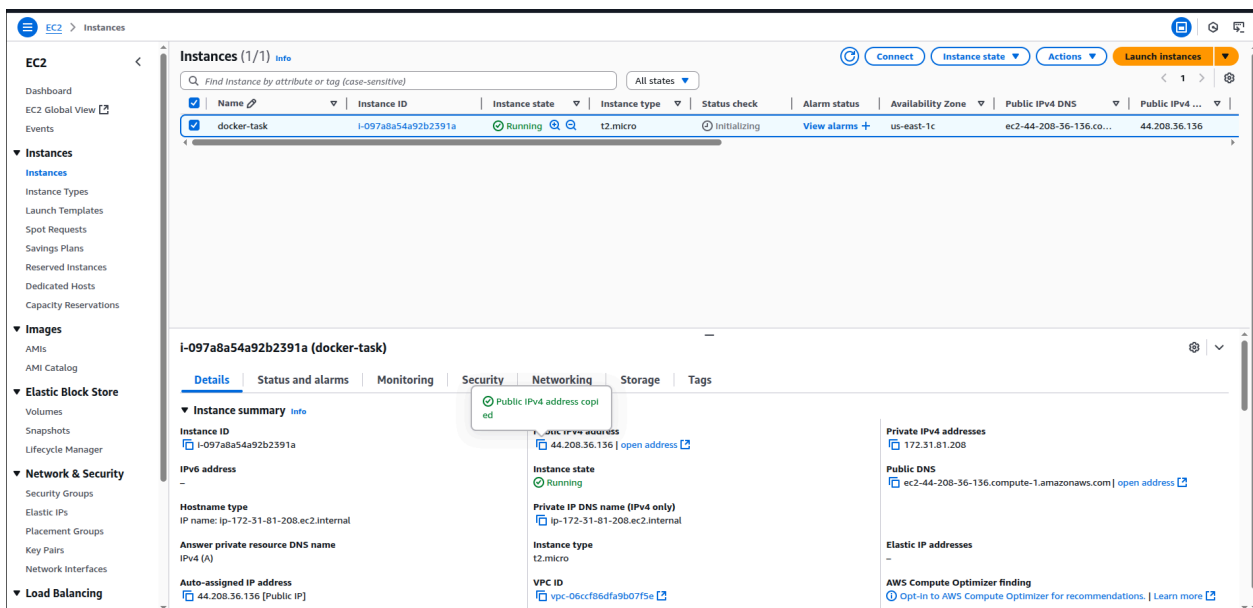


Docker Task

Task Description:

Install docker on EC2 and explore the docker commands (docker images, containers, volumes, network)

Creation of EC2 instance:



Docker installation:

```
ubuntu@ip-172-31-81-208:~$ docker --version
Docker version 27.5.1, build 27.5.1-0ubuntu3-24.04.2
ubuntu@ip-172-31-81-208:~$ docker info
Client:
Version:      27.5.1
Context:      default
Debug Mode:   false

Server:
ERROR: permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get "http://%2Fvar%2Frun%2Fdocker.sock/v1.47/info": dial unix /var/run/docke
r.sock: connect: permission denied
errors pretty printing info
ubuntu@ip-172-31-81-208:~$
```

Docker images:

```
ubuntu@ip-172-31-81-208:~$ sudo docker pull nginx
Using default tag: latest
latest: Pulling from library/nginx
59e226b7830b: Pull complete
140da4f69dc3: Pull complete
96e47e70491e: Pull complete
2ef442a3816e: Pull complete
4b1e45d9989f: Pull complete
1d9f5119494c: Pull complete
f30ffbee4c54: Pull complete
Digest: sha256:84ec966e61a8c7846f509da7eb081c55c1d56817448728924a87ab32f12a72fb
Status: Downloaded newer image for nginx:latest
docker.io/library/nginx:latest
ubuntu@ip-172-31-81-208:~$ sudo docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
nginx latest 2cd1d97f893f 8 days ago 192MB
ubuntu@ip-172-31-81-208:~$
```

Docker containers:

```
See 'docker run --help'.
ubuntu@ip-172-31-81-208:~$ sudo docker run -d --name webserver -p 8080:80 nginx
0018575a42f774b0cd7766ef5137a460987d556ed2ed4020e05ee8620593095
ubuntu@ip-172-31-81-208:~$ sudo docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
0018575a42f7 nginx /docker-entrypoint..." 9 seconds ago Up 8 seconds 0.0.0.0:8080->80/tcp, [::]:8080->80/tcp webserver
ubuntu@ip-172-31-81-208:~$ docker stop webserver
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.47/containers/webserver/stop": dial unix /var/run/docker.sock: connect: permission denied
ubuntu@ip-172-31-81-208:~$ sudo docker stop webserver
webserver
ubuntu@ip-172-31-81-208:~$ sudo docker rm webserver
webserver
ubuntu@ip-172-31-81-208:~$
```

Docker volumes:

```
webserver
ubuntu@ip-172-31-81-208:~$ sudo docker volume create mydata
mydata
ubuntu@ip-172-31-81-208:~$ sudo docker volume ls
DRIVER VOLUME NAME
local mydata
ubuntu@ip-172-31-81-208:~$ sudo docker run -d --name volttest -v mydata:/data nginx
72633f23f7ef4e38a9da92734480bb59b7e7c913dde65bd7fc1c40fae6a8b8d
ubuntu@ip-172-31-81-208:~$
```

Docker networks:

```
ubuntu@ip-172-31-81-208:~$ sudo docker network ls
NETWORK ID NAME DRIVER SCOPE
98c90470e8bc bridge bridge local
dfd7f227482e host host local
7b330b009f17 none null local
ubuntu@ip-172-31-81-208:~$ sudo docker network create mynet
ca0b9db7650db1eb154bca07cea75b1218278a211c7ee48daf278117733fd6ef
ubuntu@ip-172-31-81-208:~$ sudo docker network inspect mynet
[
  {
    "Name": "mynet",
    "Id": "ca0b9db7650db1eb154bca07cea75b1218278a211c7ee48daf278117733fd6ef",
    "Created": "2025-07-23T14:33:43.404987824Z",
    "Scope": "local",
    "Driver": "bridge",
    "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": {},
    "Options": {},
    "Labels": {}
  }
]
```