**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 / appp to WORKDIR /app.
    - Modified COPY appy.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.typess; to include /etc/nginx/mime.types;.
    - Fixed default\_typ 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:latests to FROM nginx:latest.
    - Updated COPY nginix.conf /etc/nginx/nginx.conf to COPY nginx.conf /etc/nginx/nginx.conf.
    - Fixed COPY ./html /usr/share/nginx/htmll to COPY ./html /usr/share/nginx/html.
    - Corrected EXPOSE "eighty" to EXPOSE 80.
    - Adjusted CMD ["nginx", "-g", "daemon of;"] 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.confi 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.





