

```
aryan@aryan-VirtualBox: ~/Desktop$ pwd
/home/aryan/Desktop
aryan@aryan-VirtualBox: ~/Desktop$ mkdir new1
aryan@aryan-VirtualBox: ~/Desktop$ mkdir new2
aryan@aryan-VirtualBox: ~/Desktop$ rmdir new1
aryan@aryan-VirtualBox: ~/Desktop$ cd
aryan@aryan-VirtualBox: $ ls
Desktop Documents Downloads Music Pictures Public snap Templates Videos
aryan@aryan-VirtualBox: $ cd Desktop
aryan@aryan-VirtualBox: ~/Desktop$ touch demo.txt
aryan@aryan-VirtualBox: ~/Desktop$ touch demo1.txt demo2.txt
aryan@aryan-VirtualBox: ~/Desktop$ ls
demo1.txt demo2.txt demo.txt new2
aryan@aryan-VirtualBox: ~/Desktop$ cat demo.txt
aryan@aryan-VirtualBox: ~/Desktop$ rm demo.txt
aryan@aryan-VirtualBox: ~/Desktop$ cp demo1.txt demo2.txt
aryan@aryan-VirtualBox: ~/Desktop$ mv demo2.txt new2
aryan@aryan-VirtualBox: ~/Desktop$ head demo2.txt
head: cannot open 'demo2.txt' for reading: No such file or directory
aryan@aryan-VirtualBox: ~/Desktop$ head demo1.txt
aryan@aryan-VirtualBox: ~/Desktop$ tail demo1.txt
aryan@aryan-VirtualBox: ~/Desktop$ tac demo1.txt
aryan@aryan-VirtualBox: ~/Desktop$ more demo1.txt
aryan@aryan-VirtualBox: ~/Desktop$ less demo1.txt

[3]+  Stopped                  less demo1.txt
aryan@aryan-VirtualBox: ~/Desktop$ su aryan
Password:
aryan@aryan-VirtualBox: ~/Desktop$ ld
uid=1000(aryan) gid=1000(aryan) groups=1000(aryan),4(adm),24(cdrom),27(sudo),30(dlp),46(plugdev),122(lpadmin),134(lxd),135(sambashare)
aryan@aryan-VirtualBox: ~/Desktop$ golu useradd aryan
Command 'gol' not found, did you mean:
  command 'gosu' from deb gosu (1.14-1)
  command 'gol' from deb growl-for-linux (0.8.5-0build1)
  command 'gold' from deb binutils (2.38-4ubuntu2.1)
Try: sudo apt install <deb name>
aryan@aryan-VirtualBox: ~/Desktop$ sudo useradd aryan
[sudo] password for aryan:
useradd: user 'aryan' already exists
aryan@aryan-VirtualBox: ~/Desktop$ sudo passwd aryan
New password:
BAD PASSWORD: The password contains the user name in some form
Retype new password:
passwd: password updated successfully
aryan@aryan-VirtualBox: ~/Desktop$
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```
aryan@aryan-VirtualBox:~$ who
aryan      tty2          2023-01-12 13:21 (tty2)
aryan@aryan-VirtualBox:~$ whoami
aryan
aryan@aryan-VirtualBox:~$ date
Thursday 12 January 2023 01:39:38 PM IST
aryan@aryan-VirtualBox:~$ time

real    0m0.000s
user    0m0.000s
sys     0m0.000s
aryan@aryan-VirtualBox:~$ echo

aryan@aryan-VirtualBox:~$ uname
Linux
aryan@aryan-VirtualBox:~$ tar
tar: You must specify one of the '-Acldtrux', '--delete' or '--test-label' options
Try 'tar --help' or 'tar --usage' for more information.
aryan@aryan-VirtualBox:~$
```

aryan@aryan-VirtualBox:~\$ cal
Command 'cal' not found, but can be installed with:
sudo apt install ncal

aryan@aryan-VirtualBox:~\$ printf "Hello sir"

Hello sir
aryan@aryan-VirtualBox:~\$ printf "The octahedral and hexadecimal value of number 255 are %o and %x respectively" 255 255

The octahedral and hexadecimal value of number 255 are 377 and ff respectively
aryan@aryan-VirtualBox:~\$ echo "34+35" | bc

