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 5)**ls | more** will how the	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 test1 test2 test3

	directory on screen at a time 6) **cat <file_name> | more** read any file with one screen at a time		
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 less to start at the first occurrence of pattern in the file less -s : causes consecutive	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

	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	=>ln -s main.txt soft.txt =>ln -s main.txt hard.txt

		but in case of the soft link if you delete the main file the the linked file will be removed	
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 machine hardware name uname -p: print the processor type uname -i: print the hardware platform uname -o: print the operating system	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
tar	tar -cvf <archive_name> <source> : for creating	For creating archive and extracting archive	[root@localhost vagrant]# tar -cvf arch

	archive tar -xvf : for extracting archive		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] 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	Delete any module used by the kernel [not Recommended . don't do it unless you are absolutely sure what you are doing]	=>rmmod bluetooth =>rmmod iptable_nat
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 of a process running on a system. [more info in process management chapter]	Renice -n 15 -p 2121
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	Shows the Cpu and I/O	iostat

	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 statistics with timestamp nfsiostat: Shows information of NFS devices	information [more information in process management 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