

```
[root@localhost ~]# sudo groupmod -n newnewgroup newgroup  
[root@localhost ~]# cut -d: -f1 /etc/group | sort | uniq
```

```
adm  
audio  
bin  
ccache  
cdrom  
chrony  
daemon  
dbus  
dialout  
disk  
dnsmasq  
floppy  
ftp  
games  
geoclue  
input  
kmem  
kojibuilder  
kvm  
libvirt  
lock  
lp  
mail  
man  
mem  
mock  
newnewgroup
```

```
[root@localhost ~]# sudo groupadd newgroup  
[root@localhost ~]# cut -d: -f1 /etc/group | sort | uniq
```

```
adm  
audio  
bin  
ccache  
cdrom  
chrony  
daemon  
dbus  
dialout  
disk  
dnsmasq  
floppy  
ftp  
games  
geoclue  
input  
kmem  
kojibuilder  
kvm  
libvirt  
lock  
lp  
mail  
man  
mem  
mock  
newgroup
```

req_32 173 t_wait dqb_32 %util

```
[root@localhost ~]# iostat -d
Linux 4.15.0-00049-ga3ble7a-dirty (localhost) 04/18/2023 _riscv64_
(1 CPU)
```

Device	tps	kB_read/s	kB_wrtn/s	kB_dscd/s	kB_read	kB_w
rtn	kB_dscd					

```
[root@localhost ~]# iostat -k
Linux 4.15.0-00049-ga3ble7a-dirty (localhost) 04/18/2023 _riscv64_
(1 CPU)
```

avg-cpu:	%user	%nice	%system	%iowait	%steal	%idle
	2.34	0.00	4.11	0.00	0.00	93.55

Device	tps	kB_read/s	kB_wrtn/s	kB_dscd/s	kB_read	kB_w
rtn	kB_dscd					

```
[root@localhost ~]# iostat -c
Linux 4.15.0-00049-ga3ble7a-dirty (localhost) 04/18/2023 _riscv64_
(1 CPU)
```

```
avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           2.98    0.00    5.12    0.00    0.00   91.90
```

```
[root@localhost ~]# iostat -x
Linux 4.15.0-00049-ga3ble7a-dirty (localhost) 04/18/2023 _riscv64_
(1 CPU)
```

```
avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           2.84    0.00    4.94    0.00    0.00   92.22
```

```
Device            r/s    kB/s  rrqm/s  %rrqm r_await rareq-sz    w/s    kB
/s    wrqm/s  %wrqm w_await wareq-sz    d/s    dB/s  drqm/s  %drqm d_await da
req-sz    f/s f_await aqu-sz  %util
```

```
[root@localhost ~]# iostat -x sda
Linux 4.15.0-00049-ga3ble7a-dirty (localhost)    04/18/2023    _riscv64_
(1 CPU)

avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           3.94    0.00    6.70    0.00    0.00   89.36

Device            r/s     kB/s  rrqm/s  %rrqm r_await rareq-sz    w/s     kB/s
/s   wrqm/s  %wrqm w_await wareq-sz    d/s     dKB/s  drqm/s  %drqm d_await da
req-sz    f/s f_await  aqu-sz  %util

[root@localhost ~]# █
```

Welcome to Fedora 33 (riscv64)

[root@localhost ~]# iostat

Linux 4.15.0-00049-ga3ble7a-dirty (localhost) 04/18/2023 _riscv64_
(1 CPU)

avg-cpu:	%user	%nice	%system	%iowait	%steal	%idle
	10.13	0.00	17.13	0.00	0.00	72.74

