/storage/mockups'

config.ProdConfig.RESET_TOKEN_EXPIRES

ProdConfig.**RESET_TOKEN_EXPIRES = 86400**

config.ProdConfig.RESTX_ERROR_404_HELP

ProdConfig.**RESTX_ERROR_404_HELP = False**

config.ProdConfig.RESTX_MASK_SWAGGER

ProdConfig.**RESTX_MASK_SWAGGER = False**

config.ProdConfig.ROOT_DIRECTORY

ProdConfig.**ROOT_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest'**

config.ProdConfig.SECRET_KEY

ProdConfig.**SECRET_KEY = None**

config.ProdConfig.SECURITY_PASSWORD_HASH

ProdConfig.**SECURITY_PASSWORD_HASH = 'pbkdf2_sha512'**

config.ProdConfig.SECURITY_PASSWORD_LENGTH_MIN

ProdConfig.**SECURITY_PASSWORD_LENGTH_MIN = 8**

config.ProdConfig.SECURITY_PASSWORD_SALT

ProdConfig.**SECURITY_PASSWORD_SALT = None**

config.ProdConfig.SECURITY_TOKEN_AUTHENTICATION_HEADER

ProdConfig.**SECURITY_TOKEN_AUTHENTICATION_HEADER = 'Authorization'**

config.ProdConfig.SECURITY_TOKEN_MAX_AGE

ProdConfig.**SECURITY_TOKEN_MAX_AGE = None**

config.ProdConfig.SERVER_NAME

ProdConfig.**SERVER_NAME** = **None**

config.ProdConfig.STORAGE_DIRECTORY

ProdConfig.**STORAGE_DIRECTORY** = **'/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/storage'**

config.ProdConfig.SWAGGER_API_URL

ProdConfig.**SWAGGER_API_URL** = **'http://None/static/swagger.yaml'**

config.ProdConfig.SWAGGER_URL

ProdConfig.**SWAGGER_URL** = **'/docs'**

config.ProdConfig.TESTING

ProdConfig.**TESTING** = **False**

config.ProdConfig.TEST_USER_EMAIL

ProdConfig.**TEST_USER_EMAIL** = **None**

config.ProdConfig.TEST_USER_PASSWORD

ProdConfig.**TEST_USER_PASSWORD** = **None**

config.ProdConfig.accept_content

ProdConfig.**accept_content** = **['json']**

config.ProdConfig.broker_url

ProdConfig.**broker_url** = **'pyamqp://'**

config.ProdConfig.enable_utc

ProdConfig.**enable_utc** = **True**

config.ProdConfig.include

ProdConfig.**include** = ['app.celery.tasks']

config.ProdConfig.result_backend

ProdConfig.**result_backend** = 'amqp://'

config.ProdConfig.result_expires

ProdConfig.**result_expires** = 3600

config.ProdConfig.result_extended

ProdConfig.**result_extended** = True

config.ProdConfig.result_serializer

ProdConfig.**result_serializer** = 'json'

config.ProdConfig.task_always_eager

ProdConfig.**task_always_eager** = False

config.ProdConfig.task_default_rate_limit

ProdConfig.**task_default_rate_limit** = 3

config.ProdConfig.task_serializer

ProdConfig.**task_serializer** = 'json'

config.ProdConfig.task_track_started

ProdConfig.**task_track_started** = True

config.ProdConfig.timezone

ProdConfig.**timezone** = 'UTC'

config.ProdConfig.worker_log_format

ProdConfig.**worker_log_format** = '%(asctime)s - %(levelname)s - %(processName)s - %(message)s'

config.ProdConfig.worker_task_log_format

ProdConfig.**worker_task_log_format** = '%(asctime)s - %(levelname)s - %(processName)s - %(task_name)s - %(task_id)s - %(message)s'

Methods

ProdConfig.__init__()

config.ProdConfig.__init__

ProdConfig.**__init__**()

2.4.5 config.TestConfig

class config.**TestConfig**

Bases: *config.Config*

Testing configuration options.

