Day12 Task : Linux & Git commands Cheat sheet.

Basics Linux commands

· **pwd —** Print Working Directory, It will show the path of the current working directory.

· **man —** Used to display the user manual of any command that we can run on the terminal.

· **clear —** Clear the terminal screen.

· **history —** Displays a list of commands used in the terminal session.

Command for Directories

· **ls —** List the Directories and files available in the respective directory.

Options/flag in ls command
· ls -l = It will show the list in a long list format.

· ls -al = Enlist the whole list of the current directory including the hidden files in list format.

· ls-lh = This command will show you the file sizes in human readable format. The (ls -lh) command will give you the data in terms of Mb, Gb, Tb, etc.

· ls-d*/ = It is used to display only subdirectories

· ls ~ = It gives the contents of home directory.

· **cd —** Change of directory

options/ flag in cd command
· cd .. = change directory to on step back
· cd - = Go to last working directory

· cd ~ = Change directory to home directory
· cd ../.. = Change directory to 2 levels back.

· **mkdir —** Make new directory

options/ flag in mkdir command

• mkdir .NewFolder = make a hidden directory (also . before a file to make it hidden).

• mkdir A B C D = make multiple directories at the same time

• mkdir -p, -parents = Add directory including its sub directory.

• mkdir -p A/B/C/D = Add directory in a nested directory

• mkdir -v, -verbose = Print a message for each created directory.

• mkdir -m -mode = Mode Set access privilege.

· **rmdir —** Remove empty directories

Commands for files

· **Touch –** Change file timestamps or to create an empty file.

·**Cat -** The cat command is mainly used to read and concatenate files, but it can also be used for creating new files.

·**Nano -** To create and open a new file**.**

·**Vi -** Editor tool is an interactive tool as it displays changes made in the file on the screen while you edit the file.

· **rm –** To remove a file.

· **cp –** To copy a file or directory.

· **mv –** To move a file or to rename a file.

· **Chmod command :** Used to change the users permission of file/directory

Syntax :
sudo chmod +r filename = Owner & groups get only reading access.
sudo chmod +w filename = Owner & groups get only writing access.
sudo chmod +x filename = Owner & groups get only executing access.

Number	Octal Permission Representation	Ref
0	No permission	---
1	Execute permission	--x
2	Write permission	-w-
3	Execute and write permission: 1 (execute) + 2 (write) = 3	-wx
4	Read permission	r--
5	Read and execute permission: 4 (read) + 1 (execute) = 5	r-x
6	Read and write permission: 4 (read) + 2 (write) = 6	rw-
7	All permissions: 4 (read) + 2 (write) + 1 (execute) = 7	rwx

Command for file Content

·**Head –** Output the first 10 lines of a file.

·**Tail –** Output the last 10 lines of a file.

·**echo –** Display a line text.

· **more –** It will shows file content in partwise & in bottom of screen will show how much % text is there in screen.

· **less –** Opposite of more command.

Command for system information

· **uptime –** Tell how long the system has been running.

· **free –** Display amount of free & used memory in the system.

· **ps –** Report a snapshot of the current process.

User Permissions

sudo - acronym for superuser do or substitute user do**,** mostly used for to running programs with the security privileges of another user.

useradd - useradd is used to create a new account.

passwd : passwd is used to add new password.

sudo passwd -l 'username' - To change password for particular user.

Command for hard disk

df – Report file system disk space.

fdisk – Manipulate disk partition table.

lsblk – Display details about block devices.

top – Display linux processe **.**

Git Cheat Sheet

Git basics

git init – Create new local repository.

git clone <Url> - Clone existing remote repository.

git add – stage all changes.

git status – List all new /modified files to be committed.

git commit -m <message> - Commit staged Changes to local repository.

git push – Push local commits to remove repository.

git pull – Download & merge commits from remote repository.

git log - List version history of current branch.

git config - global user.name <name> - To set a username.

git config - global user.email <mail id> - To set a user email.

git config - list – TO check user configuration details.

Git Branches

git branch – List all the local branch in current repo.

git checkout -b <branch-name> - Creates a new branch.

git checkout <branch-name> - Switch to specified branch & update working directory.

git merge <branch-name> - Combine specified branch's history into current branch.

git stash - To pop the temporarily stacked changes with above command.

git stash pop -To check order stack-order of stashed file.

git stash list -To push repository on github

git revert /git reset - To reapply commits on top of another base trip.

git rebase <base> -List all currently configured remote repositories.

Git Advanced

git fetch <bookmark> - Download all history from repository bookmark.

git remote add <alias-name> <url> - Add remote repository url as an alias

git push <alias> <branch-name> - Push local commit to remote repository.

git rest <commit> - Undoes all commits after commit, preserving changes locally

git reset –hard <commit> - Discard all history and changes back to specified commit.