Device	tps	kB_read/s	kB_wrtn/s	kB_dscd/s	kB_read	kB_w
rttn	kB_dscd					

[root@localhost ~]# █

```
Activities Terminal Apr 18 17:54 shruti@LINUX: ~
100 ./home/shruti/.local/share/evolution/addressbook
4 ./home/shruti/.local/share/evolution/memos/trash
8 ./home/shruti/.local/share/evolution/memos
4 ./home/shruti/.local/share/evolution/mail/trash
8 ./home/shruti/.local/share/evolution/mail
152 ./home/shruti/.local/share/evolution
356 ./home/shruti/.local/share/nautilus/tags
4 ./home/shruti/.local/share/nautilus/scripts
364 ./home/shruti/.local/share/nautilus
4 ./home/shruti/.local/share/gnome-settings-daemon
4 ./home/shruti/.local/share/icc
76 ./home/shruti/.local/share/gvfs-metadata
4 ./home/shruti/.local/share/applications
20 ./home/shruti/.local/share/Trash/files
12 ./home/shruti/.local/share/Trash/info
36 ./home/shruti/.local/share/Trash
776 ./home/shruti/.local/share
780 ./home/shruti/.local
12 ./home/shruti/.gnupg
20 ./home/shruti/home/shruti/shruti
24 ./home/shruti/home/shruti
28 ./home/shruti/home
443536 ./home/shruti
443540 ./home
1325276 .
1325276 total
shruti@LINUX:~$ awk 'END {print NR }' shru.txt
2
shruti@LINUX:~$ cat shru.txt |awk '{print $2}'
is
bye
shruti@LINUX:~$ cat shru.txt |awk '{print NF}'
3
3
shruti@LINUX:~$ cat shru.txt
this is new
bye bye 2022
shruti@LINUX:~$
```


ActivitiesTerminalApr 18 17:52shruti@LINUX: ~

20

4

8

16

8

4

16

4

92

4

100

4

8

4

8

152

356

4

364

4

4

76

4

20

12

36

776

780

12

20

24

28

443536

443540

1325276

1325276

./home/shruti/.local/share/webkitgtk

./home/shruti/.local/share/sounds

./home/shruti/.local/share/evolution/tasks/system

./home/shruti/.local/share/evolution/tasks/trash

./home/shruti/.local/share/evolution/tasks

./home/shruti/.local/share/evolution/calendar/system

./home/shruti/.local/share/evolution/calendar/trash

./home/shruti/.local/share/evolution/calendar

./home/shruti/.local/share/evolution/addressbook/system/photos

./home/shruti/.local/share/evolution/addressbook/system

./home/shruti/.local/share/evolution/addressbook/trash

./home/shruti/.local/share/evolution/addressbook

./home/shruti/.local/share/evolution/memos/trash

./home/shruti/.local/share/evolution/memos

./home/shruti/.local/share/evolution/mail/trash

./home/shruti/.local/share/evolution/mail

./home/shruti/.local/share/evolution

./home/shruti/.local/share/nautilus/tags

./home/shruti/.local/share/nautilus/scripts

./home/shruti/.local/share/nautilus

./home/shruti/.local/share/gnome-settings-daemon

./home/shruti/.local/share/icc

./home/shruti/.local/share/gvfs-metadata

./home/shruti/.local/share/applications

./home/shruti/.local/share/Trash/files

./home/shruti/.local/share/Trash/info

./home/shruti/.local/share/Trash

./home/shruti/.local/share

./home/shruti/.local

./home/shruti/.gnupg

./home/shruti/home/shruti/shruti

./home/shruti/home/shruti

./home/shruti/home

./home/shruti

./home

.

