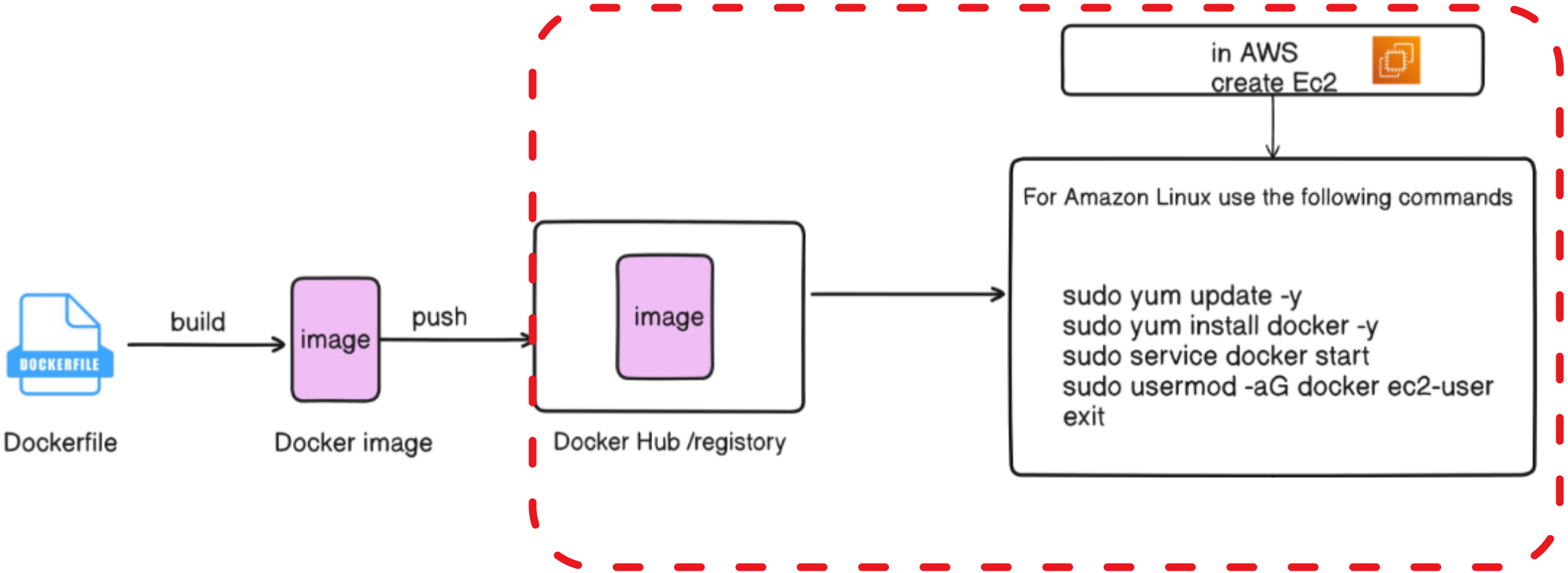
As per Architecture 1st i will do/start from Docker Hub/registry

here we are doing part 2 then will do part 1



Installing Docker:

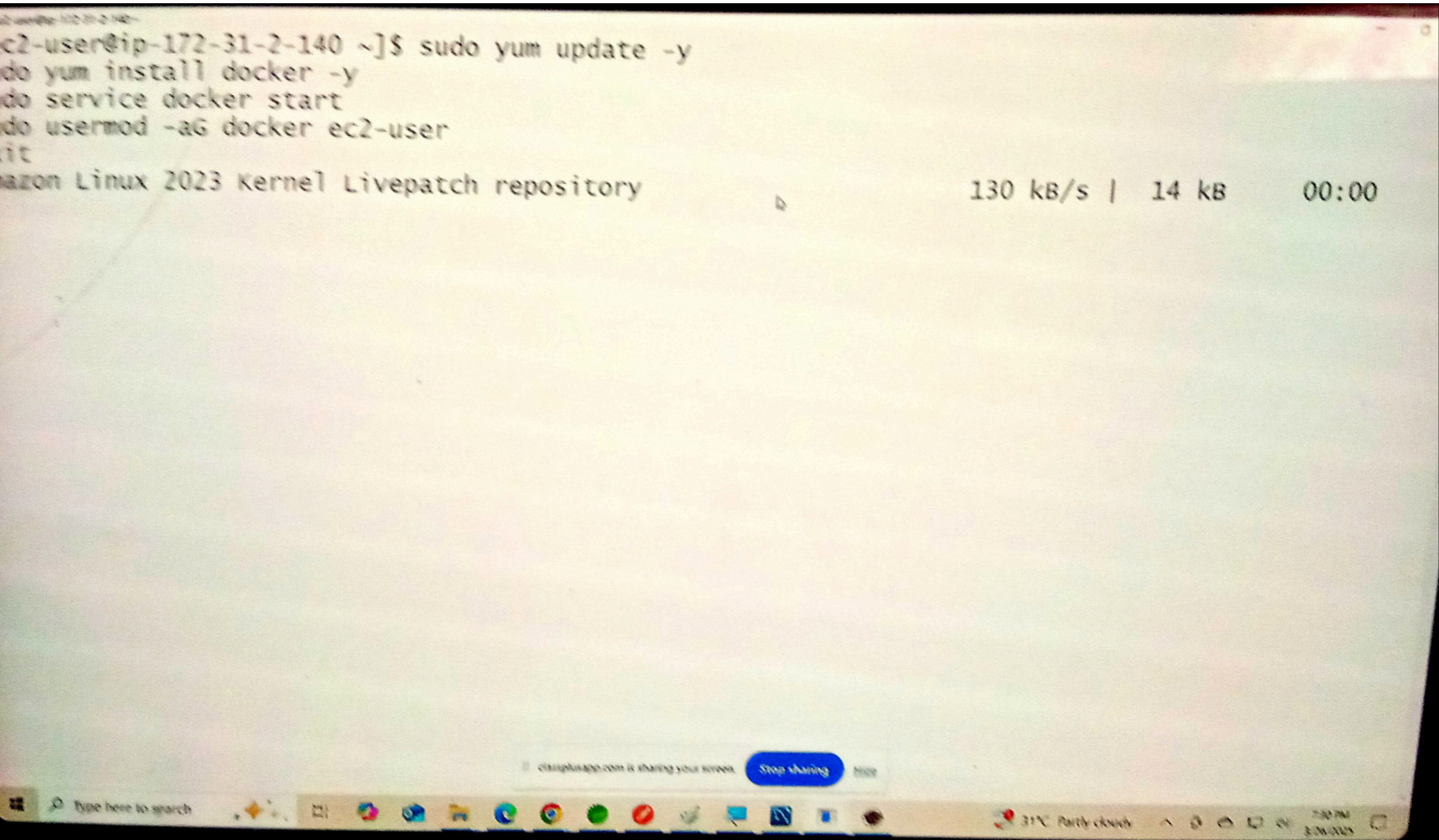
For Amazon Linux use the following commands

Install Docker In Amazon Linux VM

Step 1

```
sudo yum update -y
sudo yum install docker -y
sudo service docker start
sudo usermod -aG docker ec2-user
exit
```

Step 1:

