

Docker Assignment 5

Step 1: Launched an instances for our Docker Host:

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with navigation links like EC2, Dashboard, AWS Global View, Events, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Capacity Manager, Images, AMIs, AMI Catalog, and Elastic Block Store. The main area displays a table of instances with columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, and Public IPv4. Three instances are listed: D4 Linux Slave1, D4 Linux Slave2, and D5 Linux Instance. The D5 Linux Instance is selected and highlighted with a red box. The instance details panel on the right provides specific information for the selected instance, including its IAM role (none), Subnet ID (subnet-0d06a3e32a4584754), Auto Scaling Group name (none), IMDSv2 Required, Instance ARN (arn:aws:ec2:ap-south-1:561041808273:instance/i-0a7cac8b757fbb376), Operator (none), Monitoring (disabled), Platform details (Linux/UNIX), Allowed image (none), and Termination protection (Disabled).

Step 2: Installed Docker on the Docker Host:

```
[root@ip-172-31-38-198 ~]# docker -v
Docker version 25.0.14, build 0bab007
[root@ip-172-31-38-198 ~]#
[root@ip-172-31-38-198 ~]# service docker start
Redirecting to /bin/systemctl start docker.service
[root@ip-172-31-38-198 ~]#
[root@ip-172-31-38-198 ~]#
[root@ip-172-31-38-198 ~]#
```

Step 3: Created a ‘Dockerfile’ on the Docker Host:

The screenshot shows a terminal window in MobaXterm with session ID 13.233.0.185. The terminal path is /home/ec2-user/. The code in the terminal is:

```
# Made a 'Dockerfile'

FROM httpd
WORKDIR usr/local/apache2/htdocs/
RUN echo "Manish here, Container= :80 Apache= :90" > /usr/local/apache2/htdocs/index.html
RUN sed -i 's/Listen80/Listen90/' /usr/local/apache2/conf/httpd.conf
EXPOSE 90

-- INSERT --
```

The code is highlighted with a red rectangle. The bottom status bar shows the session details: ip-172-31-38-198.ap-south-1.compute.internal, 0%, 0.39 GB / 0.90 GB, 0.01 Mb/s, 0.00 Mb/s, 70 min, ec2-user (x2), /: 26%, /tmp: 0%, /boot/efi: 13%.

Step 4: Created a new image named ‘myapache:1.0’ and a new Container by using the new image:

The screenshot shows a terminal window in MobaXterm with session ID 13.233.0.185. The terminal path is /home/ec2-user/. The commands run in the terminal are:

```
[root@ip-172-31-38-198 ~]# docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
myhttpd 1.0 4fb8558155c8 24 minutes ago 117MB

[root@ip-172-31-38-198 ~]# docker run -dp 90:80 myhttpd:1.0
05fd387ccbd19ee8ad234157fdf925bc6bef934fa72623e32d0aa426719326f

[root@ip-172-31-38-198 ~]# docker ps -a
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS
05fd387ccbd1 myhttpd:1.0 "httpd-foreground" 10 seconds ago Up 9 seconds 90/tcp, 0.0.0.0:90->80/tcp, gant_hansenber

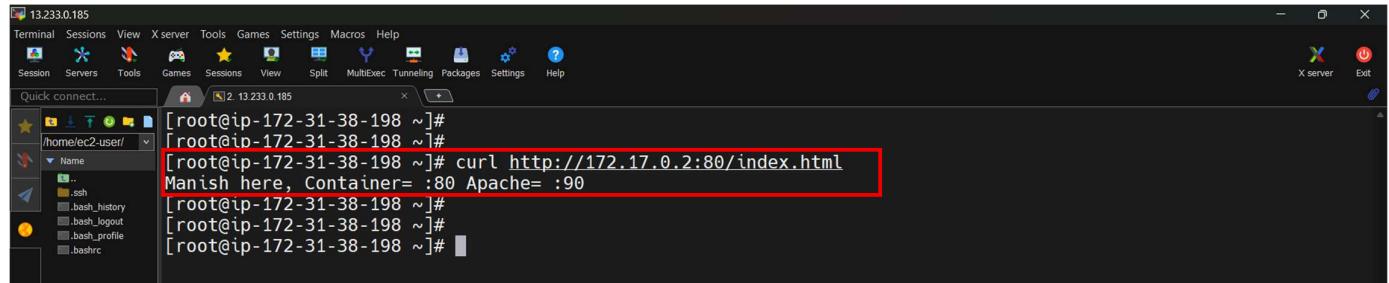
[root@ip-172-31-38-198 ~]# curl http://172.17.0.2:80/index.html
Manish here, Container= :80 Apache= :90

[root@ip-172-31-38-198 ~]#
```

The output of the docker images command is highlighted with a red rectangle. The output of the docker run command is highlighted with a red rectangle. The output of the docker ps -a command is highlighted with a red rectangle. The curl command output is highlighted with a red rectangle. The bottom status bar shows the session details: ip-172-31-38-198.ap-south-1.compute.internal, 1%, 0.39 GB / 0.90 GB, 0.01 Mb/s, 0.00 Mb/s, 86 min, ec2-user (x2), /: 26%, /tmp: 0%, /boot/efi: 13%.

Results:

1. We have run the ‘index.html’ file on **Port No.80** from the container and on **Port No.90** from the **Apache HTTPD**:



A screenshot of a terminal window titled "13.233.0.185". The window has a dark theme with white text. It shows a command-line interface with several lines of text. The last two lines are highlighted with a red box:
[root@ip-172-31-38-198 ~]# curl http://172.17.0.2:80/index.html
Manish here, Container= :80 Apache= :90

