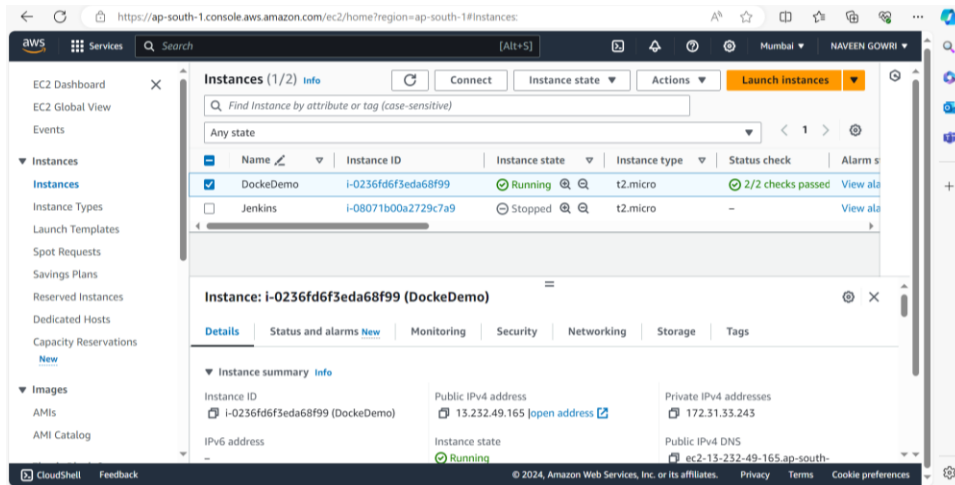


# AWS and Docker

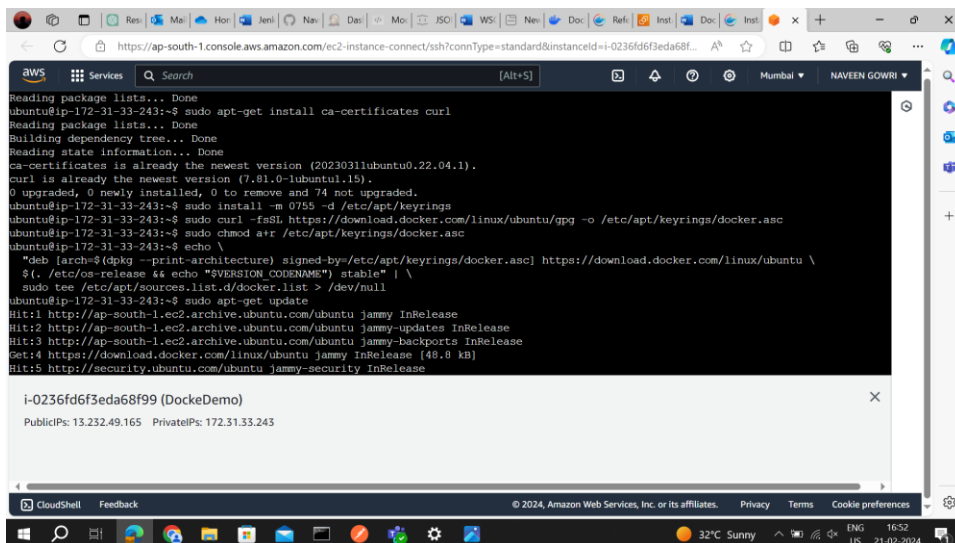
Naveen G

ACE11699

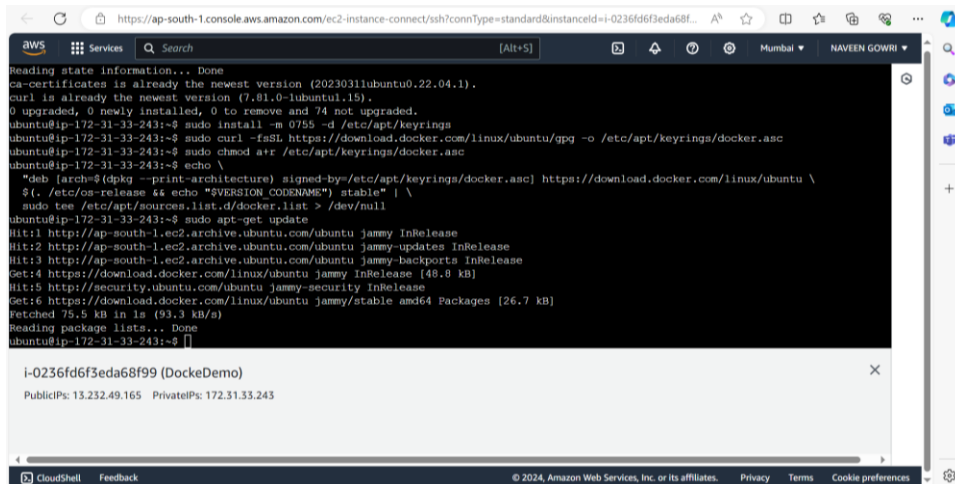
- creating an Instance in AWS EC2 as “Docker”



- Connet to the Instance “Docker” using EC2 Connect.



- I'm running all the commands to set up APT repository.

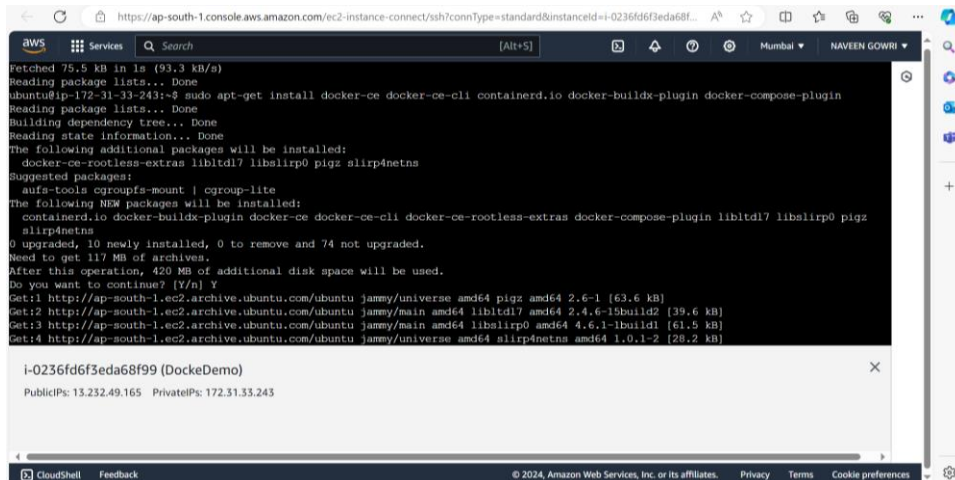


```
Reading state information... Done
ca-certificates is already the newest version (20230311ubuntu0.22.04.1).
curl is already the newest version (7.81.0-1ubuntu1.15).
0 upgraded, 0 newly installed, 0 to remove and 74 not upgraded.
ubuntu@ip-172-31-33-243:~$ sudo install -m 0755 -d /etc/apt/keyrings
ubuntu@ip-172-31-33-243:~$ sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc
ubuntu@ip-172-31-33-243:~$ sudo chmod a+r /etc/apt/keyrings/docker.asc
ubuntu@ip-172-31-33-243:~$ echo \
"deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc] https://download.docker.com/linux/ubuntu \
$(. /etc/os-release && echo "$VERSION_CODENAME") stable" | \
sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
ubuntu@ip-172-31-33-243:~$ sudo apt-get update
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Get:4 https://download.docker.com/linux/ubuntu jammy InRelease [48.8 kB]
Hit:5 http://security.ubuntu.com/ubuntu jammy-security InRelease
Get:6 https://download.docker.com/linux/ubuntu jammy/stable amd64 Packages [26.7 kB]
Fetched 75.5 kB in 1s (93.3 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-33-243:~$
```

i-0236fd6f3eda68f99 (DockerDemo)

PublicIPs: 13.232.49.165 PrivateIPs: 172.31.33.243

- Now I have successfully installed Docker in my EC2 Server



```
Fetched 75.5 kB in 1s (93.3 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-33-243:~$ sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  docker-ce-rootless-extras libltdl7 libsllp0 pigz sllrp4netns
Suggested packages:
  aufs-tools cgroups-mount | cgroup-lite
The following NEW packages will be installed:
  containerd.io docker-buildx-plugin docker-ce docker-ce-cli docker-ce-rootless-extras docker-compose-plugin libltdl7 libsllp0 pigz
  sllrp4netns
0 upgraded, 10 newly installed, 0 to remove and 74 not upgraded.
Need to get 117 MB of archives.
After this operation, 420 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 pigz amd64 2.6-1 [63.6 kB]
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libltdl7 amd64 2.4.6-15build2 [39.6 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libsllp0 amd64 4.6.1-1build1 [61.5 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 sllrp4netns amd64 1.0.1-2 [28.2 kB]
```

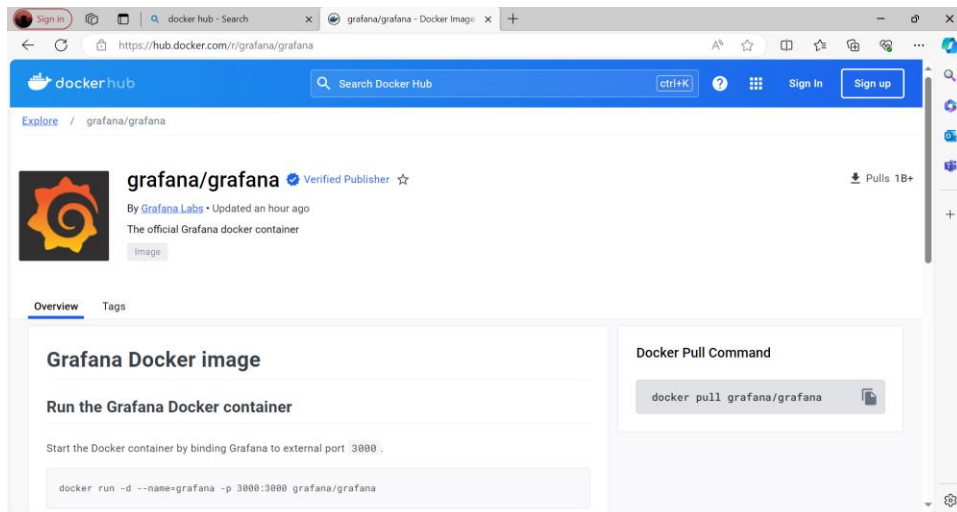
i-0236fd6f3eda68f99 (DockerDemo)

PublicIPs: 13.232.49.165 PrivateIPs: 172.31.33.243

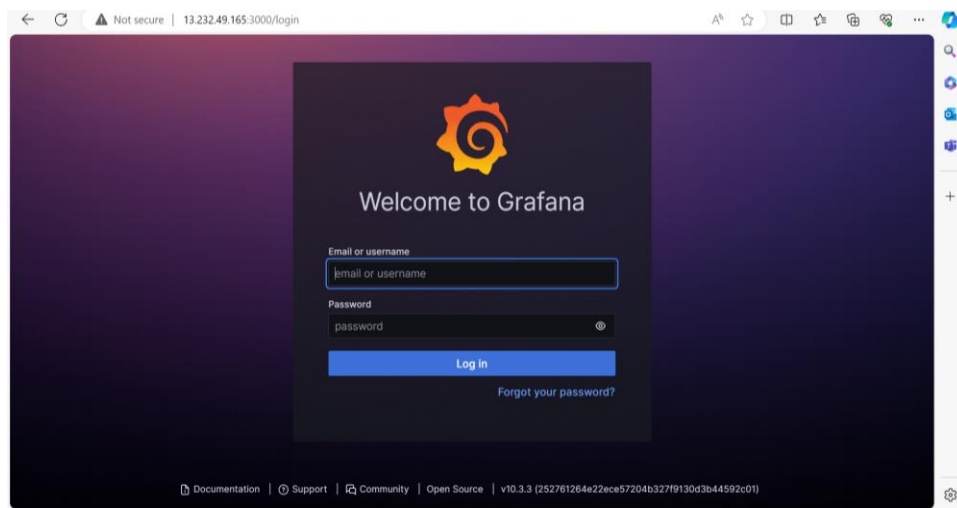
```
latest: Pulling from library/hello-world
c1ec31eb5944: Pull complete
Digest: sha256:d000bc569937abbe195e20322a0bde6b2922d805332fd6d8a68b19f524b7d21d
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.
```

- Now here I'm using one image called "grafana" from docker and pulling it.



- now I'm starting to run my image in background as a name "grafana".



- And then I stop the image.

```
Expanded Security Maintenance for Applications is not enabled.

78 updates can be applied immediately.
43 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Wed Feb 21 11:14:07 2024 from 13.233.177.3
ubuntu@ip-172-31-33-243:~$ sudo docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                               NAMES
6c298e5adc51   grafana/grafana  "/run.sh"               14 minutes ago Up 14 minutes  0.0.0.0:3000->3000/tcp, :::3000->3000/tcp   grafana
ubuntu@ip-172-31-33-243:~$ sudo docker stop grafana
grafana
ubuntu@ip-172-31-33-243:~$ sudo docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                               NAMES
ubuntu@ip-172-31-33-243:~$
```

i-0236fd6f3eda68f99 (DockerDemo)

PublicIPs: 13.232.49.165 PrivateIPs: 172.31.33.243

- After that I pull an image called “httpd” Implements Apache server.

```
ubuntu@ip-172-31-33-243:~$ sudo docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                               NAMES
057d8ecd1900   httpd          "httpd-foreground"      4 hours ago    Up 4 hours    0.0.0.0:9999->80/tcp, :::9999->80/tcp   funny_h
a1bt
85f9125ea31    httpd          "httpd-foreground"      4 hours ago    Up 4 hours    80/tcp                                vigilan
t cartwright
```

- Install nano to open the HTML file.

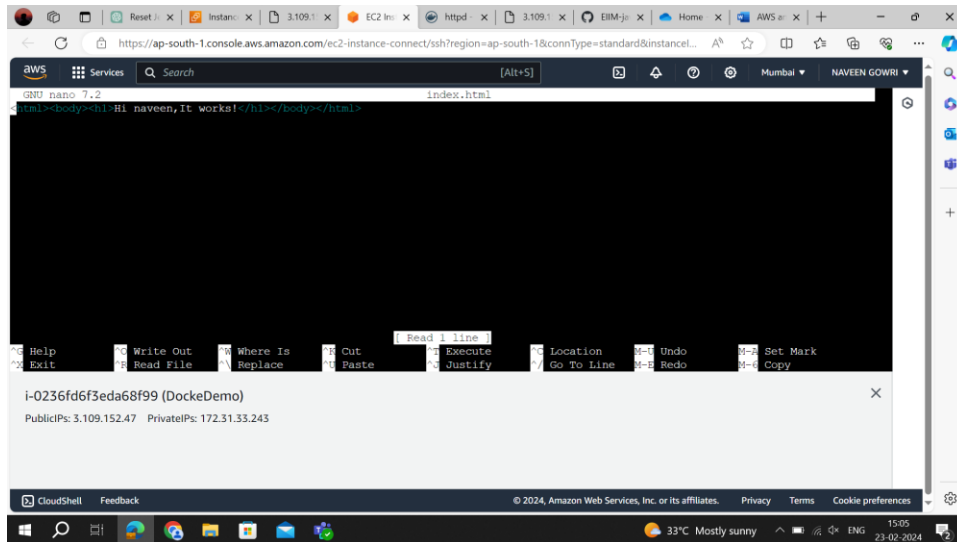
```
ubuntu@ip-172-31-33-243:~$ sudo docker exec -it 057d8ecd1900 /bin/bash
root@057d8ecd1900:/usr/local/apache2# apt-get update
Hit:1 http://deb.debian.org/debian bookworm InRelease
Hit:2 http://deb.debian.org/debian bookworm-updates InRelease
Hit:3 http://deb.debian.org/debian-security bookworm-security InRelease
Reading package lists... Done
root@057d8ecd1900:/usr/local/apache2# apt-get install nano
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
nano is already the newest version (7.2-1).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@057d8ecd1900:/usr/local/apache2#
```

- Then I opened the HTML file.

```
root@057d8ecd1900:/usr/local/apache2# apt-get install nano
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
nano is already the newest version (7.2-1).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@057d8ecd1900:/usr/local/apache2# ls -ltr
total 44
drwxr-xr-x 2 root root 4096 Feb 13 01:55 modules
drwxr-xr-x 3 root root 4096 Feb 13 01:55 icons
drwxr-xr-x 3 root root 4096 Feb 13 01:55 error
drwxr-xr-x 2 root root 4096 Feb 13 01:55 cgi-bin
drwxr-xr-x 2 root root 4096 Feb 13 01:55 include
drwxr-xr-x 2 root root 4096 Feb 13 01:55 bin
drwxr-xr-x 4 root root 4096 Feb 13 01:55 conf
drwxr-xr-x 2 root root 4096 Feb 13 01:55 build
drwxr-xr-x 1 root root 4096 Feb 23 05:41 logs
drwxr-xr-x 1 root root 4096 Feb 23 09:31 htdocs
root@057d8ecd1900:/usr/local/apache2# cd htdocs
root@057d8ecd1900:/usr/local/apache2/htdocs# nano index.html
root@057d8ecd1900:/usr/local/apache2/htdocs#
```

i-0236fd6f3eda68f99 (DockerDemo)

PublicIPs: 3.109.152.47 PrivateIPs: 172.31.33.243



- Then I Printed this text in the Localhost.

