



LINUX BASICS FOR ADVANCE USERS

Command	Function(s)
man <command>	: Displays manual or help page for a command, always read it full at least once
cd	: Change directory, to navigate from one directory to another
!!	: Repeat last command
&	: At the end of the command executes job in the background but if you logout the job will be killed
&&	: Finish command one before executing another command, i.e. Command1 && command2 && command3
*	: Wildcard
?	: Single character wildcard
 	: Pipe, output of one command is redirected as input to another command,
~	: Home directory, you can do [cd ~] to go to the home directory
>	: At the end of a command it redirects results to a file
>>	: At the end of a command it redirects results to a file and appends it, i.e. Redirect result to the end of a file.
ac -d	: Displays the statistics about the user connect time, argument -d breaks the output for individual days, usage: ac -d username
addgroup <name>	: To create a new user group
adduser <name>	: To create new user, requires root privileges i.e. sudo or su
at	: Schedule job i.e. at -f backup.sh 10am tomorrow
atq	: Shows a list of job waiting to be executed
atrm	: Delete a job number i.e. atrm <jobid>
bc	: Opens calculator
bg	: Run process in background
bunzip2	To decompress bzip2 file
bzip2	: To compress a file using bzip2 (more efficient, takes more time)
cal	: Opens calendar
cat /proc/cpuinfo	: CPU information
cat /proc/meminfo	: Memory information
cat	: Show all partitions registered on the system
/proc/partitions	
cd -	: Toggle between previous directory and current directory
chmod	: Change or modify user access and permission (u = user, g= group, o = others) (d = directory, l = link, r = read permission, w = write permissions, x = execute permission) (+ means add a right, - means delete a right, = means affect a right)
chown <user> <file>	: To change the owner of a file, -R to perform action recursively affecting all the sub folders
cmp <file1> <file2>	: Compares two given files
cp	: Copies files or directories, usage: cp file.txt /directory
crontab	: Executes a command regularly, argument -e modifies the crontab, -l views current crontab, -r delete crontab





ctr+a+c	: Kills the process currently running
ctrl+a	: Cursor at the beginning of the line while typing on terminal
ctrl+d	: Logout
ctrl+e	: End of the line while typing on terminal
ctrl+k	: Cuts to the end of the line while typing on terminal
ctrl+k	: Delete right of the cursor
ctrl+l	: Clear the terminal
ctrl+r	: Reverse search history
ctrl+u	: Delete left of the cursor
ctrl+w	: Cuts last word with keyboard while typing on terminal
ctrl+w	: Delete word on the left
ctrl+y	: Paste with keyboard
ctrl+y	: Paste, after ctrl+u, ctrl+k or ctrl+w
ctrl+z	: Suspend or sleep the current running process in foreground
cut	: Used to display only specific columns from a text file or other command outputs i.e. To display first field from a colon delimited file : cut -d: -f 1 file.txt ; to display first and third field from colon delimited file : cut -d: -f 1, 3 file.txt
date	: Displays current date
delgroup <name>	: To delete a user group
deluser <name>	: To delete user account, requires root privileges i.e. sudo or su
df	: Disk space
diff <file1> <file2>	: Find the differences between two files, compares two files, argument -w ignores whitespace
dig domain	: Get DNS information for domain
dig -x host	: Reverse lookup host
du - sch <dir>	: Disk space of the current directory
du -sch *	: Disk space of individual files or directories
du -sch * sort -nr	: Disk space of individual files or directories sorted by file size
echo	: Displays message, usage: echo "Hi" ; displays Hi
eject	: Ejects cd rom, usage: /media/cdrom
exit	: Exits terminal
fdisk -l	: Show disks partitions sizes and types (run as root)
fg	: Bring processes foreground, those running in background
find	: Find files, usage: find [pathname] [condition], arguments it takes are -name (for names of the files), -type (for type of file) -size (for size of file i.e. +100m, -mtime (modified time in days i.e. +60 or -2), -exec
finger <user>	: Display information about user
free -g	: Free memory (RAM) in GB
free -m	: Free memory (RAM) in MB
gpg <file.gpg>	: Decrypt file.gpg
gpg -c <file>	: Encrypt file
gunzip	: Decompress files
gzip	: Compressing files





gzip	:	To compress a file
halt	:	To close computer
halt	:	Stop all processes, shutdown
head <filename>	:	Displays beginning of a file
history	:	History of all the commands on terminal
hostname	:	Machine name
jobs	:	Shows what jobs are running in background
join	:	Combines lines from two files on a common field, usage: join file1.txt file2.txt
kill <pid>	:	Kills a process with the given process id
kill -9 <pid>	:	Violently kills a given process id giving it no time to cleanup
kill -l <pid>	:	List all signals that can be sent to a process
kill -s sigcont <pid>	:	Resumes or wakes up a process
kill -s sigstop <pid>	:	Suspends or sleep a process
killall proc	:	Kill all process named proc*
ln file1 file2	:	Creates physical link
ln -s file1 file2	:	Creates symbolic link
locate <text or filename>	:	Search the content of all the files or for a file
ls	:	List files or folders, with several arguments give detail information about the files and folders, try: ls -lthr
ls -a	:	List all files including the hidden files
ls -lthr	:	Nice and easy organized listing of files with file size and sorted by modified time, try it, you will like it
mkdir	:	Make a new directory, usage: mkdir dir1 ; creates directory dir1
mount	:	Mounts drive, usage: mount /media/usb
mount -o loop cdrom.iso /mnt/dir	:	Mount cdrom.iso at /mnt/dir
mv	:	Moves file, rename file, usage: mv file1.txt file2.txt (renames file1.txt to file2.txt)
nohup	:	At the beginning of the command executes job in background with (ampercent &), usage: nohup ./script.sh & ; the job will run in background even if you logout
passwd	:	Change password
printf	:	Alternative to echo, displays message
ps	:	Processes running by the users, argument -rjh shows process hierarchy, argument -u shows processes from current user
ps -e	:	All the processes running in the system, also used with argument -a, -x, read man ps
ps -o %t -p <pid>	:	How long the process was running
pstree	:	List processes as tree
pwd	:	Present working directory or print working directory
reboot	:	To reboot computer