total

shruti@LINUX:~\$ du -h


```
Activities Terminal Apr 18 17:52 shruti@LINUX: ~  
loop6 7:6 0 250015744 1 loop /snap/firefox/2211  
loop7 7:7 0 363151360 1 loop /snap/gnome-3-38-2004/119  
loop8 7:8 0 366673920 1 loop /snap/gnome-3-38-2004/137  
loop9 7:9 0 482750464 1 loop /snap/gnome-42-2204/68  
loop10 7:10 0 96141312 1 loop /snap/gtk-common-themes/1535  
loop11 7:11 0 10113024 1 loop /snap/htop/3654  
loop12 7:12 0 48091136 1 loop /snap/snap-store/582  
loop13 7:13 0 48160768 1 loop /snap/snap-store/638  
loop14 7:14 0 10092544 1 loop /snap/htop/3417  
loop15 7:15 0 52031488 1 loop /snap/snapd/17883  
loop16 7:16 0 52260864 1 loop /snap/snapd/18596  
loop17 7:17 0 311296 1 loop /snap/snapd-desktop-integration/49  
loop18 7:18 0 438272 1 loop /snap/snapd-desktop-integration/57  
loop19 7:19 0 482947072 1 loop /snap/gnome-42-2204/87  
sda 8:0 0 55032971264 0 disk  
├─sda1 8:1 0 1048576 0 part  
├─sda2 8:2 0 537919488 0 part /boot/efi  
└─sda3 8:3 0 54492397568 0 part /var/snap/firefox/common/host-hunspell  
/br/>sr0 11:0 1 1073741312 0 rom  
shruti@LINUX:~$ hostnamectl  
Static hostname: LINUX  
Icon name: computer-vm  
Chassis: vm  
Machine ID: 949d33c00a4d42449591df4115e3a11d  
Boot ID: cb6e6244182c47518a79b59d47556a0b  
Virtualization: oracle  
Operating System: Ubuntu 22.04.1 LTS  
Kernel: Linux 5.15.0-56-generic  
Architecture: x86_64  
Hardware Vendor: innotek GmbH  
Hardware Model: VirtualBox  
shruti@LINUX:~$ dmidecode  
# dmidecode 3.3  
/sys/firmware/dmi/tables/smbios_entry_point: Permission denied  
Scanning /dev/mem for entry point.  
/dev/mem: Permission denied  
shruti@LINUX:~$
```

```
Activities Terminal Apr 18 17:51 shruti@LINUX: ~  
loop17 7:17 0 304K 1 loop /snap/snapd-desktop-integration/49  
loop18 7:18 0 428K 1 loop /snap/snapd-desktop-integration/57  
loop19 7:19 0 460.6M 1 loop /snap/gnome-42-2204/87  
sda 8:0 0 51.3G 0 disk  
├─sda1 8:1 0 1M 0 part  
├─sda2 8:2 0 513M 0 part /boot/efi  
└─sda3 8:3 0 50.8G 0 part /var/snap/firefox/common/host-hunspell  
/br/>sr0 11:0 1 1024M 0 rom  
shruti@LINUX:~$ lsblk -b  
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS  
loop0 7:0 0 4096 1 loop /snap/bare/5  
loop1 7:1 0 76451840 1 loop /snap/core22/469  
loop2 7:2 0 66392064 1 loop /snap/core20/1852  
loop3 7:3 0 66347008 1 loop /snap/core20/1778  
loop4 7:4 0 76537856 1 loop /snap/core22/607  
loop5 7:5 0 171225088 1 loop /snap/firefox/1635  
loop6 7:6 0 250015744 1 loop /snap/firefox/2211  
loop7 7:7 0 363151360 1 loop /snap/gnome-3-38-2004/119  
loop8 7:8 0 366673920 1 loop /snap/gnome-3-38-2004/137  
loop9 7:9 0 482750464 1 loop /snap/gnome-42-2204/68  
loop10 7:10 0 96141312 1 loop /snap/gtk-common-themes/1535  
loop11 7:11 0 10113024 1 loop /snap/htop/3654  
loop12 7:12 0 48091136 1 loop /snap/snap-store/582  
loop13 7:13 0 48160768 1 loop /snap/snap-store/638  
loop14 7:14 0 10092544 1 loop /snap/htop/3417  
loop15 7:15 0 52031488 1 loop /snap/snapd/17883  
loop16 7:16 0 52260864 1 loop /snap/snapd/18596  
loop17 7:17 0 311296 1 loop /snap/snapd-desktop-integration/49  
loop18 7:18 0 438272 1 loop /snap/snapd-desktop-integration/57  
loop19 7:19 0 482947072 1 loop /snap/gnome-42-2204/87  
sda 8:0 0 55032971264 0 disk  
├─sda1 8:1 0 1048576 0 part  
