

Practice lab 1

Change username

- 1) Change user name to name_usn
- 2) Create a temporary user using the following command: `sudo adduser temporary`
- 3) Allow the temporary user to run sudo by adding the user to sudo group: `sudo adduser temporary sudo`
- 4) Login to the temporary user account and change the name of the initial user using the following command : `sudo usermod -l newUsername oldUsername`
- 5) Log back into the initial user and check if the username is changed using the command : `whoami`
- 6) Delete the temporary user : `sudo deluser temporary`

Install DOCKER

Delete the older version of the docker.
Then install the new version by entering the below commends.

Oct 17 15:34

Firewall Authentication Key; x Ubuntu | Docker Docs x +

https://docs.docker.com/engine/install/ubuntu/

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 - Ubuntu
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 - RHEL
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 - Raspberry Pi OS (32-bit/armhf)
 - CentOS
 - SLES (s390x)
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 - Post-installation steps
 - Storage
 - Networking
 - Containers
 - CLI
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Install using the apt repository

Before you install Docker Engine for the first time on a new host machine, you need to set up the Docker apt repository. Afterward, you can install and update Docker from the repository.

- Set up Docker's apt repository.

```
# 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
```

- Install the Docker packages.

Latest Specific version

To install the latest version, run:

```
$ sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compos
```

