TASK - 7

Docker Installation:

```
ubuntu@ip-172-31-20-179:~$ sudo apt update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu noble-security InRelease
Fetched 126 kB in 1s (226 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
78 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-172-31-20-179:~$
```

```
ubuntu@ip-172-31-20-179:~$ sudo docker version
Client:
 Version:           24.0.7
 API version:       1.43
 Go version:        go1.22.2
 Git commit:        24.0.7-0ubuntu4
 Built:             Wed Apr 17 20:08:25 2024
 OS/Arch:           linux/amd64
 Context:           default

Server:
 Engine:
  Version:          24.0.7
  API version:      1.43 (minimum version 1.12)
  Go version:       go1.22.2
  Git commit:       24.0.7-0ubuntu4
  Built:            Wed Apr 17 20:08:25 2024
  OS/Arch:          linux/amd64
  Experimental:     false
 containerd:
  Version:          1.7.12
  GitCommit:
 runc:
  Version:          1.1.12-0ubuntu3
```

Docker Images:

```
ubuntu@ip-172-31-28-6:~$ docker images
REPOSITORY     TAG          IMAGE ID     CREATED      SIZE
ubuntu@ip-172-31-28-6:~$
```

```
ubuntu@ip-172-31-28-6:~$ docker pull nginx
Using default tag: latest
latest: Pulling from library/nginx
09f376ebb190: Pull complete
5529e0792248: Pull complete
9b3addd3eb3d: Pull complete
57910a8c4316: Pull complete
7b5f78f21449: Pull complete
b7923aa4e8a6: Pull complete
785625911f12: Pull complete
Digest: sha256:0f04e4f646a3f14bf31d8bc8d885b6c951fdcf42589d06845f64d18aec6a3c4d
Status: Downloaded newer image for nginx:latest
docker.io/library/nginx:latest
ubuntu@ip-172-31-28-6:~$
```

```
ubuntu@ip-172-31-28-6:~$ docker images
REPOSITORY     TAG          IMAGE ID       CREATED       SIZE
nginx          latest       4f67c83422ec   12 days ago   188MB
ubuntu@ip-172-31-28-6:~$
```

Docker Container:

```
ubuntu@ip-172-31-28-6:~$ docker run --name nginxcon -d -p 80:80 nginx
881af85551ae3541b7062b49f56e554117034cd8af75e4d2396f29fa2ef3afe7
ubuntu@ip-172-31-28-6:~$ 
```

```
ubuntu@ip-172-31-28-6:~$ docker ps -a
CONTAINER ID   IMAGE   COMMAND               CREATED         STATUS          PORTS                                     NAMES
881af85551ae   nginx   "/docker-entrypoint.…"   23 seconds ago  Up 22 seconds   0.0.0.0:80->80/tcp, :::80->80/tcp         nginxcon
ubuntu@ip-172-31-28-6:~$ 
```
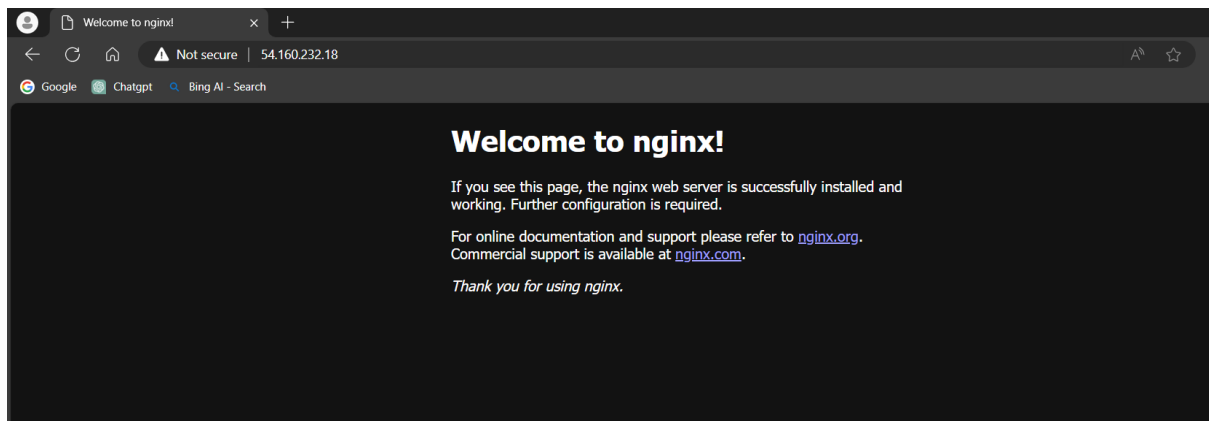

Docker Volumes:

```
ubuntu@ip-172-31-28-6:~$ docker volume ls
DRIVER     VOLUME NAME
ubuntu@ip-172-31-28-6:~$ 
```

```
ubuntu@ip-172-31-28-6:~$ docker volume create my_vol
my_vol
ubuntu@ip-172-31-28-6:~$ 
```

```
ubuntu@ip-172-31-28-6:~$ docker volume ls
DRIVER     VOLUME NAME
local      my_vol
ubuntu@ip-172-31-28-6:~$ 
```

Docker Network:

```
ubuntu@ip-172-31-28-6:~$ docker network ls
NETWORK ID      NAME        DRIVER      SCOPE
53e4f5edad41    bridge      bridge      local
cebd3eb672c0    host        host        local
673cfb0634bc    none        null        local
ubuntu@ip-172-31-28-6:~$
```

```
ubuntu@ip-172-31-28-6:~$ docker network create my_network
06734277c68ca06cfe1dda6e31b40c09287a629597786189d4b6475263704516
ubuntu@ip-172-31-28-6:~$ docker network ls
NETWORK ID      NAME            DRIVER      SCOPE
53e4f5edad41    bridge          bridge      local
cebd3eb672c0    host            host        local
06734277c68c    my_network      bridge      local
673cfb0634bc    none            null        local
ubuntu@ip-172-31-28-6:~$
```

```
ubuntu@ip-172-31-28-6:~$ docker network inspect my_network
[
    {
        "Name": "my_network",
        "Id": "06734277c68ca06cfe1dda6e31b40c09287a629597786189d4b6475263704516",
        "Created": "2024-06-11T05:58:30.543017497Z",
        "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,
```