Lab 1 : Docker Installation

Step 1: Changing the username

> whoami # for currently logged in username
Changing the username to the given format
> boot into recovery mode
> access root terminal
> usermod -l new_name old_name
> usermod -d /home/new_name -m new_name
> groupmod -n new_name old_name
> id new_name
> reboot

Step 2: Uninstall the current installation of docker

Removing docker
 >docker ps
 > sudo systemctl stop docker
 > sudo systemctl stop docker.socket
> sudo systemctl stop docker
> sudo apt-get purge -y docker-engine docker docker.io docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin

Step 3 : Reinstalling docker by following the instructions on the official website

installing docker

# Add Docker's official GPG key:
sudo apt-get update
sudo apt-get install ca-certificates curl
sudo install -m 0755 -d /etc/apt/keyrings
sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc
sudo chmod a+r /etc/apt/keyrings/docker.asc
# Add the repository to Apt sources:
echo \
  "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc] https://download.docker.com/linux/ubuntu \
  $(. /etc/os-release && echo "${UBUNTU_CODENAME:-$VERSION_CODENAME}") stable" | \
  sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
sudo apt-get update
sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin

 > sudo systemctl status docker
 > sudo systemctl start docker
 > docker ps

Screenshots

```
❯ whoami
1RV24MC042_harshavardhan_b_r

~/Desktop/RVCE                                    10:33:40 AM
```

Figure 1: whoami output

```
❯ docker --version
Docker version 28.5.1, build e180ab8
```

Figure 2: docker version

```
❯ sudo systemctl status docker
● docker.service - Docker Application Container Engine
     Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; preset>
     Active: active (running) since Fri 2025-10-17 09:53:30 IST; 42min ago
TriggeredBy: ● docker.socket
       Docs: https://docs.docker.com
   Main PID: 16136 (dockerd)
      Tasks: 18
     Memory: 40.8M (peak: 46.1M)
        CPU: 639ms
     CGroup: /system.slice/docker.service
             └─16136 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/>

Oct 17 09:53:29 blaze dockerd[16136]: time="2025-10-17T09:53:29.409009312+05>
Oct 17 09:53:30 blaze dockerd[16136]: time="2025-10-17T09:53:30.156185722+05>
Oct 17 09:53:30 blaze dockerd[16136]: time="2025-10-17T09:53:30.179243187+05>
Oct 17 09:53:30 blaze dockerd[16136]: time="2025-10-17T09:53:30.179274686+05>
Oct 17 09:53:30 blaze dockerd[16136]: time="2025-10-17T09:53:30.259025059+05>
Oct 17 09:53:30 blaze dockerd[16136]: time="2025-10-17T09:53:30.261619056+05>
Oct 17 09:53:30 blaze dockerd[16136]: time="2025-10-17T09:53:30.261649163+05>
Oct 17 09:53:30 blaze systemd[1]: Started docker.service - Docker Applicatio>
Oct 17 10:03:09 blaze dockerd[16136]: time="2025-10-17T10:03:09.092767366+05>
Oct 17 10:31:46 blaze dockerd[16136]: time="2025-10-17T10:31:46.646198639+05>
lines 1-22/22 (END)
```

Figure 3: docker status

```
❯ docker run hello-world

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

To generate this message, Docker took the following steps:
 1. The Docker client contacted the Docker daemon.
 2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
    (amd64)
 3. The Docker daemon created a new container from that image which runs the
    executable that produces the output you are currently reading.
 4. The Docker daemon streamed that output to the Docker client, which sent i
t
    to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
 $ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
 https://hub.docker.com/

For more examples and ideas, visit:
 https://docs.docker.com/get-started/
```

Figure 4: running helloworld