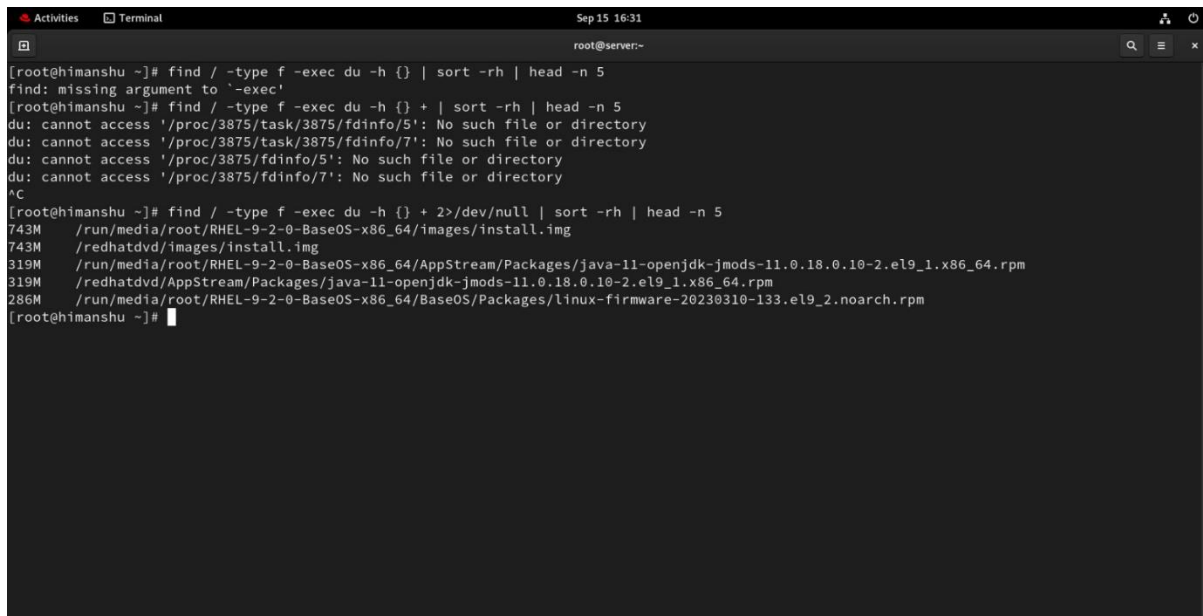


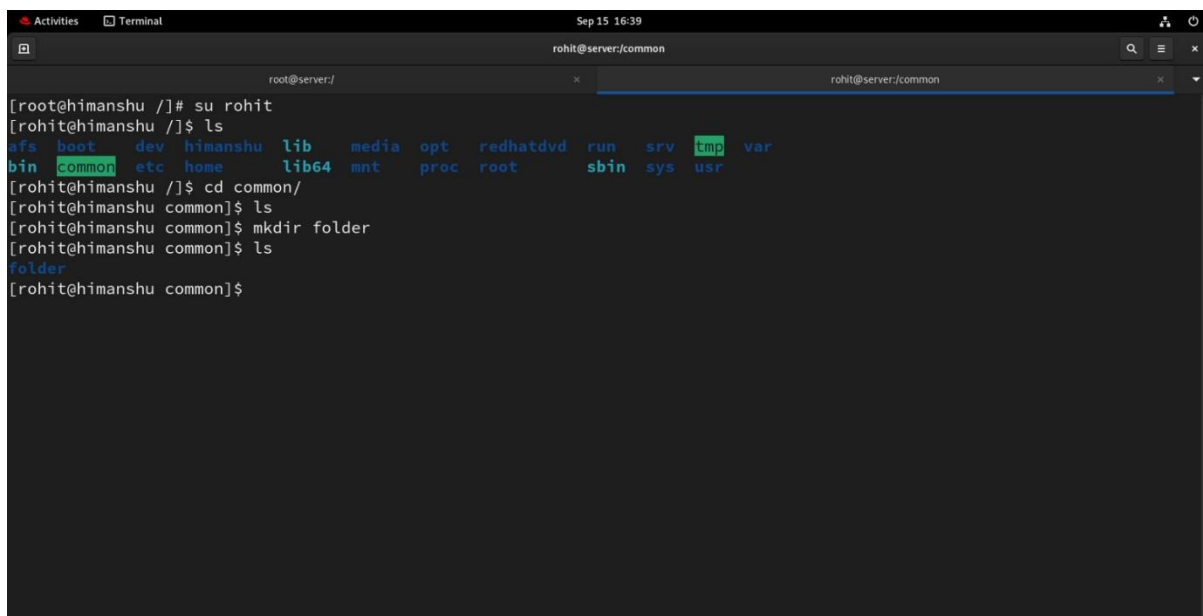
Assignment 1 – File System Management

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

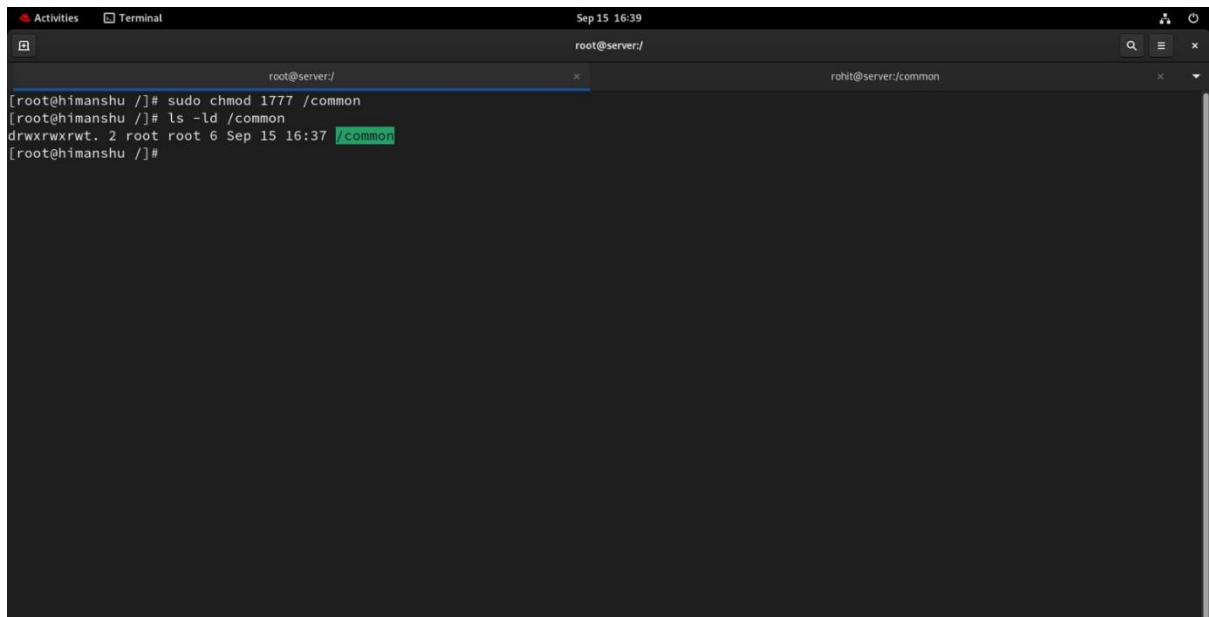


```
[root@himanshu ~]# find / -type f -exec du -h {} | sort -rh | head -n 5
find: missing argument to '-exec'
[root@himanshu ~]# find / -type f -exec du -h {} + | sort -rh | head -n 5
du: cannot access '/proc/3875/task/3875/fdinfo/5': No such file or directory
du: cannot access '/proc/3875/task/3875/fdinfo/7': No such file or directory
du: cannot access '/proc/3875/fdinfo/5': No such file or directory
du: cannot access '/proc/3875/fdinfo/7': No such file or directory
^C
[root@himanshu ~]# find / -type f -exec du -h {} + 2>/dev/null | sort -rh | head -n 5
743M    /run/media/root/RHEL-9-2-0-BaseOS-x86_64/images/install.img
743M    /redhatdvd/images/install.img
319M    /run/media/root/RHEL-9-2-0-BaseOS-x86_64/AppStream/Packages/java-11-openjdk-jmods-11.0.18.0.10-2.el9_1.x86_64.rpm
319M    /redhatdvd/AppStream/Packages/java-11-openjdk-jmods-11.0.18.0.10-2.el9_1.x86_64.rpm
286M    /run/media/root/RHEL-9-2-0-BaseOS-x86_64/BaseOS/Packages/linux-firmware-20230310-133.el9_2.noarch.rpm
[root@himanshu ~]#
```

- 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.

