Program 1

Step 1: Create a directory
mkdir program1

Step 2: requirements.txt
nano requirements.txt

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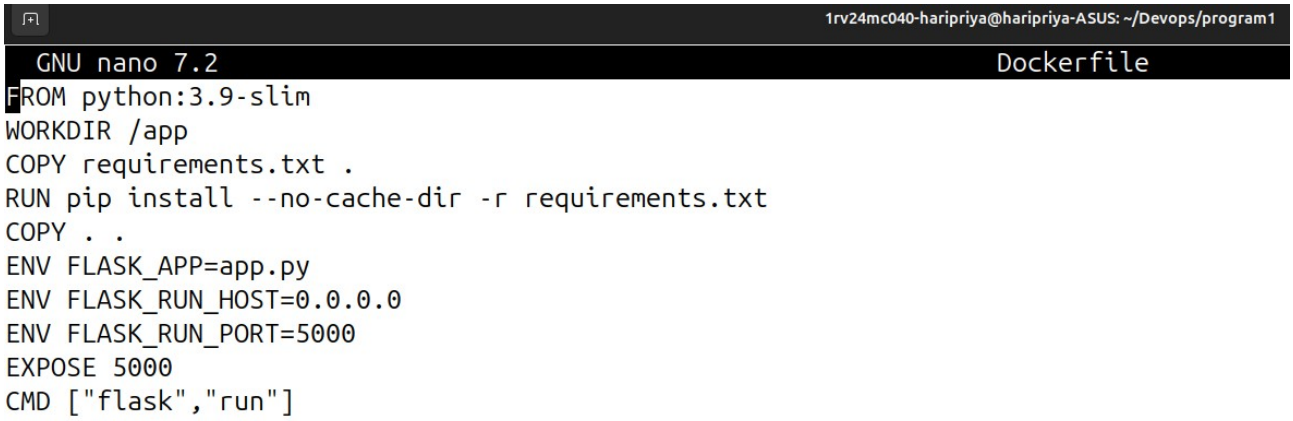
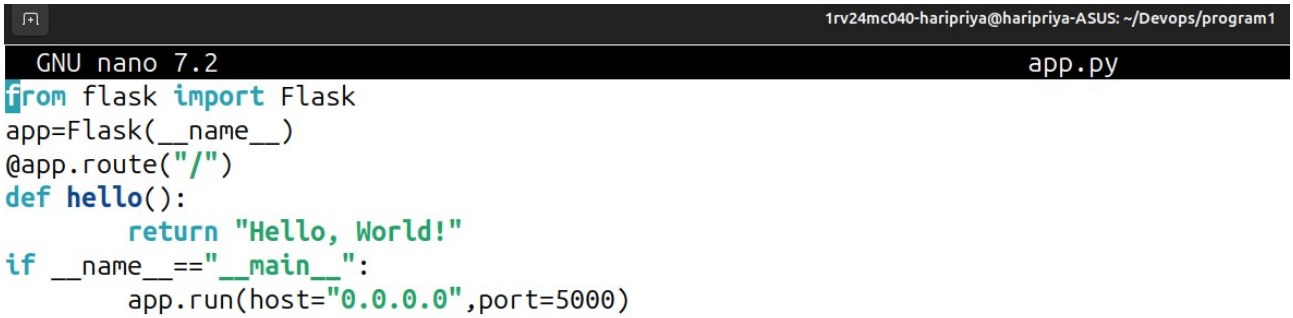
Step 3: Dockerfile
nano Dockerfile



.

Step 4: app.py
nano app.py



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Step 5: Build the image
sudo docker build -t program-one .

```
1rv24mc040-haripriya@haripriya-ASUS:~/Devops/program1$ sudo docker build -t program-one .
[+] Building 9.6s (10/10) FINISHED                                  docker:default
 => [internal] load build definition from Dockerfile                         0.0s
 => => transferring dockerfile: 261B                                         0.0s
 => [internal] load metadata for docker.io/library/python:3.9-slim           1.8s
 => [internal] load .dockerignore                                            0.0s
 => => transferring context: 2B                                              0.0s
 => [internal] load build context                                            0.0s
 => => transferring context: 109B                                            0.0s
 => [1/5] FROM docker.io/library/python:3.9-slim@sha256:545badebace9a958b    0.0s
 => CACHED [2/5] WORKDIR /app                                                0.0s
 => [3/5] COPY requirements.txt .                                            0.0s
 => [4/5] RUN pip install --no-cache-dir -r requirements.txt                 7.6s
 => [5/5] COPY . .                                                           0.0s
 => exporting to image                                                       0.2s
 => => exporting layers                                                      0.2s
 => => writing image sha256:bb9617fdd90b16464d9d09c9052d313f09b57be20e9da    0.0s
 => => naming to docker.io/library/program-one                               0.0s
```

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Step 6: Run the container
sudo docker run -d -p 5000:5000 program-one
Also check for the running containers
docker ps

```
1rv24mc040-haripriya@haripriya-ASUS:~/Devops/program1$ sudo docker run -d -p 5000:5000 program-one
826da1d5b7c74fc6e0616fa8271912dd68e0951b0c9b8300bf47e1631f8a2d8e
1rv24mc040-haripriya@haripriya-ASUS:~/Devops/program1$ docker ps
CONTAINER ID   IMAGE         COMMAND       CREATED         STATUS         PORTS                                       NAMES
826da1d5b7c7   program-one   "flask run"   4 minutes ago   Up 3 minutes   0.0.0.0:5000->5000/tcp, [::]:5000->5000/tcp   jolly_nobel
```

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Step 7: Get the output in the browser using the URL
http://localhost:5000/
OR
Use CURL to get the output in the terminal
curl http://localhost:5000/