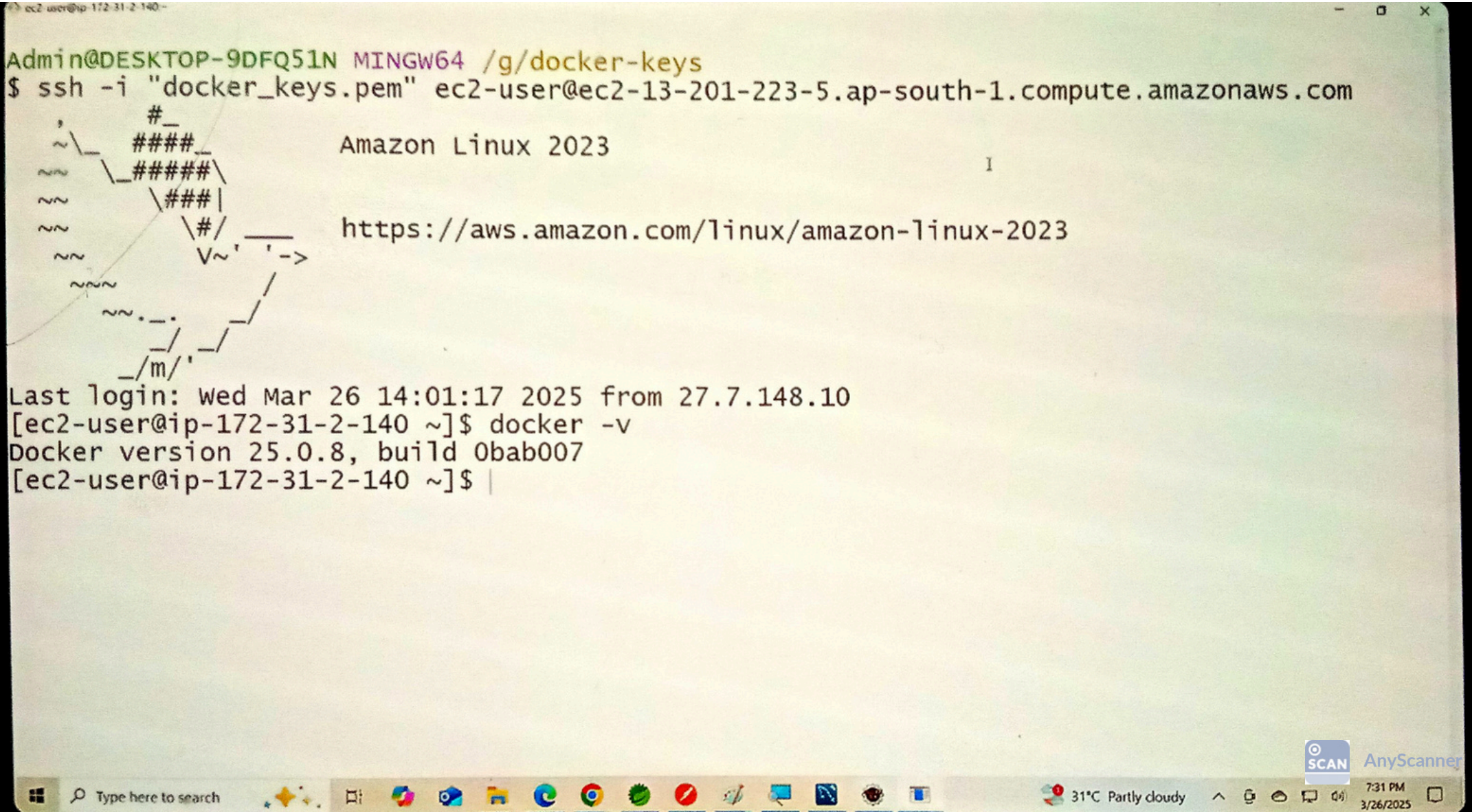

c2-user@ip-172-31-2-140 ~]$ sudo yum update -y
do yum install docker -y
do service docker start
do usermod -aG docker ec2-user
it
azon Linux 2023 Kernel Livepatch repository 130 kB/s | 14 kB 00:00
Stop sharing

Step 2:

Use this command to check version of docker installed

```
docker -v
```

Step 2:

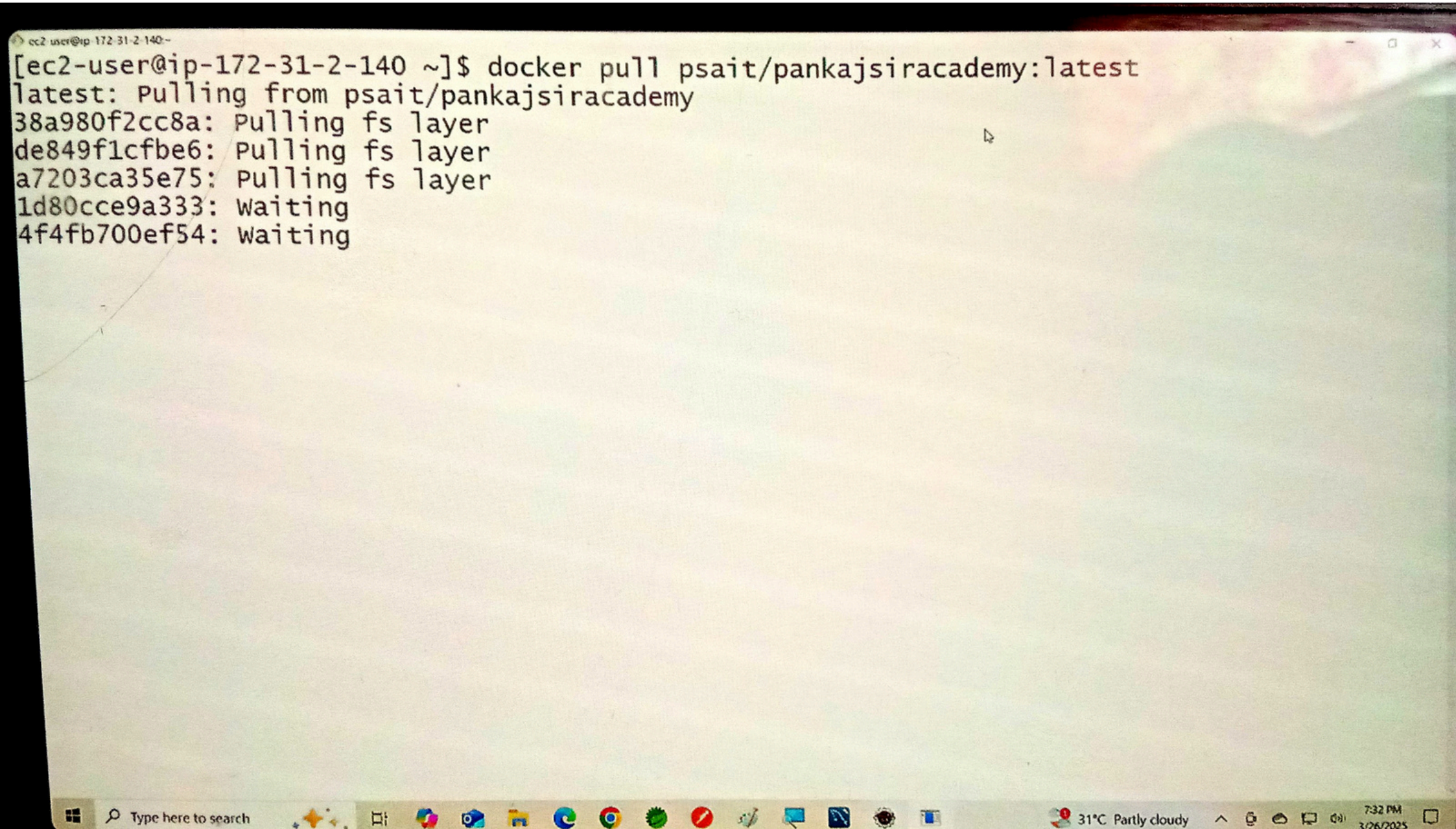

Admin@DESKTOP-9DFQ51N MINGW64 /g/docker-keys
$ ssh -i "docker_keys.pem" ec2-user@ec2-13-201-223-5.ap-south-1.compute.amazonaws.com
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023
Last login: Wed Mar 26 14:01:17 2025 from 27.7.148.10
[ec2-user@ip-172-31-2-140 ~]$ docker -v
Docker version 25.0.8, build 0bab007
[ec2-user@ip-172-31-2-140 ~]$
Type here to search
31°C Partly cloudy
7:31 PM
3/26/2025
SCAN
AnyScanner

Step 3:

For practise pull the sample image from docker hub repository of pankaj sir academy: docker pull psait/pankajsiracademy:latest

For Practise pull docker official image: docker pull hello-world

Step 3:

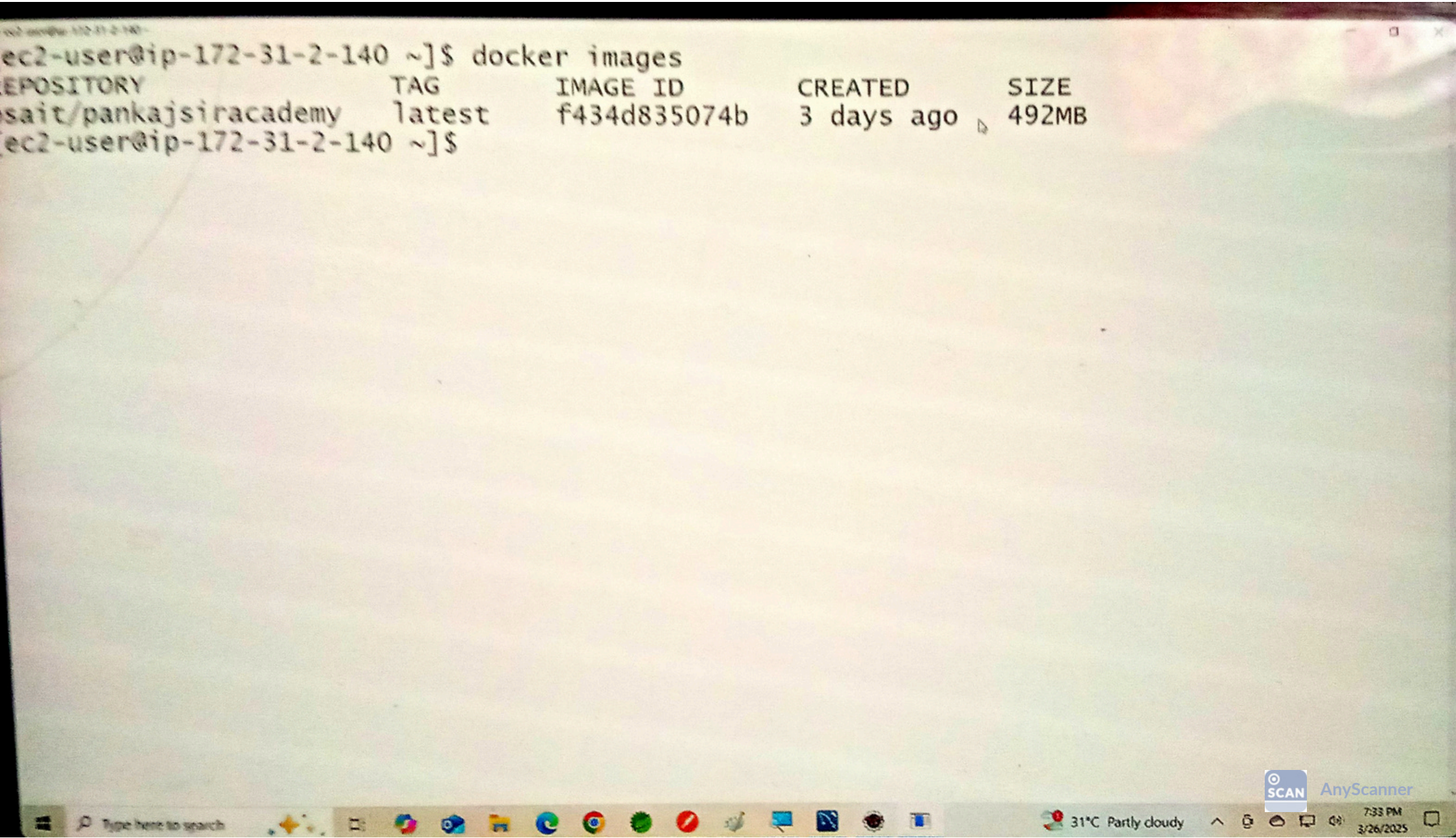

[ec2-user@ip-172-31-2-140 ~]$ docker pull psait/pankajsiracademy:latest
latest: Pulling from psait/pankajsiracademy
38a980f2cc8a: Pulling fs layer
de849f1cfbe6: Pulling fs layer
a7203ca35e75: Pulling fs layer
1d80cce9a333: Waiting
4f4fb700ef54: Waiting
Type here to search
31°C Partly cloudy
7:32 PM

