

Assignment 1 – File System Management

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

Ans - `du -h | sort -rh | head -n 5`

```
ubuntu@ip-172-31-26-179:~$ du -h | sort -rh | head -n 5
du: cannot read directory './projects/alpha': Permission denied
68K      .
28K      ./projects
8.0K     ./secure
8.0K     ./projects/shared
8.0K     ./projects/alpha
```

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.

Ans- `mkdir temp`

`Chmod 1777 /home/ubuntu/temp`

1: The **sticky bit** (1) ensures that users can only delete their own files in the directory, not those owned by others.

```
ubuntu@ip-172-31-26-179:~$ ls -l
total 16
drwxrwx---+ 5 ubuntu ubuntu 4096 Oct  2 06:20 projects
drwxrwxr-x  3 ubuntu ubuntu 4096 Oct  2 04:39 secure
drwxrwxr-t  2 tom      tom    4096 Oct  2 08:02 temp
```

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

Ans: `sudo useradd shubham`

`Cat /etc/passwd`

`Groupadd adm`

`Sudo usermod -aG adm shubha`

`mkdir data`

`ls -l`

`Sudo chown root:adm ./data`

```
ubuntu@ip-172-31-26-179:~$ sudo chown shubham:adm ./data
ubuntu@ip-172-31-26-179:~$ ls -l
total 20
drwxrwxr-x  2 shubham adm    4096 Oct  2 08:20 data
```