Attributes

TestConfig.ALLOWED_CONTENT_TYPES

TestConfig.ALLOWED_MIME_TYPES

TestConfig.DATABASE

TestConfig.DEBUG

TestConfig.DEVELOPMENT

TestConfig.FLASK_RESTFUL_PREFIX

TestConfig.HOME

TestConfig.LOGIN_DISABLED

TestConfig.LOG_DIRECTORY

continues on next page

Table 212 – continued from previous page

TestConfig.MAIL_PASSWORD
TestConfig.MAIL_PORT
TestConfig.MAIL_SERVER
TestConfig.MAIL_USERNAME
TestConfig.MAIL_USE_SSL
TestConfig.MAIL_USE_TLS
TestConfig.MOCKUP_DIRECTORY
TestConfig.RESET_TOKEN_EXPIRES
TestConfig.RESTX_ERROR_404_HELP
TestConfig.RESTX_MASK_SWAGGER
TestConfig.ROOT_DIRECTORY
TestConfig.SECRET_KEY
TestConfig.SECURITY_PASSWORD_HASH
TestConfig. *SECURITY_PASSWORD_LENGTH_MIN*
TestConfig.SECURITY_PASSWORD_SALT
TestConfig. *SECURITY_TOKEN_AUTHENTICATION_HEADER*
TestConfig.SECURITY_TOKEN_MAX_AGE
TestConfig.SERVER_NAME
TestConfig.STORAGE_DIRECTORY
TestConfig.SWAGGER_API_URL
TestConfig.SWAGGER_URL
TestConfig.TESTING
TestConfig.TEST_USER_EMAIL
TestConfig.TEST_USER_PASSWORD
TestConfig.accept_content

continues on next page

Table 212 – continued from previous page

TestConfig.broker_url
TestConfig.enable_utc
TestConfig.include
TestConfig.result_backend
TestConfig.result_expires
TestConfig.result_extended
TestConfig.result_serializer
TestConfig.task_always_eager
TestConfig.task_default_rate_limit
TestConfig.task_serializer
TestConfig.task_track_started
TestConfig.timezone
TestConfig.worker_log_format
TestConfig.worker_task_log_format

config.TestConfig.ALLOWED_CONTENT_TYPES

TestConfig.**ALLOWED_CONTENT_TYPES** = {'application/json', 'application/octet-stream', 'multipart/form-data'}

config.TestConfig.ALLOWED_MIME_TYPES

TestConfig.**ALLOWED_MIME_TYPES** = {'application/pdf', 'application/vnd.ms-excel'}

config.TestConfig.DATABASE

TestConfig.**DATABASE** = {'engine': 'peewee.SqliteDatabase', 'name': 'test.db', 'pragmas': {'cache_size': -64000, 'foreign_keys': 1, 'ignore_check_constraints': 0, 'journal_mode': 'wal', 'synchronous': 0}}

config.TestConfig.DEBUG

TestConfig.**DEBUG** = **True**

config.TestConfig.DEVELOPMENT

TestConfig.**DEVELOPMENT** = **True**

config.TestConfig.FLASK_RESTFUL_PREFIX

TestConfig.**FLASK_RESTFUL_PREFIX** = **'/api'**

config.TestConfig.HOME

TestConfig.**HOME** = **'/home/docs'**

config.TestConfig.LOGIN_DISABLED

TestConfig.**LOGIN_DISABLED** = **False**

config.TestConfig.LOG_DIRECTORY

TestConfig.**LOG_DIRECTORY** = **'/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/log'**

config.TestConfig.MAIL_PASSWORD

TestConfig.**MAIL_PASSWORD** = **None**

config.TestConfig.MAIL_PORT

TestConfig.**MAIL_PORT** = **None**

config.TestConfig.MAIL_SERVER

TestConfig.**MAIL_SERVER** = **None**

config.TestConfig.MAIL_USERNAME

TestConfig.**MAIL_USERNAME** = **None**

config.TestConfig.MAIL_USE_SSL

TestConfig.**MAIL_USE_SSL = False**

config.TestConfig.MAIL_USE_TLS

TestConfig.**MAIL_USE_TLS = True**

config.TestConfig.MOCKUP_DIRECTORY

TestConfig.**MOCKUP_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/storage/mockups'**

