Basic Linux Command

Command Name	Syntax	Description	Examples
ls	ls -[option] <directory> 1) **ls -m** will show the files and folder with comma 2) **ls -a** show the hidden files also 3) **ls -l** will show the files and folder in a listing format 4) **ls -lh** will show the file with listing and size 5) **ls -i** will show the list of files and folders with Inode 6) **ls -t** will show the modification time with directory listing	ls command used to see the files and folder inside a directory .it is the most used command in linux.	=> ls -l m [root@localhost vagrant]# ls -m file1, file2, file3, file4.txt, file5.py, file6.java, test1, test2, test3
more	**More <options> <file_name>** 1)**more -d** will give you reading file one screen at a time 2)**more -p** will clear the screen first then show the content 3)**more** +<**number**> will display the line after the input line number	It is used for many purpose. Is is used for displaying the content inside a file. If any directory has many files you can see it with one screen at a time. It will also work with other command like ls and catmore +30 sample.txt	=>**more more +30 sample.txt** this is linux tutorial [root@localhost vagrant]# ls | more file1 file2 file3 file4.txt file5.py file6.java file.txt

	5)**ls | more** will how the directory on screen at a time 6) **cat <file_name> | more** read any file with one screen at a time		test1 test2 test3
less	More <options> <file_name> less -E : automatically exit the first time it reaches end of file. Less -f : forces non-regular file to open. Less -F : exit if entire file can be displayed on first screen less -g : highlight the string which was found by last search command less -G : suppresses all highlighting of strings found by search commands less -i : cause sears line numbers less -p <pattern> : it tells less to start at the first occurrence of pattern in the file less -s : causes consecutive blank lines to be squeezed into a single blank line to ignore case less -n : suppresses line numbers less -p <pattern> : it tells	It works like the more command .it also give scroling options	=>dmesg | less -E =>dmesg | less -N =>dmesg | less -p systemd =>cat file.txt | less -F =>cat file.txt | less -g =>cat file.txt | less -E

	less to start at the first occurrence of pattern in the file less -s : causes consecutive blank lines to be squeezed less -N : shows line number		
strings	**strings <filename>**	To display the content of the file	String file.txt
tree	Tree <directory> [you may have to tool with package manager]	To display the Directory stricture in a tree format	tree /dev tree /home//user1
dir	Dir <directory_name> [you have to install 'tree' tools before using this command]	To display the diles and folder inside the directory	dir /dev dir / dir /home
date	date	To display the current date and time	date
cal	Cal cal <year> cal <month> <year>	To display the calendar	=> calendar 2019 => calendar 12 2019
clear	clear	Clean the screen	clear
bc	Bc [you may have to install it first]	Basic calculator	=>bc [type quit for exit]
rmdir	Rmdir <empty_directory>	Remove empty directory [you cant remove any directory which has file in it with this command]	=>rmdir dir1/
mkdir	mkdir <directory> : for making single directory mkdir -p <directory/directory>: for making recursive directory	Making directory	mkdir test mkdir -p test1/test2/test3
file	File <filename>	Display the file type	=>file file.txt file.txt: ASCII text

hwclock	hwclock	Display the Bios time	hwlock
ln	ln <option> <source_file> <shortcut_file> ln -s : for creating soft link ln -P : for creating hard link	Create a link of the source filename In case in hard link if you delete the main file link wont remove but in case of the soft link if you delete the main file the the linked file will be removed	=>ln -s main.txt soft.txt =>ln -s main.txt hard.txt
History	history	Shows users command history it will show the last 1000 command of the user you can set the limit if you like	=>history
locate	Locate <file_name>	It will search the entire system for that file [you need to apply the command ‘updatedb’ for getting letest entry]	=>locate file.txt
uname	uname -a : all information, in the following order uname -s :print the kernel name uname -n: print hostname uname -r: print the kernel release uname -v : print the kernel version uname -m : print the	Show all the information about the kernel , OS and hardware-platform	[root@localhost vagrant]# uname -a Linux localhost.localdomain 3.10.0-957.12.2.el7.x86_64 #1 SMP Tue May 14 21:24:32 UTC 2019 x86_64 x86_64 x86_64 GNU/Linux

	machine hardware name uname -p: print the processor type uname -i: print the hardware platform uname -o: print the operating system		
tar	tar -cvf <archive_name> <source> : for creating archive tar -xvf : for extracting archive	For creating archive and extracting archive	[root@localhost vagrant]# tar -cvf arch test1 file arch arch: POSIX tar archive (GNU) [root@localhost vagrant]# tar -xvf arch
gzip	gzip < file_name>	For compressing normal file or archive file	[root@localhost vagrant]# gzip arch [root@localhost vagrant]# file arch.gz arch.gz: gzip compressed data, was "arch", from Unix, last modified: Fri Jul 26 11:25:49 2019
gunzip	gunzip <compress_file>	It is used for uncompromising a compressed file	[root@localhost vagrant]# gunzip arch.gz
lsmod	lsmod	Show a list of the modules used by the kernel	lsmod
rmmod	rmmod <module_name> [you need to be a root user to perform this action]	Delete any module used by the kernel [not Recommended . don't	=>rmmod bluetooth =>rmmod iptable_nat

	rmmod-f, forces a module unload and may crash your machine. This requires Forced Module Removal option in your kernel. DANGEROUS rmmod -v, enables more messages rmmod -V, show version	do it unless you are absolutely sure what you are doing]	
Modprobe	modprobe	Adding new module to the system	modprobe bluetooth modprobe bluetooth
ps	ps	See the current running process of the system	[root@localhost vagrant]# ps PID TTY TIME CMD 1517 pts/0 00:00:00 sudo 1519 pts/0 00:00:00 bash
pstree	pstree [you have to install the psmisc package with the package manager]	Show the process in a tree format.you can see the parent and the child tree with this.	
top	top	Top command is used for process monitoring. [more information about top in Process management]	top
htop	htop [you may need to install the packages using package manager]	This work like exactly like the top command but with more options and user friendly environment [more information in process management chapter]	htop
renice	renice -n <priority> -p <pid>	Used for changing the priority	Renice -n 15 -p 2121

