DOCKER ASSIGNMENT

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Assignment: Docker – Save Image, Run New Container on Port 81, Start Apache

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Task 1: Save the Container as a Docker Image

From Assignment 1, your container name was:

ub-server

This container already has Apache installed.

Now save it as an image:

sudo docker commit ub-server ubuntu-apache:v1

This creates a reusable image ubuntu-apache:v1.

Check if the image exists:

sudo docker images

```
ubuntu@ip-10-0-13-46:~$ sudo docker commit ub-server ubuntu-apache:v1
sha256:36054fb52c4f421e4a224dc1a674c0cb0f9c3f01dae6e1cf58796fec407fe687
ubuntu@ip-10-0-13-46:~$
```

```
ubuntu@ip-10-0-13-46:~$ sudo docker images
REPOSITORY      TAG       IMAGE ID       CREATED          SIZE
ubuntu-apache   v1        36054fb52c4f   33 seconds ago   242MB
ubuntu          latest    c3a134f2ace4   7 weeks ago      78.1MB
ubuntu@ip-10-0-13-46:~$
```

Task 2: Launch a New Container From This Image (Map Port 81)

Run:

sudo docker run -it -p 81:80 --name apache-server2 ubuntu-apache:v1

Explanation:

- -p 81:80 → Browser port 81 → Container Apache port 80
- --name apache-server2 → new container name
- ubuntu-apache:v1 → image created using commit

You are now inside the new container.

```
ubuntu@ip-10-0-13-46:~$ sudo docker run -it -p 81:80 --name apache-server2 ubuntu-apache:v1
root@db18c9894e9e:/#
```

Task 3: Start Apache2 Inside the New Container

Inside the container:

apachectl start

To confirm Apache is running:

ps aux | grep apache

```
ubuntu@ip-10-0-13-46:~$ sudo docker run -it -p 81:80 --name apache-server2 ubuntu-apache:v1
root@db18c9894e9e:/# apachectl start
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress this messa
ge
root@db18c9894e9e:/# ps aux | grep apache
root          13  0.0  0.2   6808  4820 ?        Ss   05:20   0:00 /usr/sbin/apache2 -k start
www-data      14  0.0  0.2 1211540 4576 ?        Sl   05:20   0:00 /usr/sbin/apache2 -k start
www-data      15  0.0  0.2 1211540 4704 ?        Sl   05:20   0:00 /usr/sbin/apache2 -k start
root          71  0.0  0.0   3528  1896 pts/0    S+   05:21   0:00 grep --color=auto apache
root@db18c9894e9e:/#
```

Task 4: Access Apache2 in Browser Using Port 81

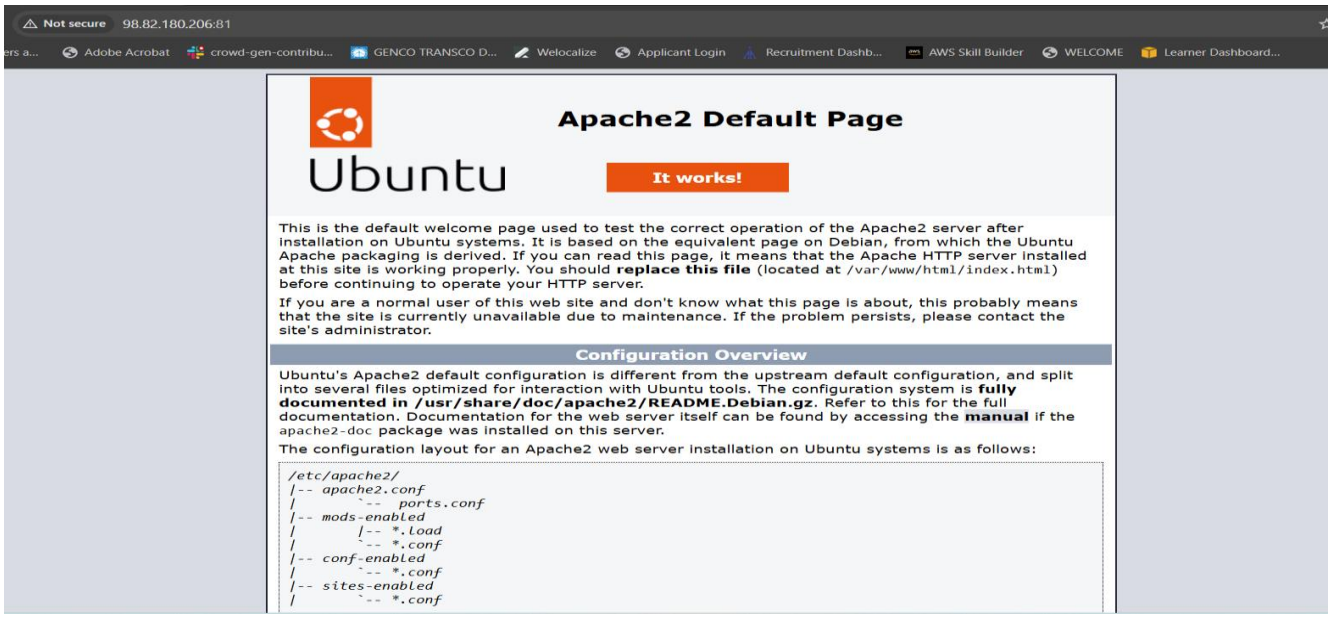
Open your browser and go to:

http://<EC2-PUBLIC-IP>:81

You should see:

✓ Apache2 Ubuntu Default Page

If yes → your assignment is successfully completed.



Conclusion

Successfully:

- Saved the modified Ubuntu+Apache container as a Docker image
- Launched a new container from this image
- Mapped host port 81 to container port 80
- Started Apache inside the container
- Accessed the Apache page from the browser

This shows understanding of Docker image creation (commit), port mapping, and service execution inside containers.