

Echo

- echo command is used to move some data into a file.

```
ashish@ashish-VirtualBox:~$ echo hello how are you? >>sam.txt
ashish@ashish-VirtualBox:~$ cat sam.txt
hello how are you?
```

Head

- The head command is used to view the first lines of any text file.

```
ashish@ashish-VirtualBox:~/Documents$ head /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
```

Tail

- This one has a similar function to the head command, but instead of showing the first lines, the tail command will display the last ten lines of a text file.

```
ashish@ashish-VirtualBox:~/Documents$ tail /etc/passwd
nm-openvpn:x:118:124:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
hplip:x:119:7:HPLIP system user,,,:/run/hplip:/bin/false
whoopsie:x:120:125:/:nonexistent:/bin/false
colord:x:121:126:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:122:127:/:/var/lib/geoclue:/usr/sbin/nologin
pulse:x:123:128:PulseAudio daemon,,,:/var/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:124:65534:/:run/gnome-initial-setup:/bin/false
gdm:x:125:130:Gnome Display Manager:/var/lib/gdm3:/bin/false
ashish:x:1000:1000:ashish,,,:/home/ashish:/bin/bash
systemd-coredump:x:999:999:systemd Core Dumper:/:/usr/sbin/nologin
```

Read

- read the contents of a line into a variable.
- The read command can be used with and without arguments

```
ashish@ashish-VirtualBox:~$ read v1 v2 v3
hi ashish wilson
ashish@ashish-VirtualBox:~$ echo "$v1" [$v2] [$v3]"
[hi] [ashish] [wilson]
```

More

- Like cat command, more command displays the content of a file. Only difference is that, in case of larger files, 'cat' command output will scroll off your screen while 'more' command displays output one screenful at a time

```
ashish@ashish-VirtualBox:~$ more sam.txt
hello how are you?
```

Less

- The 'less' command is same as 'more' command but include some more features.

```
ashish@ashish-VirtualBox:~$ less /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:/var/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
```

Cut

- The cut command is used for cutting out the sections from each line of files and writing the result to standard output.

```
ashish@ashish-VirtualBox:~$ cut -b 1,2 sam.txt
he
```

Paste

- used to join files horizontally by outputting lines consisting of lines from each file specified, separated by tab as delimiter, to the standard output.

```
ashish@ashish-VirtualBox:~$ paste sam.txt h.txt
hello how are you?
```

Uname

The uname command, short for Unix Name, will print detailed information about your Linux system like the machine name, operating system, kernel, and so on

```
ashish@ashish-VirtualBox:~$ uname
Linux
ashish@ashish-VirtualBox:~$ uname -r
5.8.0-53-generic
```

Cp

- cp command is used to copy files from the current directory to a different directory
- cp -i will ask for user's consent in case of a potential file overwrite.
- cp -p will preserve source files' mode, ownership and timestamp.
- cp -r will copy directories recursively.
- cp -u copies files only if the destination file is not existing or the source file is newer than the destination file.

```
ashish@ashish-VirtualBox:~/Documents$ cp q1.txt q2.txt
ashish@ashish-VirtualBox:~/Documents$ cat q2.txt
ashish
ashish@ashish-VirtualBox:~/Documents$ cat q1.txt
ashish
ashish@ashish-VirtualBox:~/Documents$ cp -i q1.txt q2.txt
cp: overwrite 'q2.txt'? y
ashish@ashish-VirtualBox:~/Documents$ cp -r q1.txt q2.txt
ashish@ashish-VirtualBox:~/Documents$ cp -p q1.txt q2.txt
ashish@ashish-VirtualBox:~/Documents$ cp -u q1.txt q2.txt
ashish@ashish-VirtualBox:~/Documents$
```

Mv

- The primary use of the mv command is to move files, it can also be used to rename files.

```
ashish@ashish-VirtualBox:~/Documents$ mv q1.txt /home/ashish/Desktop/  
ashish@ashish-VirtualBox:~$ ls Desktop/  
q1.txt
```

