

COMSATS UNIVERSITY ISLAMABAD

ATTOCK CAMPUS



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Reg. No: SP22-BSE-020

Subject: DevOps for Cloud Computing

Assignment: 2

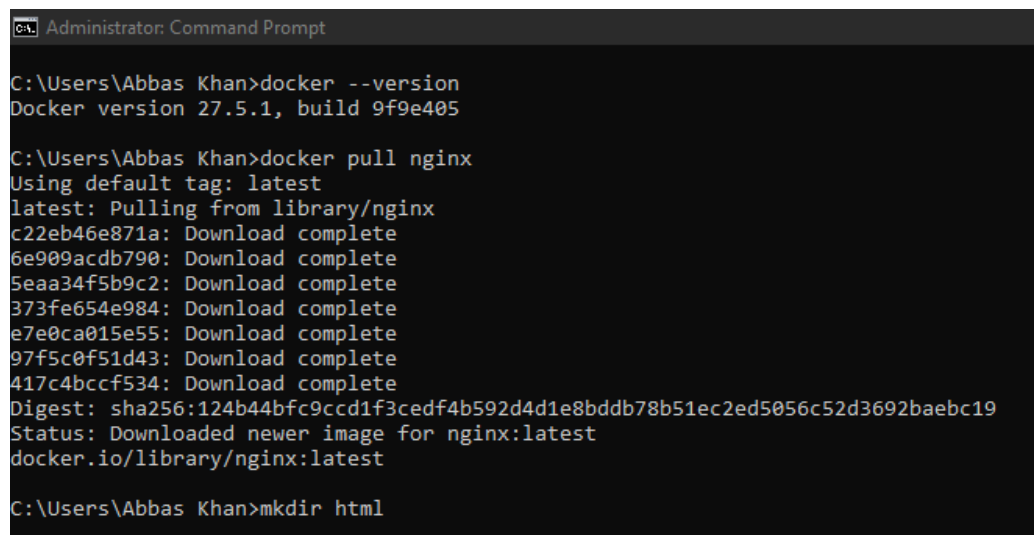
Date: 5th April 2025

Solution:

- **Image pulling:**

“docker pull nginx:latest”

I ran the first command to pull the official nginx image from the Docker hub.



```
C:\Users\Abbas Khan>docker --version
Docker version 27.5.1, build 9f9e405

C:\Users\Abbas Khan>docker pull nginx
Using default tag: latest
latest: Pulling from library/nginx
c22eb46e871a: Download complete
6e909acdb790: Download complete
5eaa34f5b9c2: Download complete
373fe654e984: Download complete
e7e0ca015e55: Download complete
97f5c0f51d43: Download complete
417c4bccf534: Download complete
Digest: sha256:124b44bfc9ccd1f3cedf4b592d4d1e8bddb78b51ec2ed5056c52d3692baebc19
Status: Downloaded newer image for nginx:latest
docker.io/library/nginx:latest

C:\Users\Abbas Khan>mkdir html
```

- **Directory and file creation:**

1. “mkdir html”
2. “>echo "<html><body><h1>hello this is SP22-bse-020</h1><h2>welcome to my dockerized nginx sever!</h2></body></html>" >index.html”

I ran these two commands for creating the html directory and creating an html file with the written content in it respectively.

```
C:\Users\Abbas Khan>mkdir html
C:\Users\Abbas Khan>cd html
C:\Users\Abbas Khan\html>echo "<html><body><h1>hello this is SP22-bse-020</h1><h2>welcome to my dockerized nginx sever!</h2></body></html>" >index.html
C:\Users\Abbas Khan\html>cd ..
```

- **Mapping & Running NGINX**

“docker run --name abbas-nginx -v "C:\Users\Abbas khan\html:\usr\share\nginx\html:ro" -d -p 80:80 nginx”

I ran this command to first map my own html volume to the html volume of the nginx server and then run the container.

