LINUX COMMANDS

USE THE MAN COMMAND TO KNOW THE FULL DETAIL OF THE COMMAND

example : MAN WC

==man == command to see the manual pages of the commands and arguments or options

```
man wc
man ls
man whois
```

==info == command a special format generated usually from a **Tex info** source same as man command

```
info wc
info ls
info df
```

wc command word count

```
wc -c text

arrangements
-c = byte count
-w = word count
-l = line count

for more to type command in terminal  man wc
```

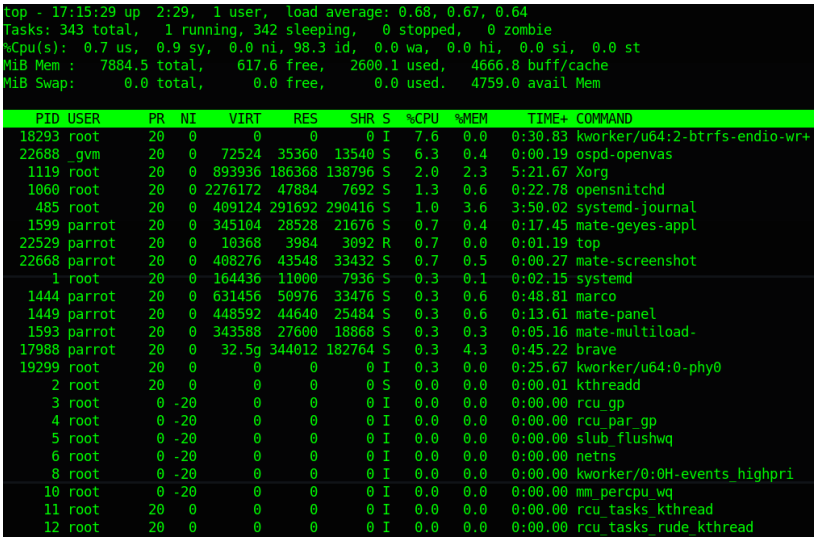
df command disk free (to what are mounted and what was the size of the disks)

```
df
df -h /

arguments
-h = human readable

for more to type command in terminal  man df
```

top command show the Linux processes



- **PID:** Shows task's unique process id.
- **PR:** The process's priority. The lower the number, the higher the priority.
- **VIRT:** Total virtual memory used by the task.
- **USER:** User name of owner of task.
- **%CPU:** Represents the CPU usage.
- **TIME+:** CPU Time, the same as 'TIME', but reflecting more granularity through hundredths of a second.
- **SHR:** Represents the Shared Memory size (kb) used by a task.
- **NI:** Represents a Nice Value of task. A Negative nice value implies higher priority, and positive Nice value means lower priority.
- **%MEM:** Shows the Memory usage of task.
- **RES:** How much physical RAM the process is using, measured in kilobytes.
- **COMMAND:** The name of the command that started the process.

```
top
top -n 10
top -u username

arguments
-n 10  = will automatically exit after 10 number of repetition
-u username = enter username it will show what are running

for more  man top
```

last command it was shows all last login

```
last -a username
```

wget command download files from internet without using the browsers

```
wget https://github.com/unknow9090/simple_linear-regression.git
```

echo command just print text what was you wrote

```
echo 'hello world'
```

cd command changing directory this command help to move any folder using terminal

```
cd ~/
cd /home
cd /usr/etc/ifconfig
```

pwd command is shows the present working directory

```
pwd
```

--help , --version are more useful to see in sort list of commands and version

```
wc --help
nmap --version
ls --help
machanger --version
```

cat command to see sort files with out opening

```
cat /proc/cpuinfo

cat /proc/version

cat /proc/ioports

for more use  man cat
```

uptime command tell how long the system are sever has been running

```
uptime

uptime -p
```

ls list directory command most of the time we use ls command to see what are the files are present

```
ls -l

arguments
-l = it was show the what was file name who was access the last file
-ld = it was permission of the director name
-S = sort by file size
-r = reverse order
```

```
-s = print the allocated size of each file, in blocks
-d = list directories
-a = show the all files include hidden files

read (r) write (w) execute (x)
```

ip networking command to show ip address and more

```
ip addr

# show the eternet connection
ip addr show enp4s0

ip addr show eth0

#show the wifi connection
ip addr show wlp5s0

ip monitor ,ip route ip link,ip maddr

for more man ip or ip
```

ifconfig networking command configure a network interface

```
# same as ip addr show command
ifconfig

for more man ifconfig
```

iwconfig networking command to see the wifi config data

```
iwconfig

for more  man iwconfig
```

alias command is use to rename the present command like you have a large command you easily change in sort using alias

```
#command commandname='large command2'

alias  short='cd /usr/etc ; cp data1 data2 data3 /usr/home/kali/desktop'

if want to see more about alias just type alias in terminal
```

who command show who is logged on

```
who

arguments

-b = time of last system boot
-l = print system login processes
-p = rint active processes spawned by init
-q = all login names and number of users logged on
-m = only hostname and user

for more man who
```

type command show which type of the command is

```
type who
type man
type ls
type nmap
```

screen command basically you work with non gui this command is more use full it will split the screen into ten terminal like screen in screen

