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The steps have been followed according to the assignment.

#### ISSUES FACED:

C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>docker-compose up --build -d

validating C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge\docker-compose.yaml: networks.nginx-network Additional property options is not allowed

Error in docker-compose.yaml file,

1) changed "eighty:80" to ":80:80"

2) changed "eight thousand" to "8000:8000"

3) changed expose:

- "eight thousand" to ports:

- "8000:8000"

Expose makes port accessible only to other services within the same docker network.

Ports help in creating mapping between localhost and the container.

4) changed ./nginx/nginx.conf:/etc/nginx/nginx.conf to ./nginx/nginx.conf:/etc/nginx/nginx.conf

5) networks:

nginx-network:

driver: bridg

options:

compelex\_option: value to

networks:

nginx-network:

driver: bridge

6) build:

context: ./nginx

dockerfile: Dockerfile

context specifies docker where to look for files.

Build specifies how docker should an image for a service.

Dockerfile specifies name of dockerfile.

Similarly, build:

context: ./python

dockerfile: Dockerfile

---

```
C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>docker-compose up --build -d
```

time="2024-10-31T11:18:41+05:30" level=warning

msg="C:\\Users\\aksha\\OneDrive\\Desktop\\tester\\devops-internship-challenge\\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"

[+] Building 0.9s (4/4) FINISHED

docker:desktop-linux

=> [python-app internal] load build definition from Dockerfile 0.2s

=> => transferring dockerfile: 182B 0.1s

=> [nginx internal] load build definition from Dockerfile 0.2s

=> => transferring dockerfile: 187B 0.1s

=> CANCELED [nginx internal] load metadata for docker.io/library/nginx:latests 0.6s

=> [python-app internal] load metadata for docker.io/library/python:3.9 0.3s

failed to solve: failed to process "\"eight\": unexpected end of statement while looking for matching double-quote

Found errors in nginx dockerfile,

- 1) FROM nginx:latests to FROM nginx:latest
  - 2) COPY nginx.conf /etc/nginx/nginx.conf to COPY nginx.conf /etc/nginx/nginx.conf
  - 3) Remove COPY ./html /usr/share/nginx/html
  - 4) EXPOSE "eighty" to EXPOSE 80
  - 5) CMD ["nginx", "-g", "daemon of;"] to CMD ["nginx", "-g", "daemon off;"]
- 

#### #IMPORTANT STEPS OF WORK

```
C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>docker-compose up --build -d
```

time="2024-10-31T11:20:43+05:30" level=warning

msg="C:\\Users\\aksha\\OneDrive\\Desktop\\tester\\devops-internship-challenge\\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"

[+] Building 4.4s (13/13) FINISHED

docker:desktop-linux

=> [nginx internal] load build definition from Dockerfile 0.1s

=> => transferring dockerfile: 187B 0.1s

=> [python-app internal] load build definition from Dockerfile 0.1s

```

=> => transferring dockerfile: 170B                                0.1s
=> [python-app internal] load metadata for docker.io/library/python:3.9      0.2s
=> ERROR [nginx internal] load metadata for docker.io/library/nginx:latests  4.0s
=> [python-app internal] load .dockerignore                                0.0s
=> => transferring context: 2B                                           0.0s
=> [python-app 1/4] FROM
docker.io/library/python:3.9@sha256:ed8b9dd4e9f89c111f4bdb85a55f8c9f0e227  3.8s

=> => resolve
docker.io/library/python:3.9@sha256:ed8b9dd4e9f89c111f4bdb85a55f8c9f0e22796a29844938
3.8s

=> [python-app internal] load build context                                0.0s
=> => transferring context: 1.25kB                                       0.0s
=> [nginx auth] library/nginx:pull token for registry-1.docker.io          0.0s
=> [python-app auth] library/python:pull token for registry-1.docker.io     0.0s
=> CACHED [python-app 2/4] WORKDIR /app                                     0.0s
=> CACHED [python-app 3/4] COPY app.py /app                                 0.0s
=> CACHED [python-app 4/4] RUN pip install flask netifaces                 0.0s
=> CANCELED [python-app] exporting to image                                0.0s
=> => exporting layers                                                  0.0s
=> => exporting manifest
sha256:552b15b646e50b28bcdedd57f2bb24a981e19f7d1961b12c39ab1887639f9173  0.0s

=> => exporting config
sha256:b419f8ca66546cf5d6fb1b065c02a53cfc29517d9b409b1b2bb88858c9160e2a  0.0s

