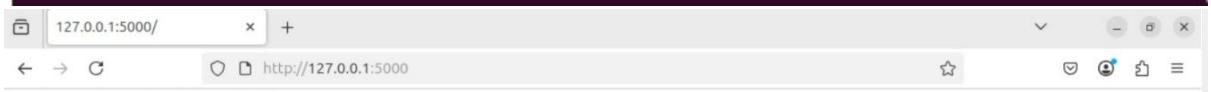
VMware Player :

Open • app.py ~/

```
from flask import Flask
app = Flask(__name__)
S
@app.route('/')
def hello():
    return "Hello from inside the Virtual Machine!"

if __name__ == '__main__':
    app.run(host='0.0.0.0', port=5000)
```

```
(venv) haneeab@haneeab-VirtualBox:~$ nano app.py
(venv) haneeab@haneeab-VirtualBox:~$ python app.py
 * Serving Flask app 'app'
 * Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment.
 Use a production WSGI server instead.
 * Running on all addresses (0.0.0.0)
 * Running on http://127.0.0.1:5000
 * Running on http://10.0.2.15:5000
Press CTRL+C to quit
127.0.0.1 - - [04/May/2025 19:08:17] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [04/May/2025 19:08:18] "GET /favicon.ico HTTP/1.1" 404 -
```



Hello from inside the Virtual Machine!

Docker Container :

```
haneeab@haneeab-VirtualBox:~/Desktop/flask_docker_app$ sudo docker run -d -p 500
0:5000 flask-docker-app
f1e43d0c02c22a6fa46f99ea54bb3cf08393faab5d74003e07d315d5c83dcf4a
haneeab@haneeab-VirtualBox:~/Desktop/flask_docker_app$ S
```

Open — app.py — ~/Desktop/flask_docker_app

Dockerfile | app.py

```python
from flask import Flask
app = Flask(__name__)

@app.route('/')
def hello():
    return "Hello from inside Docker!"

if __name__ == '__main__':
    app.run(host='0.0.0.0', port=5000)
```

Open — Dockerfile — ~/Desktop/flask_docker_app

• app.py | Dockerfile

```
# Use official Python base image
FROM python:3.12-slim

# Set working directory
WORKDIR /app

# Copy app to container
COPY . .

# Install Flask
RUN pip install flask

# Run the app
CMD ["python", "app.py"]
```

AWS EC2 :

```
haneeab@haneeab-VirtualBox:~/Desktop$ ssh -i key.pem ubuntu@13.60.235.140
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-1024-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro

 System information as of Mon May  5 20:16:59 UTC 2025

  System load:  0.0               Temperature:           -273.1 C
  Usage of /:   25.2% of 6.71GB   Processes:             106
  Memory usage: 23%               Users logged in:       0
  Swap usage:   0%                IPv4 address for ens5: 172.31.25.188


Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.
```


```
(myenv) ubuntu@ip-172-31-25-188:~$ nano app.py
(myenv) ubuntu@ip-172-31-25-188:~$ python app.py
 * Serving Flask app 'app'
 * Debug mode: off
WARNING: This is a development server. Do not use it in a production deployme
 Use a production WSGI server instead.
 * Running on all addresses (0.0.0.0)
 * Running on http://127.0.0.1:5000
 * Running on http://172.31.25.188:5000
Press CTRL+C to quit
46.19.85.235 - - [05/May/2025 20:30:40] "GET / HTTP/1.1" 200 -
46.19.85.235 - - [05/May/2025 20:30:41] "GET /favicon.ico HTTP/1.1" 404 -
```