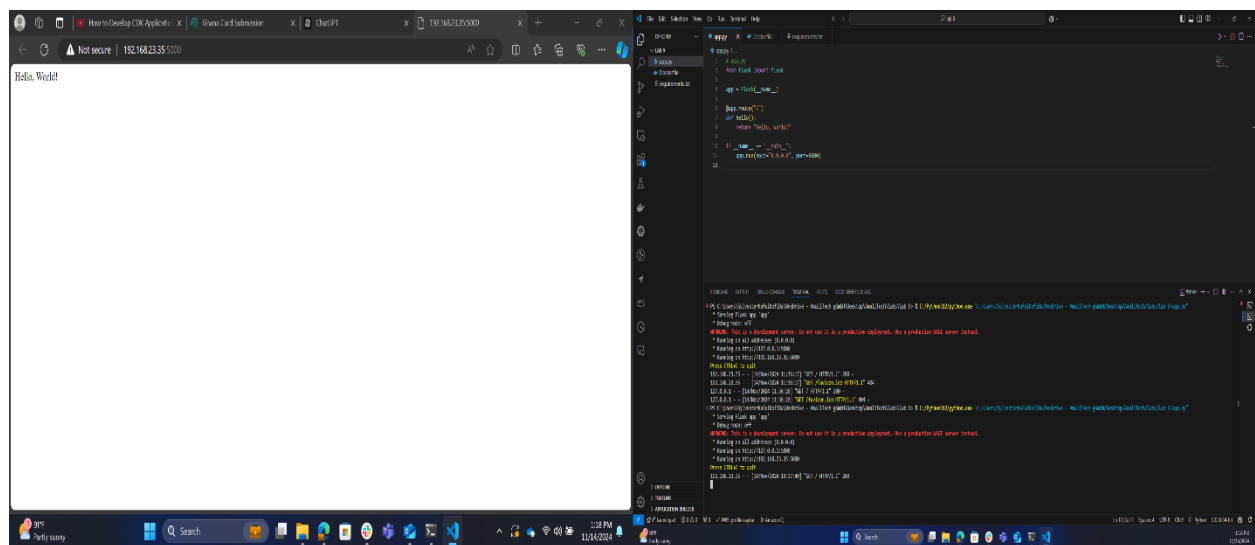# Simple web server-LAB 9

"Create a simple web server (with Python's Flask or Node.js or language of choice), build a Docker image from it, and run the container locally

After running it locally, tag the docker image and push to docker hub."

Screenshot of Docker container running

Screenshot of Docker Image pushed to hub

Screenshot of code

```python
# app.py
from flask import Flask

app = Flask(__name__)

@app.route("/")
def hello():
    return "Hello, World!"

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

```
PS C:\Users\SylvesterKafuiKofiDa\OneDrive - AmaliTech gGmbH\Desktop\AmaliTech\labs\lab 9> & C:/Python312/python.exe "c:/Users/SylvesterKafuiKofiDa/OneDrive - AmaliTech gGmbH/Desktop/AmaliTech/labs/lab 9/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://192.168.23.35:5000
Press CTRL+C to quit
192.168.23.35 - - [14/Nov/2024 11:36:17] "GET / HTTP/1.1" 200 -
192.168.23.35 - - [14/Nov/2024 11:36:17] "GET /favicon.ico HTTP/1.1" 404 -
127.0.0.1 - - [14/Nov/2024 11:36:26] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [14/Nov/2024 11:36:26] "GET /favicon.ico HTTP/1.1" 404 -
PS C:\Users\SylvesterKafuiKofiDa\OneDrive - AmaliTech gGmbH\Desktop\AmaliTech\labs\lab 9> & C:/Python312/python.exe "c:/Users/SylvesterKafuiKofiDa/OneDrive - AmaliTech gGmbH/Desktop/AmaliTech/labs/lab 9/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://192.168.23.35:5000
Press CTRL+C to quit
```

Screenshot of Dockerfile

```dockerfile
# Use the official Python image from Docker Hub
FROM python:3.9-slim