Step 4:

To check how many images are present in docker

```
docker images
```

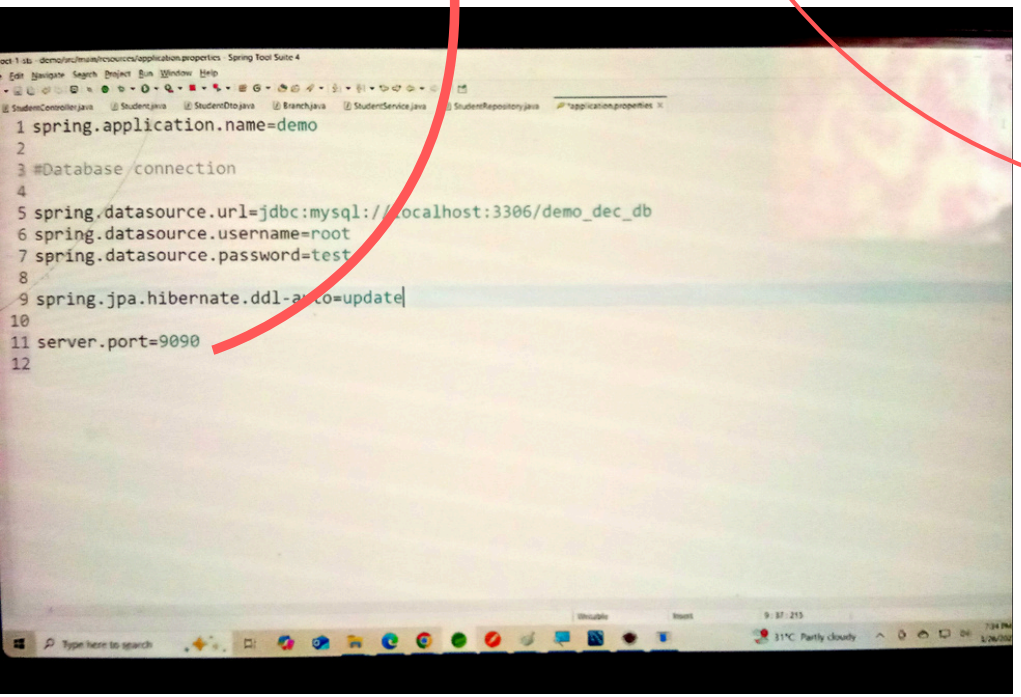
Step 4:

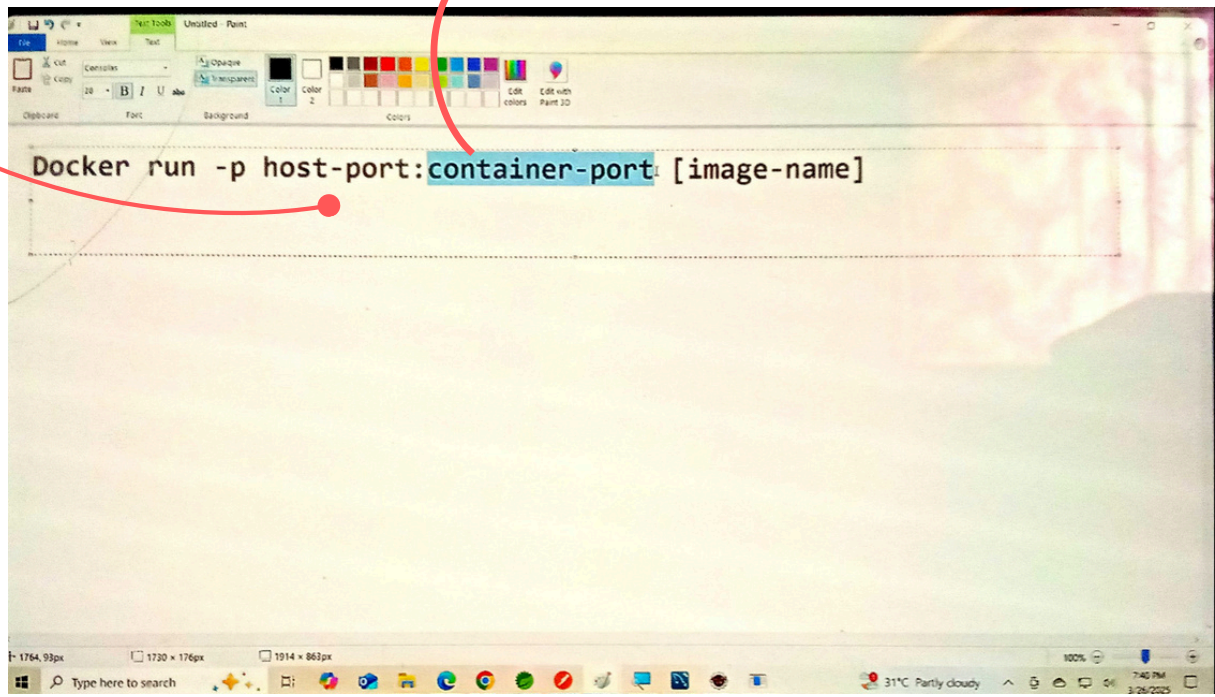

ec2-user@ip-172-31-2-140 ~]$ docker images
EPOSITORY TAG IMAGE ID CREATED SIZE
sait/pankajsiracademy latest f434d835074b 3 days ago 492MB
ec2-user@ip-172-31-2-140 ~]$
AnyScanner
31°C Partly cloudy
7:33 PM
3/26/2025

Step 5:

host-port

container-port

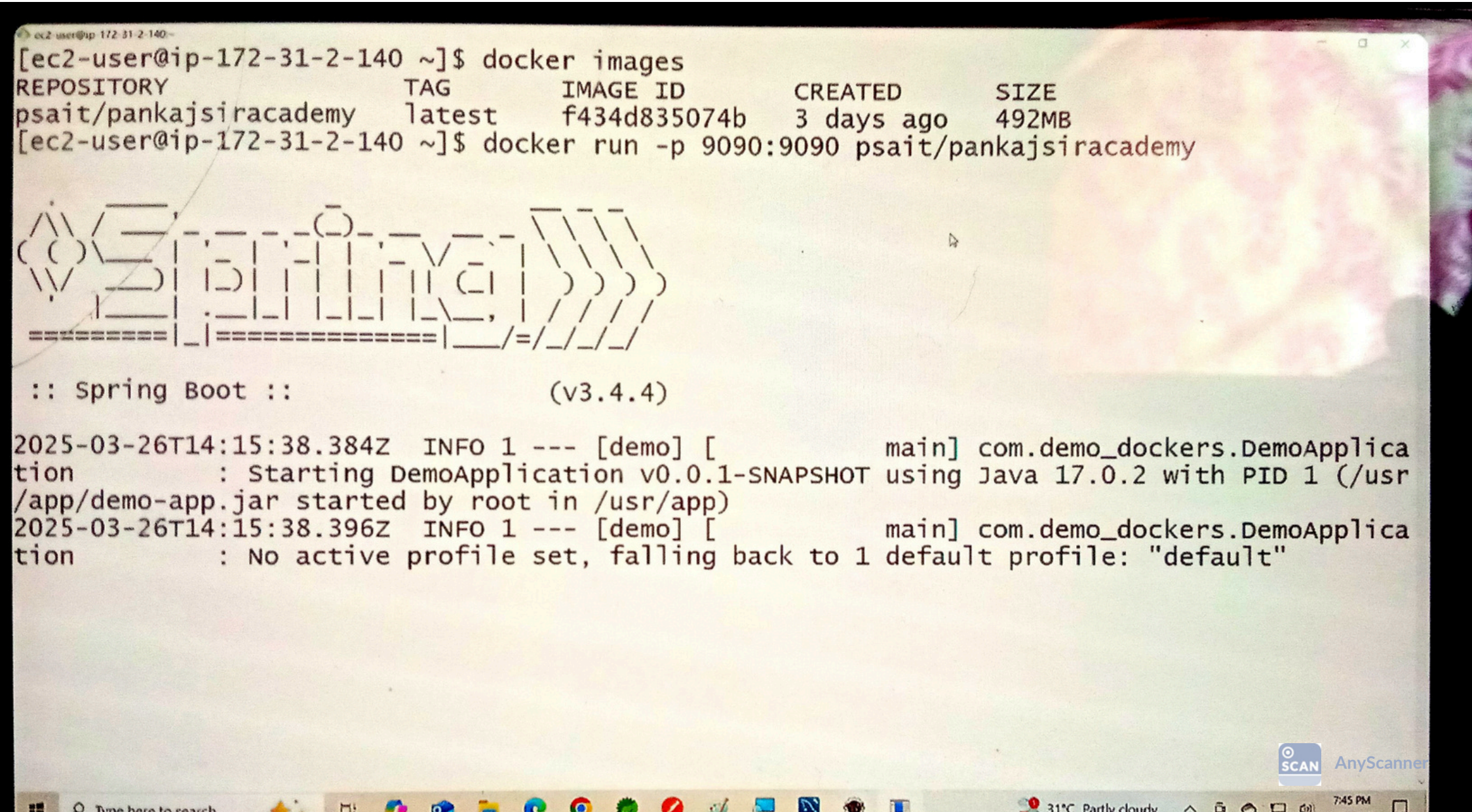




Step 6:

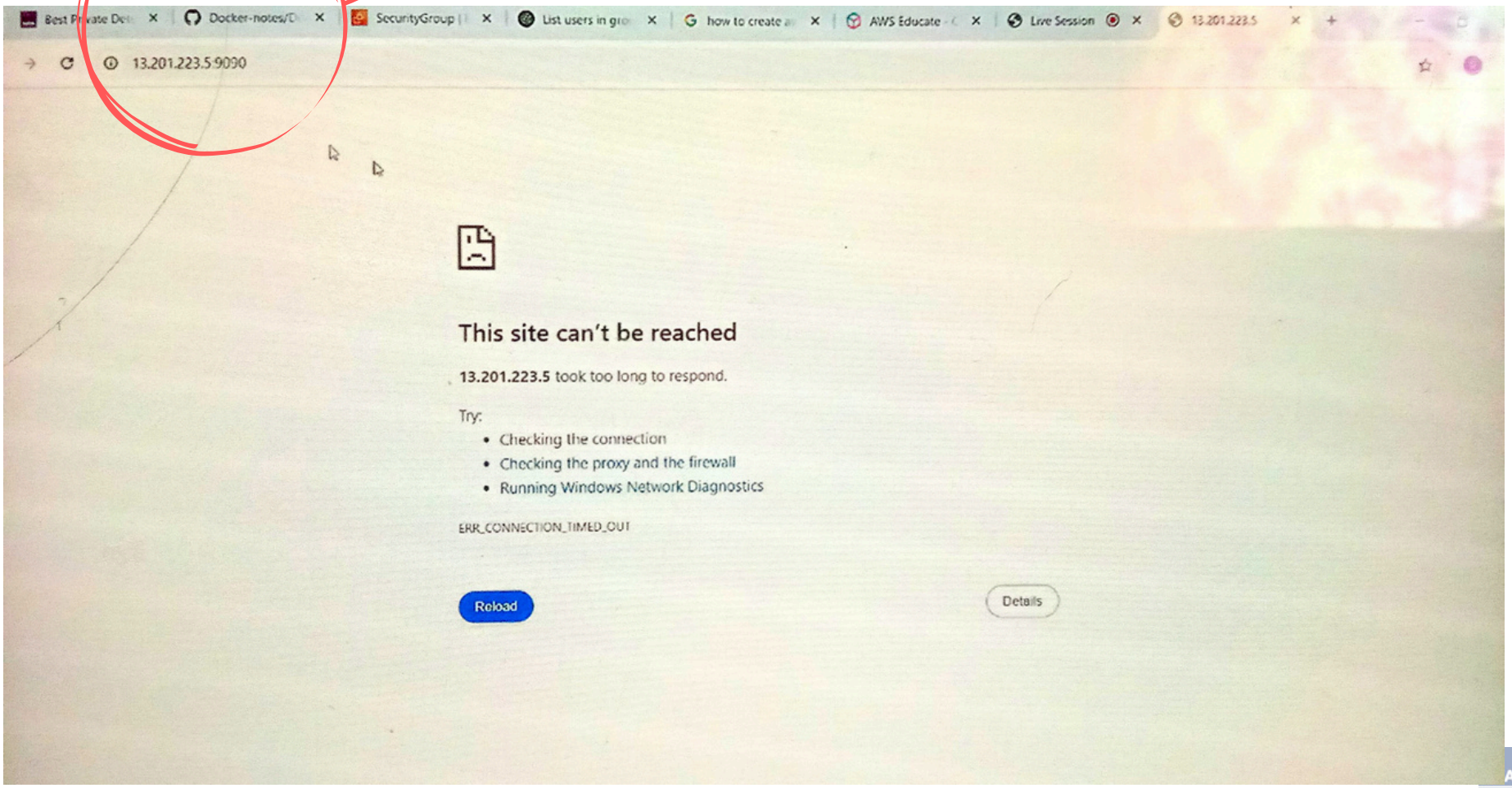
```
docker run -p 9090:9090 [image-name/image-id]
```

Step 6:

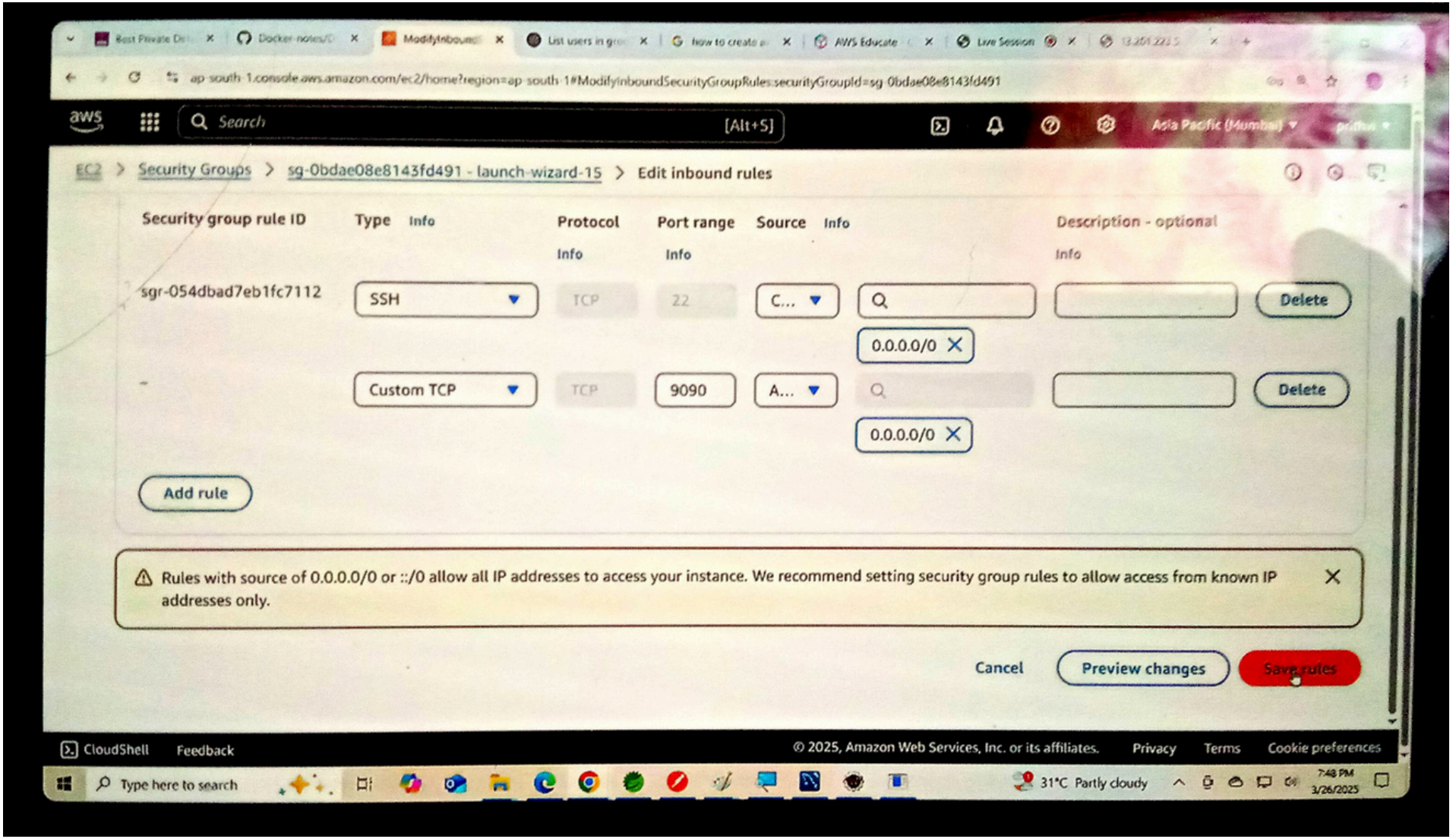

[ec2-user@ip-172-31-2-140 ~]$ docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
psait/pankajsiracademy latest f434d835074b 3 days ago 492MB
[ec2-user@ip-172-31-2-140 ~]$ docker run -p 9090:9090 psait/pankajsiracademy
:: Spring Boot :: (v3.4.4)
2025-03-26T14:15:38.384Z INFO 1 --- [demo] [main] com.demo_dockers.DemoApplication : Starting DemoApplication v0.0.1-SNAPSHOT using Java 17.0.2 with PID 1 (/usr/app/demo-app.jar started by root in /usr/app)
2025-03-26T14:15:38.396Z INFO 1 --- [demo] [main] com.demo_dockers.DemoApplication : No active profile set, falling back to 1 default profile: "default"

