

Docker Task 1

1. First I launched a EC2 instance in AWS console, I used a ubuntu VM and connected, so I used apt command to install the docker in VM machine. After that I checked docker version, and to create nginx webserver using run command in docker, to view that docker container using docker ps command, docker ps -a command is to view the docker all the container if it is stopped container. To view the docker images use docker images command.
2. To create a volume, docker volume create (followed by name) is the command, same for network, docker network create (followed by name).
3. To inspect what are all inside means we use docker inspect command, To list use ls command.

The screenshot displays the AWS Management Console interface. The top navigation bar shows the AWS logo, a search bar, and the user's name 'Ravikumar'. The left sidebar contains navigation links for EC2, CloudShell, and other services. The main content area shows the 'Instances (1)' page, listing one instance named 'VM-Docker' with ID 'i-057db31f16080dc4b', which is in a 'Running' state. Below the instance list, there is a 'Select an instance' section. At the bottom of the console, a terminal window is open, showing the output of the 'apt install docker.io' command. The terminal output indicates that the installation was successful, with various packages being fetched and installed.

```
Get:33 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [16.4 kB]
Get:34 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 c-n-f Metadata [1304 B]
Get:35 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]
Get:36 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 c-n-f Metadata [116 B]
Get:37 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]
Get:38 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:39 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [896 kB]
Get:40 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [165 kB]
Get:41 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [21.6 kB]
Get:42 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [858 kB]
Get:43 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [188 kB]
Get:44 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [52.2 kB]
Get:45 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [17.0 kB]
Get:46 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [1180 kB]
Get:47 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [248 kB]
Get:48 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
Get:49 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [17.7 kB]
Get:50 http://security.ubuntu.com/ubuntu noble-security/multiverse Translation-en [3792 B]
Get:51 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [212 B]
Get:52 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [380 B]
Fetched 34.6 MB in 28s (1230 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
26 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@ip-172-31-10-31:~# apt install docker.io
E: Invalid operation insatall
root@ip-172-31-10-31:~# apt install docker.io
```

i-057db31f16080dc4b (VM-Docker)
PublicIPs: 13.253.98.65 PrivateIPs: 172.31.10.3

```
Launch an instance | EC2 | ap-south-1 | Instance details | EC2 | ap-south-1 | EC2 Instance Connect | ap-south-1 | +
ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressFamily=ipv4&connType=standard&instanceId=i-057db31f16080dc4b&osUser=ubuntu&region=ap-south-1&ssh...
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EC2

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
root@ip-172-31-10-3:~# docker --version
Docker version 27.5.1, build 27.5.1-0ubuntu3~24.04.2
root@ip-172-31-10-3:~# docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
root@ip-172-31-10-3:~# docker run -d -p 8080:80 nginx
Unable to find image 'nginx:latest' locally
latest: Pulling from library/nginx
4ad67da3f26b: Pull complete
3b00567da964: Pull complete
56b81cfa547d: Pull complete
1bc5dc8b475d: Pull complete
979e6233a40a: Pull complete
42a7ba8dbfee: Pull complete
32e44235e1d5: Pull complete
Digest: sha256:6784fb0834aa7dbbe12e3d7471e69c290df3e6ba810dc38b34ae33d3c1c05f7d
Status: Downloaded newer image for nginx:latest
989da700e4dbf6667cd1c773e6016aac51187e3495f37d123bd666c84aa9ae70
root@ip-172-31-10-3:~# docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
989da700e4db nginx "/docker-entrypoint..." 6 seconds ago Up 5 seconds 0.0.0.0:8080->80/tcp, [::]:8080->80/tcp cool_curie
root@ip-172-31-10-3:~# docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
nginx latest 1e5f3c5b981a 2 months ago 192MB
root@ip-172-31-10-3:~#
```

i-057db31f16080dc4b (VM-Docker)

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```
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11:25 24-06-2025
ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressFamily=ipv4&connType=standard&instanceId=i-057db31f16080dc4b&osUser=ubuntu&region=ap-south-1&ssh...
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EC2

42a7ba8dbfee: Pull complete
32e44235e1d5: Pull complete
Digest: sha256:6784fb0834aa7dbbe12e3d7471e69c290df3e6ba810dc38b34ae33d3c1c05f7d
Status: Downloaded newer image for nginx:latest
989da700e4dbf6667cd1c773e6016aac51187e3495f37d123bd666c84aa9ae70
root@ip-172-31-10-3:~# docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
989da700e4db nginx "/docker-entrypoint..." 6 seconds ago Up 5 seconds 0.0.0.0:8080->80/tcp, [::]:8080->80/tcp cool_curie
root@ip-172-31-10-3:~# docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
nginx latest 1e5f3c5b981a 2 months ago 192MB
root@ip-172-31-10-3:~# docker ps -a
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
989da700e4db nginx "/docker-entrypoint..." 32 seconds ago Up 31 seconds 0.0.0.0:8080->80/tcp, [::]:8080->80/tcp cool_curie
root@ip-172-31-10-3:~# docker stop 1e5f3c5b981a
Error response from daemon: No such container: 1e5f3c5b981a
root@ip-172-31-10-3:~# docker stop 989da700e4db
989da700e4db
root@ip-172-31-10-3:~# docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
root@ip-172-31-10-3:~# docker ps -a
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
989da700e4db nginx "/docker-entrypoint..." About a minute ago Exited (0) 11 seconds ago cool_curie
root@ip-172-31-10-3:~# docker rm 989da700e4db
989da700e4db
root@ip-172-31-10-3:~# docker ps -a
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
root@ip-172-31-10-3:~#
```

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11:27 24-06-2025