69

aryan@aryan-VirtualBox:~\$ echo "var=68;++var" | bc

69

aryan@aryan-VirtualBox:~\$ echo "10^2" | bc

100

aryan@aryan-VirtualBox:~\$ echo "69>420" | bc

0

aryan@aryan-VirtualBox:~\$ echo "34||35" | bc

1

aryan@aryan-VirtualBox:~\$ echo "34&&0" | bc

0

aryan@aryan-VirtualBox:~\$ echo "obase - 2; 69 " | bc

8

69

aryan@aryan-VirtualBox:~\$ echo "obase-8;9" | bc

2

9

aryan@aryan-VirtualBox:~\$ echo "obase-16;12" |bc -l


-6

12

aryan@aryan-VirtualBox:~\$ echo "ibase - 2; 1111" | bc

8

1111



```
aryan@aryan-VirtualBox:~$ logout
bash: logout: not login shell: use `exit`
aryan@aryan-VirtualBox:~$ groupadd Developer
groupadd: Permission denied.
groupadd: cannot lock /etc/group; try again later.
aryan@aryan-VirtualBox:~$ cat > demo2.txt
80
88
aryan@aryan-VirtualBox:~$ cat > demo2.txt
Aryan-77
Meet-99
aryan@aryan-VirtualBox:~$ cut -d- -f2 demo2.txt
77
99
aryan@aryan-VirtualBox:~$ grep 6
cat demo2.txt | grep 6
cat demo2.txt | grep 6
```

```

aryan@aryan-VirtualBox:~$ tty
/dev/pts/0
aryan@aryan-VirtualBox:~$ echo $HOME
/home/aryan
aryan@aryan-VirtualBox:~$ cat demo2.txt | tac | cat | cat | tac
Aryan-77
Meet-99
aryan@aryan-VirtualBox:~$ comm demo1.txt demo2.txt
Aryan-77
Meet-99
aryan@aryan-VirtualBox:~$ echo class7 | sed 's/class/aryan/'
aryan7
aryan@aryan-VirtualBox:~$ cat demo2.txt | tee new3.txt | cat
Aryan-77
Meet-99
aryan@aryan-VirtualBox:~$ cat demo2.txt | tr 'prcu' 'PRCU'
Aryan-77
Meet-99
aryan@aryan-VirtualBox:~$ sort demo2.txt | uniq
Aryan-77
Meet-99
aryan@aryan-VirtualBox:~$ wc demo2.txt
 2  2 17 demo2.txt
aryan@aryan-VirtualBox:~$ od -b demo2.txt
0000000 101 162 171 141 156 055 067 067 012 115 145 145 164 055 071 071
0000020 012
0000021
aryan@aryan-VirtualBox:~$ sort demo2.txt
Aryan-77
Meet-99
aryan@aryan-VirtualBox:~$ gzip demo2.txt demo1.txt
aryan@aryan-VirtualBox:~$ ls
demo1  demo1.txt.gz  demo2.txt.gz  Desktop  Documents  Downloads  flle1  Music  new3.txt  Pictures  Public  snap  Templates  Videos
aryan@aryan-VirtualBox:~$ find . -name "*.pdf"
aryan@aryan-VirtualBox:~$ locate demo2.txt
command 'locate' not found, but can be installed with:
sudo apt install plocate
aryan@aryan-VirtualBox:~$ cal
command 'cal' not found, but can be installed with:
sudo apt install ncal
aryan@aryan-VirtualBox:~$ sudo cal
[sudo] password for aryan:
aryan@aryan-VirtualBox:~$ time
real    0m0.000s
user    0m0.000s
sys     0m0.000s
aryan@aryan-VirtualBox:~$ df

```

Filesystem	1K-blocks	Used	Available	Use%	Mounted on
tmpfs	401824	1540	400284	1%	/run
dev/sda3	50770432	11933736	36225292	25%	/
tmpfs	2009104	0	2009104	0%	/dev/shm
tmpfs	5120	4	5116	1%	/run/lock
dev/sda2	524252	5364	518888	2%	/boot/efi
tmpfs	401820	2416	399404	1%	/run/user/1000


