To check Desktop environment; major distributions gnome and kde

```
ls /usr/bin/*session
```

Releaese

```
lsb_release - print distribution-specific information
```

Linux standard base

```
lsb_release -a
```

for more information

```
lsb_release --help
```

Print system specific information

```
uname
```

Kernel name

```
uname -s
```

Node name

```
uname -n
uname -a #all the details
```

More information

```
man uname
```

To print hostname

```
hostname
```

To print effective username/Logged in user

```
whoami
```

Displaying information about USB buses in the system and the devices connected to them.

```
lsusb
```

Displaying information about PCI buses in the system and devices connected to them

```
lspci
```

Cursor Movement

```
up-arrow # to see previous command
tab - to print remaning words in a command
```

Some more commands

displaying calendar

```
cal
```

to display the amount of free memory

```
free
```

to close a terminal session

```
exit
```

---

list specific file

```
ls -l <nameoffile>
```

Field explanation

Field 1 – file permission

- – normal file
- d : directory
- s : socket file
- l : link file

```
-rw-r--r--  1 rohit rohit        60 Aug 28 21:09 ntp-server.txt
user,group,any/others
```

Field 2 – Number of links: (like 1,2,3 depends)
Field 3 – Owner
Field 4 – Group
Field 5 – Size (bytes)
Field 6 – Last modified date and time
Field 7 – File name

```
ls -a #list all the hidden files and directories
```

---

to write some content inside a file

```
echo
echo <somemsg> > <nameoffile> #if file NA on the file is created, overright
of data is already available
echo <somemsg> >> <name of the file> #append contents in a file
```

change permission of the file

```
chmmod #change file mode bits
```

numeric -
0 - nothing
4 -only read
2 - only write
1 - only execute

4+1 = 5 read and execute
4+2 = 6 read and write both
4+2+1 = 7 read,write and execute

```
chmod 700 a.txt #readwriteexeute to user only
```

Letters

```
r -read
w - write
x -execute
```

```
u -user
g -group
o -other
```

Assign user 'read write and execute' permissions (+ to add)

```
chmod u+rwx a.txt
```

Remove user's 'read write and execute' permissions (- to remove)

```
chmod u-rwx a.txt
```

---

copy a file

```
cp <sourcepath> <destinationpath>
```

move file

```
mv <sourcepath> <destinationpath>
```

Mapping of host and IP address:

```
BHIoT$ cat /etc/hosts
127.0.0.1   localhost
127.0.1.1   iot
127.0.1.2   rohit.iot
```

The following lines are desirable for IPv6 capable hosts

```
::1     ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```