- ctrl+a\ this will kill the shell are close the shell
- crtla+c it will open the new shell on screen cmd
- ctrl+a+ctrla shifted to other shells when you mostely used
- ctrl+a+ctrln shifted to next window
- ctrl+a+ctrlw list all shells show end of the page how many shells is in screen
- ctrl+d it will close the shell or window
- ctrl+a+N here N means number of the number you enterd the number it will open the window

shell job control

- jobs command is show what was running jobs in + means running - means stopped
- fg [%jobnumber] and bg [%jobnmber] it works apply the cmd it will give foreground and background
- fg command and bg command

cp copy command used to copy the files for one to dir to other dir

```
cp filename1 filename2
cp filename1 filename2 filename3 director

arguments
-a =
-r = copy directories recursively
```

```
-p =
-i = prompt before overwrite
-f = force
-v =  explain what is being done
-l = hard link files instead of copying

for more man cp
```

mv move command it is also used to rename the files are folders

```
mv -v filename destitution

mv sample.txt  /usr/home/Downloads

arguments
-i = interactive mode ask before overwrite
-f = if destination file exit ask before overwrite
-v = view the how was going

for more man page man mv
```

rm remove command used to remove the files

```
rm -irf sample.txt

arguments
-i = interactive mode ask before delete each other
-f = force deletion ignoring errors
-r = remove dir if it was empty are not empty
```

basename command is use to print end path of file or text

```
basename /pwd/firefox it will print firefox

basename  /usr/home/Downloads/text.sh

output: text.sh
```

dirname command is used to print user path like it remove the last what it was output

```
basename /home/kali/Desktop/dir/Date

output : /home/kali/Desktop/dir
```

mkdir command is used to create a directory

```
mkdir -m 0775 dirname1 dirname2

#this options create a folder in folder
mkdir -p /user/user2/usr3/usr4/empty


-m = create a direction with permission
-p = this attribute is use to create folder on folders
```

history command to see all last typed commands

```
history

history | tail 10

history | head 20

#it will run in history what was there present in 556
!556
```

whild card in linux are * [] ? [] {} $

input/output directors in this director we store the output in files >, >> , < . this > command is used to save output file if you what same file output use >> symbol and < is use to interact with that first command

pipes | multi pipes also used in single commands line cmd 1 | cmd 2 | cmd3 getting output on one command line

you write two big commands in one single line sequence cmd is use to run these ; && || in single line cmd1;cmd2;cmd3 these semicolons tell that inovke all cmd in single line are run cmd all programs

less ,head,tail,nl,more most of time we use this commands pipe line

less command to show the file in new shell

```
less sort.txt

output : it will show new window

history | less

output :
```

head and tail commands is to see file first few are last few lines

```
# it will print first 20 commands
history | head 20

#it will print last 20 commands
history | tail 20
```

nl command is used to add the numbers to file are any thing

```
ls -l | nl
```

strings command is used to convert the data into human readable

```
strings /usr/bin/who

strings -n 10 /usr/bin/who | grep '@' this grep is used to search that file
and print the email id
attributes -n display only string with length greater than length
```

grep command is used to searching

```
history | grep -i man



-i =it search uppercase and lowercase
-n = it will print line number of the file
-v = print linesdon't match the text
-AN = here N=number print After ten line matched the text
```

od command means octal dump this command is use to see the file in decimals like ascII,octal,decimal,hexa decimla ,byte int, long,

```
od -w8 /usr/bin/who

#output text file
od -tc -w8 /usr/bin/who
```

stat command is show full details of the file like name time size when it was modified

```
stat -f file_name

-f show the id and size access name
-t show all in one line
-L nothing
```

du command is used to check all files of the size

```
du -sh filename

-h human readable
-k kilo bytes , -m mega bytes , -t tereabytes , -b bytes
```

touch command is used to create a multi files at a time, is also used modifies the file access time and date

```
touch text.txt python.py shell.sh

-a change the access time
-m change the modified time
-d you manullay change date time year example touch
-d "12-10-2021 16:50:21" outputit will changeall the data
-t set the file time stamp
```

file command is use to check what type of the file it was ASCII

```
-b Omit filename
-i show it was text file are any other file
-f read that file and report the file name in lines
-L follow symbol and links
 -z look to see into uncompressed files
```

