

Qoala –

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Assignment Overview:

The objective of this assignment was to debug and successfully deploy a Dockerized application. Below are the identified issues and corresponding resolutions across various files:

1. Python Directory:

- **In app.py:**
 - Installed the netifaces package.
- **In the Python Dockerfile:**
 - Corrected syntax errors:
 - Changed WORKDIR / app to WORKDIR /app.
 - Modified COPY app.py /app to COPY app.py /app.
 - Fixed EXPOSE “eight thousand” to EXPOSE 8000.

2. Nginx Directory:

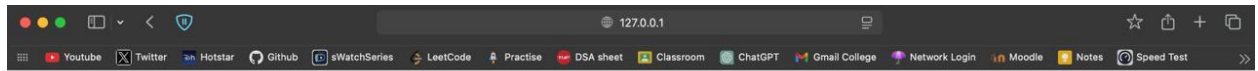
- **In nginx.conf:**
 - Resolved the following syntax errors:
 - Updated worker_process auto to worker_processes auto;.
 - Corrected include /etc/nginx/mime.type; to include /etc/nginx/mime.types;.
 - Fixed default_type application/octet-stream; to default_type application/octet-stream;.
 - Adjusted proxy_pass http://python_app:8000; to proxy_pass http://python-app:8000; (hyphen is valid for Docker service names).
- **In the Nginx Dockerfile:**
 - Made the following corrections:
 - Changed FROM nginx:latest to FROM nginx:latest.

- Updated COPY nginx.conf /etc/nginx/nginx.conf to COPY nginx.conf /etc/nginx/nginx.conf.
- Fixed COPY ./html /usr/share/nginx/html to COPY ./html /usr/share/nginx/html.
- Corrected EXPOSE "eighty" to EXPOSE 80.
- Adjusted CMD ["nginx", "-g", "daemon off;"] to CMD ["nginx", "-g", "daemon off;"].
- Based on COPY ./html /usr/share/nginx/html, added an HTML directory in the Nginx folder, which was previously missing.

3. Docker-Compose.yaml File:

- **Version Warning:**
 - Addressed a warning regarding the obsolete version attribute by removing it from the docker-compose.yaml file.
- **Ports:**
 - Corrected ports: - "eighty:80" to ports: - "80:80".
- **Volumes:**
 - Fixed
volumes: - ./nginx/nginx.conf:/etc/nginx/nginx.conf to
volumes: - ./nginx/nginx.conf:/etc/nginx/nginx.conf - ./nginx/logs:/var/log/nginx
(corrected syntax and added a log directory for Nginx).
- **Expose:**
 - Changed expose: - "eight thousand" to expose: - "8000".
- **Driver:**
 - Fixed driver: bridg to driver: bridge.
- **Networks:**
 - Removed the unsupported options field in networks, as it is not utilized in the latest Docker version.

After addressing these issues, I built the Docker images for both the Python and Nginx applications. I then used Docker Compose to create containers for each image.



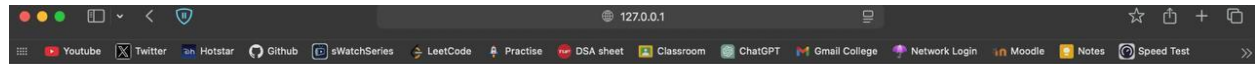
IP Address: 192.168.65.1

MAC Address: 00:00:00:00:00:00

Username: Guest

Timestamp: 2024-11-03 12:55:37

Assignment completed successfully!



IP Address: 172.18.0.3

MAC Address: 00:00:00:00:00:00

Username: Guest

Timestamp: 2024-11-03 12:55:54

Assignment completed successfully!

```
python_app | * Serving Flask app "app"
python_app | * Debug mode: off
python_app | WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
python_app | * Running on all addresses (0.0.0.0)
python_app | * Running on http://127.0.0.1:8000
python_app | * Running on http://172.18.0.2:8000
python_app | Press CTRL+C to quit
python_app | 192.168.65.1 - - [03/Nov/2024 12:55:25] "GET / HTTP/1.1" 200 -
python_app | 192.168.65.1 - - [03/Nov/2024 12:55:25] "GET /favicon.ico HTTP/1.1" 404 -
python_app | 192.168.65.1 - - [03/Nov/2024 12:55:37] "GET / HTTP/1.1" 200 -
python_app | 172.18.0.3 - - [03/Nov/2024 12:55:54] "GET / HTTP/1.0" 200 -
nginx-1 | 192.168.65.1 - - [03/Nov/2024:12:55:54 +0000] "GET / HTTP/1.1" 200 305 "-" Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7
) AppleWebKit/605.1.15 (KHTML, like Gecko) Version/18.0.1 Safari/605.1.15"
python_app | 172.18.0.3 - - [03/Nov/2024 12:57:17] "GET / HTTP/1.0" 200 -
nginx-1 | 192.168.65.1 - - [03/Nov/2024:12:57:17 +0000] "GET / HTTP/1.1" 200 305 "-" Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7
) AppleWebKit/605.1.15 (KHTML, like Gecko) Version/18.0.1 Safari/605.1.15"
python_app | 172.18.0.3 - - [03/Nov/2024 12:57:19] "GET / HTTP/1.0" 200 -
nginx-1 | 192.168.65.1 - - [03/Nov/2024:12:57:19 +0000] "GET / HTTP/1.1" 200 305 "-" Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7
) AppleWebKit/605.1.15 (KHTML, like Gecko) Version/18.0.1 Safari/605.1.15"
python_app | 192.168.65.1 - - [03/Nov/2024 12:57:21] "GET / HTTP/1.1" 200 -
python_app | 192.168.65.1 - - [03/Nov/2024 12:57:21] "GET /favicon.ico HTTP/1.1" 404 -
v View in Docker Desktop o View Config w Enable Watch
```