config.TestConfig.RESET_TOKEN_EXPIRES

TestConfig.**RESET_TOKEN_EXPIRES = 86400**

config.TestConfig.RESTX_ERROR_404_HELP

TestConfig.**RESTX_ERROR_404_HELP = False**

config.TestConfig.RESTX_MASK_SWAGGER

TestConfig.**RESTX_MASK_SWAGGER = False**

config.TestConfig.ROOT_DIRECTORY

TestConfig.**ROOT_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest'**

config.TestConfig.SECRET_KEY

TestConfig.**SECRET_KEY = None**

config.TestConfig.SECURITY_PASSWORD_HASH

TestConfig.**SECURITY_PASSWORD_HASH = 'pbkdf2_sha512'**

config.TestConfig.SECURITY_PASSWORD_LENGTH_MIN

TestConfig.**SECURITY_PASSWORD_LENGTH_MIN = 8**

config.TestConfig.SECURITY_PASSWORD_SALT

TestConfig.**SECURITY_PASSWORD_SALT = None**

config.TestConfig.SECURITY_TOKEN_AUTHENTICATION_HEADER

TestConfig.**SECURITY_TOKEN_AUTHENTICATION_HEADER = 'Authorization'**

config.TestConfig.SECURITY_TOKEN_MAX_AGE

TestConfig.**SECURITY_TOKEN_MAX_AGE = None**

config.TestConfig.SERVER_NAME

TestConfig.**SERVER_NAME = None**

config.TestConfig.STORAGE_DIRECTORY

TestConfig.**STORAGE_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/storage/tests'**

config.TestConfig.SWAGGER_API_URL

TestConfig.**SWAGGER_API_URL = 'http://None/static/swagger.yaml'**

config.TestConfig.SWAGGER_URL

TestConfig.**SWAGGER_URL = '/docs'**

config.TestConfig.TESTING

TestConfig.**TESTING = True**

config.TestConfig.TEST_USER_EMAIL

TestConfig.**TEST_USER_EMAIL = None**

config.TestConfig.TEST_USER_PASSWORD

TestConfig.**TEST_USER_PASSWORD** = **None**

config.TestConfig.accept_content

TestConfig.**accept_content** = **['json']**

config.TestConfig.broker_url

TestConfig.**broker_url** = **'pyamqp://'**

config.TestConfig.enable_utc

TestConfig.**enable_utc** = **True**

config.TestConfig.include

TestConfig.**include** = **['app.celery.tasks']**

config.TestConfig.result_backend

TestConfig.**result_backend** = **'amqp://'**

config.TestConfig.result_expires

TestConfig.**result_expires** = **3600**

config.TestConfig.result_extended

TestConfig.**result_extended** = **True**

config.TestConfig.result_serializer

TestConfig.**result_serializer** = **'json'**

config.TestConfig.task_always_eager

TestConfig.**task_always_eager** = **False**

config.TestConfig.task_default_rate_limit

TestConfig.**task_default_rate_limit = 3**

config.TestConfig.task_serializer

TestConfig.**task_serializer = 'json'**

config.TestConfig.task_track_started

TestConfig.**task_track_started = True**

config.TestConfig.timezone

TestConfig.**timezone = 'UTC'**

config.TestConfig.worker_log_format

TestConfig.**worker_log_format = '%(asctime)s - %(levelname)s - %(processName)s - %(message)s'**

config.TestConfig.worker_task_log_format

TestConfig.**worker_task_log_format = '%(asctime)s - %(levelname)s - %(processName)s - %(task_name)s - %(task_id)s - %(message)s'**

Methods

TestConfig.__init__()

---

config.TestConfig.__init__

TestConfig.**__init__**()

class config.**Config**

Default configuration options.

ALLOWED_CONTENT_TYPES = {'application/json', 'application/octet-stream', 'multipart/form-data'}

ALLOWED_MIME_TYPES = {'application/pdf', 'application/vnd.ms-excel'}

DATABASE = {'engine': 'peewee.SqliteDatabase', 'name': None, 'pragmas': {'cache_size': -64000, 'foreign_keys': 1, 'ignore_check_constraints': 0, 'journal_mode': 'wal', 'synchronous': 0}}