# Set the working directory
WORKDIR /app

# Copy the current directory contents into the container at /app
COPY . /app

#Install Dependancies
RUN pip install --no-cache-dir -r requirements.txt

# Expose port 5000
EXPOSE 5000

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

```
permission denied
kaydarkey@AMALITECH-PC-TKD-10665:/mnt/c/Users/SylvesterKafuiKofiDa/OneDrive - AmaliTech gGmbH/Desktop/AmaliTech/labs/lab 9$ sudo docker push kaydar/flask-app:latest
The push refers to repository [docker.io/kaydar/flask-app]
9b7730f4dd3e: Pushed
7c72abf1116b: Pushed
232fa13e077d: Pushed
aacba17e24d9: Mounted from library/python
f751ad7c65c4: Mounted from library/python
7822e749b484: Mounted from library/python
c3548211b826: Mounted from library/python
latest: digest: sha256:f1c4483eaea14d62770b9f88f138dad8d1ac2f67664ff3ee55ee74003b46a963 size: 1783
kaydarkey@AMALITECH-PC-TKD-10665:/mnt/c/Users/SylvesterKafuiKofiDa/OneDrive - AmaliTech gGmbH/Desktop/AmaliTech/labs/lab 9$ docker kaydar/flask-app:v1.0
docker: 'kaydar/flask-app:v1.0' is not a docker command.
See 'docker --help'
kaydarkey@AMALITECH-PC-TKD-10665:/mnt/c/Users/SylvesterKafuiKofiDa/OneDrive - AmaliTech gGmbH/Desktop/AmaliTech/labs/lab 9$ sudo docker push kaydar/flask-app:v1.0
The push refers to repository [docker.io/kaydar/flask-app]
9b7730f4dd3e: Layer already exists
7c72abf1116b: Layer already exists
232fa13e077d: Layer already exists
aacba17e24d9: Layer already exists
f751ad7c65c4: Layer already exists
7822e749b484: Layer already exists
c3548211b826: Layer already exists
v1.0: digest: sha256:f1c4483eaea14d62770b9f88f138dad8d1ac2f67664ff3ee55ee74003b46a963 size: 1783
kaydarkey@AMALITECH-PC-TKD-10665:/mnt/c/Users/SylvesterKafuiKofiDa/OneDrive - AmaliTech gGmbH/Desktop/AmaliTech/labs/lab 9$
```
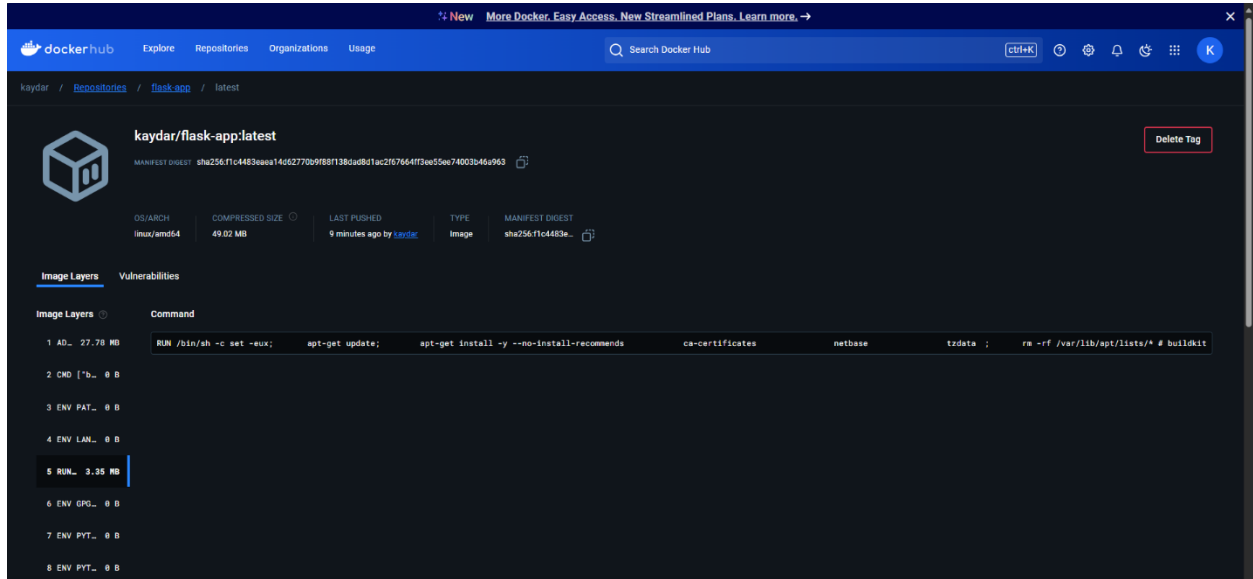
Screenshot of Docker image


```
kaydarkey@AMALITECH-PC-TKD-10665:/mnt/c/Users/SylvesterKafuiKofiDa/OneDrive - AmaliTech gGmbH/Desktop/AmaliTech/labs/lab 9$ sudo docker images
[sudo] password for kaydarkey:
REPOSITORY          TAG         IMAGE ID        CREATED             SIZE
kaydar/flask-app    latest      755bde43c5b1    About an hour ago   136MB
kaydar/flask-app    v1.0        755bde43c5b1    About an hour ago   136MB
<none>              <none>      29e336c36feb    2 hours ago         126MB
<none>              <none>      2c32164fba02    2 hours ago         126MB
python              3.9-slim    6a22698eab0e    3 weeks ago         126MB
```