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1) List out 5 files in your system which consuming most of the disk space
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.
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 create in this folder should be same as parent folder i.e /data folder permission (root:adm)

Solution:

1) find / -type f exec du -ah {} +2>dev/null | sort -rh | head n -5

```
ubuntu@ip-172-31-22-172:~$ find / -type f -exec du -ah {} + 2>/dev/null | sort -rh | head -n 5
118M    /usr/lib/llvm-18/lib/libLLVM.so.1
74M     /var/lib/snapd/snaps/core22_1748.snap
74M     /var/lib/snapd/snaps/core22_1722.snap
70M     /var/lib/apt/lists/eu-north-1.ec2.archive.ubuntu.com_ubuntu_dists_noble_universe_binary-amd64_Packages
62M     /usr/lib/llvm-18/lib/libclang-cpp.so.18.1
ubuntu@ip-172-31-22-172:~$
```

2) sudo mkdir common_user_folder && sudo chmod o+rwx common_user_folder && sudo chmod +t common_user_folder

```
ubuntu@ip-172-31-22-172:~$ sudo rmdir common_user_folder
ubuntu@ip-172-31-22-172:~$ sudo mkdir common_user_folder && sudo chmod o+rwx common_user_folder && sudo chmod +t common_user_folder
ubuntu@ip-172-31-22-172:~$ ls -ld common_user_folder
drwxr-xrwt 2 root root 4096 Mar  2 15:40 common_user_folder
ubuntu@ip-172-31-22-172:~$
```

3) Sudo adduser shubham && sudo usermod -aG adm shubham
   a) Sudo mkdir folder/data && sudo chown root:adm folder/data
   b) sudo chmod 2775 folder/data

```
ubuntu@ip-172-31-22-172:~$ sudo useradd shubham
ubuntu@ip-172-31-22-172:~$ sudo groupadd adm
groupadd: group 'adm' already exists
```

```
ubuntu@ip-172-31-22-172:~$ sudo usermod -aG adm shubham
ubuntu@ip-172-31-22-172:~$ id shubham
uid=1010(shubham) gid=2009(shubham) groups=2009(shubham),4(adm)
ubuntu@ip-172-31-22-172:~$
ubuntu@ip-172-31-22-172:~$ sudo chown root:root folder/data
ubuntu@ip-172-31-22-172:~$ sudo chown root:adm folder/data
ubuntu@ip-172-31-22-172:~$ sudo chmod 2775 folder/data
```