DEBUG = False

DEVELOPMENT = False

```
FLASK_RESTFUL_PREFIX = '/api'

HOME = '/home/docs'

LOGIN_DISABLED = False

LOG_DIRECTORY =
'/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/log'

MAIL_PASSWORD = None

MAIL_PORT = None

MAIL_SERVER = None

MAIL_USERNAME = None

MAIL_USE_SSL = False

MAIL_USE_TLS = True

MOCKUP_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/
checkouts/latest/storage/mockups'

RESET_TOKEN_EXPIRES = 86400

RESTX_ERROR_404_HELP = False

RESTX_MASK_SWAGGER = False

ROOT_DIRECTORY =
'/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest'

SECRET_KEY = None

SECURITY_PASSWORD_HASH = 'pbkdf2_sha512'

SECURITY_PASSWORD_LENGTH_MIN = 8

SECURITY_PASSWORD_SALT = None

SECURITY_TOKEN_AUTHENTICATION_HEADER = 'Authorization'

SECURITY_TOKEN_MAX_AGE = None

SERVER_NAME = None

STORAGE_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/
checkouts/latest/storage'

SWAGGER_API_URL = 'http://None/static/swagger.yaml'

SWAGGER_URL = '/docs'

TESTING = False

TEST_USER_EMAIL = None

TEST_USER_PASSWORD = None

accept_content = ['json']

broker_url = 'pyamqp://'

enable_utc = True

include = ['app.celery.tasks']

result_backend = 'amqp://'
```

result_expires = 3600

result_extended = True

result_serializer = 'json'

task_always_eager = False

task_default_rate_limit = 3

task_serializer = 'json'

task_track_started = True

timezone = 'UTC'

worker_log_format = '%(asctime)s - %(levelname)s - %(processName)s - %(message)s'

worker_task_log_format = '%(asctime)s - %(levelname)s - %(processName)s - %(task_name)s - %(task_id)s - %(message)s'

class config.DevConfig

Development configuration options.

ALLOWED_CONTENT_TYPES = {'application/json', 'application/octet-stream', 'multipart/form-data'}

ALLOWED_MIME_TYPES = {'application/pdf', 'application/vnd.ms-excel'}

DATABASE = {'engine': 'peewee.SqliteDatabase', 'name': None, 'pragmas': {'cache_size': -64000, 'foreign_keys': 1, 'ignore_check_constraints': 0, 'journal_mode': 'wal', 'synchronous': 0}}

DEBUG = True

DEVELOPMENT = True

FLASK_RESTFUL_PREFIX = '/api'

HOME = '/home/docs'

LOGIN_DISABLED = False

LOG_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/log'

MAIL_PASSWORD = None

MAIL_PORT = None

MAIL_SERVER = None

MAIL_USERNAME = None

MAIL_USE_SSL = False

MAIL_USE_TLS = True

MOCKUP_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/storage/mockups'

RESET_TOKEN_EXPIRES = 86400

RESTX_ERROR_404_HELP = False

RESTX_MASK_SWAGGER = False

ROOT_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest'

SECRET_KEY = None

SECURITY_PASSWORD_HASH = 'pbkdf2_sha512'

SECURITY_PASSWORD_LENGTH_MIN = 8

SECURITY_PASSWORD_SALT = None

SECURITY_TOKEN_AUTHENTICATION_HEADER = 'Authorization'

SECURITY_TOKEN_MAX_AGE = None

SERVER_NAME = None

STORAGE_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/storage'

SWAGGER_API_URL = 'http://None/static/swagger.yaml'

SWAGGER_URL = '/docs'

TESTING = False

TEST_USER_EMAIL = None

TEST_USER_PASSWORD = None

accept_content = ['json']

broker_url = 'pyamqp://'

enable_utc = True

include = ['app.celery.tasks']

result_backend = 'amqp://'

result_expires = 3600

result_extended = True

result_serializer = 'json'

task_always_eager = False

task_default_rate_limit = 3

task_serializer = 'json'

task_track_started = True

timezone = 'UTC'

worker_log_format = '%(asctime)s - %(levelname)s - %(processName)s - %(message)s'

worker_task_log_format = '%(asctime)s - %(levelname)s - %(processName)s - %(task_name)s - %(task_id)s - %(message)s'

class config.**Meta**(*name: str*, *bases: tuple*, *dict: dict*)

Metaclass for updating Config options.

classmethod **_rename_celery_settings**(*config: type*) → None

Rename old Celery setting names with new ones.

References

https://docs.celeryproject.org/en/latest/userguide/configuration.html#new-lowercase-settings

mro()
Return a type's method resolution order.

class config.**ProdConfig**
Production configuration options.

