

PythonDjango in docker

Step 1:- Create an EC2 instance

Ports:22, 8001

Step 2:- Connect to EC2 instance

Step 3:- Install Docker Engine latest version

<https://docs.docker.com/engine/install/ubuntu/> (for ubuntu)

Step 4:- Create dockerfile

```
FROM ubuntu:22.04
LABEL engg="pratik"

USER root
RUN apt update
RUN apt install -y python3 python3-pip git
RUN pip install virtualenv
RUN mkdir envs
RUN virtualenv ./envs/
RUN . envs/bin/activate
RUN git clone https://github.com/PratikBorge/simple-django-project.git
WORKDIR /simple-django-project/
RUN apt-get install -y python3-dev default-libmysqlclient-dev libxml2-dev libxslt1-dev build-essential libffi-dev
RUN pip install -r requirements.txt
RUN pip install mysql-connector-python
RUN pip install django==3.2 django-haystack==3.0
RUN /usr/bin/python3 manage.py makemigrations
RUN /usr/bin/python3 manage.py migrate
EXPOSE 8001
CMD ["/usr/bin/python3", "manage.py", "runserver", "0.0.0.0:8001"]
```

Step 5:- Build image from dockerfile

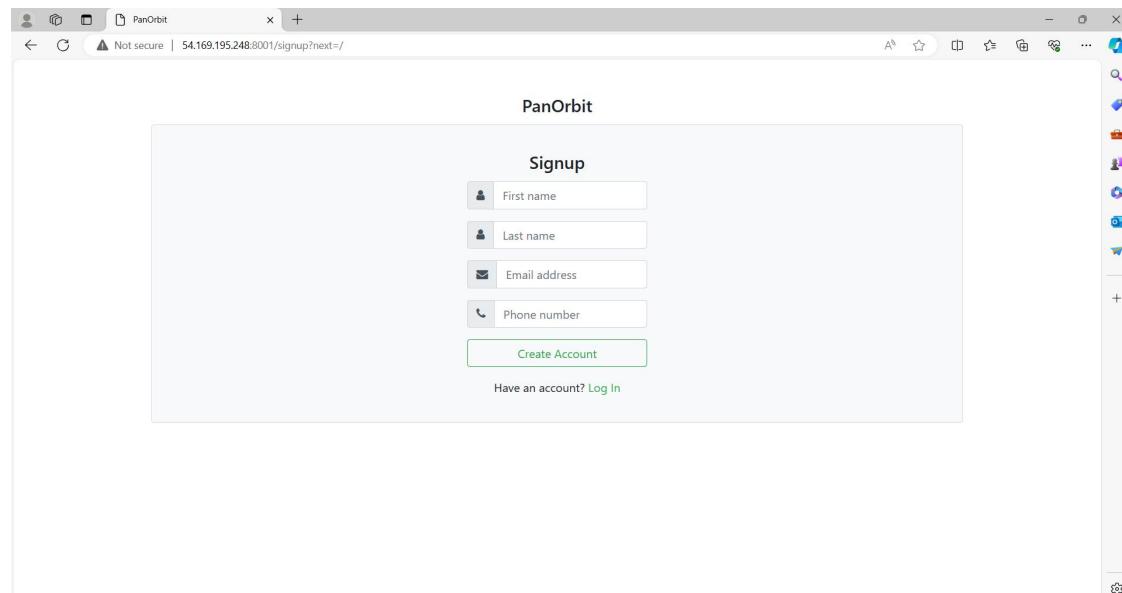
```
root@ip-172-31-30-167:~/simple_django# docker build .
[+] Building 26.9s (20/20) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 740B
=> [internal] load metadata for docker.io/library/ubuntu:22.04
=> [auth] library/ubuntu:pull token for registry-1.docker.io
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [1/15] FROM docker.io/library/ubuntu:22.04@sha256:77906da86b60585ce12215807090eb327e7386c8f8f5402369e421f44eff17e
=> CACHED [2/15] RUN apt update
=> CACHED [3/15] RUN apt install -y python3 python3-pip git
=> CACHED [4/15] RUN pip install virtualenv
=> CACHED [5/15] RUN mkdir envs
=> CACHED [6/15] RUN virtualenv ./envs/
=> CACHED [7/15] RUN . envs/bin/activate
=> CACHED [8/15] RUN git clone https://github.com/PratikBorge/simple-django-project.git
=> CACHED [9/15] WORKDIR /simple-django-project/
=> CACHED [10/15] RUN apt-get install -y python3-dev default-libmysqlclient-dev libxml2-dev libxslt1-dev build-essential libffi-dev
=> CACHED [11/15] RUN pip install -r requirements.txt
=> CACHED [12/15] RUN pip install mysql-connector-python
=> CACHED [13/15] RUN pip install django==3.2 django-haystack==3.0
=> CACHED [14/15] RUN /usr/bin/python3 manage.py makemigrations
=> [15/15] RUN /usr/bin/python3 manage.py migrate
=> exporting to image
=> writing image sha256:2847bc326ecb733b595f53372a77d1bf7b7f5d12ebc29cb9851b19f1bd442b8af
root@ip-172-31-30-167:~/simple_django# docker ps
```

Step 6:- Create container from image

docker run -d -p 8001:8001 <imageID>

```
root@ip-172-31-30-167:~/simple_django# docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
<none> <none> 2847bc326ecb About a minute ago 966MB
mysql latest 019814493c7a 2 months ago 632MB
mysql 8.0.15 7bb256606ced 4 years ago 477MB
root@ip-172-31-30-167:~/simple_django# docker run -d -p 8001:8001 284
0a2645f12a5131454dd52481c6efc363d3cf7b7720b59aad1a7c706058b571c
root@ip-172-31-30-167:~/simple_django# docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
0a2645f12a51 284 "/usr/bin/python3 ma..." 6 seconds ago Up 5 seconds 0.0.0.0:8001->8001/tcp, :::8001->8001/tcp flamboyant_chatelet
37e8a79f8eac mysql:8.0.15 "docker-entrypoint.s..." 10 minutes ago Up 10 minutes 0.0.0.0:3306->3306/tcp, :::3306->3306/tcp, 33060/tcp stupefied_napier
```

Step 7:- Copy instanceIP with port_number and paste into browser



The screenshot shows a web browser window with the address bar displaying "54.169.195.248:8001/signup?next=/". The page title is "PanOrbit". The main content area features a "Signup" form with the following fields:

- First name
- Last name
- Email address
- Phone number

Below the fields is a green "Create Account" button. At the bottom of the form, there is a link: "Have an account? [Log In](#)".