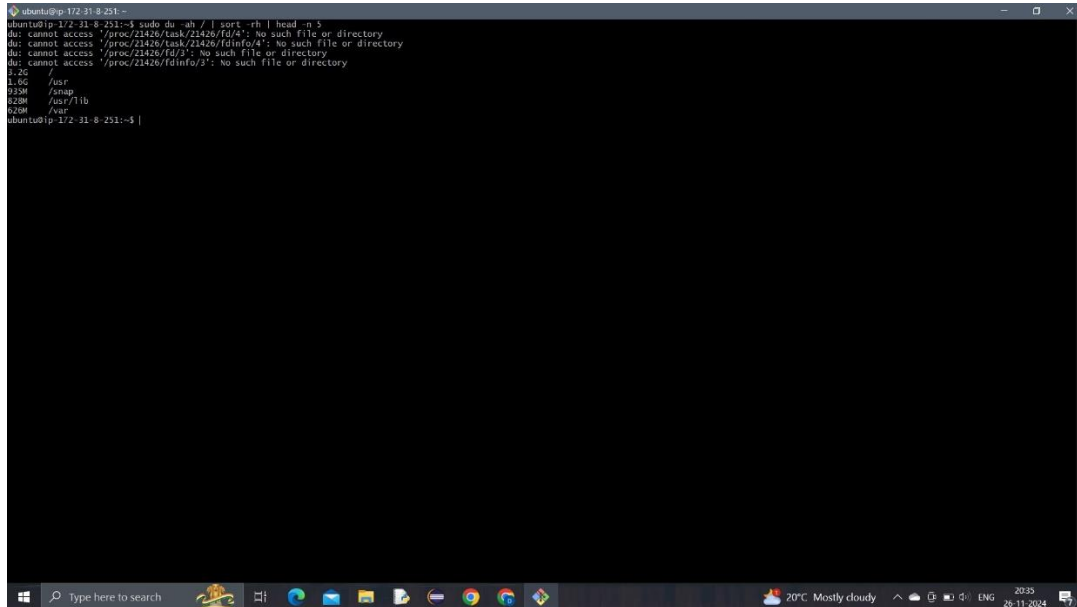


## Assignment 1 – File System Management

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

```
sudo du -ah / | sort -rh | head -n 5
```



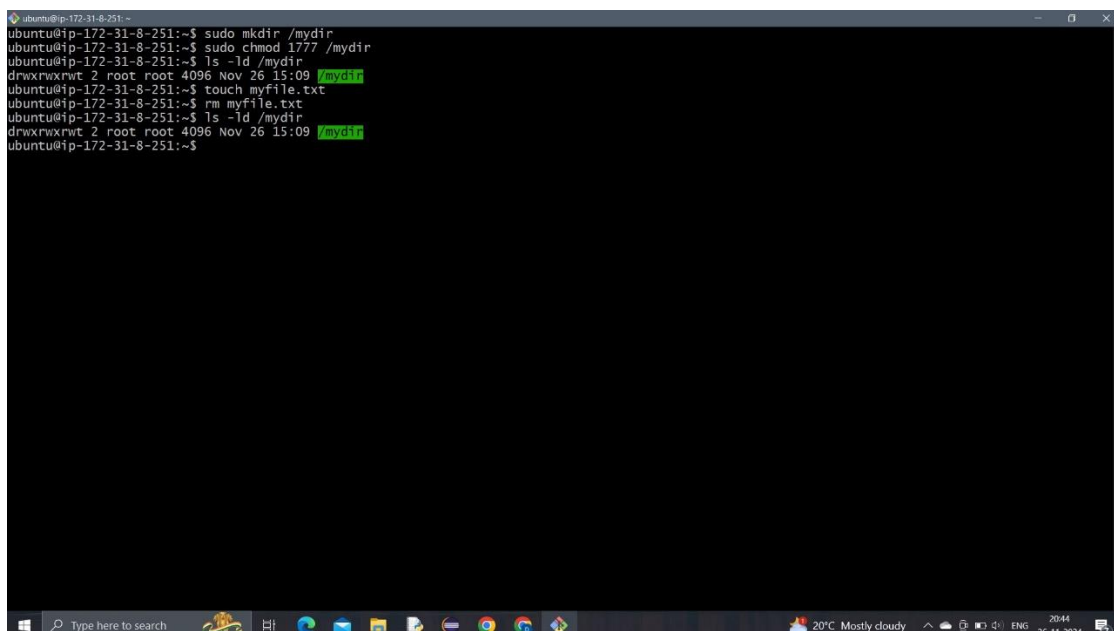
```
ubuntu@ip-172-31-8-251:~$ sudo du -ah / | sort -rh | head -n 5
du: cannot access '/proc/21426/task/21426/fd/4': No such file or directory
du: cannot access '/proc/21426/task/21426/fdinfo/4': No such file or directory
du: cannot access '/proc/21426/fd/3': No such file or directory
du: cannot access '/proc/21426/fdinfo/3': No such file or directory
1.2G   /
3.6G   /usr
932M   /bin
822M   /usr/lib
622M   /var
ubuntu@ip-172-31-8-251:~$
```

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.

```
sudo mkdir /mydir
```

```
sudo chmod 1777 /mydir
```

```
touch myfile.txt
```



```
ubuntu@ip-172-31-8-251:~$ sudo mkdir /mydir
ubuntu@ip-172-31-8-251:~$ sudo chmod 1777 /mydir
ubuntu@ip-172-31-8-251:~$ ls -ld /mydir
drwxrwxrwt 2 root root 4096 Nov 26 15:09 /mydir
ubuntu@ip-172-31-8-251:~$ touch myfile.txt
ubuntu@ip-172-31-8-251:~$ rm myfile.txt
ubuntu@ip-172-31-8-251:~$ ls -ld /mydir
drwxrwxrwt 2 root root 4096 Nov 26 15:09 /mydir
ubuntu@ip-172-31-8-251:~$
```

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)

```
sudo adduser shubham
```

```
sudo usermod -aG adm shubham
```

```
sudo mkdir /file1
```

```
sudo chown 2775 /file1
```

```
su - shubham
```

```
shubham@ip-172-31-8-251:~$ sudo adduser shubham
info: Adding user 'shubham' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group 'shubham' (1006) ...
info: Adding new user 'shubham' (1006) with group 'shubham (1006)' ...
info: Creating home directory '/home/shubham' ...
info: Copying files from '/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for shubham
Enter the new value, or press ENTER for the default
  Full Name []:
  Room Number []:
  Work Phone []:
  Home Phone []:
  Other []:
Is the information correct? [Y/n] y
info: Adding new user 'shubham' to supplemental / extra groups 'users' .
..
info: Adding user 'shubham' to group 'users' ...
shubham@ip-172-31-8-251:~$ sudo usermod -aG adm shubham
shubham@ip-172-31-8-251:~$ groups shubham
shubham : shubham adm users
shubham@ip-172-31-8-251:~$ sudo mkdir /file1
shubham@ip-172-31-8-251:~$ sudo chown root:adm /file1
shubham@ip-172-31-8-251:~$ ls -ld /file1
drwxr-xr-x 2 root adm 4096 Nov 26 15:21 /file1
shubham@ip-172-31-8-251:~$ sudo chmod 2775 /file1
shubham@ip-172-31-8-251:~$ su - shubham
Password:
shubham@ip-172-31-8-251:~$ touch /file1/test
shubham@ip-172-31-8-251:~$ ls -l /file1
total 0
-rw-rw-r-- 1 shubham adm 0 Nov 26 15:24 test
shubham@ip-172-31-8-251:~$
```