

swe573-Ozguner

SWE573 Repository - Atakan Ozguner

For the first assignment a markdown file about <https://github.com/public-apis/public-apis> is added.

Application Setup

The application is located under `/virtualenv/swe573project`.

As the Django and PostgreSQL services are dockerized, you can build and run the containers by navigating to the `/virtualenv/swe573project` directory and running the following command:

```
sudo docker-compose up --build
```

Because the service is running in docker containers, no need to activate virtualenv, it was created for development&debugging purposes only.

Dockerfile Explanation

The Dockerfile is a text file that contains the instructions to build a Docker image. It automates the deployment of the application inside a container. Here's a breakdown of our Dockerfile:

1. `FROM python:3.10-slim`: This line is pulling the official Python image from DockerHub. We're using the slim version of Python 3.10.
2. `WORKDIR /app`: This line sets the working directory inside the Docker container to `/app`.
3. `COPY requirements.txt .`: This line copies the `requirements.txt` file from your local directory to the Docker container.
4. The next two blocks of `RUN` commands are updating the package list, installing `build-essential` and `libpq-dev` packages, and then cleaning up the package list. These packages are necessary for building certain Python packages.
5. `RUN pip install --no-cache-dir -r requirements.txt`: This line installs the Python dependencies listed in the `requirements.txt` file.
6. `COPY . .`: This line copies the rest of your local directory (the application code) into the Docker container.
7. `CMD ["python", "manage.py", "runserver", "0.0.0.0:8000"]`: This line is the command that Docker will execute by default when you run the container. In this case, it's starting the Django server.

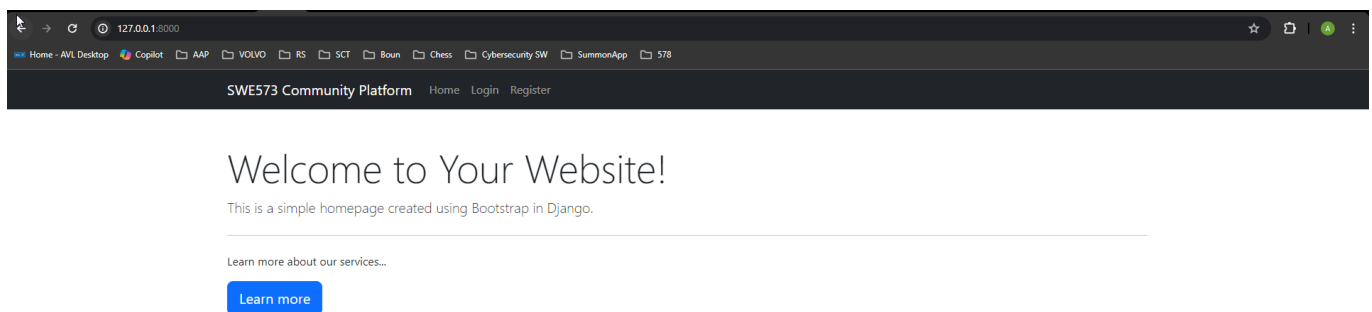
Docker Compose File Explanation

The `docker-compose.yml` file is a YAML file defining services, networks, and volumes for a Docker application. Here's a breakdown of our `docker-compose.yml` file:

1. `version: '3'`: This line specifies the version of Docker Compose file format. We're using version 3.
2. `services::` This section is where we define our services. In this case, we have two services: `swe573-postgres` and `web`.
3. `swe573-postgres::` This is our PostgreSQL service. We're using the official `postgres` image from DockerHub. We're also setting some environment variables to configure our PostgreSQL database.
4. `web::` This is our Django service. We're building the Docker image using the Dockerfile in the current directory (`build: .`).
5. `command::` This line is running a series of commands to make migrations, migrate the database, and then start the Django server. This ensures that Django's migrations are done automatically when the container is started.
6. `volumes::` This line is mounting the current directory on the host to `/app` in the container. This allows us to make changes to our code on the host and have those changes reflected in the container.
7. `ports::` This line is mapping port 8000 on the host to port 8000 in the container.
8. `depends_on::` This line is specifying that the `web` service depends on the `swe573-postgres` service. This means that Docker Compose will start the `swe573-postgres` service first.

Application Screenshots

Home Page



Register Page

Register with a username and a password.

SWE573 Community Platform

HomeLoginRegister

Register

Username

atakanozguner

Password

.....