renice -n <value> <pid>	: Gives a priority value to the process id, ranges from 1-19, higher the value lower the priority, default is 10, it is said to be how nice the process is i.e. How much ram it leaves for other process to run
rm <filename>	: Removes file or delete files
rm -f	: Removes without asking for your permission, useful if using wildcards to remove files, use with caution
rm -r	: Removes directory including its content recursively (be careful)
rm -rf	: Removes directory including its content recursively without asking for your permission (be careful)
rmdir	: Removes empty directory
rpm -e package	: Delete the rpm package called package
rpm -i --force package	: Reinstall the rpm package called name having deleted parts of it (not deleting using rpm -e)
rpm -ihv name.rpm	: Install the rpm package called name
rpm -l package	: List the files in the package called package
rpm -ql package	: List the files and state the installed version of the package called package
rpm -Uhv name.rpm	: Upgrade the rpm package called name
screen	: Once you logout the same session will not be connected, to do that, end with screen and attach it later by screen to get back as it was when you logged out
script	: Records your session
SHIFT Page Up/Down	: Go up and down the terminal
shutdown -h now	: Shutdown the system now and do not reboot
shutdown -r 5	: Shutdown the system in 5 minutes and reboot
shutdown -r now	: Shutdown the system now and reboot
sleep	: Pause between commands (m-minutes, h-hours, d-days)
sort	: Sorts the lines of a text files in ascending order, usage: sort file.txt ; argument -r sorts in descending order, usage: sort -r file.txt ; argument -t is delimiter (colon, space, comma, tab etc.), usage: sort -t: file.txt ; argument -k sorts on a particular field, i recommend to read more on this, important and very helpful, used in combination with other commands [man sort]
split	: Splits the given file (big file) as per the requirement with respective arguments, i.e. File size, number of lines, etc.
startx	: Start the X system
stat	: Used either to check the status or properties of single file or file system, usage: stat /etc/file.txt ; argument -f i.e. Stat -f / (displays the status of the file system i.e. Size/total/free/available)
stty	: Display and setting terminal characteristics
TAB	: Auto completion of file or command
tail <filename>	: Displays end of a file
tail -f <filename>	: Displays the contents of a file as it grow, starting with the last 10 lines. Use ctrl-c to quit.





tar	: Archival program, argument -c creates a tar archive, -v is verbose (verbose tells what is happening),
time <command>	: Runs command, timing how long it takes, and displays that time to the screen after completing the command
top	: Dynamic process list, press q to close top, h to show help, k to kill process
touch	: Create or update a file
tr a-z A-Z < file.txt	: Transfers case to another i.e. Lowercase to UPPERCASE
tr A-Z a-z < file.txt	: Transfers case to another i.e. UPPERCASE to lowercase
tty	: Know your terminal
umount	: Unmounts drive, usage: /media/usb
uname	: Know about your machine, usage: uname -a
uname -a	: Show info about Kernel
uniq	: Removes duplicate entries from sorted files, therefore mostly used in combination with sort, in order for uniq to work, all the duplicate entries should be in adjacent lines, usage: sort names.txt uniq ; sort -u names.txt ; to count duplicate lines: sort file.txt uniq -c ; to display duplicate entries: sort file.txt uniq -cd
uptime	: Show current uptime
usermod -g <group> <user>	: To add user to a group
usermod -g <user1> <user2>	: To change account name
usermod -gG <group> <user>	: To add groups to a user without losing the groups she/he already in
vmstat	: Display virtual memory, CPU and IO statistics
w	: Who is logged onto the system and what are they doing
watch	: To execute command continuously at certain intervals, usage: watch df -h
wc	: Word count, can be combined (piped through) various other commands (it gives results as lines, words and characters)
wc -c	: Counts the number of bytes
wc -l	: Counts the number of lines
wc -w	: Counts the number of words
wget	: Download file from internet to current directory, usage wget www.anywebsite.com/filename.txt
wget -c	: Continue a stopped download
whereis	: Where in \$PATH is command
which	: Show full path name of command
who	: Who is logged into the system
whoami	: Username
xargs	: Takes output of one command and passes it as an argument to another command usage: cat urllist.txt xargs wget -c
zcat	: To view entire compressed file without decompressing it (Same as cat)
zless	: To view one line of compressed file without decompressing it (Same as less)





zmore : To view one screen of compressed file without decompressing it (Same as more)

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