1 Command chmod filename/directoryname

```
narendar@ubuntu:~/Desktop$ ll
total 16
drwxr-xr-x   4 narendar narendar 4096 Feb   6 09:37 ./
drwxr-x--- 15 narendar narendar 4096 Feb   6 10:52 ../
drwxrwxr-x   2 narendar narendar 4096 Feb   6 09:38 narendar1/
drwxrwxr-x   2 narendar narendar 4096 Feb   6 09:37 narendar2/
narendar@ubuntu:~/Desktop$ chmod 777 narendar1
narendar@ubuntu:~/Desktop$ ll
total 16
drwxr-xr-x   4 narendar narendar 4096 Feb   6 09:37 ./
drwxr-x--- 15 narendar narendar 4096 Feb   6 10:52 ../
drwxrwxrwx   2 narendar narendar 4096 Feb   6 09:38 narendar1/
drwxrwxr-x   2 narendar narendar 4096 Feb   6 09:37 narendar2/
narendar@ubuntu:~/Desktop$ chmo 127 narendar2
Command 'chmo' not found, did you mean:
  command 'chmod' from deb coreutils (9.4-2ubuntu2)
Try: sudo apt install <deb name>
narendar@ubuntu:~/Desktop$ chmod 127 narendar2
narendar@ubuntu:~/Desktop$ ll
total 16
drwxr-xr-x   4 narendar narendar 4096 Feb   6 09:37 ./
drwxr-x--- 15 narendar narendar 4096 Feb   6 10:52 ../
drwxrwxrwx   2 narendar narendar 4096 Feb   6 09:38 narendar1/
d--x-w-rwx   2 narendar narendar 4096 Feb   6 09:37 narendar2/
```

2 Command to check list of users in particular machine

1 Command chmod filename/directoryname

```
narendar@ubuntu:~/Desktop$ cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
_apt:x:42:65534::/nonexistent:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:998:998:systemd Network Management:/:/usr/sbin/nologin
systemd-timesync:x:996:996:systemd Time Synchronization:/:/usr/sbin/nologin
dhcpcd:x:100:65534:DHCP Client Daemon,,,:/usr/lib/dhcpcd:/bin/false
messagebus:x:101:101::/nonexistent:/usr/sbin/nologin
syslog:x:102:102::/nonexistent:/usr/sbin/nologin
systemd-resolve:x:991:991:systemd Resolver:/:/usr/sbin/nologin
uuidd:x:103:103::/run/uuidd:/usr/sbin/nologin
usbmux:x:104:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
tss:x:105:105:TPM software stack,,,:/var/lib/tpm:/bin/false
systemd-oom:x:990:990:systemd Userspace OOM Killer:/:/usr/sbin/nologin
kernoops:x:106:65534:Kernel Oops Tracking Daemon,,,:/:/usr/sbin/nologin
whoopsie:x:107:109::/nonexistent:/bin/false
dnsmasq:x:999:65534:dnsmasq:/var/lib/misc:/usr/sbin/nologin
```

```
  polkitd:x:987:987:User for polkitd:/:/usr/sbin/nologin
  rtkit:x:117:119:RealtimeKit,,,:/proc:/usr/sbin/nologin
  colord:x:118:120:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
  gnome-initial-setup:x:119:65534::/run/gnome-initial-setup/:/bin/false
  gdm:x:120:121:Gnome Display Manager:/var/lib/gdm3:/bin/false
  nm-openvpn:x:121:122:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
  narendar:x:1000:1000:narendar:/home/narendar:/bin/bash
```

3 Command $ uname to check OS

4 Command $ id to check user

5 Command $ sudo su – to switch user narendar to user root

```
narendar@ubuntu:~/Desktop$ uname
Linux
narendar@ubuntu:~/Desktop$ id
uid=1000(narendar) gid=1000(narendar) groups=1000(narendar),4(adm),24(cdrom),27(sudo),30(dip),46(plugdev),100(users),114
(lpadmin)
narendar@ubuntu:~/Desktop$ su root
Password:
su: Authentication failure
narendar@ubuntu:~/Desktop$ sudo su -
[sudo] password for narendar:
root@ubuntu:~# id
uid=0(root) gid=0(root) groups=0(root)
root@ubuntu:~#
```

6 Command $ apt install name [eg git so $ apt install git]

1 Command chmod filename/directoryname

```
root@ubuntu:~# apt install git
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  git-man liberror-perl
Suggested packages:
  git-daemon-run | git-daemon-sysvinit git-doc git-email git-gui gitk gitweb git-cvs git-mediawiki git-svn
The following NEW packages will be installed:
  git git-man liberror-perl
0 upgraded, 3 newly installed, 0 to remove and 219 not upgraded.
Need to get 4,804 kB of archives.
After this operation, 24.5 MB of additional disk space will be used.
Do you want to continue? [Y/n] n
Abort.
root@ubuntu:~#
```

7 add sudo before any command to get some previleges to install

```
root@ubuntu:~# su narendar
narendar@ubuntu:/root$ apt install git
E: Could not open lock file /var/lib/dpkg/lock-frontend - open (13: Permission denied)
E: Unable to acquire the dpkg frontend lock (/var/lib/dpkg/lock-frontend), are you root?
narendar@ubuntu:/root$ sudo apt install git
[sudo] password for narendar:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  git-man liberror-perl
Suggested packages:
  git-daemon-run | git-daemon-sysvinit git-doc git-email git-gui gitk gitweb git-cvs git-mediawiki git-svn
The following NEW packages will be installed:
  git git-man liberror-perl
0 upgraded, 3 newly installed, 0 to remove and 219 not upgraded.
Need to get 4,804 kB of archives.
After this operation, 24.5 MB of additional disk space will be used.
Do you want to continue? [Y/n] n
Abort.
```

