

LINUX...

What is a Terminal & Emulator?

Terminal Emulator is a program that will let us use the terminal in a graphical environment.

⇒ mkdir → creates a new directory or folder.

~~** A Shell is a~~

What is a shell?

A shell is a user interface for accessing an OS service and resource. It's a program that runs top of the OS and provides a command-line interface for interacting with system. The shell allows user to execute commands and scripts, navigate the file system, manage processes, and perform other tasks. There are several different types of shells available, including Bash (Bourne-Again shell), Zsh (Z shell), and Powershell (Windows Powershell).

Commands: ~~man~~ ^{**} every command.

-ls :- list all files in a directory.

-cd :- change Directory or change folder, cd .. to go to root folder cd . to go back to previous location.

- open : open the program. e.g open pythos (if Python installed)
- where :- to find the location of program.
- echo :- Display.

Environment Variables:-

An environment variable is a dynamic value that can affect the behaviour of programs and process running on a computer or OS. Environment variables are used to store various system settings and configuration options, such as the path to executable files or the location of temporary files. These variables can be set, changed or deleted by users or system administrators and are usually stored in a file or registry.

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Any instance of a running command is known as process.

- echo \$PATH

~ls-a :- Display all hidden files

~cat^{filename} :- Display all content in that file.

Aliases :- Shortcut Commands.

~vim : to write in a file.

* Apple by default uses ZSH.

~ pwd :- Print working directory.

~ ls -a :- list all hidden files that are long.

~ ls -R :- list all files that are in sub-directory.

~ cat > file.txt :- Creates file and you can enter the inputs.

~ echo "Hello-world" > file.txt :- It will write hello-world in file.txt.

~ man :- display all information, about a particular command. e.g. man echo.

~~~ man~~

~ touch "filename.txt" :- Creates file.

~ cp :- copies content from one file.

~ mv :- move files.

~ rm :- Remove file.

~ sudo :- Super user do requires administrative permission, password is required.

~ df :- System disk usage.

~ du :- ~~system~~ disk usage statistics.

~ head :- View first few lines of a file. By default 10 lines but can be changed.

~ tail :- View from behind last part of any file.

~ diff :- compares the files line by line, and output lines that do not match.

~ locate :- Use to locate files.

~ find :- find files all hidden everything.



### 3 Types of Permission

Read  $\rightarrow 4$

Write  $\rightarrow 2$

Execute  $\rightarrow 1$

7  $\rightarrow$  Read Write Execute.

5  $\rightarrow$  Read Execute.

~ chmod :- change permission.

e.g. chmod u=rwx, g=rx, o=r upper.tnt.

### 3 Types of People.

(i) individual

(ii) group

(iii) other.

~ grep :- Search something in a file.

~ history :- list all the previous commands.

~ ping :- Connectivity status.

~ wget "URL" :- Download the file on URL.

~ top :- All the process that are running in background.

~ kill "Process id" :- Stop the Process.

\* Darwin is a Unix based operating system that is used in MacOs.

~ nslookup :- IP address.

~ netstat :- active port.

~ ifconfig

~ sed

~ cat cut.