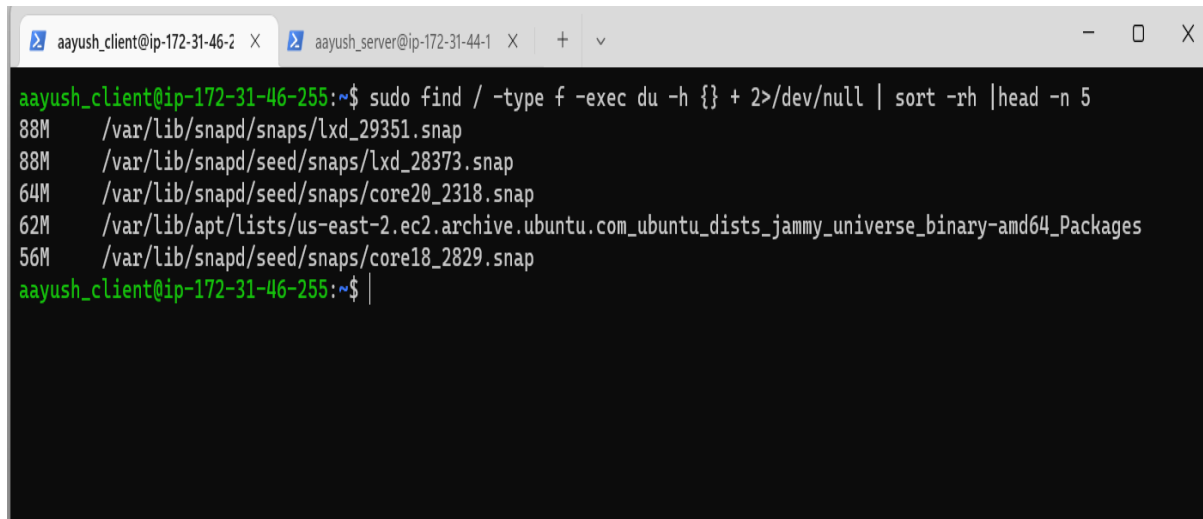


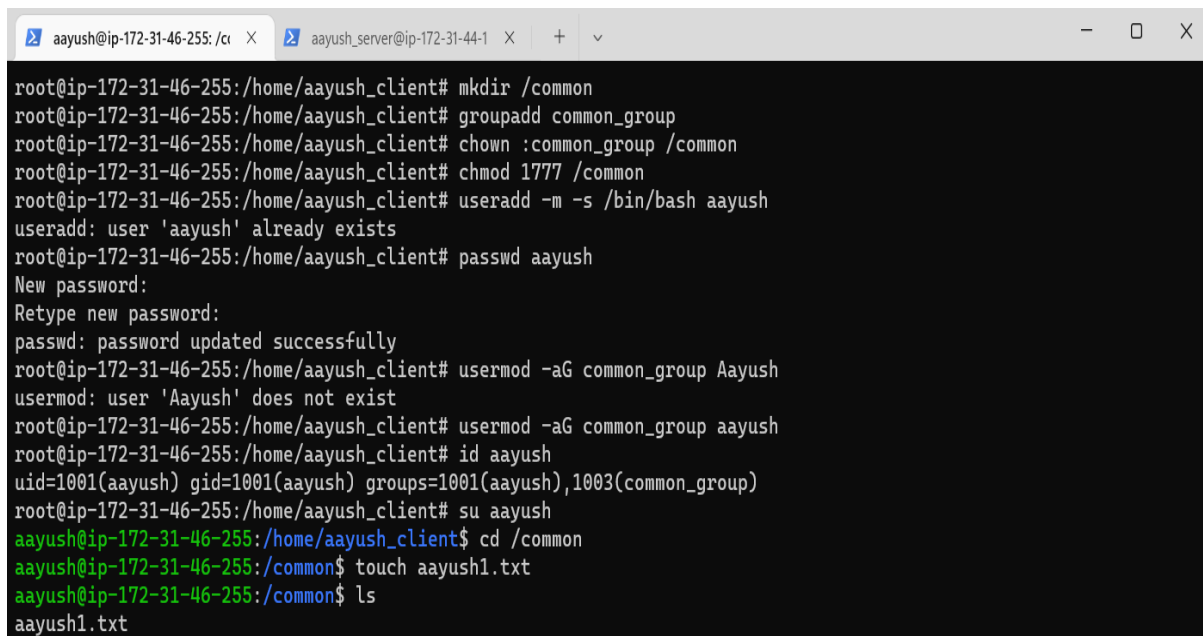
Assignment 1 – File System Management

- 1) List out 5 files in your system which consuming most of the disk space



```
aayush_client@ip-172-31-46-255:~$ sudo find / -type f -exec du -h {} + 2>/dev/null | sort -rh | head -n 5
88M    /var/lib/snapd/snaps/lxd_29351.snap
88M    /var/lib/snapd/seed/snaps/lxd_28373.snap
64M    /var/lib/snapd/seed/snaps/core20_2318.snap
62M    /var/lib/apt/lists/us-east-2.ec2.archive.ubuntu.com_ubuntu_dists_jammy_universe_binary-amd64_Packages
56M    /var/lib/snapd/seed/snaps/core18_2829.snap
aayush_client@ip-172-31-46-255:~$
```