├─sda2 8:2 0 537919488 0 part /boot/efi  
└─sda3 8:3 0 54492397568 0 part /var/snap/firefox/common/host-hunspell  
/  
sr0 11:0 1 1073741312 0 rom  
shruti@LINUX:~$
```

```
Activities Terminal Apr 18 17:51 shruti@LINUX: ~  
2.txt Desktop 'hello M-A' minnumber.sh nytar.tar pattern.sh shruti Templates while.sh  
3.txt Documents hello.tar multiply.sh ny.txt Pictures shruti.sh test.txt  
amar Downloads hello.txt Music new Public shru.txt try.sh  
AOCircle.sh final.txt hi.txt myfile.txt newnew.txt revpattern.sh snap until.sh  
case.sh forloop.sh home 'myfile.txt M-A' new.sh sedcommand.txt steps.sh verynew.txt  
shruti@LINUX:~$ cat > newfile.txt  
Hello how are u  
^C  
shruti@LINUX:~$  
shruti@LINUX:~$ lsblk -a  
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS  
loop0 7:0 0 4K 1 loop /snap/bare/5  
loop1 7:1 0 72.9M 1 loop /snap/core22/469  
loop2 7:2 0 63.3M 1 loop /snap/core20/1852  
loop3 7:3 0 63.3M 1 loop /snap/core20/1778  
loop4 7:4 0 73M 1 loop /snap/core22/607  
loop5 7:5 0 163.3M 1 loop /snap/firefox/1635  
loop6 7:6 0 238.4M 1 loop /snap/firefox/2211  
loop7 7:7 0 346.3M 1 loop /snap/gnome-3-38-2004/119  
loop8 7:8 0 349.7M 1 loop /snap/gnome-3-38-2004/137  
loop9 7:9 0 460.4M 1 loop /snap/gnome-42-2204/68  
loop10 7:10 0 91.7M 1 loop /snap/gtk-common-themes/1535  
loop11 7:11 0 9.6M 1 loop /snap/htop/3654  
loop12 7:12 0 45.9M 1 loop /snap/snap-store/582  
loop13 7:13 0 45.9M 1 loop /snap/snap-store/638  
loop14 7:14 0 9.6M 1 loop /snap/htop/3417  
loop15 7:15 0 49.6M 1 loop /snap/snapd/17883  
loop16 7:16 0 49.8M 1 loop /snap/snapd/18596  
loop17 7:17 0 304K 1 loop /snap/snapd-desktop-integration/49  
loop18 7:18 0 428K 1 loop /snap/snapd-desktop-integration/57  
loop19 7:19 0 460.6M 1 loop /snap/gnome-42-2204/87  
sda 8:0 0 51.3G 0 disk  
├─sda1 8:1 0 1M 0 part  
├─sda2 8:2 0 513M 0 part /boot/efi  
└─sda3 8:3 0 50.8G 0 part /var/snap/firefox/common/host-hunspell  
/br/>sr0 11:0 1 1024M 0 rom  
shruti@LINUX:~$
```

```
shruti@LINUX:~$ tar cvf hello.tar /home /shruti/shruti
tar: Removing leading '/' from member names
/home/
/home/shruti/
/home/shruti/verynew.txt
tar: Removing leading '/' from hard link targets
/home/shruti/amar/
/home/shruti/multiply.sh
/home/shruti/newnew.txt
/home/shruti/new.sh
/home/shruti/.mozilla/
/home/shruti/.mozilla/extensions/
/home/shruti/shruti.sh
/home/shruti/compare.sh
/home/shruti/revpattern.sh
/home/shruti/sub.sh
/home/shruti/shruti/
/home/shruti/shruti/posneg.sh
/home/shruti/shruti/fact.sh
/home/shruti/shruti/fib.sh
/home/shruti/shruti/reverse.sh
/home/shruti/.profile
/home/shruti/while.sh
/home/shruti/.ssh/
/home/shruti/snap/
/home/shruti/snap/firefox/
/home/shruti/snap/firefox/current
/home/shruti/snap/firefox/1635/
/home/shruti/snap/firefox/1635/.config/
/home/shruti/snap/firefox/1635/.config/user-dirs.locale.md5sum
/home/shruti/snap/firefox/1635/.config/user-dirs.dirs
/home/shruti/snap/firefox/1635/.config/fontconfig/
/home/shruti/snap/firefox/1635/.config/fontconfig/fonts.conf
/home/shruti/snap/firefox/1635/.config/gtk-3.0/
/home/shruti/snap/firefox/1635/.config/gtk-3.0/bookmarks
/home/shruti/snap/firefox/1635/.config/gtk-3.0/settings.ini
/home/shruti/snap/firefox/1635/.config/gtk-2.0/
/home/shruti/snap/firefox/1635/.config/gtk-2.0/gtkfilechooser.ini
```