Step 7:

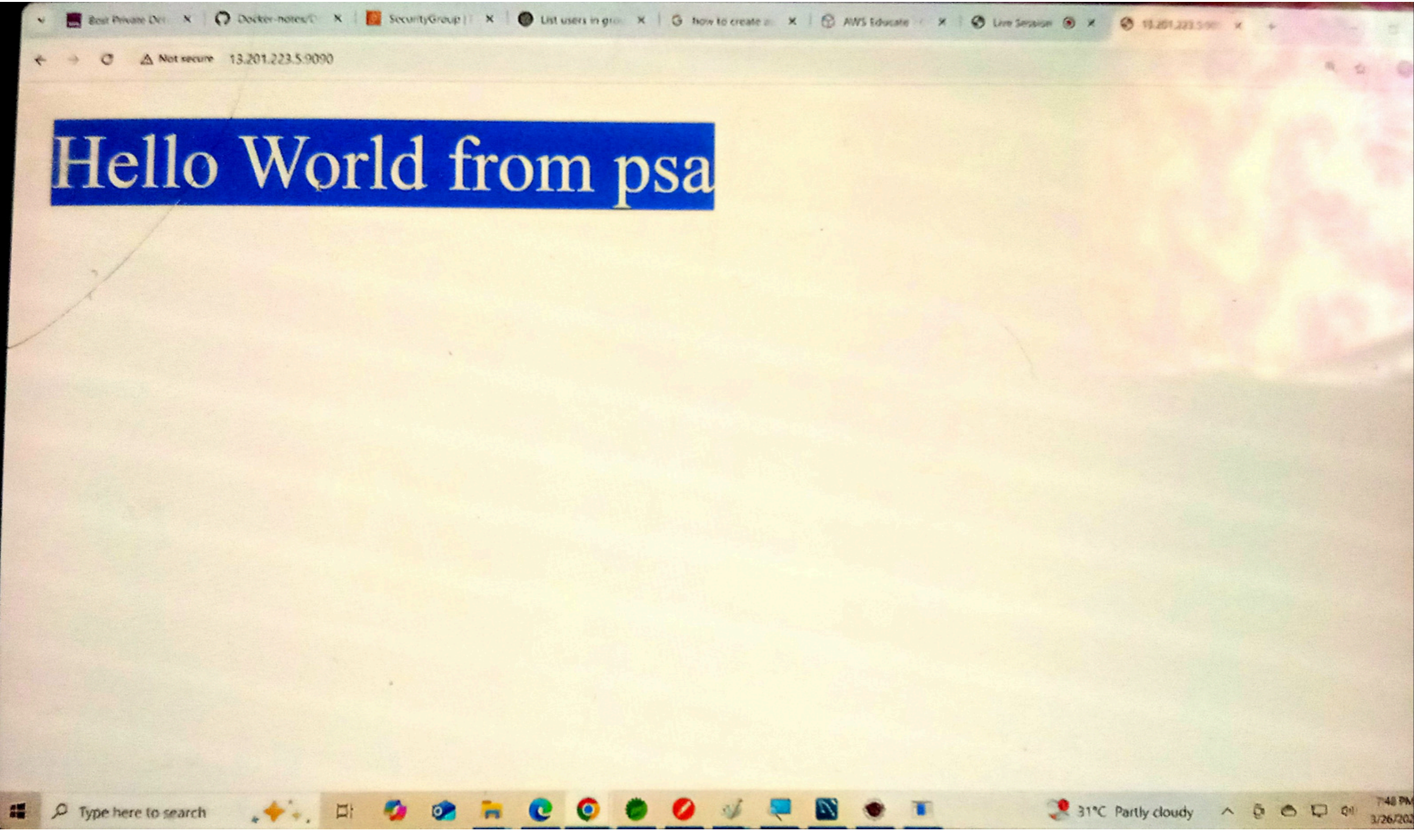
You will not see webpage because you need to configure port in security inbound rule my host port is ex :9090(you can give host-port same as a application.properties port



Step 7:

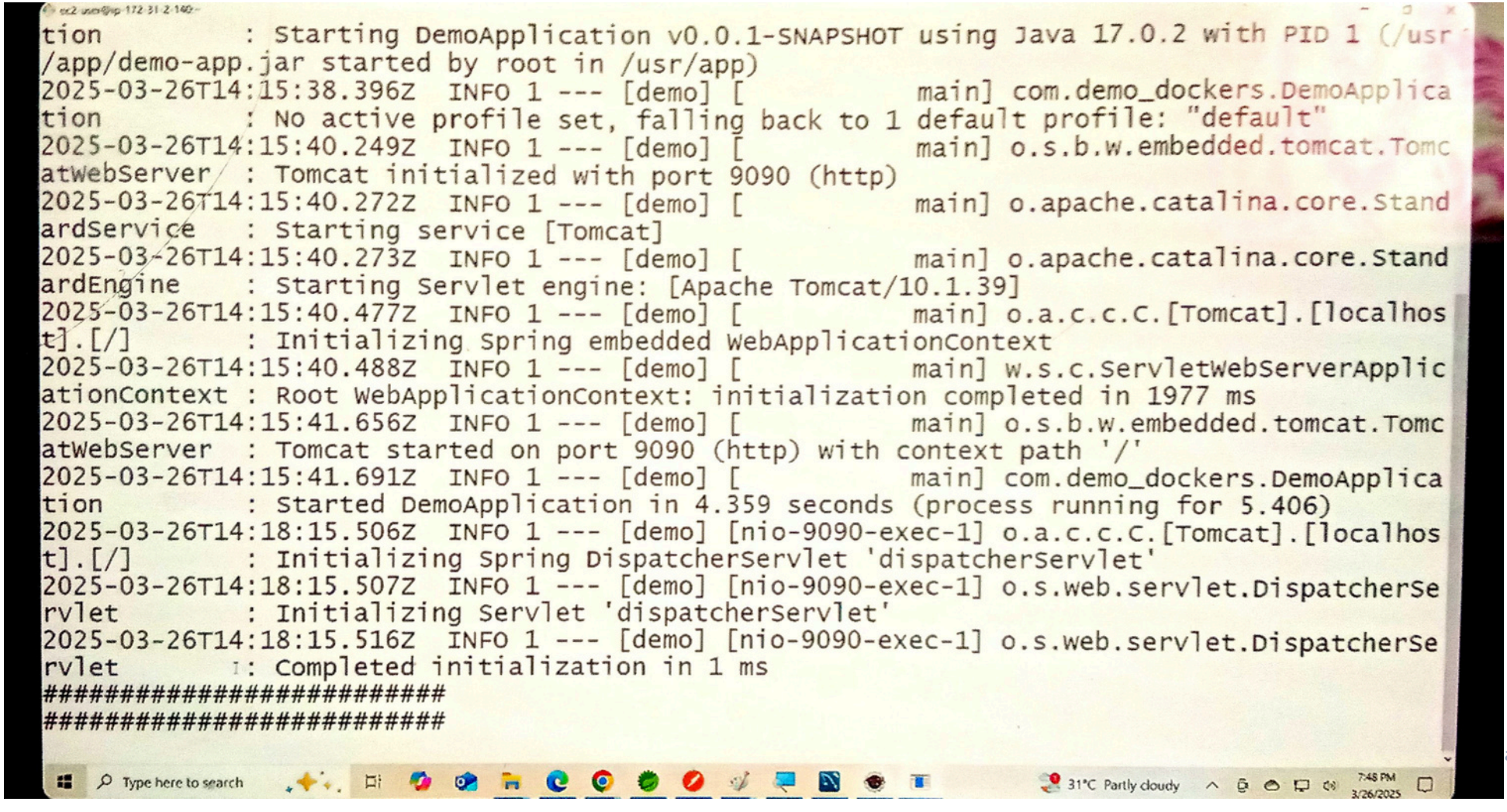


after porting and inbound rule is done you will see webpage



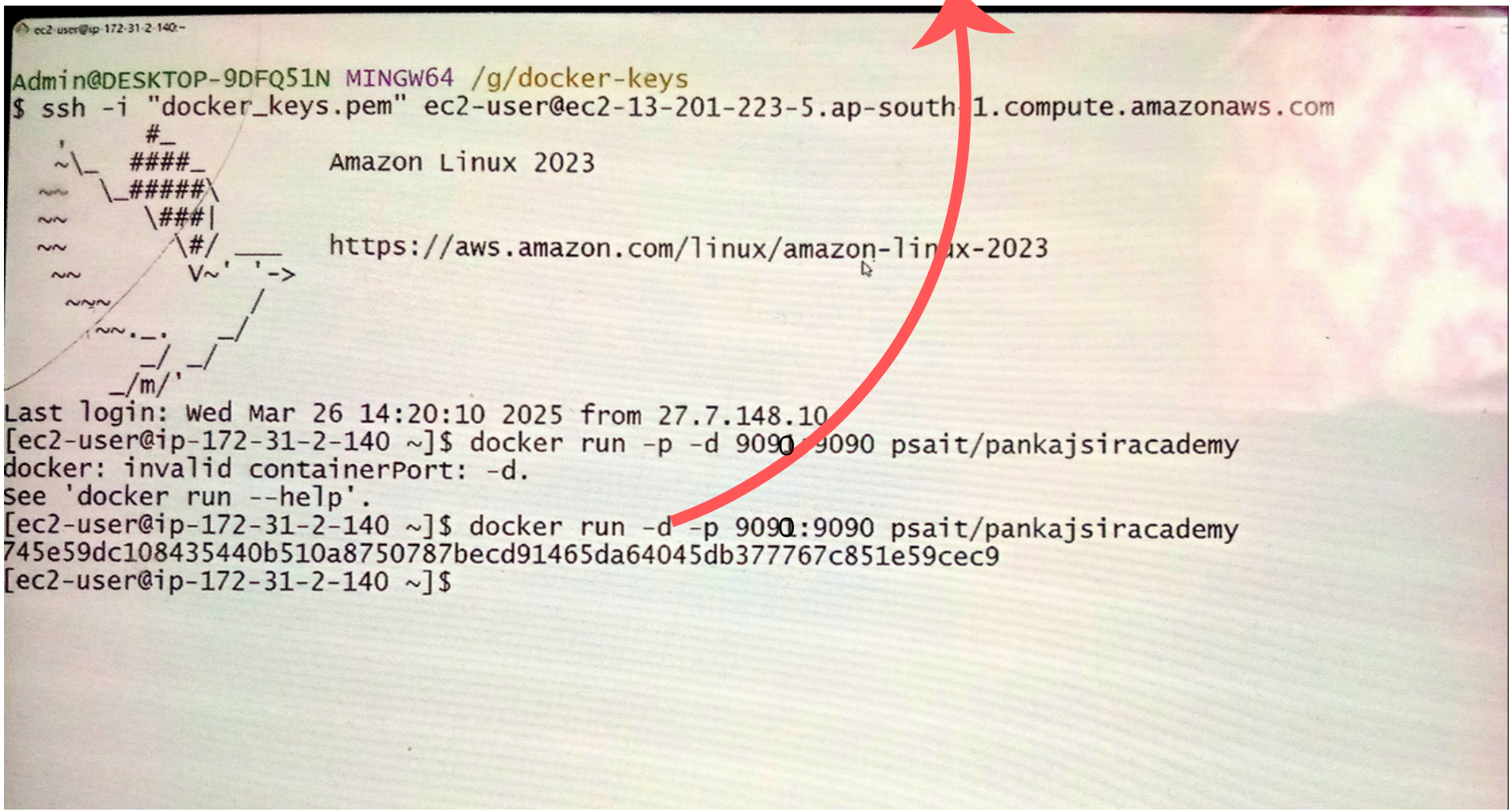
Step 8:

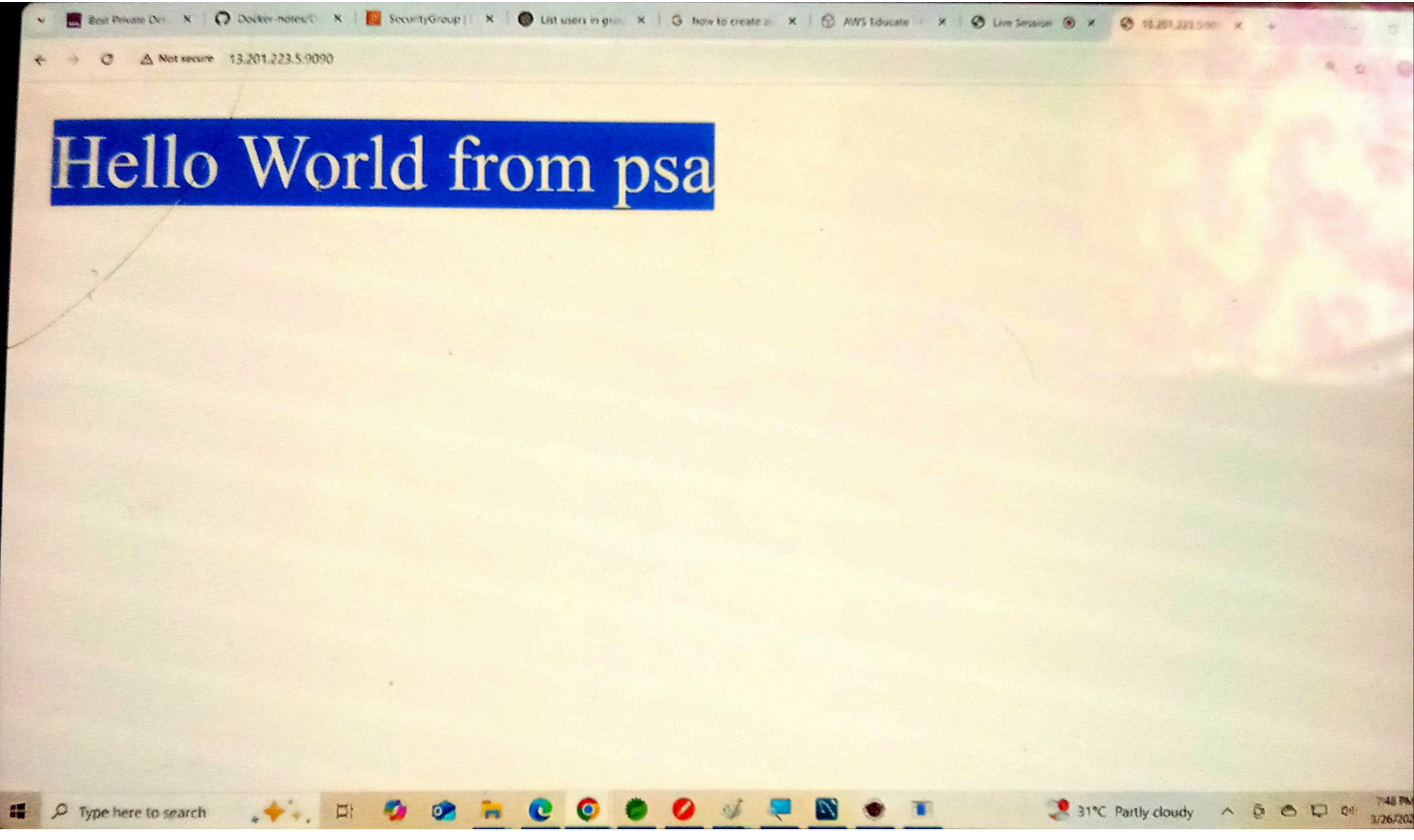
- **you will not see your webpage because whenever you close windows/running background**
- **to avoid this you need to add -d while running your webpage**
- **ex: docker run -d -p 9090:9090 [image-name] will run the cintainer in background**



Step 8: **Now you can run your webpage even if you close windows/aws account by just adding below command**

docker run -d -p 9090:9090 [image-name] will run the cintainer in background

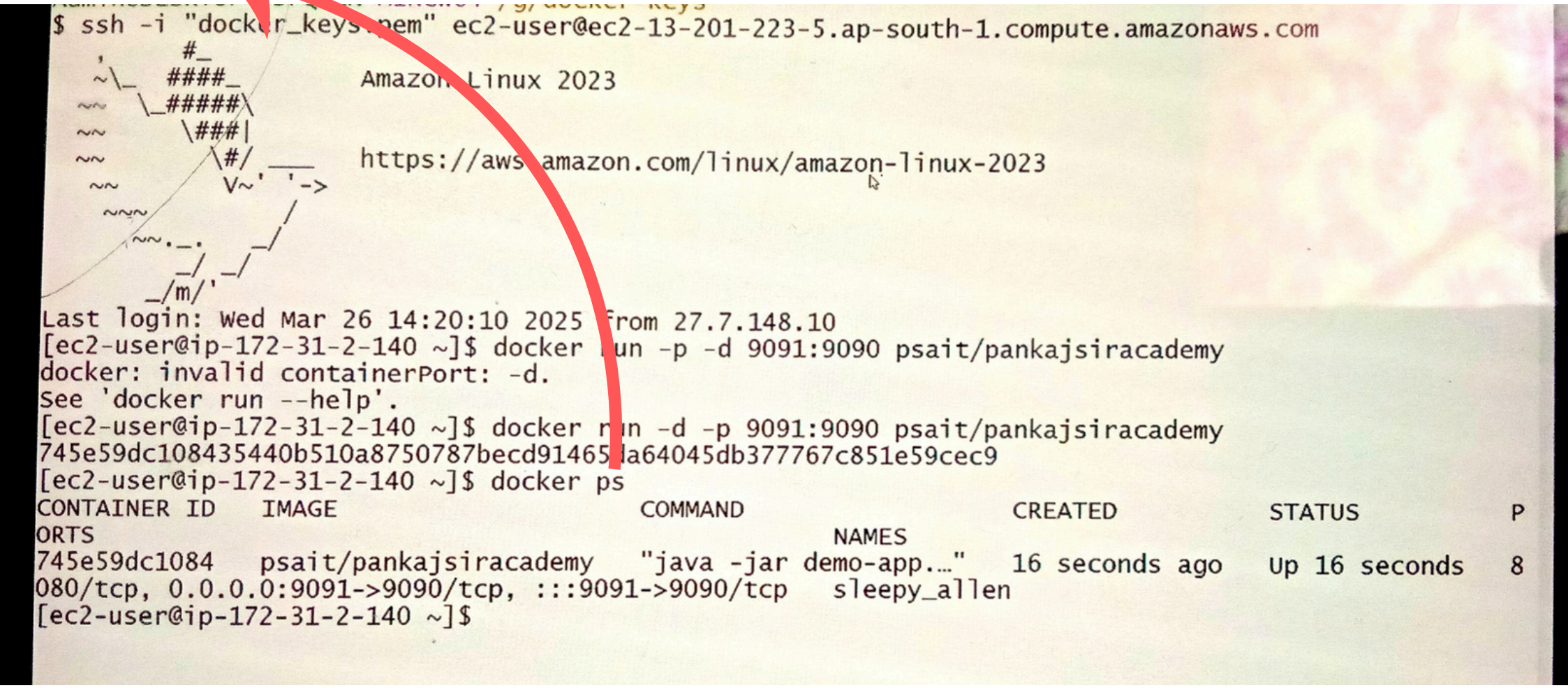



Not secure 13.201.223.5:9090
Hello World from psa
Type here to search
31°C Partly cloudy