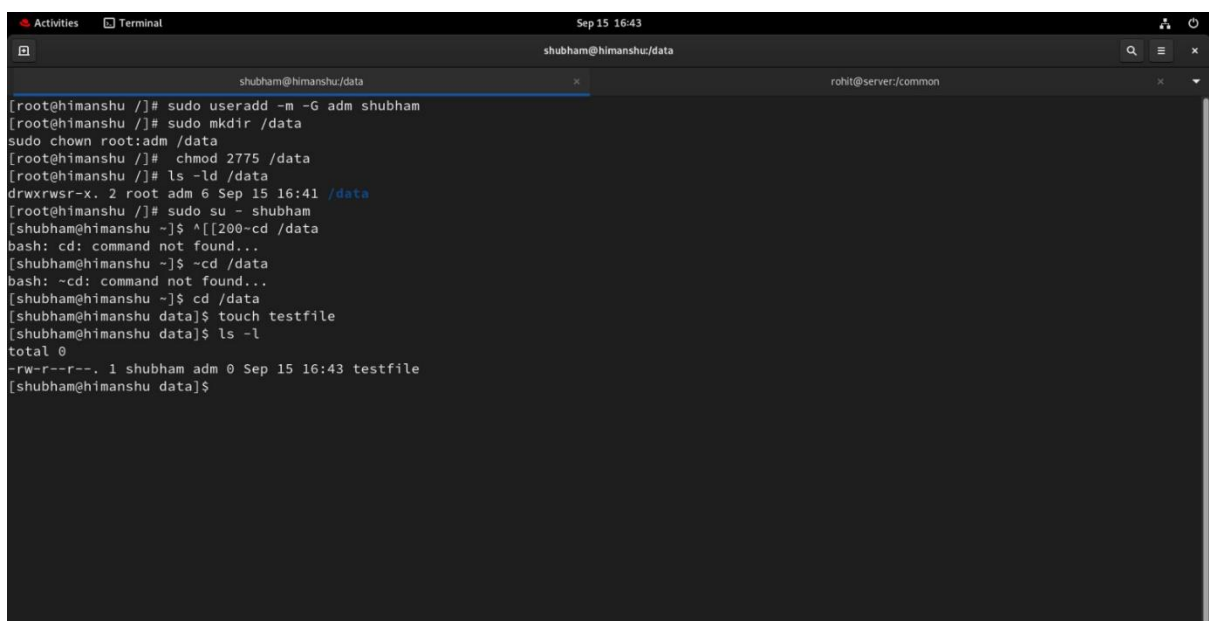


```
[root@himanshu ~]# su rohit
[rohit@himanshu ~]$ ls
afs  boot  dev  himanshu  lib  media  opt  redhatdvd  run  srv  tmp  var
bin  common  etc  home  lib64  mnt  proc  root  sbin  sys  usr
[rohit@himanshu ~]$ cd common/
[rohit@himanshu common]$ ls
[rohit@himanshu common]$ mkdir folder
[rohit@himanshu common]$ ls
folder
[rohit@himanshu common]$
```

A terminal window titled 'Sep 15 16:39' with tabs for 'root@server:/'. The active tab shows the command 'ls -ld /common' being executed. The output is 'drwxrwxrwt. 2 root root 6 Sep 15 16:37 /common', where '/common' is highlighted in green. The prompt is '[root@himanshu ~]#'.

```
[root@himanshu ~]# sudo chmod 1777 /common
[root@himanshu ~]# ls -ld /common
drwxrwxrwt. 2 root root 6 Sep 15 16:37 /common
[root@himanshu ~]#
```

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)

A terminal window titled 'Sep 15 16:43' with tabs for 'shubham@himanshu:/data' and 'rohit@server:/common'. The active tab shows a series of commands to create a user, a directory, and set permissions. The output shows the directory '/data' with permissions 'drwxrwsr-x' and ownership 'root adm'. The user 'shubham' is created and added to the 'adm' group. The user then attempts to change directory to '/data' but fails with 'bash: cd: command not found...'. Finally, a 'testfile' is created in the '/data' directory.

```
[root@himanshu ~]# sudo useradd -m -G adm shubham
[root@himanshu ~]# sudo mkdir /data
sudo chown root:adm /data
[root@himanshu ~]# chmod 2775 /data
[root@himanshu ~]# ls -ld /data
drwxrwsr-x. 2 root adm 6 Sep 15 16:41 /data
[root@himanshu ~]# sudo su - shubham
[shubham@himanshu ~]$ ^[[200~cd /data
bash: cd: command not found...
[shubham@himanshu ~]$ ~cd /data
bash: ~cd: command not found...
[shubham@himanshu ~]$ cd /data
[shubham@himanshu data]$ touch testfile
[shubham@himanshu data]$ ls -l
total 0
-rw-r--r--. 1 shubham adm 0 Sep 15 16:43 testfile
[shubham@himanshu data]$
```