which locate a command

```
which ip

-a  print all matching pathnames of each argumentq
```

tee command is use to get output copy into a file

```
ls | tee list |short

output : list
```

tar command is used to file convert into zip easy way to share the file

```
tar -czf file.tar.gz    filename it will comprssed in one zip
tar -xf file.tar.gz   uncompress the file or unzip the file
tar -tf file.tar.gz    to see the file without unzip
tar -xvf file.tar
```

zip command is used to compress files in zip

diff command is used to compare both files are equal are not

```
diff -q file1 file2
diff -r dir1 dir2

-r go deep on subdirectory
-q jsut say file was differnt
-c context in differnt formate was add symboles ,
-e reverse show
-u add symboles
```

cmp command is used to compare byte-byte

```
cmp file1 file2
get out put tell how many bites was equal in line
```

md5sum command is used to check the file it was change or modified the file when you download the file in internet you will check md5sum hash key it was tell that it was file was corrected or not

```
md5sum parrot.os

will print hash key
```

pdftotext command this command is use to convert PDF into text

```
pdftotext lunix.pdf

it will get out put lunix.txt

-f   N here n number it will you give -f 100 it will printed after 100 pages
begin of the pages
-l   N here n number end with the page
-htmlmeta    generate html
-eol    (dos|mac|lunix)
```

tr command is use to change the text of file like you all small letter into capital letters

```
tr -d s notes.txt , tr notes.txt '' , tr notes.txt [:space:] '\t' (\t space
become tabs ,\n
space become new line ,\a , \b remove backspae ,\v vertical ,\f formed )
```

aspell command is used to check the spelling of the file and if you want also replace the text

```
aspell -c filename
```

mount command is use to mount the files in system like if you not mount the file in system you cant access the file and it will not show the file

```
mount -t /dev/sdb /parrot/media

-a it will mount all files
```

unmount command is used to unmount the files to show the to exit the files like

```
unmount -a  /home/parrot

-a it will unmount all files

parted ,gparted ,fdisk , sfdisk (these will help to create a partition)
```

fdisk command is used to check what are disk are inserted

```
fdisk -l
```

fsck partition check it will error of partition and repair the partition

eject command is used too eject the partition of the system like cd , usb etc

```
eject -n
```

rsync command is used to copie file two directories over the network if you use these things it will backup the files of the data

```
rsync -a mydir smith@server.example.com:D2
```

lsblk list block devices

```
lsblk -a


-a Also list empty devices and RAM disk devices
-d Do  not  print  holder  devices  or  slaves
-l Produce  output  in the form of a list
-J Use JSON output format
-f Output info about filesystems
```

dd command is used to low level copier files bascily dd use to copy the file between hard disks example : sudo dd if=/dev/device of=mybootrecord bs=512 \ count=1

ps command is used to see what was running in process other users most used

```
ps -aux print all processes owned by a user  named

To see every process on the system using standard syntax
ps -e
```

```
ps -ef
ps -eF
ps -ely

To get security info
ps -eo euser,ruser,suser,fuser,f,comm,label
ps axZ
ps -eM

To print a process tree
ps -ejH
ps axjf
```

uptime this commad is show how much time system was on and how many members was login in

```
uptime -p
```

w command display current process running

```
w -hfs

w
```

free command is used to see memory usage how many user logged in and caches memory

```
free

-t total
-h human readable
```

kill command is used to stop and pause exit are terminated

```
kill -KILL processed_id
kill -HUG processed_id

killall name  (it will terminate all what was you  name was given)
```

timeout command is used set the timeout of the any command

```
timeout 10s ping www.google.com

timeout 50s nmap 192.68.0.1
```

nice and renice are the changes of priority for the process basically indicates only [0-10]

```
nice -n 10 name_of_the_processor
renice -n 10 3267(this is the bg process id )
```

sleep - delay for a specified amount of time

```
sleep 5m && echp 'it will print after five minutes'
```

watch command is used to run the program every set_time

```
watch -n 0.5 free
```

crontab command is used to schedule the process when we want to backup the every particular time you put in crontab

```
crontab mintes houres day month wekeend scprit (it will run
scprit or command every time you set )

corntab 30 08 10 06 * /home/maverick/full-backup
```

shutdown these basically use super user

```
sudo shutdown -h +15 "rebooting" (it will send all user they is maintenance
the system)

-r reboot the system
-k just kidding
-c cancel all
-f dont check fsck
```

logname print login name

whoami it will print login name

id command show that was the id

```
-u print user id and exit
 -g print group id and exit
 -G print the ids of
```

users command it will show all users name

last command it was all last user users are logged

```
last -x

-i it was show ip adders of last user logged in ,-R ,-x also
```

printenv show all environment varibles of shells

useradd command is used to add new user to system it will present /etc/passwd ,/etc/groupuser to account

```
useradd user_name


for more details to see man page
```

userdel command is used to del the user

```
userdel  name

for more details to see man page
```

usermod command is used to modified the user in already

```
usemod parrot

-s The name of the user's new login shell.
-L

for more man page
```