```

Status: Downloaded newer image for nginx:latest
989da700e4dbf6667cd1c773e6016aac51187e3495f37d123bd666c84aa9ae70
root@ip-172-31-10-3:~# docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
989da700e4db   nginx    "/docker-entrypoint..." 6 seconds ago   Up 5 seconds   0.0.0.0:8080->80/tcp, [::]:8080->80/tcp   cool_curie
root@ip-172-31-10-3:~# docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
nginx         latest   1e5f3c5b981a   2 months ago   192MB
root@ip-172-31-10-3:~# docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
989da700e4db   nginx    "/docker-entrypoint..." 32 seconds ago   Up 31 seconds   0.0.0.0:8080->80/tcp, [::]:8080->80/tcp   cool_curie
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CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
root@ip-172-31-10-3:~# docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
989da700e4db   nginx    "/docker-entrypoint..." About a minute ago   Exited (0)    11 seconds ago   cool_curie
root@ip-172-31-10-3:~# docker rm 989da700e4db
989da700e4db
root@ip-172-31-10-3:~# docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
root@ip-172-31-10-3:~# docker volume create myvol
myvol
root@ip-172-31-10-3:~# docker run -d -v myvol:/data nginx
22c05900f2aadb469ac68829d3bc76dc9d05d37330b8c009442ba54e51d351da

```

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```

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EC2
989da700e4db nginx "/docker-entrypoint..." 6 seconds ago Up 5 seconds 0.0.0.0:8080->80/tcp, [::]:8080->80/tcp cool_curie
root@ip-172-31-10-3:~# docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
nginx         latest   1e5f3c5b981a   2 months ago   192MB
root@ip-172-31-10-3:~# docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
989da700e4db   nginx    "/docker-entrypoint..." 32 seconds ago   Up 31 seconds   0.0.0.0:8080->80/tcp, [::]:8080->80/tcp   cool_curie
root@ip-172-31-10-3:~# docker stop 1e5f3c5b981a
Error response from daemon: No such container: 1e5f3c5b981a
root@ip-172-31-10-3:~# docker stop 989da700e4db
989da700e4db
root@ip-172-31-10-3:~# docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
root@ip-172-31-10-3:~# docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
989da700e4db   nginx    "/docker-entrypoint..." About a minute ago   Exited (0)    11 seconds ago   cool_curie
root@ip-172-31-10-3:~# docker rm 989da700e4db
989da700e4db
root@ip-172-31-10-3:~# docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
root@ip-172-31-10-3:~# docker volume create myvol
myvol
root@ip-172-31-10-3:~# docker run -d -v myvol:/data nginx
22c05900f2aadb469ac68829d3bc76dc9d05d37330b8c009442ba54e51d351da
root@ip-172-31-10-3:~# docker volume ls
DRIVER      VOLUME NAME
local      myvol
root@ip-172-31-10-3:~#

```

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Launch an instance | EC2 | ap-south-1 | Instance details | EC2 | ap-south-1 | EC2 Instance Connect | ap-south-1

ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressfamily=ipv4&connType=standard&instanceId=i-057db31f16080dc4b&osUser=ubuntu®ion=ap-south-1&ssh...

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EC2

```
root@ip-172-31-10-3:~# docker volume inspect myvol
[
  {
    "CreatedAt": "2025-06-24T05:58:23Z",
    "Driver": "local",
    "Labels": null,
    "Mountpoint": "/var/lib/docker/volumes/myvol/_data",
    "Name": "myvol",
    "Options": null,
    "Scope": "local"
  }
]
root@ip-172-31-10-3:~# docker network create mynetwrk
6198e92612630dc67a826117dbec65f421b73f7c00df9fd4a9140a1605773c8d
root@ip-172-31-10-3:~# docker network ls
NETWORK ID        NAME          DRIVER  SCOPE
0bd6839c1cc4      bridge       bridge  local
2f2854da16dd      host         host    local
6198e9261263      mynetwrk     bridge  local
5cd41630d48b      none         null    local
root@ip-172-31-10-3:~# docker network inspect mynetwrk
[
  {
    "Name": "mynetwrk",
    "Id": "6198e92612630dc67a826117dbec65f421b73f7c00df9fd4a9140a1605773c8d",
    "Created": "2025-06-24T06:01:19.780908569Z",
    "Scope": "local",
```

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