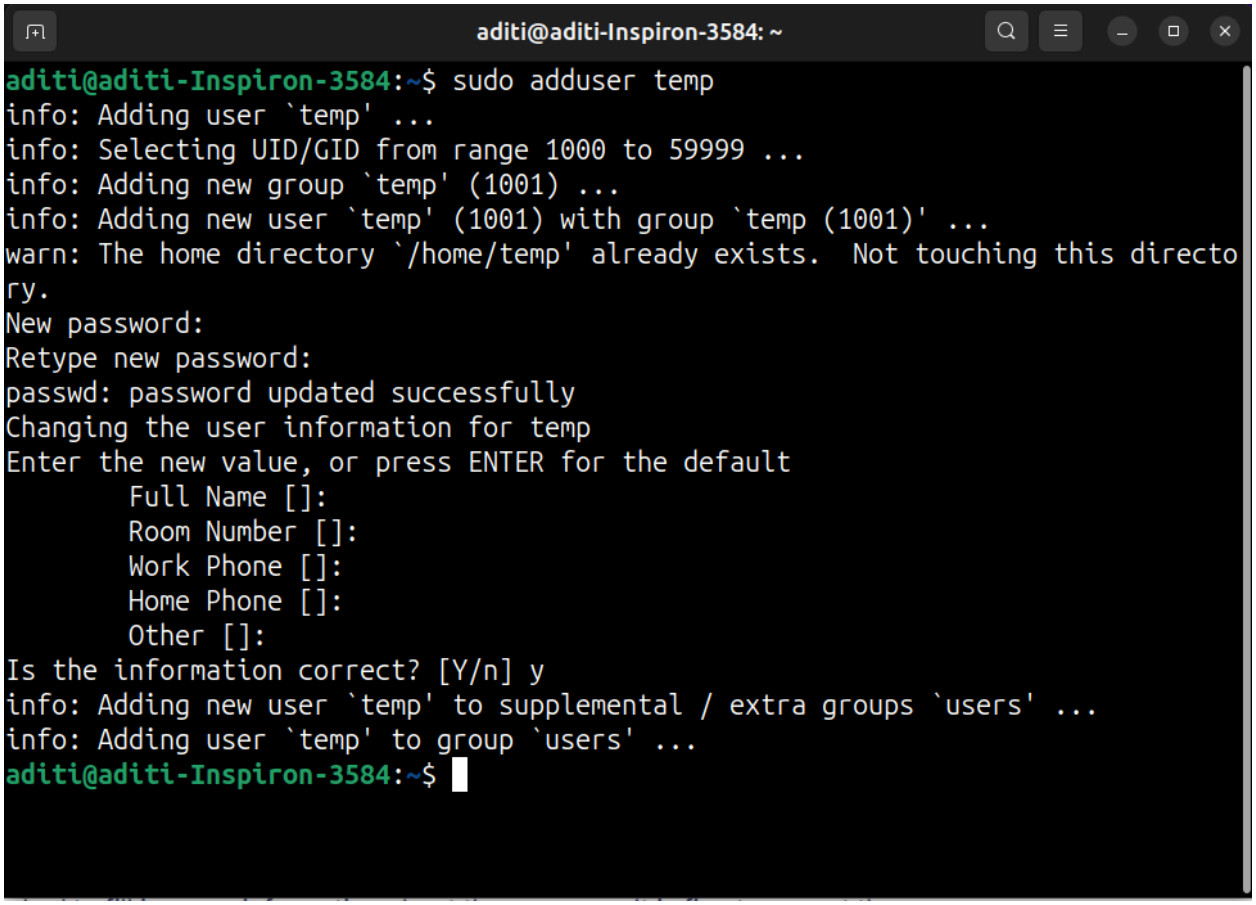
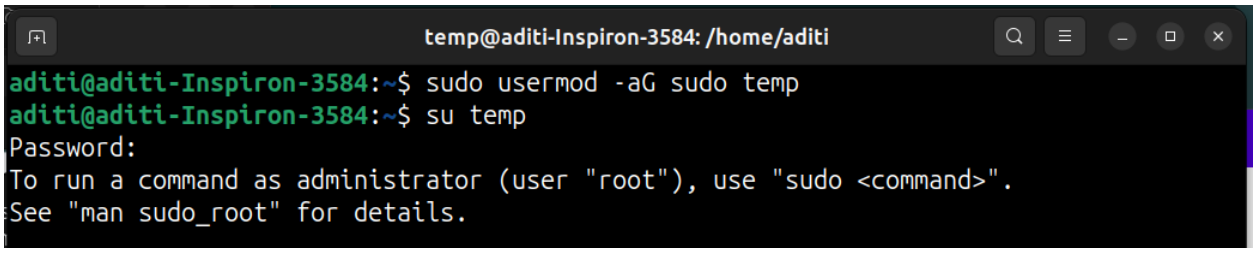
DevOps Practice Lab - 1

