Linux Essentials

As a DevOps engineer, the terminal is your home. Whether you are debugging a crashing container, analyzing HTTP traffic, or managing file permissions, mastery of the command line is non-negotiable.

Command	Description
$ sudo su	Switch user to super user.
$ ctrl + l OR clear	To clear the command screen.
$ apt-update OR apt-get update	To update the system(linux).
$ ls	List all files and folders in the current location.
$ touch file_name.txt	Creates a blank file.
$ ls -la	List all files & folders (includes hidden also).
$ ls -l OR ls -ltr	List only files & folders (hidden not included).
$ uname	Displays OS name.
$ uname -a	Displays extra info of the OS.
$ top	Displays active processes like CPU consumption, RAM usages, current running tasks etc.
$ ctrl + c OR ctrl + z	To return back into main command window.
$ ifconfig	To display the ip address of linux OS from the network.
$ ipconfig	To display the ip address of Windows OS from the network.
$ ip	To display instance private and public ip address.
$ whoami	Displays which user you are.

Command	Description
$ logname	Displays name of which OS type i am using.
$ whereis folder_name OR file_name	Displays default binary path of folder or file.
$ touch file1.txt file2.txt file3.txt	Creates multiple blank files.
$ touch file_name{1…7}.txt	Another way to create multiple files with prefix and curly braces.
$ rm -rf file_name.txt	Deletes the file.
$ rm -rf file_name{1…7}.txt	Deletes multiple files.
$ du	Displays size of directory.
$ du -h	Displays default size or root volume.
$ mkdir folder_name	Creates new directory.
$ mkdir -p folder1 folder2 folder3	Creates multiple directories.
$ mkdir -p folder1/folder2/folder3	Creates multiple directories inclined to each other.
$ cd …	Return back to one directory.
$ cd folder1/folder2/folder3	Goes forward to last directory mentioned.
$ cd …/…	Return back to two directories.
$ history	Displays today's all commands used.
$ echo sentence… > file_name.txt	Print the sentence in the file.
$ cat file_name.txt	Displays data from file.
$ vi/vim/nano	Different editors which are used to edit the file.

Command	Description
$ i	To insert into file for edit the text in the file.
$ esc:q!	To go back without saving the edited file.
$ esc:wq! OR esc:wq OR esc:x	To save the edited text from the file.
$ grep	Search the given specific word in the file.
$ grep -i search_text file_name.txt	Displays all words, where the given search text appeared (case insensitive words).
$ grep -in search_text file_name.txt	Displays all words with line numbers, where the given search text appeared.
$ grep -n search_text file_name.txt	Displays all words with line numbers, where the given search text appeared(case sensitive words only).
$ find folder_name	Search all files and folders from given directory.
$ cp source_path destination_path	Copy file in any folder.
$ pwd folder_name	Displays absolute path of the directory (pwd: present working directory).
$ mv source_path destination_path	Move file or rename file.
$ tree folder_name	Displays tree structure of files and folders within given directory path.
$ ping ip_address OR ping website_name	Checks connectivity to given ip address / website.
$ hostname	Displays ip address.
$ wget url_link OR curl url_link	Downloads packages from url.
$ zip folder_name AND unzip folder_name	To compress OR extract folder.

Command	Description
$ head file_name	Displays top 10 lines from file.
$ tail file_name	Displays bottom 10 lines from file.
$ head -4 file_name OR head -n4 file_name	Displays top given (4) input lines from file.
$ tail -4 file_name OR tail -n4 file_name	Displays bottom given (4) input lines from file.
$ ssh-keygen	To generate an SSH key.
$ lsblk	Displays list of blocks / volumes.
$ apt install package_name	Installs packages.
$ systemctl start package_name	Starts the package (activates - running).
$ systemctl status package_name	Checks the status of the package.
$ systemctl enable package_name	Enables the package (activates).
$ systemctl stop package_name	Stops the package (deactivates - dead).
$ apt-get upgrade	Upgrades the system (OS).
$ wc file_name	Displays total count of number of lines of code, characters, words from the file.
$ wc -c file_name	Displays total count of characters from the file.
$ wc -w file_name	Displays total count of words from the file.
$ wc -l file_name	Displays total count of number of lines of code from the file.
$ cal month OR cal year OR cal month year	Displays calendar.

Command	Description
$ vi /etc/passwd OR cat /etc/passwd	Displays default root user location.
$ useradd user_name	Creates new user.
$ passwd user_name	Creates new password.
$ su - user_name	Switch to user.
$ useradd -m -d path/user_name user_name	Creates new user with all the command execution permission.
$ visudo	Opens default package and content settings.
$ sudo apt-get update	Updates the installed local packages.
$ ln -s main_file softlink_file	Creates a copy of the main file as a shortcut file, Used for temporary purposes, It is a shortcut feature of Windows OS It has different inode for both files, Both files can be updated if any file content is changed, If the main file is deleted, all data from the soft link file will also be deleted.
$ ln main_file hardlink_file	Creates a copy of the main file as backup purposes, It is a mirror of the main file, It has the same inode for both files, Both files can be updated if any file content is changed, Hard link file remains as it is if the main file is deleted.
$ chmod permission_set file_name.txt	Changes permission set for the file.
$ r=4, w=2, e=1	Values for read, write and execute permission sets.
$ chown user_name file_name.txt	Changes the root owner to given user.
$ chgrp user_name file_name.txt	Changes the root group to given user.
$ chmod -R +X file_name.txt	Gives execute permission set for all.

Command	Description
$ fdisk -l	List out all the disks.
$ file -s disk_path	Checks if the disk is mounted anywhere.
$ mkfs -t xfs disk_path	Make disk file type of xfs system.
$ mount disk_path folder_path	Mounted disk in the given folder path.
$ unmount disk_path folder_path	Unmount disk from the given folder path.