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- Next steps

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1rv24mc013_akash@akash-HP-Laptop-15s-fq5xxx:~\$

```
1rv24mc013_akash@akash-HP-Laptop-15s-fq5xxx:~$ # 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] password for 1rv24mc013_akash:
Get:1 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Hit:2 http://in.archive.ubuntu.com/ubuntu noble InRelease
Get:3 http://in.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:4 https://packages.microsoft.com/repos/code stable InRelease [3,590 B]
Get:5 https://packages.microsoft.com/repos/code stable/main arm64 Packages [20.0 kB]
Get:6 https://packages.microsoft.com/repos/code stable/main armhf Packages [20.0 kB]
Get:7 https://packages.microsoft.com/repos/code stable/main amd64 Packages [19.9 kB]
Get:8 http://in.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:9 http://in.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [1,498 kB]
Get:10 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [1,222 kB]
Get:11 http://in.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [288 kB]
Get:12 http://in.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [175 kB]
Get:13 http://in.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [15.3 kB]
Get:14 http://in.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [2,098 kB]
Get:15 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [204 kB]
Get:16 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [21.5 kB]
Get:17 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [8,968 B]
Get:18 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [1,978 kB]
Get:19 http://in.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [470 kB]
Get:20 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [450 kB]
Get:21 http://in.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
Get:22 http://in.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 c-n-f Metadata [516 B]
Get:23 http://in.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1,489 kB]
Get:24 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
Get:25 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [885 kB]
Get:26 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [197 kB]
Get:27 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [52.2 kB]
Get:28 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [18.2 kB]
Get:29 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [212 B]
Get:30 http://in.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [301 kB]
Get:31 http://in.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [378 kB]
```

```
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1rv24mc013_akashj@akash-HP-Laptop-15s-fq5xxx:~$
Get:10 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [52.2 kB]
Get:11 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [208 B]
Fetched 282 kB in 6s (45.5 kB/s)
Reading package lists... Done
1rv24mc013_akashj@akash-HP-Laptop-15s-fq5xxx:~$ sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libllvm17t64 linux-headers-6.8.0-51 linux-headers-6.8.0-51-generic linux-image-6.8.0-51-generic linux-modules-6.8.0-51-generic linux-modules-extra-6.8.0-51-generic
  linux-tools-6.8.0-51 linux-tools-6.8.0-51-generic python3-netifaces
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  docker-ce-rootless-extras libslirp0 pigz slirp4netns
Suggested packages:
  cgroupfs-mount | cgroup-lite docker-model-plugin
The following NEW packages will be installed:
  containerd.io docker-buildx-plugin docker-ce docker-ce-cli docker-ce-rootless-extras docker-compose-plugin libslirp0 pigz slirp4netns
0 upgraded, 9 newly installed, 0 to remove and 342 not upgraded.
Need to get 105 MB of archives.
After this operation, 436 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 https://download.docker.com/linux/ubuntu noble/stable amd64 containerd.io amd64 1.7.28-1-ubuntu.24.04-noble [31.9 MB]
Get:2 http://in.archive.ubuntu.com/ubuntu noble/universe amd64 pigz amd64 2.8-1 [65.6 kB]
Get:3 http://in.archive.ubuntu.com/ubuntu noble/main amd64 libslirp0 amd64 4.7.0-1ubuntu3 [63.8 kB]
Get:4 http://in.archive.ubuntu.com/ubuntu noble/universe amd64 slirp4netns amd64 1.2.1-1build2 [34.9 kB]
Get:5 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-ce-cli amd64 5:28.5.1-1-ubuntu.24.04-noble [16.5 MB]
Get:6 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-ce amd64 5:28.5.1-1-ubuntu.24.04-noble [19.7 MB]
Get:7 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-buildx-plugin amd64 0.29.1-1-ubuntu.24.04-noble [15.9 MB]
Get:8 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-ce-rootless-extras amd64 5:28.5.1-1-ubuntu.24.04-noble [6,481 kB]
Get:9 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-compose-plugin amd64 2.40.0-1-ubuntu.24.04-noble [14.2 MB]
Fetched 105 MB in 1min 41s (1,042 kB/s)
Selecting previously unselected package containerd.io.
(Reading database ... 244074 files and directories currently installed.)
Preparing to unpack .../0-containerd.io_1.7.28-1-ubuntu.24.04-noble_amd64.deb ...
Unpacking containerd.io (1.7.28-1-ubuntu.24.04-noble) ...
Selecting previously unselected package docker-ce-cli.
Preparing to unpack .../1-docker-ce-cli_5:28.5.1-1-ubuntu.24.04-noble_amd64.deb ...