		of a process running on a system. [more info in process management chapter]	
kill	Kill -<sigterm> -p pid	Used for terminating process for this purpose different Kill signal is used. [more information in process management chapter]	Kill -15 1111 kill -9 3333
uptime	uptime	Shows the system's running time. and load averages of previous 1 minute ,5 minute and 15 minute. [this information can be found in top and htop command also]	uptime
iostat	Iostat -c : generate cpu status only iostat -d : generate I/O statistics for all the devices iostat -x : generate detail I/O statistics iostat -x : generate detail I/O statistics and CPU information iostat -p <devices> : generate details for that specific devices iostat -m : generate statistics in Megabyte iostat -k : generate statistics in Kilobyte iostat -N : generate LVM options iostat -t: generate	Shows the Cpu and I/O information [more information in process management Devices]	iostat

	statistics with timestamp nfsiostat: Shows information of NFS devices		
sar	Sar [you may have to install the packages]	Shows the CPU and I/O statistics like the iostat command	sar
hostname	hostname : displaying ostname hostname <hostname>	Used for Displaying the host name and setting up the hostname	hostname hostname linuxpc
Pwd	pwd	Print the current directory path	pwd
dmesg	dmesg	Display the detected hardware status during boot time [the file location is **'var/log/dmesg'**]	dmesg
init	Init <run_lavel> 0 :Power-off the machine 6 :Reboot the machine 2, 3, 4,5 :start runlevel X. 1, s, S :Enter rescue mode q, Q : Reload init daemon configuration u, U :Reexecute init daemon	It is used for changing the run lavel	=>init 0 =>init 1 =>init 2
mkswap	mkswap file_system	Used to format the partition used for swap space	mkswap /dev/sdX
swapon	swapon -a <file_system>: [enable all swaps from /etc/fstab]	To activate the swap space	swapon -a /dev/sdX

swapoff	swapoff file_system	To deactivate the swap partition	swapoff dev/sdX
mkfs	mkfs.btrfs /dev/sdx: for btrfs file system mkfs.ext2 /dev/sdx: for ext2 file system mkfs.ext3 /dev/sdx:for ext3 file system mkfs.ext4 /dev/sdx: for ext3 file system mkfs.minix /dev/sdx:for minix file system mkfs.xfs /dev/sdx:for xfs file system	To format the partition this tools is used [more information about file system]	mkfs.ext2 -V /dev/sdb
Poweroff	Poweroff	Poweroff the machine	poweroff
halt	halt	Another way of poweroff the machine	halt
whoami	whoami	Display the username which is currently logged in	whoami
wc	wc <file_names> wc -m <file> : print the character in in the file wc -w <file> : print the word in in the file wc -l <file> : print the line in in the file	Used to find out number of lines, word count, byte and characters count in the files specified in the file arguments	=> wc hello.txt 2 11 45 hello.txt
w	w	Used to show who is	w

		logged in to the computer and what they are doing	
unix2dos	Unix2dos <text_file> [you may have to install the packages]	Convert a Unix text file into DOS format	Unix2dos hello.txt
alias	Alias <string>='<target straing>'	Instructs the shell to replace one string with another string while executing the commands	alias sl='ls'
arch	arch	Display the computer architecture	arch
bg	bg	Used to send any foreground job to background	bg
cfdisk	cfdisk [you have to be the root to execute the command]	It displays or manipulates the disk partition table by providing a text-based "graphical" interface	sudo cfdisk
cp	cp <source_file> <target_destination>	Used to copy a file or a group file from one destination to other	Cp hello.txt Downloads/hello.txt
echo	Echo <arguments>	Used to display line of text/ string that are passed as an argument	Echo "hello linux" echo $PWD
eject	eject	Basically used for ejecting removable media especially cd-rom	eject
env	env	Display all the environment variable	env
fc	Fc [actually it will open a vim editor where you can list the previous command]	Used to list edit or re execute the command that are typed in the interactive shell	
fdisk	fdisk <file_system>	Format disk as well as creating and manipulating disk partition table [more information in disk management chapter]	fdisk /dev/sdb
free	free	Displays the total amount of free space available	free

		along with the amount of memory used and swap memory in the system	
lsblk	lksblk	List all the block devices currently connected to your system	lsblk
lsmod	lsmod	List all the current kernel modules that are currently loaded [it actually print the content of the '/proc/modules' with a nice format]	lsmod
lspci	lspci	Display the information about the currently connected PCI Buses . [list of devices that are connected to the computer]	lspci
lshw	lshw	List all the Details information of the hardware of the computer	lshw
lscpu	lscpu	Display the detailed information about the CPU	lscpu
grep			
hostnamectl	Hostnamectl : provide information about current host and its properties hostnamectl set-hostname <hostname> :It will change the hostname	Display hostname and its related settings also change hostname and its related settings	Hostnamectl set-hostname tanvir
ip	Ip <option> <command>	Used for performing several network administration tasks	=>Ip addr show
lsusb	lsusb	Used to display the information about USB buses and the devices connected to them	lsusb
man	Man <command/tools>	Display the reference of the tools or command that are you using	man ls man lsusb man ping
grep			
ifconfig			
ping			

reboot			
sudo			
tee			
touch			
traceroute			
vi			
wget			
whatis			