```

-----

```
> [nginx internal] load metadata for docker.io/library/nginx:latests:
```

-----

```
failed to solve: nginx:latests: failed to resolve source metadata for docker.io/library/nginx:latests:
docker.io/library/nginx:latests: not found
```

```
FOUND ERRORS IN PYTHON DOCKERFILE AND nginx.conf
```

```
WORKDIR /app to WORKDIR /app
```

```
COPY app.py /app to COPY app.py /app
```

```
RUN pip install flask netiface to RUN pip install flask netifaces
```

```
EXPOSE "eight thousand" to EXPOSE 8000
```

CMD ["pythn", "app.py"] to CMD ["python", "app.py"]

worker\_process auto to worker\_processes auto;

worker\_connection 1024; to worker\_connections 1024;

include /etc/nginx/mime.types;

default\_type application/octet-stream; to include /etc/nginx/mime.types;

default\_type application/octet-stream;

-----  
C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>docker-compose up --build -d

time="2024-10-31T11:25:45+05:30" level=warning

msg="C:\\Users\\aksha\\OneDrive\\Desktop\\tester\\devops-internship-challenge\\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"

[+] Building 1.5s (18/18) FINISHED

docker:desktop-linux

=> [nginx internal] load build definition from Dockerfile 0.1s

=> => transferring dockerfile: 142B 0.0s

=> [python-app internal] load build definition from Dockerfile 0.1s

=> => transferring dockerfile: 170B 0.0s

=> [python-app internal] load metadata for docker.io/library/python:3.9 0.1s

=> [nginx internal] load metadata for docker.io/library/nginx:latest 0.1s

=> [nginx internal] load .dockerignore 0.0s

=> => transferring context: 2B 0.0s

=> [python-app internal] load .dockerignore 0.1s

=> => transferring context: 2B 0.0s

=> [nginx internal] load build context 0.0s

=> => transferring context: 592B 0.0s

=> [nginx 1/2] FROM

docker.io/library/nginx:latest@sha256:28402db69fec7c17e179ea87882667f1e0543911 0.1s

=> => resolve

docker.io/library/nginx:latest@sha256:28402db69fec7c17e179ea87882667f1e054391138f77f 0.1s

=> [python-app 1/4] FROM

docker.io/library/python:3.9@sha256:ed8b9dd4e9f89c111f4bdb85a55f8c9f0e227 0.1s

```
=> => resolve
docker.io/library/python:3.9@sha256:ed8b9dd4e9f89c111f4bdb85a55f8c9f0e22796a29844938
0.1s

=> [python-app internal] load build context                                0.0s

=> => transferring context: 28B                                           0.0s

=> CACHED [nginx 2/2] COPY nginx.conf /etc/nginx/nginx.conf              0.0s

=> [nginx] exporting to image                                             0.5s

=> => exporting layers                                                    0.0s

=> => exporting manifest
sha256:cf8b973f0e0ace96c645047cebf4ca7af410de15f4826470a852ec0bb04122b7  0.0s

=> => exporting config
sha256:80d780602b707280461883f8f30b2de49c9cf00b435557b691eb07c92cbb44e3  0.0s

=> => exporting attestation manifest
sha256:a410d2da260e8e15493c4f98f0c57e9dd00905e8940a6a7cd344d3  0.1s

=> => exporting manifest list
sha256:67f2f33e79c99ba6e06ffec3c8c4056b3c98a55b0303792df54527e2fa8a9  0.1s

=> => naming to docker.io/library/local-nginx:latest                    0.0s

=> => unpacking to docker.io/library/local-nginx:latest                  0.1s

=> CACHED [python-app 2/4] WORKDIR /app                                  0.0s

=> CACHED [python-app 3/4] COPY app.py /app                              0.0s

=> CACHED [python-app 4/4] RUN pip install flask netifaces              0.0s

=> [python-app] exporting to image                                       0.5s

=> => exporting layers                                                    0.0s

=> => exporting manifest
sha256:552b15b646e50b28bcdedd57f2bb24a981e19f7d1961b12c39ab1887639f9173  0.0s

=> => exporting config
sha256:b419f8ca66546cf5d6fb1b065c02a53cfc29517d9b409b1b2bb88858c9160e2a  0.0s

=> => exporting attestation manifest
sha256:25a62af3ec871b087a55c52f70949d1a7cea1ba7dac91c7fb6077a  0.1s

=> => exporting manifest list
sha256:aacc28344521a3be913fa4f3ae52a23467b0ead584290b038dc47ee769991  0.1s

=> => naming to docker.io/library/local-python-app:latest              0.1s

=> => unpacking to docker.io/library/local-python-app:latest            0.1s

=> [nginx] resolving provenance for metadata file                        0.0s
```