1. Creating new temp user and giving sudo access





2. Creating new user in usn_name format

```
temp@aditi-Inspiron-3584:/home/aditi$ sudo adduser 1rv24mc005_aditi --allow-bad-names
info: Allowing use of questionable username.
info: Adding user `1rv24mc005_aditi' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `1rv24mc005_aditi' (1002) ...
info: Adding new user `1rv24mc005_aditi' (1002) with group `1rv24mc005_aditi (1002)'
...
info: Creating home directory `/home/1rv24mc005_aditi' ...
info: Copying files from `/etc/skel' ...
New password:
BAD PASSWORD: The password fails the dictionary check - it is too simplistic/systemat
ic
Retype new password:
passwd: password updated successfully
Changing the user information for 1rv24mc005_aditi
Enter the new value, or press ENTER for the default
        Full Name []: Aditi Narasimhan
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] y
info: Adding new user `1rv24mc005_aditi' to supplemental / extra groups `users' ...
info: Adding user `1rv24mc005_aditi' to group `users' ...
temp@aditi-Inspiron-3584:/home/aditi$ sudo usermod -aG sudo 1rv24mc005_aditi
temp@aditi-Inspiron-3584:/home/aditi$ su 1rv24mc005_aditi
Password:
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
```

3. Install docker

```
1rv24mc005_aditi@aditi-Inspiron-3584: ~
1rv24mc005_aditi@aditi-Inspiron-3584:~$ docker --version
bash: /usr/bin/docker: No such file or directory
1rv24mc005_aditi@aditi-Inspiron-3584:~$ # 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/keyring
s/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
```

```
1rv24mc005_aditi@aditi-Inspiron-3584:~$ 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 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:
  docker-ce docker-ce-cli docker-ce-rootless-extras docker-compose-plugin
  libslirp0 pigz slirp4netns
The following packages will be upgraded:
  containerd.io docker-buildx-plugin
2 upgraded, 7 newly installed, 0 to remove and 67 not upgraded.
Need to get 105 MB of archives.
After this operation, 234 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

4. Verify that docker is running

```
1rv24mc005_aditi@aditi-Inspiron-3584:~$ sudo systemctl status docker
● docker.service - Docker Application Container Engine
     Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; preset: e>
     Active: active (running) since Fri 2025-10-17 10:08:58 IST; 3min 53s ago
TriggeredBy: ● docker.socket
       Docs: https://docs.docker.com
   Main PID: 23317 (dockerd)
      Tasks: 10
     Memory: 21.5M (peak: 22.6M)
        CPU: 895ms
     CGroup: /system.slice/docker.service
             └─23317 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/con>

Oct 17 10:08:55 aditi-Inspiron-3584 dockerd[23317]: time="2025-10-17T10:08:55.9>
Oct 17 10:08:55 aditi-Inspiron-3584 dockerd[23317]: time="2025-10-17T10:08:55.9>
Oct 17 10:08:56 aditi-Inspiron-3584 dockerd[23317]: time="2025-10-17T10:08:56.4>
Oct 17 10:08:57 aditi-Inspiron-3584 dockerd[23317]: time="2025-10-17T10:08:57.5>
Oct 17 10:08:57 aditi-Inspiron-3584 dockerd[23317]: time="2025-10-17T10:08:57.7>
Oct 17 10:08:57 aditi-Inspiron-3584 dockerd[23317]: time="2025-10-17T10:08:57.7>
Oct 17 10:08:58 aditi-Inspiron-3584 dockerd[23317]: time="2025-10-17T10:08:58.0>
Oct 17 10:08:58 aditi-Inspiron-3584 dockerd[23317]: time="2025-10-17T10:08:58.0>
Oct 17 10:08:58 aditi-Inspiron-3584 dockerd[23317]: time="2025-10-17T10:08:58.0>
Oct 17 10:08:58 aditi-Inspiron-3584 systemd[1]: Started docker.service - Docker>
lines 1-22/22 (END)
```

5. Verify that the installation is successful by running the hello-world image

```
1rv24mc005_aditi@aditi-Inspiron-3584:~$ sudo docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
17eec7bbc9d7: Pull complete
Digest: sha256:6dc565aa630927052111f823c303948cf83670a3903ffa3849f1488ab517f891
Status: Downloaded newer image for hello-world:latest

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 it
    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/
```