8 Command $ useradd username →to add user on linux machine

```
narendar@ubuntu:/root$ sudo su -
root@ubuntu:~# useradd techie
root@ubuntu:~# cat etc passwd
cat: etc: No such file or directory
cat: passwd: No such file or directory
root@ubuntu:~# cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
```

1 Command chmod filename/directoryname

```
cups-pk-helper:x:112:114:user for cups-pk-helper service,,,:/nonexistent:/usr/sbin/nologin
fwupd-refresh:x:989:989:Firmware update daemon:/var/lib/fwupd:/usr/sbin/nologin
saned:x:113:116::/var/lib/saned:/usr/sbin/nologin
geoclue:x:114:117::/var/lib/geoclue:/usr/sbin/nologin
cups-browsed:x:115:114::/nonexistent:/usr/sbin/nologin
hplip:x:116:7:HPLIP system user,,,:/run/hplip:/bin/false
gnome-remote-desktop:x:988:988:GNOME Remote Desktop:/var/lib/gnome-remote-desktop:/usr/sbin/nologin
polkitd:x:987:987:User for polkitd:/:/usr/sbin/nologin
rtkit:x:117:119:RealtimeKit,,,:/proc:/usr/sbin/nologin
colord:x:118:120:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
gnome-initial-setup:x:119:65534::/run/gnome-initial-setup/:/bin/false
gdm:x:120:121:Gnome Display Manager:/var/lib/gdm3:/bin/false
nm-openvpn:x:121:122:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
narendar:x:1000:1000:narendar:/home/narendar:/bin/bash
techie:x:1001:1001::/home/techie:/bin/sh
```

9 Command passwd username

```
root@ubuntu:~# passwd techie
New password:
BAD PASSWORD: The password fails the dictionary check - it is too simplistic/systematic
Retype new password:
passwd: password updated successfully
root@ubuntu:~# su techie
$ exit
root@ubuntu:~# su techie
$ id
uid=1001(techie) gid=1001(techie) groups=1001(techie)
$
```

10 Redirections 1.Single redirection[$ echo "hello world" > test]

2 Doble redirection[$ echo "hello world" >> test]

```
$ exit
root@ubuntu:~# su narendar
narendar@ubuntu:/root$ echo "hello world" > test
bash: test: Permission denied
narendar@ubuntu:/root$ sudo echo "hello world" > test
bash: test: Permission denied
narendar@ubuntu:/root$ cd
narendar@ubuntu:~$ echo "hello world" > test
narendar@ubuntu:~$ ls
Desktop  Documents  Downloads  file1  file2  Music  Pictures  Public  snap  tech  Templates  test  Videos
narendar@ubuntu:~$ cat test
hello world
narendar@ubuntu:~$ echo "hello techi" > test
narendar@ubuntu:~$ cat test
hello techi
narendar@ubuntu:~$ echo "hello techi" >> test
narendar@ubuntu:~$ cat test
hello techi
hello techi
narendar@ubuntu:~$
```

11 commands $ head -4 filename and $ tail -2 file name

1 Command chmod filename/directoryname

```
narendar@ubuntu:~$ ^C
narendar@ubuntu:~$ vi alphabet
narendar@ubuntu:~$  head -3 alphabet
a
b
c
narendar@ubuntu:~$  tail -2 alphabet
k

narendar@ubuntu:~$ cat alphabet
a
b
c
d
e
f
g
h
i
j
k

narendar@ubuntu:~$ tail -4 alphabet
i
j
k

narendar@ubuntu:~$ 
```

12 Command [$ sudo find / -name *.txt] to search a file not aware of file name

```
narendar@ubuntu:~$ sudo find / -name *.txt
[sudo] password for narendar:
/home/narendar/.cache/tracker3/files/first-index.txt
/home/narendar/.cache/tracker3/files/last-crawl.txt
/etc/brltty/Input/lb/all.txt
/etc/brltty/Input/vd/all.txt
/etc/brltty/Input/eu/all.txt
/etc/brltty/Input/tt/all.txt
/etc/brltty/Input/mb/all.txt
/etc/brltty/Input/bl/40_m20_m40.txt
/etc/brltty/Input/bl/18.txt
/etc/brltty/Input/vs/all.txt
/etc/brltty/Input/tn/all.txt
/etc/brltty/Input/bd/all.txt
/etc/brltty/Input/ba/all.txt
/etc/brltty/Input/lt/all.txt
/etc/brltty/Input/ec/all.txt
/etc/brltty/Input/ec/spanish.txt
/etc/brltty/Input/vr/all.txt
```

13 Command search a keyword in a file $ grep keyword filename

1 Command chmod filename/directoryname

```
narendar@ubuntu:~$ ls
alphabet  Desktop  Documents  Downloads  file1  file2
narendar@ubuntu:~$ grep alphabet j
grep: j: No such file or directory
narendar@ubuntu:~$ cat alphabet
a
b
c
d
e
f
g
h
i
j
k

narendar@ubuntu:~$ grep j alphabet
j
narendar@ubuntu:~$
```

14 Command $ grep -i keyword filename

```
narendar@ubuntu:~$ grep -i J alphabet
j
```