Register

Login Page

127.0.0.1:8000/user_login

Home - AVL DesktopCopilotAAPVOLVOFS SCTBounChessCybersecurity SWSummonApp578

SWE573 Community Platform

HomeLoginRegister

Registration successful. You can now login.

Login

Username

Password

LoginRegister

Home Page (Logged In)

After successful login you receive a message and top navigation bar changes. New fields such as Communities is added.

SWE573 Community Platform

HomeLogoutCommunitiesWelcome, atakanozguner to SWE573 !

Login successful.

Welcome to Your Website!

This is a simple homepage created using Bootstrap in Django.

Learn more about our services...

Learn more

Communities Page (1)

You can see created communities, go to their respective pages, and create a new community.

SWE573 Community Platform

HomeLogoutCommunitiesWelcome, atakanozguner to SWE573 !

Welcome to the Communities Page, atakanozguner

Create Community

Communities

test's community

Created by: testttt

Go to Community

asdad

Created by: testttt

Go to Community

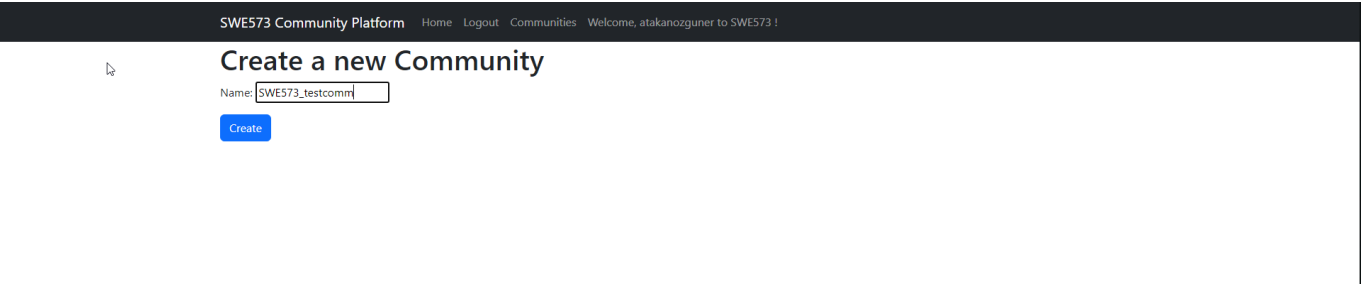
atakanscomm

Created by: atakan

Go to Community

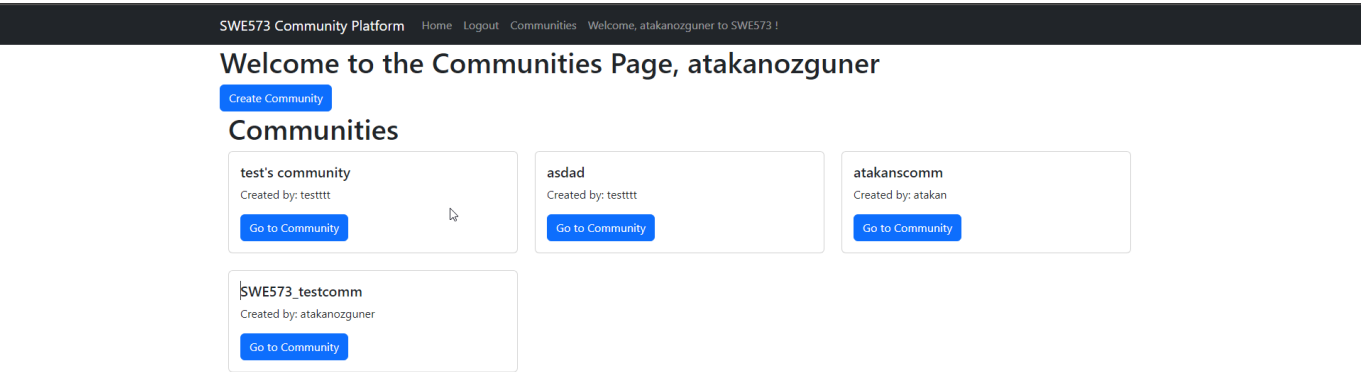
Communities Page (2)

Creating a new community, first only define a community name.



Communities Page (3)

Our new community is added. Lets navigate to it.



Communities Page (4)

Here you can see post template's fields can be increased as required. After this step is to be done for my progress, unfortunately.