Unpacking docker-ce-cli (5:28.5.1-1-ubuntu.24.04-noble) ...
Selecting previously unselected package docker-ce.
Preparing to unpack .../2-docker-ce_5:28.5.1-1-ubuntu.24.04-noble_amd64.deb ...
Unpacking docker-ce (5:28.5.1-1-ubuntu.24.04-noble) ...
Selecting previously unselected package pigz.
Preparing to unpack .../3-pigz_2.8-1_amd64.deb ...
Unpacking pigz (2.8-1) ...
Selecting previously unselected package docker-buildx-plugin.
Preparing to unpack .../4-docker-buildx-plugin_0.29.1-1-ubuntu.24.04-noble_amd64.deb ...
Unpacking docker-buildx-plugin (0.29.1-1-ubuntu.24.04-noble) ...
Selecting previously unselected package slirp4netns.
Preparing to unpack .../5-slirp4netns_1.2.1-1build2_amd64.deb ...
Unpacking slirp4netns (1.2.1-1build2) ...
Setting up containerd.io (1.7.28-1-ubuntu.24.04-noble) ...
Created symlink /etc/systemd/system/multi-user.target.wants/containerd.service → /usr/lib/systemd/system/containerd.service.
Setting up docker-compose-plugin (2.40.0-1-ubuntu.24.04-noble) ...
Setting up docker-ce-cli (5:28.5.1-1-ubuntu.24.04-noble) ...
Setting up libslirp0:amd64 (4.7.0-1ubuntu3) ...
Setting up pigz (2.8-1) ...
Setting up docker-ce-rootless-extras (5:28.5.1-1-ubuntu.24.04-noble) ...
Setting up slirp4netns (1.2.1-1build2) ...
Setting up docker-ce (5:28.5.1-1-ubuntu.24.04-noble) ...
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /usr/lib/systemd/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /usr/lib/systemd/system/docker.socket.
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.4) ...
1rv24mc013_akashj@akash-HP-Laptop-15s-fq5xxx:~$ sudo systemctl status docker
● docker.service - Docker Application Container Engine
   Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; preset: enabled)
   Active: active (running) since Fri 2025-10-17 15:40:22 IST; 2min 8s ago
     TriggeredBy: ● docker.socket
   Docs: https://docs.docker.com
   Main PID: 14438 (dockerd)
     Tasks: 17
    Memory: 22.7M (peak: 25.5M)
       CPU: 341ms
    CGroup: /system.slice/docker.service
            └─14438 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock

Oct 17 15:40:21 akash-HP-Laptop-15s-fq5xxx dockerd[14438]: time="2025-10-17T15:40:21.974971230+05:30" level=info msg="detected 127.0.0.53 nameserver, assuming systemd-resolved, so usi
Oct 17 15:40:21 akash-HP-Laptop-15s-fq5xxx dockerd[14438]: time="2025-10-17T15:40:21.998987002+05:30" level=info msg="Creating a containerd client" address=/run/containerd/containerd.
Oct 17 15:40:22 akash-HP-Laptop-15s-fq5xxx dockerd[14438]: time="2025-10-17T15:40:22.076579068+05:30" level=info msg="Loading containers: start."
Oct 17 15:40:22 akash-HP-Laptop-15s-fq5xxx dockerd[14438]: time="2025-10-17T15:40:22.417342771+05:30" level=info msg="Loading containers: done."
Oct 17 15:40:22 akash-HP-Laptop-15s-fq5xxx dockerd[14438]: time="2025-10-17T15:40:22.437381293+05:30" level=info msg="Docker daemon" commit=f8215cc containerd-snapshotter=false storag
Oct 17 15:40:22 akash-HP-Laptop-15s-fq5xxx dockerd[14438]: time="2025-10-17T15:40:22.437467170+05:30" level=info msg="Initializing buildkit"
Oct 17 15:40:22 akash-HP-Laptop-15s-fq5xxx dockerd[14438]: time="2025-10-17T15:40:22.482673423+05:30" level=info msg="Completed buildkit initialization"
Oct 17 15:40:22 akash-HP-Laptop-15s-fq5xxx dockerd[14438]: time="2025-10-17T15:40:22.486901099+05:30" level=info msg="Daemon has completed initialization"
Oct 17 15:40:22 akash-HP-Laptop-15s-fq5xxx dockerd[14438]: time="2025-10-17T15:40:22.486938811+05:30" level=info msg="API listen on /run/docker.sock"
Oct 17 15:40:22 akash-HP-Laptop-15s-fq5xxx systemd[1]: Started docker.service - Docker Application Container Engine.
```

```
Oct 17 15:42
1rv24mc013_akashj@akash-HP-Laptop-15s-fq5xxx:~$
Selecting previously unselected package libslirp0:amd64.
Preparing to unpack .../7-libslirp0_4.7.0-1ubuntu3_amd64.deb ...
Unpacking libslirp0:amd64 (4.7.0-1ubuntu3) ...
Selecting previously unselected package slirp4netns.
Preparing to unpack .../8-slirp4netns_1.2.1-1build2_amd64.deb ...
Unpacking slirp4netns (1.2.1-1build2) ...
Setting up docker-buildx-plugin (0.29.1-1-ubuntu.24.04-noble) ...
Setting up containerd.io (1.7.28-1-ubuntu.24.04-noble) ...
Created symlink /etc/systemd/system/multi-user.target.wants/containerd.service → /usr/lib/systemd/system/containerd.service.
Setting up docker-compose-plugin (2.40.0-1-ubuntu.24.04-noble) ...
Setting up docker-ce-cli (5:28.5.1-1-ubuntu.24.04-noble) ...
Setting up libslirp0:amd64 (4.7.0-1ubuntu3) ...
Setting up pigz (2.8-1) ...
Setting up docker-ce-rootless-extras (5:28.5.1-1-ubuntu.24.04-noble) ...
Setting up slirp4netns (1.2.1-1build2) ...
Setting up docker-ce (5:28.5.1-1-ubuntu.24.04-noble) ...
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /usr/lib/systemd/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /usr/lib/systemd/system/docker.socket.
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.4) ...
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Oct 17 15:40:22 akash-HP-Laptop-15s-fq5xxx dockerd[14438]: time="2025-10-17T15:40:22.076579068+05:30" level=info msg="Loading containers: start."
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```