- 2) Create one common folder in such a way that anyone can create files inside that independently and should not be able to delete other users files from that common Folder.



```
root@ip-172-31-46-255:/home/aayush_client# mkdir /common
root@ip-172-31-46-255:/home/aayush_client# groupadd common_group
root@ip-172-31-46-255:/home/aayush_client# chown :common_group /common
root@ip-172-31-46-255:/home/aayush_client# chmod 1777 /common
root@ip-172-31-46-255:/home/aayush_client# useradd -m -s /bin/bash aayush
useradd: user 'aayush' already exists
root@ip-172-31-46-255:/home/aayush_client# passwd aayush
New password:
Retype new password:
passwd: password updated successfully
root@ip-172-31-46-255:/home/aayush_client# usermod -aG common_group Aayush
usermod: user 'Aayush' does not exist
root@ip-172-31-46-255:/home/aayush_client# usermod -aG common_group aayush
root@ip-172-31-46-255:/home/aayush_client# id aayush
uid=1001(aayush) gid=1001(aayush) groups=1001(aayush),1003(common_group)
root@ip-172-31-46-255:/home/aayush_client# su aayush
aayush@ip-172-31-46-255:/home/aayush_client$ cd /common
aayush@ip-172-31-46-255:/common$ touch aayush1.txt
aayush@ip-172-31-46-255:/common$ ls
aayush1.txt
```

```
aayush1.txt
aayush@ip-172-31-46-255:/common$ useradd -m -s /bin/bash aashu
useradd: Permission denied.
useradd: cannot lock /etc/passwd; try again later.
aayush@ip-172-31-46-255:/common$ sudo useradd -m -s /bin/bash aashu
[sudo] password for aayush:
aayush is not in the sudoers file. This incident will be reported.
aayush@ip-172-31-46-255:/common$
aayush@ip-172-31-46-255:/common$ su root
Password:
root@ip-172-31-46-255:/common# useradd -m -s /bin/bash aashu
root@ip-172-31-46-255:/common# passwd aashu
New password:
Retype new password:
passwd: password updated successfully
root@ip-172-31-46-255:/common# su aashu
aashu@ip-172-31-46-255:/common$ touch aayush2.txt
aashu@ip-172-31-46-255:/common$ rm aayush1.txt
rm: remove write-protected regular empty file 'aayush1.txt'? yes
rm: cannot remove 'aayush1.txt': Operation not permitted
aashu@ip-172-31-46-255:/common$ ls
aayush1.txt  aayush2.txt
aashu@ip-172-31-46-255:/common$ |
```

3) Create user name "shubham" and add that user in the group "adm"

a) Create folder /data , change owner and group as "root:adm"

b) Change /data permission such a way that user can able to write data in this

folder and ownership of files or folder which you creates in this folder should be same

as parent folder i.e /data folder permission (root:adm)

```
shubham@ip-172-31-46-255:~$
aayush_server@ip-172-31-44-1:~$
root@ip-172-31-46-255:~# useradd -m -s /bin/bash shubham
root@ip-172-31-46-255:~# passwd shubham
New password:
Retype new password:
passwd: password updated successfully
root@ip-172-31-46-255:~# groupadd adm
groupadd: group 'adm' already exists
root@ip-172-31-46-255:~# usermod -aG adm shubham
root@ip-172-31-46-255:~# id shubham
uid=1004(shubham) gid=1005(shubham) groups=1005(shubham),4(adm)
root@ip-172-31-46-255:~# sudo mkdir /data
root@ip-172-31-46-255:~# sudo chown root:adm /data
root@ip-172-31-46-255:~# sudo chmod 2770 /data
root@ip-172-31-46-255:~# ls -ld /data
drwxrws--- 2 root adm 4096 Sep 13 15:10 /data
root@ip-172-31-46-255:~# su shubham
shubham@ip-172-31-46-255:/root$ touch /data/aayush1.txt
shubham@ip-172-31-46-255:/root$ ls -l /data/aayush1.txt
-rw-rw-r-- 1 shubham adm 0 Sep 13 15:13 /data/aayush1.txt
shubham@ip-172-31-46-255:/root$ |
```