

①

## Linux

uname

uname options print kernel name  
(-r, -v, -m, -o, -a)  
release machine  
version > OS all

man

manual for any command  
e.g. man uname

hostname

print host name

whoami

Which user currently I am,  
as each machine can  
have many users.

sudo command

Run command as a  
root user.

sudo -i

login as root user.

tty

print filename from which  
terminal is connected for input.

users

currently logged in users

adduser username

add new user.

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clear clear screen

id option user and group ids of user  
(-u, -g, -G)

userid primary group id secondary group ids

groups show user groups.

su username switch the user.

exit exit current user.

this command adds group sudo to a user.

sudo usermod -a -G username  
modify the user  
sudo (or any other group)  
append  
secondary group indication

sudo addgroup groupname  
create a group

change primary group of a user. usermod -g groupname username  
primary group indication

delgroup groupname Delete group

deluser Delete user

less use ->

frequent use -

-e denote special use in eg  
For

ctrl+d  
to exit

E.g.  
 $\sqrt{3}$  =  
scale =  
 $\sqrt{3}$  =

3

**less frequent use** → useradd, userdel, groupadd, groupdel  
**frequent use** → adduser, deluser, addgroup, delgroup

`sudo passwd username` change the password

date

Get and set date

ca1

For calender

echo

Output in terminal

-e denote  
special character  
we in echo, like `\t`  
for tab.

e.g. echo - "Mudassir"  
e.g. echo - e "Danish/Farooq"

pwd

Print working directory

cd

Catch directory

touch

## Create file

Diagram illustrating directory navigation:

- Home directory** (at the bottom)
- Current directory** (at the bottom left)
- Parent directory** (above the current directory, indicated by an upward arrow)
- Entries in Parent directory:**
  - .
  - ..
  - ~
- Actions:**
  - (e.g. cd ., cd .., cd -)
  - one step back directory

ctrl+d  
to exit

b c

## Basic calculator

$$\begin{aligned}E.g \\ \sqrt{3} &= 0 \\ \text{scale} &= 2 \\ \sqrt{3} &= 0.33\end{aligned}$$

$$Scale = 2$$

How many digits require after point(.)

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go to the  
folder, press  
ctrl+h to  
see hidden files

touch .filename.txt  
↑  
hidden file

head filename.txt Show top 10 lines  
head -15 filename.txt

-f → follow  
use for  
live monitoring  
tail filename.txt Last 10 lines  
tail -F filename.ext

more , less (use for read file)  
↓ ↓  
can't scroll up can do up and down

Word count  
Wc filename (show line, words  
character's)

cut -f 2 -d ':' filename  
↓ field  
print selected part of file  
use delimiter instead of default TAB.

File Determine file type

-a fo  
includi  
hidden

Who Who is logged in

Sort

-u option e.g.

for unique sort -o file1 file2 file3  
fields only.

↓  
output the result  
in file 1

Sort the file

e.g. sort filename

-o  
For  
rem

<p>4)</p> <p>ctrl+d end of line command</p> <p>ctrl+c cancel</p> <p>show top 10 lines</p> <p>= 10 s</p>	<p>cat</p> <p>Concatenate file and print on standard output</p> <p>Some e.g.</p> <p>cat &gt; file.txt ↳ redirecting the output</p> <p>cat file.txt cat &lt; file.txt ↳ redirecting file info to standard input</p> <p>&gt; denote standard output (terminal) &lt; denote standard input (mouse, keyboard)</p> <p>cat &gt;&gt; file.txt ↳ appending with previous data.</p> <p>cat file1.txt file2.txt</p> <p>pipe ( )</p> <p>-a for all including hidden files</p> <p>ls -lh ↳ human readable ↳ long listing</p> <p>mkdir -p Pfolder/child folder ↳ create parent folder if not already there</p> <p>rmdir Remove directory</p> <p>-r option for recursive remove</p> <p>rm Remove file or directory</p>
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or directories

ln Make link b/w files (Just like shortcut in Window)

e.g. ln -s ~/tmp/ ~/my-temp-dir

soft link (We can't create hard link for directories in Linux.)

Eg. of hard link for file

ln test.txt ~/myFolder/file.txt

cp Copy file and folders

cp source destination

mv Move files/folders

It can also be used to rename the file.

E.g. mv files/ my files

Rename files to my files

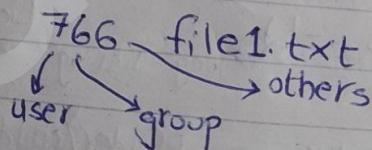
# r (read) chmod

2 w (write) Eg

1 x (execute) chmod

Change file modes

777  
022  
755  
644



Sticky bit (if we add 1 before 766 above, then no other users of same group can remove the file)

chmod 1766 file.txt

Change  
uname  
gname

setuid(4)  
setgid(2)  
sticky(1)

directories  
files (Just  
Window

\_dir

not create  
is in Linux.

le.txt

nd folders

folders

o

es  
y files

modes

777  
022  
755 for folder  
644 for files

umask 022

mkdir f1

mkdir f1.txt

(by default, file has  
no execute  
permissions)

chown username filename  
Use to change the user of file

chgrp groupname file  
Use to change the group of file.

chown username:groupname filename

change  
uname and  
gname  
at once.

setuid(4)  
setgid(2)  
sticky(1)

Setgid

Eg:

chmod 2777

All files in this folder now  
have a same group, from where  
the chmod command was executed.

Setuid

E.g:

chmod 4777 filename

Use to give the  
main user's access  
to other users.

Which  
E.g which ls OR which passwd

Umask

Use to set default  
file permissions

777  
022  
755 for folder  
644 for files

mkdir f1

mkdir f1.txt

(by default, file has  
no execute  
permissions)

chown username filename  
Use to change the user of file

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Use to change the group of file.

chown username:groupname filename

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mount              Read or access CDs,  
E.g              hard disk's data  
mount Ubuntuimg.iso myFolder/

mountpoint myFolder Is this folder  
a mounted one  
or not.

Unmount              Unmount filesystem

du -h --all              Show disk usage of  
                        ↓ current files and folders  
                        human readable

df -h              Shows amount of  
Disk space and available  
space of each filesystem.

lsblk              List block devices

fdisk -l              Use to manipulate  
                        ↓ List disk partition tables.

gzip file.txt              Compress file

gunzip file.txt.gz              Decompress file

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bzip2

More compressible

bunzip2

then gzip  
Uncompress

zip -r Newfolder.zip oldfolder

recursively newfile created  
zip (old folder's name)

Zip is used to compress  
the folders

unzip Newfolder.zip, Unzip the  
folder

tar zcvf file.tar.gz filename  
zip create an archive  
filename  
verbose  
(for compress)

tar zxvf file.tar.gz  
extract  
(for decompress)