I named my container as abbas-nginx, as it is easier for me to remember.

```
C:\Users\Abbas Khan>docker run --name abbas-nginx -v "C:\Users\Abbas khan\html:\usr\share\nginx\html:ro" -d -p 80:80 nginx
bad945ca1114b66db68274e41a9851a972ad2c207d22e5dbed06fc5de840bf4a

C:\Users\Abbas Khan>docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                    NAMES
bad945ca1114   nginx    "/docker-entrypoint. ..."  2 minutes ago Up 2 minutes   0.0.0.0:80->80/tcp      abbas-nginx
```

- **Verification**

“http:localhost:80”

I ran the above command in the URL bar of my browser to ensure my webpage is running fine on the server.

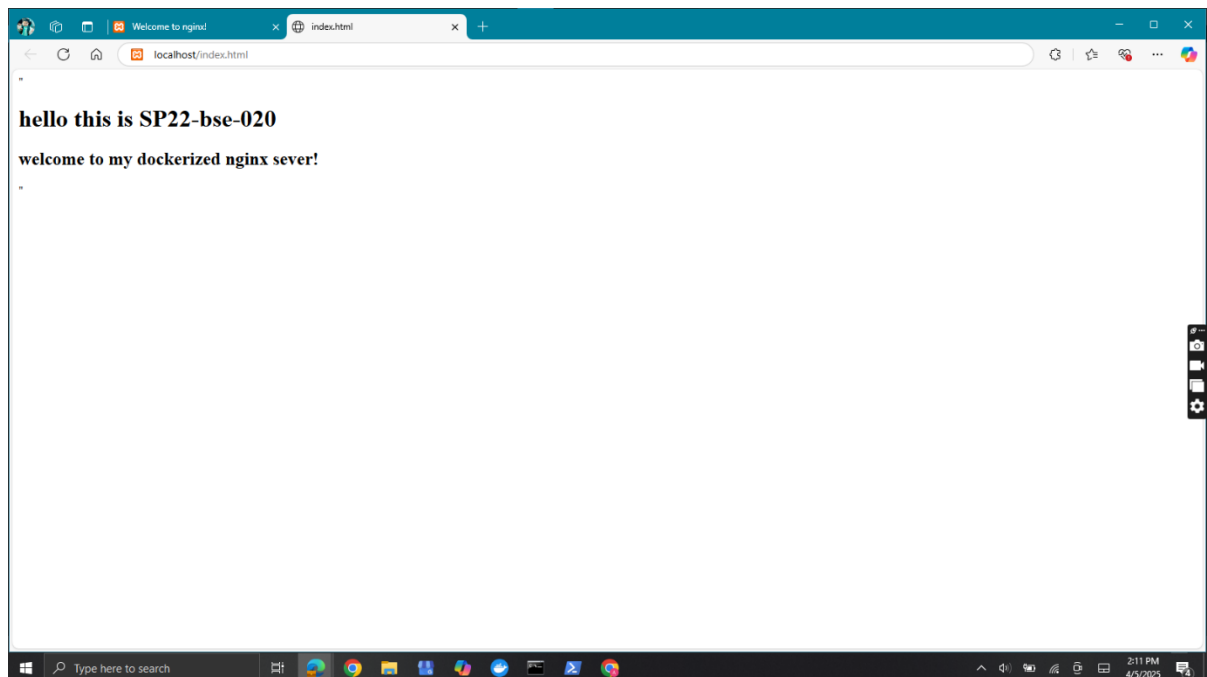
At first it was not running as my port 80 was listening to Apache(XAMPP), but then I turned it off and I restarted my container and it went well.

```
C:\Users\Abbas Khan>docker exec -it abbas-nginx ls -la /usr/share/nginx/html
total 16
drwxr-xr-x 2 root root 4096 Mar 17 23:12 .
drwxr-xr-x 3 root root 4096 Mar 17 23:12 ..
-rw-r--r-- 1 root root 497 Feb  5 11:06 50x.html
-rw-r--r-- 1 root root 615 Feb  5 11:06 index.html

C:\Users\Abbas Khan>docker restart abbas-nginx
abbas-nginx

C:\Users\Abbas Khan>docker restart abbas-nginx
abbas-nginx

C:\Users\Abbas Khan>
```



Other Screenshots:

