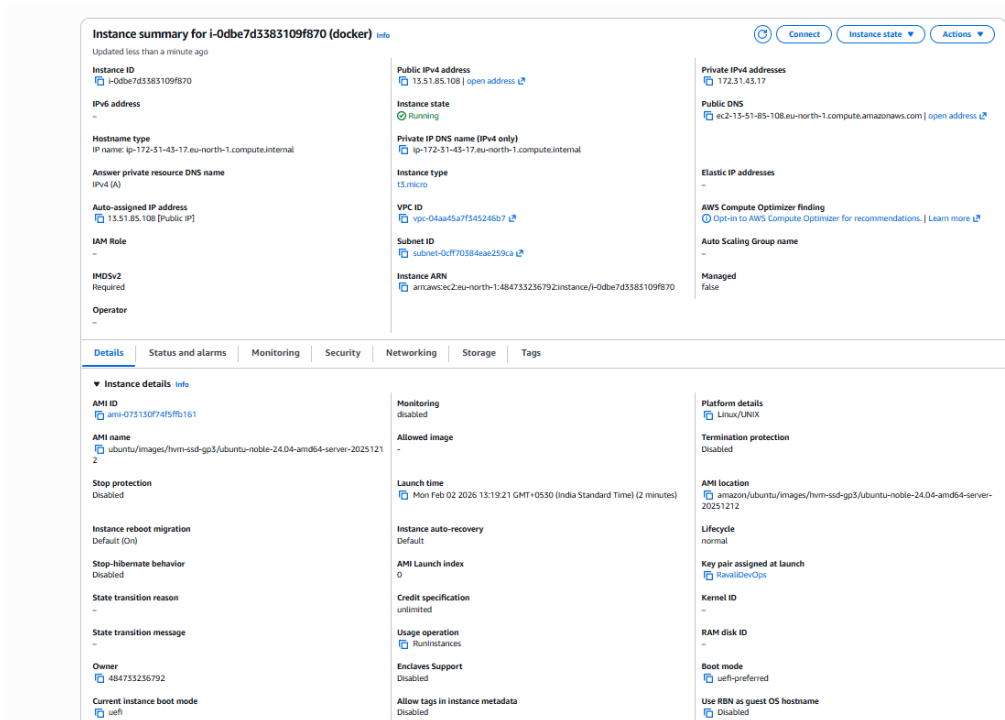


Task

Task 1: Install docker on EC2 and explore the docker commands (docker images, containers, volumes, network).

1. Create EC2 instances.



2. Installing docker on EC2

```
ubuntu@ip-172-31-43-17:~$ docker --version
Docker version 28.2.2, build 28.2.2-0ubuntu1~24.04.1
ubuntu@ip-172-31-43-17:~$ |
```

3. explore the docker commands

```
ubuntu@ip-172-31-43-17:~$ docker pull nginx
Using default tag: latest
latest: Pulling from library/nginx
119d43eec815: Pull complete
700146c8ad64: Pull complete
d989100b8a84: Pull complete
500799c30424: Pull complete
10b68cfefee1: Pull complete
57f0dd1befe2: Pull complete
eaf8753feae0: Pull complete
Digest: sha256:c881927c4077710ac4b1da63b83aa163937fb47457950c267d92f7e4dedf4aec
Status: Downloaded newer image for nginx:latest
docker.io/library/nginx:latest
ubuntu@ip-172-31-43-17:~$ docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
nginx         latest    4af177a024eb   2 weeks ago   161MB
```

4. Creating containers.

```
nginx
ubuntu@ip-172-31-43-17:~$ docker run -d --name mynginx -p 80:80 nginx
67c45fefba124f1af331870d7ff2e91294dba43981cf93a234e0f82a88187f7e
ubuntu@ip-172-31-43-17:~$ docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED    STATUS
67c45fefba12   nginx    "/docker-entrypoint..." 8 seconds ago    Up 7 seconds
0.0.0.0:80->80/tcp, [::]:80->80/tcp    mynginx
ubuntu@ip-172-31-43-17:~$ docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED    STATUS    PORTS
67c45fefba12   nginx    "/docker-entrypoint..." 2 minutes ago    Up 2 minutes    0.0.0.0:80->80/tcp, [::]:80->80/tcp    mynginx
ubuntu@ip-172-31-43-17:~$ docker stop mynginx
```

```
ubuntu@ip-172-31-43-17:~$ docker stop mynginx
mynginx
ubuntu@ip-172-31-43-17:~$ |
```



This site can't be reached

13.51.85.108 refused to connect.

Try:

- Checking the connection
- Checking the proxy and the firewall

ERR_CONNECTION_REFUSED

Reload

```
ubuntu@ip-172-31-43-17:~$ docker start mynginx
mynginx
ubuntu@ip-172-31-43-17:~$ |
```

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

```
mynginx
ubuntu@ip-172-31-43-17:~$ docker rm mynginx
mynginx
ubuntu@ip-172-31-43-17:~$ docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED    STATUS    PORTS    NAMES
ubuntu@ip-172-31-43-17:~$ |
```

5. Docker volumes.

```
CONTAINER ID   IMAGE     COMMAND                  CREATED    STATUS    PORTS    NAMES
ubuntu@ip-172-31-43-17:~$ docker volume create myvolume
myvolume
ubuntu@ip-172-31-43-17:~$ docker volume ls
DRIVER    VOLUME NAME
local    myvolume
ubuntu@ip-172-31-43-17:~$ docker run -d \
--name volcontainer \
-v myvolume:/usr/share/nginx/html \
nginx
53a3e79f0cbfdb9cfbba640683d7b52d23d53e7665a295fc28562105661843a4
ubuntu@ip-172-31-43-17:~$ docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED    STATUS    PORTS    NAMES
53a3e79f0cbf   nginx    "/docker-entrypoint..." 11 seconds ago    Up 10 seconds    80/tcp    volcontainer
```

6. Docker network

```
ubuntu@ip-172-31-43-17:~$ docker network create mynetwork
fac8b3e86b3e465698204fff5fe8103d34b735d85d164bb944063b6cf5db8165
ubuntu@ip-172-31-43-17:~$ docker run -d --name netcontainer --network mynetwork nginx
a118487cdc375fae929d3edc25d9cd4e46a24b01e7ad6559610f17137c284171
ubuntu@ip-172-31-43-17:~$ docker network ls
NETWORK ID          NAME                DRIVER              SCOPE
19ddc20fb2f7        bridge              bridge              local
7eb787865b22        host                host                local
fac8b3e86b3e        mynetwork           bridge              local
53ab184ab9a2        none                null                local
ubuntu@ip-172-31-43-17:~$ docker network inspect mynetwork
[
  {
    "Name": "mynetwork",
    "Id": "fac8b3e86b3e465698204fff5fe8103d34b735d85d164bb944063b6cf5db8165",
    "Created": "2026-02-02T08:24:22.12012087Z",
    "Scope": "local",
    "Driver": "bridge",
    "EnableIPv4": true,
    "EnableIPv6": false,
    "IPAM": {
      "Driver": "default",
      "Options": {},
      "Config": [
        {
          "Subnet": "172.18.0.0/16",
          "Gateway": "172.18.0.1"
        }
      ]
    },
    "Internal": false,
    "Attachable": false,
    "Ingress": false,
    "ConfigFrom": {
      "Network": ""
    },
    "ConfigOnly": false,
    "Containers": {
      "a118487cdc375fae929d3edc25d9cd4e46a24b01e7ad6559610f17137c284171": {
        "Name": "netcontainer",
        "EndpointID": "0f676334c698840c31a807b00b15a1a031203e18e25901e10604c3ca7619c56d",
        "MacAddress": "5a:92:99:fe:e7:0c",
        "IPv4Address": "172.18.0.2/16",
        "IPv6Address": ""
      }
    },
    "Options": {},
    "Labels": {}
  }
]
```