ALLOWED_CONTENT_TYPES = {'application/json', 'application/octet-stream', 'multipart/form-data'}

ALLOWED_MIME_TYPES = {'application/pdf', 'application/vnd.ms-excel'}

DATABASE = {'engine': 'peewee.SqliteDatabase', 'name': None, 'pragmas': {'cache_size': -64000, 'foreign_keys': 1, 'ignore_check_constraints': 0, 'journal_mode': 'wal', 'synchronous': 0}}

DEBUG = False

DEVELOPMENT = False

FLASK_RESTFUL_PREFIX = '/api'

HOME = '/home/docs'

LOGIN_DISABLED = False

LOG_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/log'

MAIL_PASSWORD = None

MAIL_PORT = None

MAIL_SERVER = None

MAIL_USERNAME = None

MAIL_USE_SSL = False

MAIL_USE_TLS = True

MOCKUP_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/storage/mockups'

RESET_TOKEN_EXPIRES = 86400

RESTX_ERROR_404_HELP = False

RESTX_MASK_SWAGGER = False

ROOT_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest'

SECRET_KEY = None

SECURITY_PASSWORD_HASH = 'pbkdf2_sha512'

SECURITY_PASSWORD_LENGTH_MIN = 8

SECURITY_PASSWORD_SALT = None

SECURITY_TOKEN_AUTHENTICATION_HEADER = 'Authorization'

SECURITY_TOKEN_MAX_AGE = None

SERVER_NAME = None

STORAGE_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/storage'

SWAGGER_API_URL = 'http://None/static/swagger.yaml'

SWAGGER_URL = '/docs'

TESTING = False

TEST_USER_EMAIL = None

TEST_USER_PASSWORD = None

accept_content = ['json']

broker_url = 'pyamqp://'

enable_utc = True

include = ['app.celery.tasks']

result_backend = 'amqp://'

result_expires = 3600

result_extended = True

result_serializer = 'json'

task_always_eager = False

task_default_rate_limit = 3

task_serializer = 'json'

task_track_started = True

timezone = 'UTC'

worker_log_format = '%(asctime)s - %(levelname)s - %(processName)s - %(message)s'

worker_task_log_format = '%(asctime)s - %(levelname)s - %(processName)s - %(task_name)s - %(task_id)s - %(message)s'

class config.TestConfig

Testing configuration options.

ALLOWED_CONTENT_TYPES = {'application/json', 'application/octet-stream', 'multipart/form-data'}

ALLOWED_MIME_TYPES = {'application/pdf', 'application/vnd.ms-excel'}

DATABASE = {'engine': 'peewee.SqliteDatabase', 'name': 'test.db', 'pragmas': {'cache_size': -64000, 'foreign_keys': 1, 'ignore_check_constraints': 0, 'journal_mode': 'wal', 'synchronous': 0}}

DEBUG = True

DEVELOPMENT = True

FLASK_RESTFUL_PREFIX = '/api'

HOME = '/home/docs'

LOGIN_DISABLED = False

LOG_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/log'

MAIL_PASSWORD = None

MAIL_PORT = None

MAIL_SERVER = None

MAIL_USERNAME = None

MAIL_USE_SSL = False

MAIL_USE_TLS = True

MOCKUP_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/storage/mockups'

RESET_TOKEN_EXPIRES = 86400

RESTX_ERROR_404_HELP = False

RESTX_MASK_SWAGGER = False

ROOT_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest'

SECRET_KEY = None

SECURITY_PASSWORD_HASH = 'pbkdf2_sha512'

SECURITY_PASSWORD_LENGTH_MIN = 8

SECURITY_PASSWORD_SALT = None

SECURITY_TOKEN_AUTHENTICATION_HEADER = 'Authorization'

SECURITY_TOKEN_MAX_AGE = None

SERVER_NAME = None

STORAGE_DIRECTORY = '/home/docs/checkouts/readthedocs.org/user_builds/flask-api/checkouts/latest/storage/tests'

SWAGGER_API_URL = 'http://None/static/swagger.yaml'

SWAGGER_URL = '/docs'

TESTING = True

TEST_USER_EMAIL = None

TEST_USER_PASSWORD = None

accept_content = ['json']

broker_url = 'pyamqp://'

enable_utc = True

include = ['app.celery.tasks']

result_backend = 'amqp://'

result_expires = 3600

result_extended = True

result_serializer = 'json'

```
task_always_eager = False

task_default_rate_limit = 3

task_serializer = 'json'

task_track_started = True

timezone = 'UTC'

worker_log_format = '%(asctime)s - %(levelname)s - %(processName)s - %(message)s'

worker_task_log_format = '%(asctime)s - %(levelname)s - %(processName)s -
%(task_name)s - %(task_id)s - %(message)s'
```

CHAPTER

THREE

FLASK COMMAND LINE

Flask command line allow run scripts for managing database, start up task queues, etc.