Locate

- To locate a file, just like the search command in Windows
- locate -i filename (make it case insensitive you can search file if you don't remember its exact name)

```
ashish@ashish-VirtualBox:~$ locate q1.txt  
/home/ashish/Desktop/q1.txt  
ashish@ashish-VirtualBox:~$ locate -i where  
/snap/core18/1988/usr/bin/whereis  
/snap/core18/1988/usr/share/bash-completion/completions/whereis  
/snap/core18/2066/usr/bin/whereis  
/snap/core18/2066/usr/share/bash-completion/completions/whereis  
/usr/bin/whereis  
/usr/lib/modules/5.8.0-43-generic/kernel/drivers/media/rc/keymaps/rc-msi-tvanyw  
here-plus.ko  
/usr/lib/modules/5.8.0-43-generic/kernel/drivers/media/rc/keymaps/rc-msi-tvanyw  
here.ko  
/usr/lib/modules/5.8.0-53-generic/kernel/drivers/media/rc/keymaps/rc-msi-tvanyw  
here-plus.ko  
/usr/lib/modules/5.8.0-53-generic/kernel/drivers/media/rc/keymaps/rc-msi-tvanyw  
here.ko  
/usr/share/bash-completion/completions/whereis  
/usr/share/cups/ippool/ipp-everywhere.test  
/usr/share/help/C/gnome-help/backup-where.page  
/usr/share/help/C/orca/commands_where_am_i.page  
/usr/share/help/C/orca/howto_whereami.page
```

Find

- Similar to the locate command, using find also searches for files and directories.

```
ashish@ashish-VirtualBox:~/Documents$ find q2.txt  
q2.txt
```

Grep

- It lets you search through all the text in a given file

```
ashish@ashish-VirtualBox:~/Documents$ grep blue q1.txt
blue black
```

Df

- Use df command to get a report on the system's disk space usage, shown in percentage and KBs.

```
ashish@ashish-VirtualBox:~/Documents$ df -h
Filesystem      1M-blocks    Used Available Use% Mounted on
udev              462         0         462   0% /dev
tmpfs             99          2          97   2% /run
/dev/sda5        9509       7242        1765  81% /
tmpfs            491         0         491   0% /dev/shm
tmpfs             5          1          5   1% /run/lock
tmpfs            491         0         491   0% /sys/fs/cgroup
Ubuntu Software  56          56           0 100% /snap/core18/2066
/dev/loop1       56          56           0 100% /snap/core18/1988
/dev/loop0       219         219           0 100% /snap/gnome-3-34-1804/72
/dev/loop3       219         219           0 100% /snap/gnome-3-34-1804/66
/dev/loop4        65          65           0 100% /snap/gtk-common-themes/1514
/dev/loop5        66          66           0 100% /snap/gtk-common-themes/1515
/dev/loop6        51          51           0 100% /snap/snap-store/542
/dev/loop7        51          51           0 100% /snap/snap-store/547
/dev/loop8        33          33           0 100% /snap/snapd/12057
/dev/loop9        33          33           0 100% /snap/snapd/12159
/dev/sda1        511         1         511   1% /boot/efi
tmpfs            99          1          99   1% /run/user/1000
```

Du

- check how much space a file or a directory takes

```
ashish@ashish-VirtualBox:~/Documents$ du -h
20K    ./cn_lab
32K    .
```

Useradd

- available only for system admins.
- To create new user

```
ashish@ashish-VirtualBox:~$ sudo useradd sam
[sudo] password for ashish:
```

Userdel

- Remove a user is very similar to adding a new user.

```
ashish@ashish-VirtualBox:~$ sudo userdel sam
```

Sudo

- Short for “SuperUser Do”, this command enables you to perform tasks that require administrative or root permissions.

```
ashish@ashish-VirtualBox:~$ sudo useradd maria
```

Passwd

- Changes passwords for user accounts.

```
ashish@ashish-VirtualBox:~$ sudo passwd ashish
New password:
Retype new password:
passwd: password updated successfully
```