Other commands:

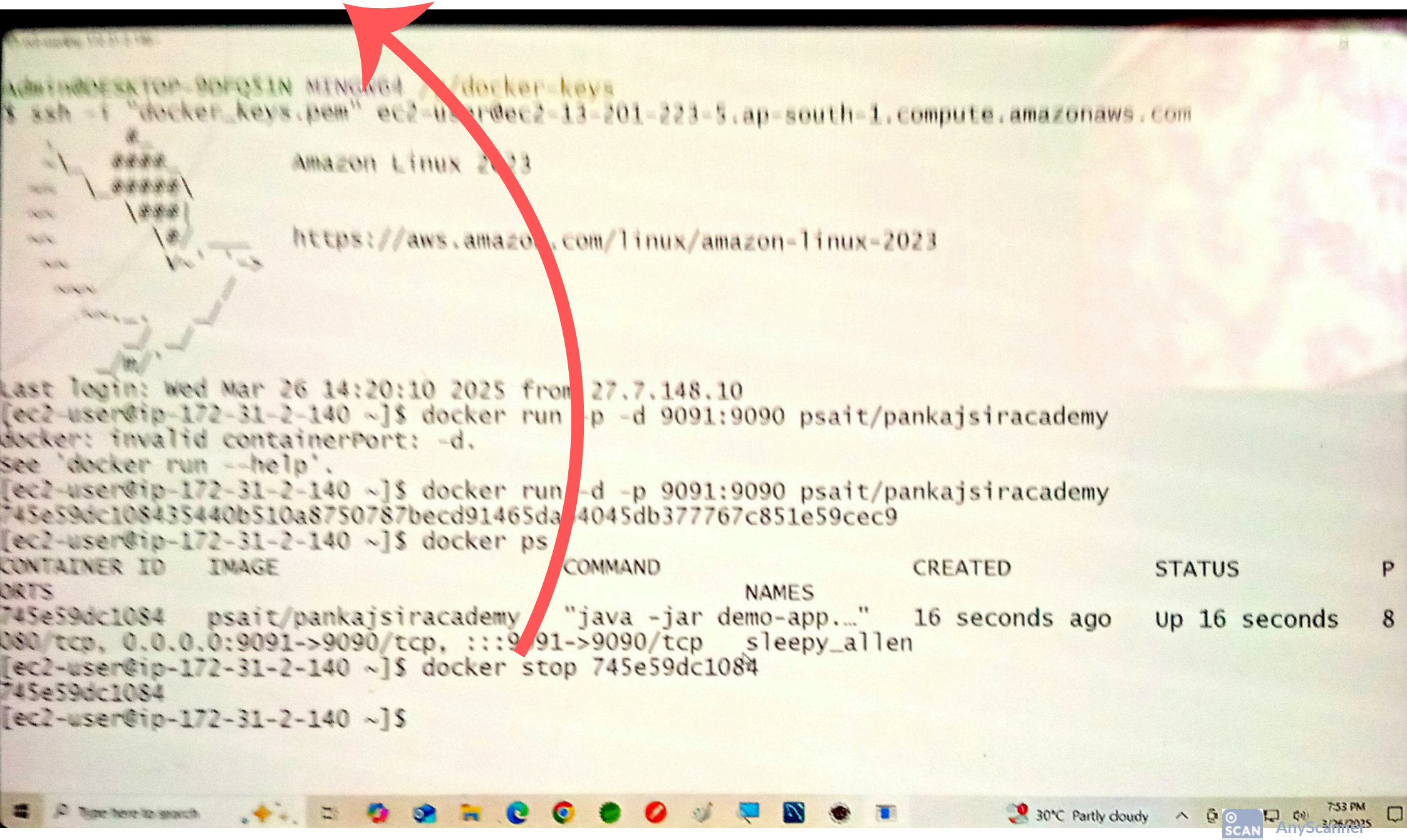
docker ps :To display docker containers that are running

docker ps



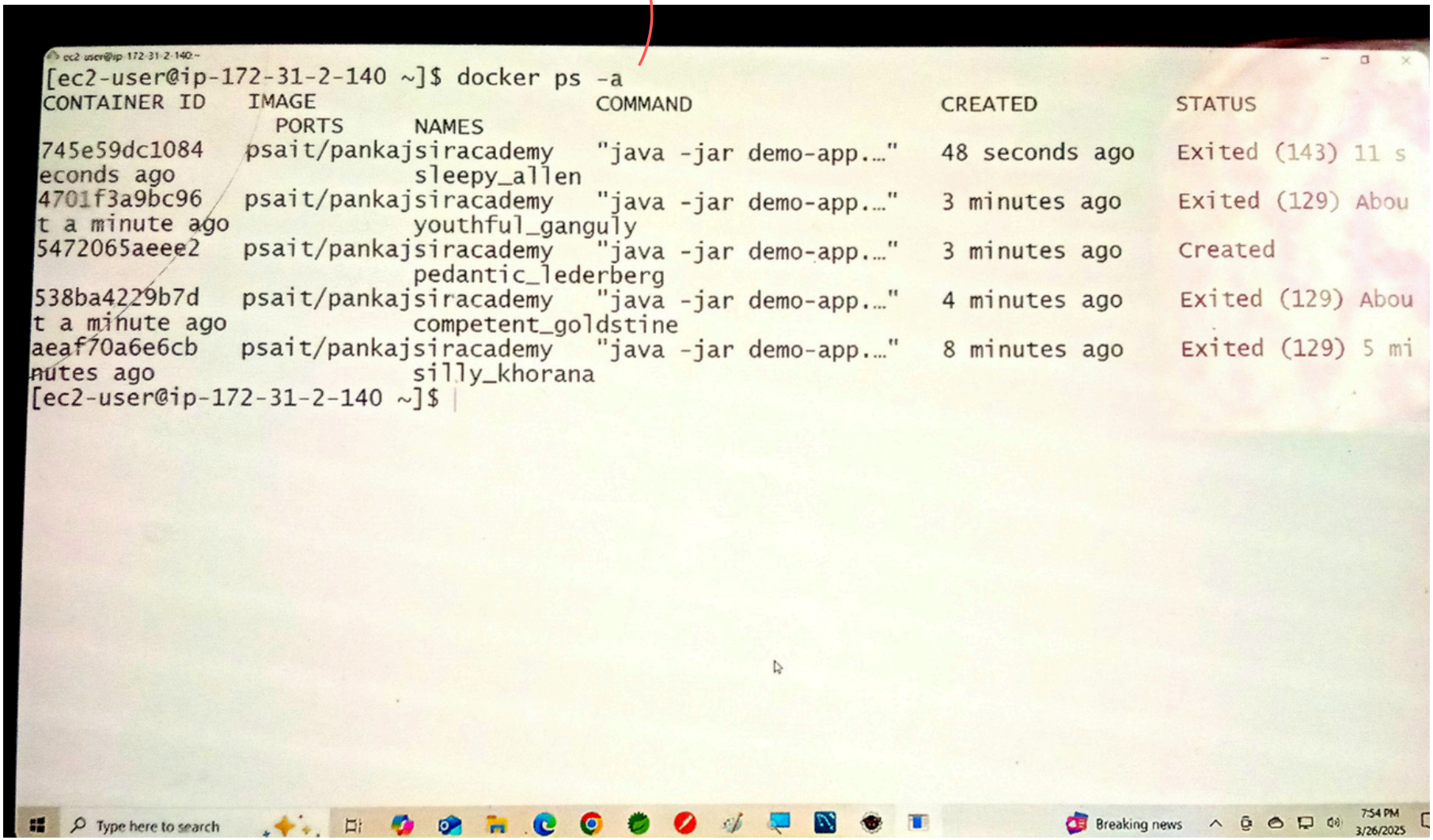
docker stop :To Stop docker container

docker stop [container-id]