You don't need to start up the server for running these scripts but you must activate your virtual environment.

CHAPTER

FOUR

CHANGELOG

All notable changes to this project will be documented in this file. See standard-version for commit guidelines.

4.1 2.0.6 (2021-12-28)

4.2 Bug Fixes

- **pip:** upgrade package versions (75aff3b)

4.3 2.0.5 (2021-12-27)

4.4 Bug Fixes

- **npm:** upgrade package versions (f62f335)

4.4.1 2.0.4 (2021-02-19)

4.5 Bug Fixes

- **users:** add new fs_uniquifier column on users table (a28be38)

4.6 Build System

- **npm:** update node package versions (6314da3)
- **pip:** update flask-security-too version to 4.0.0 (698acb6)
- **pip:** update python package versions (09755c8)

4.6.1 2.0.3 (2021-02-05)

4.7 Bug Fixes

- **celery:** task fields are saving on database when the task is finished (bc93505)

4.8 Code Refactoring

- add new mockups directory in storage directory (91e642e)
- tls and ssl flask mail are getting from environment file (e548d57)

4.8.1 2.0.2 (2021-01-23)

4.9 Bug Fixes

- **celery:** new settings name are not applies on celery 4.4.7 (f1a0bff)
- **middleware:** correct middleware for allowing to let in Swagger (441b077)
- **tasks:** correct task for sending an email with attachments (43d516c)

4.10 Build System

- **pip:** update python dependencies (8964eed)

4.11 Code Refactoring

- **blueprints:** update way to register all blueprints (b7692b2)
- update way to test Celery tasks (eb3f72d)
- **celery:** update way to run Celery (dee133d)
- **factories:** update way to create a model instance from a factory (ddfcb7d)
- **swagger:** update order field format (ccbfcda)
- **tasks:** exclude internal_filename in Celery tasks (53dcf6d)

4.11.1 2.0.1 (2021-01-05)

4.12 Bug Fixes

- **tasks:** correct output data on serializers and swagger (d5c050a)

4.13 Build System

- **npm:** update npm dependencies for fixing a vulnerability found (15ee5de)
- **pip:** update Python packages (11676b6)

4.14 Code Refactoring

- **blueprints:** import dynamic way (30ee0a0)
- **blueprints:** remove logging module from all blueprints (a51709e)
- **db:** models available could be import from init module (2361e0e)
- **db:** move user_roles model to its own module (650eb39)
- **exceptions:** add error handler to marshmallow validation error class (10bb664)
- **exceptions:** correct error handler to marshmallow validation error class (ba30805)
- **managers:** add new logic for managing database queries through database models (758e077)
- **serializers:** correct user email validation (2d733cf)
- **serializers:** move app.marshmallow_schema.py to serializers package (47f75e1)
- **serializers:** upgrade validation fields (24ac198)
- **services:** add new logic for managing business logic to auth (3c969b5)
- **services:** add new logic for managing business logic to documents (1ce7b96)
- **services:** add new logic for managing business logic to roles (7fff4c1)
- **services:** add new logic for managing business logic to tasks (079741d)
- **services:** add new logic for managing business logic to users (572f37f)
- **swagger:** move app.utils.swagger_models to app.swagger package (ef4dd87)
- **swagger:** update document swagger models (7015c61)
- **swagger:** update role swagger models (d618021)
- **swagger:** update user swagger models (766e697)
- **tasks:** add suffix to task names (998a56d)
- **utils:** create new modules to constants and request query operators (cbf12c9)

4.14.1 2.0.0 (2020-10-27)

4.15 BREAKING CHANGES

- order field in search requests is a list of dicts.