=> [python-app] resolving provenance for metadata file 0.0s

[+] Running 2/2

✓ Container devops-internship-challenge-nginx-1 Started 3.7s

✓ Container python\_app Started 3.7s

#BOTH THE NGINX AND PYTHON APP CONTAINER START

---

C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>docker container ls

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
cd4d1b84dbe0	local-python-app	"python app.py"	12 seconds ago	Up 11 seconds	0.0.0.0:8000->8000/tcp python_app
e1601453b8fd	local-nginx	"/docker-entrypoint...."	12 seconds ago	Up 11 seconds	0.0.0.0:80->80/tcp devops-internship-challenge-nginx-1

---

C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>docker compose ps

time="2024-10-31T11:27:23+05:30" level=warning  
msg="C:\\Users\\aksha\\OneDrive\\Desktop\\tester\\devops-internship-challenge\\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"

NAME	IMAGE	COMMAND	SERVICE	CREATED	STATUS
devops-internship-challenge-nginx-1	local-nginx	"/docker-entrypoint...."	nginx	About a minute ago	Up About a minute 0.0.0.0:80->80/tcp
python_app	local-python-app	"python app.py"	python-app	About a minute ago	Up About a minute 0.0.0.0:8000->8000/tcp

---

C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>docker-compose logs python-app

time="2024-10-31T11:28:50+05:30" level=warning  
msg="C:\\Users\\aksha\\OneDrive\\Desktop\\tester\\devops-internship-challenge\\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"

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://172.20.0.2:8000
python_app | Press CTRL+C to quit
python_app | 172.20.0.1 - - [31/Oct/2024 05:56:17] "GET / HTTP/1.1" 200 -
python_app | 172.20.0.1 - - [31/Oct/2024 05:56:35] "GET / HTTP/1.1" 200 -
```

---

```
C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>docker-compose logs nginx
```

```
time="2024-10-31T11:28:56+05:30" level=warning
msg="C:\\Users\\aksha\\OneDrive\\Desktop\\tester\\devops-internship-challenge\\docker-
compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid
potential confusion"
```

```
nginx-1 | /docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform
configuration
```

```
nginx-1 | /docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
```

```
nginx-1 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
```

```
nginx-1 | 10-listen-on-ipv6-by-default.sh: info: Getting the checksum of
/etc/nginx/conf.d/default.conf
```

```
nginx-1 | 10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in
/etc/nginx/conf.d/default.conf
```

```
nginx-1 | /docker-entrypoint.sh: Sourcing /docker-entrypoint.d/15-local-resolvers.envsh
```

```
nginx-1 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
```

```
nginx-1 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
```

```
nginx-1 | /docker-entrypoint.sh: Configuration complete; ready for start up
```

---

```
C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>docker exec -it devops-
internship-challenge-nginx-1 curl http://python_app:8000
```