==groupadd == command create a new group

```
-f  force

-g The numerical value of the group's ID

for more see man page
```

passwd command it change the password of the user

```
passwd user_name

-d  Delete a user's password (make it empty)

-e Immediately expire an account's password

-l  Lock the password of the named account
```

chfn command it will change the user details

```
chfn user_name

chfn


for more details man page
```

chsh command change the path of the change the shell like /bin/bash , /bin/zsh

```
chsh user_name

chsh

for more details man page
```

uname command print system information

```
uname -a

-s print the kernel name

-p print the processor type

-o print the operating system

-i print the hardware platform
```

==hostname == command show or set the system's host name like commands domainname,ypdomainname,nisdomainname,dnsdomainname

```
hostname

for more information man page
```

ping command is used to check weather website is working are not

```
ping www.google.com


for more man page
```

traceroute command show the where is the host and how network was connected use

```
traceroute www.google.com

for more information use man page
```

ssh secure connect to host of the severs using username and password directly connected to terminal you can access overall the machine

```
ssh parrot@192.168.0.1

ssh key

-a Disables forwarding of the authentication agent connection
-C  Requests compression of all data
-f  Requests ssh to go to background just before command execution.
-p  Port to connect to on the remote host.
-T  Disable pseudo-terminal allocation
-V  Display the version number and exit
-x   Disables X11 forwarding

for more information man page
```

sftp and ftp both are used to copie the files in both diretories ftp is not secure an sftp is secure sftp even interactive

```
sftp root@172.105.186.216

sftp> put – Upload file
get - Download file

all basic commands are works like ls ,pwd ,cd and much more

for more information to view man page
```

scp command copies files between hosts on a network It uses ssh(1) for data transfer, and uses the same authentication

```
scp file.txt remote_username@10.10.0.2:/remote/directory



for  more details man page
```

seq command is used number printed seq 100 it will printed hundred numbers like for loop : we use the print values used in shell script

command line interface for the package management system Linux shell

sudo command is the super user once you use the super command you can change any thing

```
sudo rm -r /usr/etc

for more information man page
```

su command is used to enter root terminal

```
su -i

for more information man page
```

apt command is used to update ,install and remove high-level command line interface for the package management system

```
apt-get update

sudo apt-get upgrade

sudo apt-get install tor

apt-search pwnat

apt-status

for more information use man page
```

dpkg command is used to install ,remove the files locally package manager for Debian

```
dpkg -i  file.sh

dpkg --remove file_name

dpkg --list

for more information view man page
```

LINUX PERMISSION COMMANDS

chgrp ,chown ,chmod ,chattr,lsttar,umask

chown command is use to change the name of the ownership (file or groups) and group of the ownership

```
chown owner_name:group_name filename

chown root file_name
```

```
chown :root file_name
```

chgrp this command is use to change the group owner ship names

```
chgrp group_name file_name

-c  like verbose but report only when a change is made
```

chmod is used to change permission read r ,write w ,execute x , these permission is used to execute the files

example : dwrx--rw---wr these are tell that first one is user and second one is group permission and third one is other permissions

command example : chmod u+w,g+r,o-w-x filename or dirname it will change the permissions other method is there

chmod 600 filename private file for you ,chmod 000 filename all permissions are removed , chmod 644 filename every one can read you can write , chmod 700 dirname private directory , chmod 755 dirname every one can read you can write

```
chmod 777 file_name

- means remove the files and + means add the file
chmod u+w,f-r,o-w-x file_name

chmod u+w+r+x file_name
```

chattr command is used to create delete are undelete

```
the attribute of the file like - remove the attribute ,+ add

 #add the files +i
 sudo chattr +i s.txt

#remove the file -i
 sudo chattar -i s.txt

 #attributes for chattr c,C s,i,u ,d dont dump ,A
```

lsattr command is used you can see what attributes on the file what attributes is used [-R , -a ,-d]

text editors in Linux basically build in editors are vi and nano

vi is most powerful text editor with out using any mouse but it tricky to learn

```
#basic vim commands

vim save and exit :wq , :q! quit with out saving ,:w , :w filename
```

nano is also editor but it was easy to learn

```
#basic commands
nano save and exit ctrlo+ctrlX ,
save ctrl+o ,
save as ctrlo+file name,
ctrlx save quit without saveing
```