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aryan@aryan-VirtualBox: ~$ mount
sysfs on /sys type sysfs (rw,nosuid,nodev,noexec,relatime)
proc on /proc type proc (rw,nosuid,nodev,noexec,relatime)
udev on /dev type devtmpfs (rw,nosuid,relatime,size=1973776k,nr_inodes=493444,mode=755,inode64)
devpts on /dev/pts type devpts (rw,nosuid,noexec,relatime,gid=5,mode=620,ptmxmode=000)
tmpfs on /run type tmpfs (rw,nosuid,nodev,noexec,relatime,size=401824k,mode=755,inode64)
/dev/sda3 on / type ext4 (rw,relatime,errors=remount-ro)
securityfs on /sys/kernel/security type securityfs (rw,nosuid,nodev,noexec,relatime)
tmpfs on /dev/shm type tmpfs (rw,nosuid,nodev,inode64)
tmpfs on /run/lock type tmpfs (rw,nosuid,nodev,noexec,relatime,size=5120k,inode64)
cgroup2 on /sys/fs/cgroup type cgroup2 (rw,nosuid,nodev,noexec,relatime,nsdelegate,memory_recursiveprot)
pstore on /sys/fs/pstore type pstore (rw,nosuid,nodev,noexec,relatime)
bpf on /sys/fs/bpf type bpf (rw,nosuid,nodev,noexec,relatime,mode=700)
systemd-1 on /proc/sys/fs/binfmt_misc type autofs (rw,relatime,fd=29,pgrp=1,timeout=0,minproto=5,maxproto=5,direct,pipe_ino=15672)
hugetlbfs on /dev/hugepages type hugetlbfs (rw,relatime,pagesize=2M)
mqueue on /dev/mqueue type mqueue (rw,nosuid,nodev,noexec,relatime)
tracefs on /sys/kernel/tracing type tracefs (rw,nosuid,nodev,noexec,relatime)
debugfs on /sys/kernel/debug type debugfs (rw,nosuid,nodev,noexec,relatime)
fusectl on /sys/fs/fuse/connections type fusectl (rw,nosuid,nodev,noexec,relatime)
configfs on /sys/kernel/config type configfs (rw,nosuid,nodev,noexec,relatime)
none on /run/credentials/systemd-sysusers.service type ramfs (ro,nosuid,nodev,noexec,relatime,mode=700)
/var/lib/napd/snaps/bare_5.snap on /snap/bare/5 type squashfs (ro,nodev,relatime,errors=continue,x-gdu.hide)
/var/lib/napd/snaps/core20_1587.snap on /snap/core20/1587 type squashfs (ro,nodev,relatime,errors=continue,x-gdu.hide)
/var/lib/napd/snaps/core20_1778.snap on /snap/core20/1778 type squashfs (ro,nodev,relatime,errors=continue,x-gdu.hide)
/var/lib/napd/snaps/firefox_1635.snap on /snap/firefox/1635 type squashfs (ro,nodev,relatime,errors=continue,x-gdu.hide)
/var/lib/napd/snaps/gnome-3-38-2004_112.snap on /snap/gnome-3-38-2004/112 type squashfs (ro,nodev,relatime,errors=continue,x-gdu.hide)
/var/lib/napd/snaps/gnome-3-38-2004_119.snap on /snap/gnome-3-38-2004/119 type squashfs (ro,nodev,relatime,errors=continue,x-gdu.hide)
/var/lib/napd/snaps/gtk-common-themes_1535.snap on /snap/gtk-common-themes/1535 type squashfs (ro,nodev,relatime,errors=continue,x-gdu.hide)
/var/lib/napd/snaps/snap-store_582.snap on /snap/snap-store/582 type squashfs (ro,nodev,relatime,errors=continue,x-gdu.hide)
/var/lib/napd/snaps/snapd_17883.snap on /snap/snapd/17883 type squashfs (ro,nodev,relatime,errors=continue,x-gdu.hide)
/var/lib/napd/snaps/snapd_17950.snap on /snap/snapd/17950 type squashfs (ro,nodev,relatime,errors=continue,x-gdu.hide)
/var/lib/napd/snaps/snapd-desktop-integration_14.snap on /snap/snapd-desktop-integration/14 type squashfs (ro,nodev,relatime,errors=continue,x-gdu.hide)
/var/lib/napd/snaps/snap-store_638.snap on /snap/snap-store/638 type squashfs (ro,nodev,relatime,errors=continue,x-gdu.hide)
/var/lib/napd/snaps/snapd-desktop-integration_49.snap on /snap/snapd-desktop-integration/49 type squashfs (ro,nodev,relatime,errors=continue,x-gdu.hide)
/dev/sda2 on /boot/efi type vfat (rw,relatime,fmask=0077,dmask=0077,codepages=437,iocharset=iso8859-1,shortname=mixed,errors=remount-ro)
binfmt_misc on /proc/sys/fs/binfmt_misc type binfmt_misc (rw,nosuid,nodev,noexec,relatime)
tmpfs on /run/napd/ns type tmpfs (rw,nosuid,nodev,noexec,relatime,size=401824k,mode=755,inode64)
nsfs on /run/napd/ns/snapd-desktop-integration.mnt type nsfs (rw)
tmpfs on /run/user/1000 type tmpfs (rw,nosuid,nodev,relatime,size=401820k,nr_inodes=100455,mode=700,uid=1000,gid=1000,inode64)
gvfsd-fuse on /run/user/1000/gvfs type fuse.gvfsd-fuse (rw,nosuid,nodev,relatime,user_id=1000,group_id=1000)
portal on /run/user/1000/doc type fuse.portal (rw,nosuid,nodev,relatime,user_id=1000,group_id=1000)
/dev/sr0 on /media/aryan/VBox_GAs_7.0.4 type iso9660 (ro,nosuid,nodev,relatime,nojoliet,check=s,map=n,blocksize=2048,uid=1000,gid=1000,dmode=500,fmode=400,iocharset=utf8,uhelper=udisks2)
/var/lib/napd/snaps/firefox_2263.snap on /snap/firefox/2263 type squashfs (ro,nodev,relatime,errors=continue,x-gdu.hide)
nsfs on /run/napd/ns/firefox.mnt type nsfs (rw)
/dev/sda3 on /var/snap/firefox/common/host-hunspell type ext4 (ro,noexec,noatime,errors=remount-ro)
aryan@aryan-VirtualBox: ~$ exit

```