```
<html>
```

```
<body>
```

```
<p><b>IP Address:</b> 172.20.0.2</p>
```

```
<p><b>MAC Address:</b> 00:00:00:00:00:00</p>
```

```
<p><b>Username:</b> Guest</p>
```

```
<p><b>Timestamp:</b> 2024-10-31 06:11:46</p>
```

```
<br>  
<h3>Assignment completed successfully!</h3>  
</body>  
</html>
```

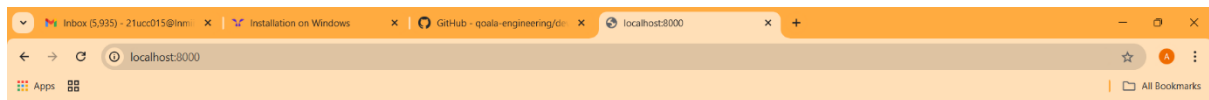
What's next:

Try Docker Debug for seamless, persistent debugging tools in any container or image → docker debug devops-internship-challenge-nginx-1

Learn more at <https://docs.docker.com/go/debug-cli/>

---





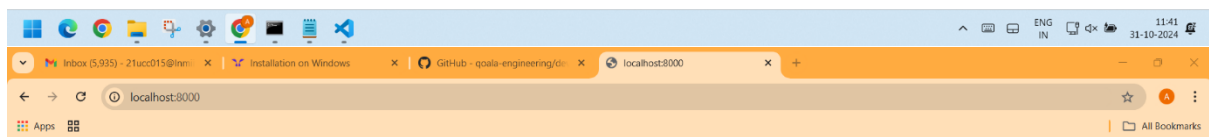
IP Address: 172.20.0.1

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

Username: Guest

Timestamp: 2024-10-31 06:10:57

Assignment completed successfully!



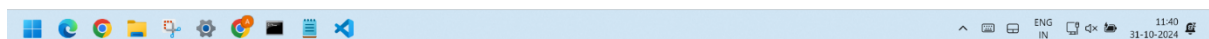
IP Address: 172.20.0.1

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

Username: Guest

Timestamp: 2024-10-31 06:09:57

Assignment completed successfully!



```
C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>docker exec -it devops-internship-challenge-nginx-1 curl http://python_app:8000
```

```
<html>
<body>
  <p><b>IP Address:</b> 172.20.0.2</p>
  <p><b>MAC Address:</b> 00:00:00:00:00:00</p>
  <p><b>Username:</b> Guest</p>
  <p><b>Timestamp:</b> 2024-10-31 06:11:46</p>
  <br>
  <h3>Assignment completed successfully!</h3>
</body>
</html>
```

What's next:

Try Docker Debug for seamless, persistent debugging tools in any container or image → [docker debug devops-internship-challenge-nginx-1](#)  
Learn more at <https://docs.docker.com/go/debug-cli/>

```

C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>docker compose ls
NAME                STATUS             CONFIG FILES
devops-internship-challenge  running(2)         C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge\docker-compose.yaml

C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>docker compose ps
time="2024-10-31T12:11:24+05:30" level=warning msg="C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge\docker-compose.yaml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
NAME                IMAGE              COMMAND                  SERVICE    CREATED      STATUS      PORTS
devops-internship-challenge-nginx-1  local-nginx        "/docker-entrypoint..."  nginx      32 minutes ago  Up 32 minutes  0.0.0.0:80->80/tcp
python_app           local-python-app    "python app.py"           python-app  32 minutes ago  Up 32 minutes  0.0.0.0:8000->8000/tcp

C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>docker compose logs python-app
time="2024-10-31T12:11:41+05:30" level=warning msg="C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge\docker-compose.yaml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
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://172.20.0.1:8000
python_app | * Running on http://172.20.0.3:8000
python_app | Press CTRL-C to quit
python_app | 172.20.0.2 - - [31/Oct/2024 06:09:06] "GET / HTTP/1.1" 200 -
python_app | 172.20.0.1 - - [31/Oct/2024 06:09:20] "GET / HTTP/1.1" 200 -
python_app | 172.20.0.2 - - [31/Oct/2024 06:09:31] "GET / HTTP/1.1" 200 -
python_app | 172.20.0.1 - - [31/Oct/2024 06:09:41] "GET / HTTP/1.1" 200 -
python_app | 172.20.0.1 - - [31/Oct/2024 06:09:43] "GET /favicon.ico HTTP/1.1" 404 -
python_app | 172.20.0.1 - - [31/Oct/2024 06:09:57] "GET / HTTP/1.1" 200 -
python_app | 172.20.0.1 - - [31/Oct/2024 06:10:57] "GET / HTTP/1.1" 200 -
python_app | 172.20.0.2 - - [31/Oct/2024 06:11:46] "GET / HTTP/1.1" 200 -
python_app | 172.20.0.1 - - [31/Oct/2024 06:14:33] "GET / HTTP/1.1" 200 -
python_app | 172.20.0.1 - - [31/Oct/2024 06:14:57] "GET / HTTP/1.1" 200 -

C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>docker compose logs nginx
time="2024-10-31T12:11:51+05:30" level=warning msg="C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge\docker-compose.yaml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
nginx-1 | /docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
nginx-1 | /docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
nginx-1 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
nginx-1 | 10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
nginx-1 | 10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
nginx-1 | /docker-entrypoint.sh: Sourcing /docker-entrypoint.d/15-local-resolvers.envsh
nginx-1 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
nginx-1 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
nginx-1 | /docker-entrypoint.sh: Configuration complete; ready for start up

C:\Users\aksha\OneDrive\Desktop\tester\devops-internship-challenge>

```