4.16 Features

- **factories:** add prevent code for checking if a given model is registered as factory (1605a01)
- **shell:** import Factory class to Flask interactive shell (8cf9c8e)

4.17 Code Refactoring

- replace cerberus to flask-mashmallow validation (7552d5c)
- **celery:** replace old Celery setting names with new ones (15e0c03)
- **celery:** update way to set FLASK_CONFIG value on Flask command (a865548)

4.18 Build System

- add .versionrc that shows build/perf/refactor/revert (0017d66)
- add sphinx-click configuration to Sphinx and create new file for showing Click documentation (bb41b7b)
- add sphinx-click for showing Click documentation in Sphinx (c0a8f55)
- **pip:** remove cerberus package (4a4fe72)
- **pip:** split python packages in two requirements local and production (f39a2a5)

4.18.1 1.4.1 (2020-10-07)

4.19 Bug Fixes

- **celery:** correct problem when start Celery (52ad2fb), closes #3

4.19.1 1.4.0 (2020-10-04)

4.20 Features

- **celery:** add task for exporting several files (ca8355f)
- **documentation:** add sphinx integration (8c313fd)

4.20.1 1.3.0 (2020-09-20)

4.21 Features

- **swagger:** add Swagger full integration (1eaf8d8)

4.21.1 1.2.0 (2020-09-18)

4.22 BREAKING CHANGES

- install/update Node.js and Python libraries

4.23 build

- update Node.js and Python packages (b7416cc)

4.23.1 1.1.0 (2020-05-31)

4.24 Features

- **security:** add role-based authorization (345b57e)
- add advanced search in documents, roles and users (8fce3e3)
- add marshmallow package integration (a8b647e)
- add Swagger integration (dc6ace4)

4.25 Refactor

- replace HTTP exceptions to Werkzeug HTTP Exceptions (31e5606)
- move Word and Excel celery tasks to them own modules (00e42e5)

4.26 Docs

- docs: add installation project guide (b915d31)

4.26.1 1.0.0 (2020-05-17)

4.27 BREAKING CHANGES

- **pip:** update Python dependencies

4.28 Features

- **celery:** add basic installation (147dd2c)
- **db:** add pewee migrations (231696c)
- **documents:** add document logic (1eb7ec1)
- **emails:** add send emails after creation an user (7c2cfe0)
- **log:** add support for logrotate (09925e1)
- **users:** add created_by column in user model (8a3d013)
- **users:** add Excel and PDF users export to background processes (781e091)
- **users:** add recovery password feature (e1e916e)

4.29 Build

- **pip:** update requirements.txt (6193153)

4.29.1 0.8.0 (2020-04-29)

4.30 Features

- **roles:** add role logic (d7a0535)
- **security:** add jwt authentication (fb51089)
- **users:** add role model integration to user model (69bc124)
- **users:** add user get endpoint (018b965)

4.30.1 0.7.0 (2020-04-23)

4.31 Features

- **doc:** add standard-version NodeJS package (c1b2cb3)

4.31.1 0.6.1 (2020-04-23)

4.32 BREAKING CHANGES

- update python dependencies

4.33 Features

- **db:** added script for creating database tables (c14b566)
- **logging:** added logging configuration (297b9c3)
- **seeders:** added user seeder (e78b4c4)
- **tests:** add tests and code coverage (17317b7)
- **validation-requests:** add validation requests with cerberus (a5beed6)

4.34 Bug Fixes

- **commitizen:** fixed problem with the process of commitizen tags (1d3677d)
- **docs_to_pdf:** fixed problem about convert a docx file to a pdf file with uWSGI (aabbc2d)
- **peewee:** fixed problem about a connection already opened error (6279470)
- **peewee:** problem with database connection already opened (e6c07c9)
- **users:** update user endpoint cannot update data (9dfc4cc)
- request search fields in search users, export PDF and export Excel endpoints (2ae7ab7)

4.35 Build

- update requirements.txt (f783e78)
- update requirements.txt (b6378ba)

CHAPTER

FIVE

NOTE

If you find any bugs, odd behavior, or have an idea for a new feature please don't hesitate to on GitHub.

CHAPTER

SIX

INDICES AND TABLES

- genindex
- modindex
- search

PYTHON MODULE INDEX

a

c

d

t

INDEX

Symbols

A

B

C

D

E

F

G

H

I

J

L

M

N

O

P

R

S

T

U

V