

Documentation: Ubuntu User Management & Docker Installation

Step 1: Create a temporary user

```
jamuna@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$ sudo adduser tempuser
info: Adding user `tempuser' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `tempuser' (1001) ...
info: Adding new user `tempuser' (1001) with group `tempuser (1001)' ...
info: Creating home directory `/home/tempuser' ...
info: Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for tempuser
Enter the new value, or press ENTER for the default
    Full Name []: jamunaj
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n] y
info: Adding new user `tempuser' to supplemental / extra groups `users' ...
info: Adding user `tempuser' to group `users' ...
jamuna@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$ █
```

Commands:

```
sudo adduser tempuser
```

```
sudo usermod -aG sudo tempuser
```

Explanation:

- `adduser tempuser`: Creates a temporary user named tempuser.
- `usermod -aG sudo tempuser`: Adds tempuser to the sudo group so it can execute administrative commands.

Step 2: Create the Final User from Temporary User

```
tempuser@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$ sudo adduser --allow-bad-names 1rv24mc046_jamunaj
info: Allowing use of questionable username.
info: Adding user `1rv24mc046_jamunaj' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `1rv24mc046_jamunaj' (1002) ...
info: Adding new user `1rv24mc046_jamunaj' (1002) with group `1rv24mc046_jamunaj (1002)' ...
info: Creating home directory `/home/1rv24mc046_jamunaj' ...
info: Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for 1rv24mc046_jamunaj
Enter the new value, or press ENTER for the default
    Full Name []: jamunajj
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n] y
info: Adding new user `1rv24mc046_jamunaj' to supplemental / extra groups `users' ...
info: Adding user `1rv24mc046_jamunaj' to group `users' ...
tempuser@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$ sudo usermod -aG sudo 1rv24mc046_jamunaj
tempuser@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$
```

Commands:

```
su - tempuser

sudo adduser --allow-bad-names 1rv24mc046_jamunaj

sudo usermod -aG sudo 1rv24mc046_jamunaj
```

Explanation:

- `--allow-bad-names` is necessary because the username starts with a number, which violates Ubuntu's default username rules.
- Adding to `sudo` group ensures administrative privileges for future operations.

Step 3: Delete Temporary User

```
jamuna@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$ su - 1rv24mc046_jamunaj
Password:
1rv24mc046_jamunaj@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$ sudo pkill -u tempuser
1rv24mc046_jamunaj@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$ sudo deluser --remove-home tempuser
info: Looking for files to backup/remove ...
info: Removing crontab ...
info: Removing user `tempuser' ...
1rv24mc046_jamunaj@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$
```

Commands:

```
exit # Exit any tempuser shells if still logged in

ps -u tempuser # Check for running processes

sudo pkill -9 -u tempuser # Forcefully kill any remaining processes

sudo deluser --remove-home tempuser
```

Explanation:

- Users cannot be deleted if they have active processes.
- `ps -u tempuser` shows if any processes are running.
- `pkill -9 -u tempuser` terminates all remaining processes.
- `deluser --remove-home tempuser` removes the user and home directory completely.

Step 4: Verify the user

```
1rv24mc046_jamunaj@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$ whoami
1rv24mc046_jamunaj
1rv24mc046_jamunaj@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$ sudo whoami
root
1rv24mc046_jamunaj@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$ pwd
/home/1rv24mc046_jamunaj
1rv24mc046_jamunaj@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$
```

Commands:

Whoami

Sudo whoami

Pwd

Docker Installation

Step 1: Update packages

Command: `sudo apt-get update`

```
jamuna@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$ sudo apt-get update
Hit:1 https://download.docker.com/linux/ubuntu noble InRelease
Hit:2 https://packages.microsoft.com/repos/vscode stable InRelease
Hit:3 https://packages.microsoft.com/repos/code stable InRelease
Hit:4 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:5 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:6 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:7 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Hit:8 https://dl.google.com/linux/chrome/deb stable InRelease
Reading package lists... Done
W: https://packages.microsoft.com/repos/vscode/dists/stable/InRelease: Key is stored in legacy
ATION section in apt-key(8) for details.
```

Step 2: Install prerequisites

Command: `sudo apt-get install ca-certificates curl gnupg lsb-release -y`

```
jamuna@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$ sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
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 7 not upgraded.
Need to get 105 MB of archives.
After this operation, 437 MB of additional disk space will be used.
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://archive.ubuntu.com/ubuntu noble/universe amd64 pigz amd64 2.8-1 [65.6 kB]
Get:3 http://archive.ubuntu.com/ubuntu noble/main amd64 libslirp0 amd64 4.7.0-1ubuntu3 [63.8 kB]
Get:4 http://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]
41% [5 docker-ce-cli 9,486 kB/16.5 MB 58%]
13.6 kB/s 1h 17mIgn:5 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-ce-cli amd64 5:28.5.1-1-ubuntu.24.04-noble
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]
Ign:6 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-ce amd64 5:28.5.1-1-ubuntu.24.04-noble
```

Step 3: Install Docker Engine

Command: `sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin -y`

```
jamuna@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$ sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin -y
[sudo] password for jamuna:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
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 7 not upgraded.
Need to get 72.8 MB/105 MB of archives.
After this operation, 437 MB of additional disk space will be used.
Get:1 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:2 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:3 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:4 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:5 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-compose-plugin amd64 2.40.1-1~ubuntu.24.04~noble [14.3 MB]
96% [5 docker-compose-plugin 12.4 MB/14.3 MB 87%]
2,774 kB Fetched 53.6 MB in 5min 34s (160 kB/s)
```

Step 4: Verify installation

Command: `docker --version`

```
jamuna@jamuna-HP-Pavilion-Laptop-14-dv2xxx:~$ docker --version
Docker version 28.5.1, build e180ab8
```