
Seven23 Documentation

Release 1.0

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1 Summary

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Fully manual budget app to track your expenses. Completely opensource, with privacy by design.

- [Seven23 official website](#)
- [Online documentation](#)
- [API specifications swagger and redoc](#)
- [Issue tracker](#)
- [Code repository](#)

Note: This project does not include a user interface, which is managed as a totally independant project like [seven23_webapp](#) .

1.1 Installation

```
git clone git@github.com:sebastienbarbier/seven23_server.git
```

1.1.1 Virtual env (optional)

```
virtualenv -p python3 apps  
source apps/bin/activate
```

1.1.2 Dependencies

```
pip install -r requirements.txt
```

Note: Dependencies related to documentation has been separated to a different file and need to run `pip install -r requirements-dev.txt`

1.1.3 Migration

Configure in `settings.py` access to your database, then run:

```
python manage.py migrate  
python manage.py loaddata seven23/models/currency/fixtures/initial_data.json
```

1.1.4 Run server

```
python manage.py runserver 0.0.0.0:8000 # or just make
```

Note: Because local instance do not support https, you cannot access the API using a https application.

Hint: See *Using Docker and docker-compose* for Docker based deployments and configuration options.

1.2 Authentication

API use Django's Token-based authentication through the `django-rest-auth` library which also provide a set of endpoints to handle User Registration and Authentication tasks.

1.2.1 Retrieve token

/api/v1/rest-auth/login/ (POST)

```
{ "username": "USERNAME", "password": "USER_PASSWORD" }
```

Response code 200 with body:

```
{ "key": "d5ab4a34418b7053c86f1865003070671a7d158f" }
```

1.2.2 Fetch API being authenticated

Stateless API require to provide the user token on each request. Token must be send through the header using the Authorization value and Token YOUR_TOKEN key.

```
curl -X GET "https://seven23.io/api/init" -H "accept: application/json" -H  
↪ "Authorization: Token d5ab4a34418b7053c86f1865003070671a7d158f"
```

Note: By design, a token does not expire and remains active until being manually deleted.

1.2.3 Revoke token

Send an authenticated request to */v1/users/token (DELETE)* will revoke used token.

```
curl -X DELETE "https://seven23.io/api/v1/users/token" -H "accept: application/json"  
↪ -H "Authorization: Token d5ab4a34418b7053c86f1865003070671a7d158f"
```


1.3 Models and api

By default, your server instance deploy locally a swagger and redoc instance accessible through the `/swagger/` and `/redoc/` urls. Those are code generated, and provide tools to describe and test available resources.

You can also access the public instance on the seven23.io server:

- Official swagger instance
- Official redoc instance

1.3.1 Maintenance

API might be on **maintenance mode**, and then only available for superusers. All urls starting with `/api` will return `HTTP_503_Service_Unavailable` error handling.

Maintenance mode is defined in `settings.py` and defined as `os.environ.get('MAINTENANCE') == 'True'`

1.4 Tests

Tests can be run using the command:

```
python manage.py test --settings seven23.settings_tests
```

Those are performed on each deployment to minimize service unavailability and human errors.

1.5 Deployment

1.5.1 Heroku

1.5.2 One-command deployment

Seven23 implements a one-command deployment configuration to allow dynamic scaling on cloud platforms.

```
make build
```

This is actually a script running four commands:

```
python manage.py test --settings seven23.settings_tests
python manage.py migrate
python manage.py collectstatic --no-input
python manage.py loaddata seven23/models/currency/fixtures/initial_data.json
```

1.5.3 Configuration

Deployed instance will access environment variables to configure itself. Should be done before any deployment.

```
DATABASE_URL           = postgresql://username:password@url:port/db
SECRET_KEY             = YOUR_SECRET_KEY
ALLOW_ACCOUNT_CREATION = false
AWS_ACCESS_KEY_ID     = YOUR_AWS_ACCESS_KEY_ID
AWS_S3_CUSTOM_DOMAIN  = YOUR_AWS_S3_CUSTOM_DOMAIN
AWS_SECRET_ACCESS_KEY = YOUR_AWS_SECRET_ACCESS_KEY
AWS_STORAGE_BUCKET_NAME = YOUR_AWS_STORAGE_BUCKET_NAME
CONTACT_EMAIL         = admin@seven23.io
EMAIL_HOST            = YOUR_EMAIL_HOST
EMAIL_HOST_USER       = YOUR_EMAIL_USER
EMAIL_HOST_PASSWORD   = YOUR_EMAIL_PASSWORD
MAIL_USE_TLS          = false
EMAIL_PORT            = 25
DEBUG                 = false
```

1.5.4 Using Docker and docker-compose

Seven23 provides a Dockerfile for building a container image.

Build the docker container from source:

```
docker build -t seven23_server . # or 'make docker-build'
```

Run the standalone application container:

```
docker run -p 8000:8000 -ti seven23_server
```

In addition a docker-compose setup is available which uses the following components:

- app** Main container: bundled seven23 django application using Gunicorn as application server
- postgres** PostgreSQL database server
- nginx** NGINX reverse web proxy in front of Gunicorn and for serving static assets directly to the user.

Run complete application stack using docker-compose:

```
docker-compose up # or 'make docker-run'
```

Note: A Docker Volume is used for sharing static assets from the application with the NGINX container.

1.5.5 As SaaS

To deploy as a SaaS service, you will need a few extra configuration values:

```
SAAS                   = true
STRIPE_PUBLIC_KEY     = YOUR_STRIPE_PUBLIC_KEY
STRIPE_SECRET_KEY     = YOUR_STRIPE_SECRET_KEY
```

1.6 Documentation

This official documentation is maintained in GitHub. The docs folder contains the documentation sources in reStructuredText format. And you can generate the docs locally with:

```
make docs
```

Output is written at `docs/_build/html/index.html`.

1.7 Contribution

1.7.1 How to contribute

Thanks for your interest in contributing to Seven23 server!

Note: We love community feedback and are glad to review contributions of any size - from typos in the documentation to critical bug fixes - so don't be shy!

1.7.2 Report bugs

Report bugs at https://github.com/sebastienbarbier/seven23_server/issues/new

If you are reporting a bug, please include:

- Any details about your local setup that might be helpful in troubleshooting.
- Detailed steps to reproduce the bug.

1.7.3 Fix bugs

Check out the [open bugs](#) - anything tagged with the **easy-pick label** could be a good choice for newcomers.

1.7.4 Implement features

Look through the GitHub issues for features. Anything tagged with **enhancement** is open to whoever wants to implement it.

1.7.5 Write documentation

Seven23 could always use more documentation, whether as part of the official docs, in docstrings, or even on the Web in blog posts, articles, and such.

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We obviously accept pull requests for this documentation, just as we accept them for bug fixes and features!

1.8 Changelog

This document describes changes between each past release.

1.8.1 1.0 (TBA)

Initial version