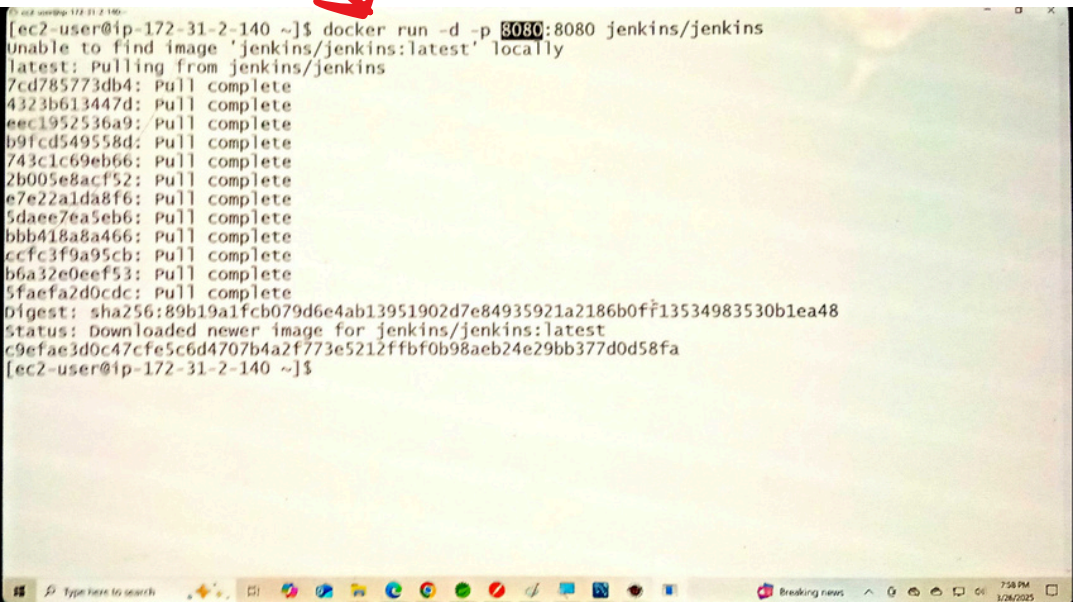
display stopped containers:

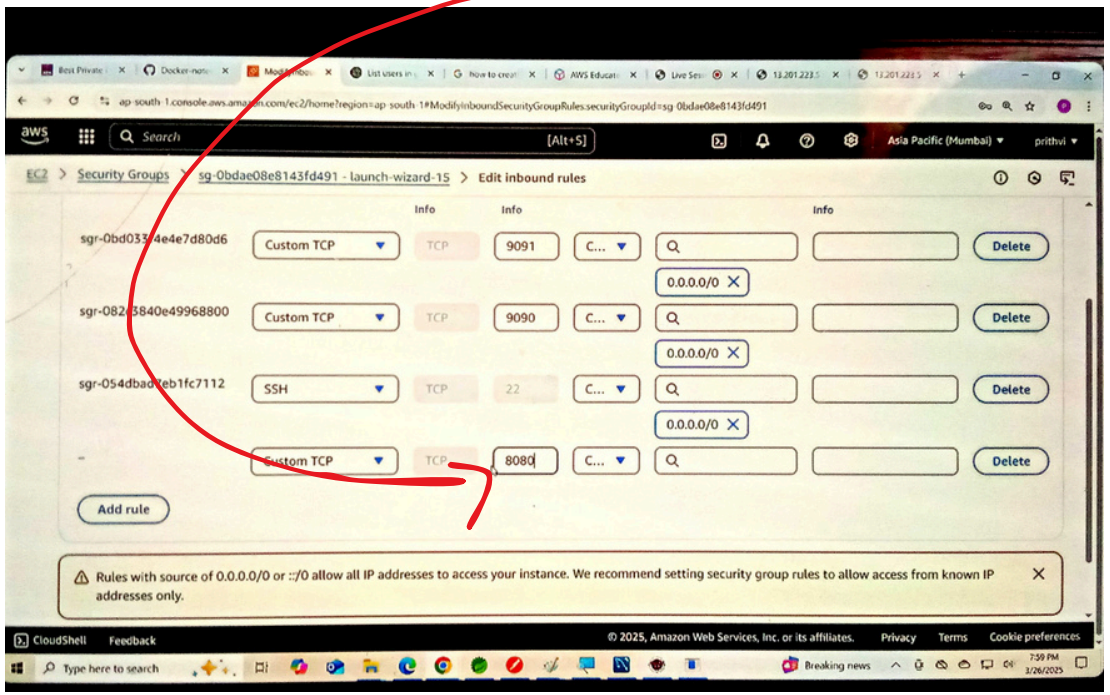
docker ps -a

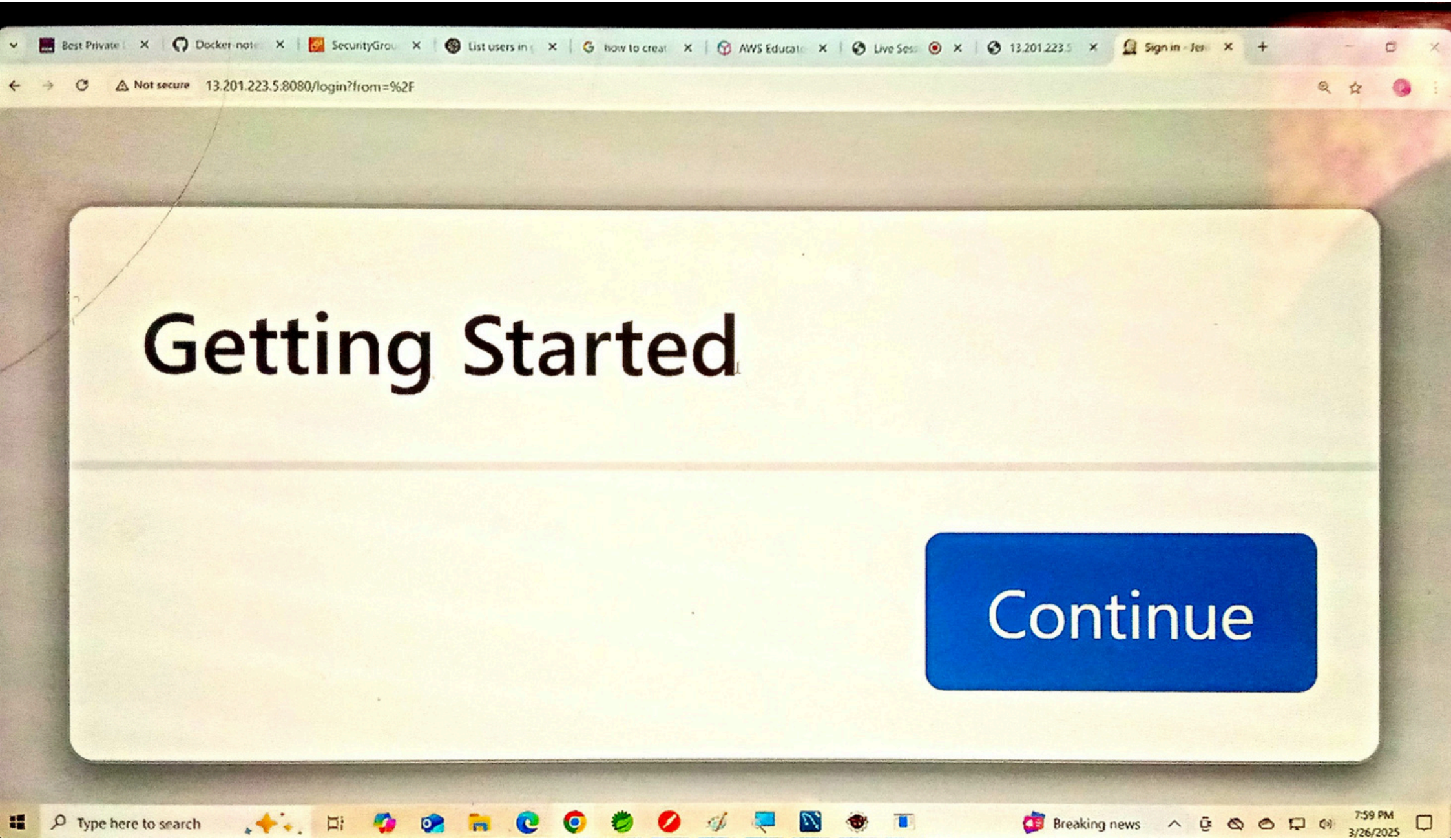


Install jekins using docker image name - docker run -d -p 8080:8080 jenkins/jenkins

Note Enable Inbound rule in security group custom ip 8080 IPv4 anywhere






Not secure
13.201.223.5:8080/login?from=%2F
Getting Started
Continue
Type here to search
Breaking news
7:59 PM
3/26/2025

Installing Docker:

_____

For Amazon Linux use the following commands

Install Docker In Amazon Linux VM

_____

```
sudo yum update -y
sudo yum install docker -y
sudo service docker start
sudo usermod -aG docker ec2-user
exit
```

Use this command to check version of docker installed

_____

```
docker -v
```

For practise pull the sample image from docker hub repository of pankaj sir academy: docker pull psait/pankajsiracademy:latest

For Practise pull docker official image: docker pull hello-world

Example: docker run -d -p 9090:9090 [image-name] will run the cintainer in background

Important Docker Commands

_____

docker pull : download docker image from hub

```
docker pull [image-name]
```

docker run : run docker image - this will create container (Isolated Enviroment to run docker image- This is not a OSs)

```
docker run [image-name / image-id]
```

docker ps :To display docker containers that are running

```
docker ps
```

display stopped containers:

```
docker ps -a
```

docker stop :To Stop docker container

```
docker stop [container-id]
```

docker start : Start docker container

```
docker start [container-id]
```

docker rm : will remove stopped docker container

```
docker rm [contianer-id]
```

docker rmi : Will Remove docker image

```
docker rmi [image-name / image-id]
```

To remove all stopped containers and un-used docker images we can use below command

```
docker system prune -a
```

PART 2