Commands:

Reference: <https://www.webminal.org/terminal/>

Username chakra7-Bhutan1992

Lesson1 - Basic commands to navigate directories

Pwd 🡪 working directory

Ls or dir🡪 lsit directories

Ls -l 🡪 list file r,w,x with more details

Ls -R 🡪 list detailed directories, R stands for recursive

Cd .. 🡪 moves one directory back

Cd - 🡪 move to previous working directory

Cd 🡪 cd will simply take you to HOME directory

**Lesson2 - Create files, display contents and stats**

Clear🡪 is used to clear screen

Echo🡪 message is displayed on the screen.

Echo “hello, chakra” > hello.txt 🡪 message is appended in hello.txt file, keep a habit of using >> not just >. Eg: echo “hello 1111”>>hello.txt

Touch filename.txt🡪 create new file

Cat hello.txt 🡪 read the content of the file

Head -2 hello.txt 🡪 read first 2 lines of the file. (by default head will run first 10 lines of the file)

Tail hello.txt 🡪by default last 10 lines, if number is specified it will display the given number. Tail -2 hello.txt

**Lesson3 - Copy,rename,delete files**

Du🡪 display the disk size and the file storage uses.

Du -h ~ 🡪 -h denotes human readable format and ~ denotes Home directory.

Cp -v filename.txt dir2 🡪 copy filename.txt to dir2

Cp -v filename.txt dir2/filename2.txt 🡪 copy the file in new dir at the same time RENAME it.

Cp -vr dir2/\*.txt dir2/dir3 🡪 copy al the files with .txt in die2/dir3 directory.

\*cat will read the content of the file, but if its too large like binary file use md5sum

Md5sum filename.txt 🡪 it will give checksum number to compare file with source or it helps in validating the file authenticity. If copied from another dir or source the checksum number should be same.

Mv dir2/hello.txt dir5 🡪 moves dir 2 files hello.txt to dir5, if no directory create using mkdir

Mv dir5 dir 50 🡪 rename dir5 as dir50

Ln dir1/dir2/dir3/dir4/cp.txt cp 🡪 this creates links to sub directories, the inner directories and its file can be accessed using cp only. Eg stat cp

Rm filename 🡪 removes files in that directory

\*\* to remove directory first delete the content of that directory using **rm -ri dir50/\***  
 rm -rf 🡪 deletes file without prompting warning. Don’t use -f, if used no warning.

Rmdir dir3 🡪 remove directory if its empty

**Lesson4 - Basic process commands**

Ps 🡪 check processes.

Sleep 60 & 🡪 create new process and pass ps to check new commands.

\*\*ps gives you detail about processes with Process ID.

Kill 12334 🡪 kill along with process id kills the specified process.

Sometimes process cant be killed, use **kill -9 12345** to kill the process.

\*if there are multiple rocesses then you can use **killall processname**

Pidof bash 🡪 gives you the process id of all active process.

Pidof -s bash🡪gives only one process id.

Nice -n 19 sleep 30 & 🡪change process with modified scheduling priorities. Niceness range from -20(most favourable) to 19(least favourable)

Renice -n 19 1234 🡪change the priority of current running program.

\*\*only root can increase priority.

Pdtree 🡪 displays processes in tree like structure.

Top 🡪 shows the dynamic view of running system.

Time ls -l 🡪 gives stat about the program it ran.

**Lesson5 - Manipulate or parse file contents**

Grep:

grep searches for matching words or line on the file To search entire directory of files, supply the directory name

**grep “chakra” cp.txt** 🡪 looking for word chakra in cp.txt files. Searching using grep is case sensitive, A and a is not the same. If you want to ignore upper case and lower case use flags -i. example: **grep -i – n -wc “chakra” cp.txt(igone case ,display line number and word count too with -I -n)**

**cut -f3 -d ‘ ‘ file.txt 🡪** give you third column (-f3) -d is the delimiter that’s space(‘ ‘)

**diff file1.txt file2.txt** 🡪 display difference of two files.

**Lesson6 - Changing file attributes**

Dirname dir1/dir2/dir3/hi.txt 🡪 gives dir1/dir2/dir3 only shows directory names.

Basename dir1/dir2/dir3/hi.txt 🡪 gives you hi.txt, only the suffix part.

Chmod -v 777 filename.txt 🡪 changes the permission of the file.

Chmod u+rw filename.txt 🡪 changes owners permission to rw.

\*to change permission for more than file use -R switch.

Chmod -R 777 ~/dirname 🡪 will change all access permission for all files on this directory.

Chgrp🡪change group

Chown->change owner

**Lesson7 - Locate file and its type**

File filame.txt 🡪 give you what kind of file it is, like ASCII etc

Whereis ls 🡪will locate source file and binary files

Which filename🡪 will find program that’s been running, if they have same name with diff version.

Find ~ -name “filename.txt” 🡪 will find filename.txt in any directory.

**Lesson8 - System and user details**

Uptime🡪 uptime gives how many users are logged in, current time etc.

Date🡪 gives current date

Who🡪 or w🡪 gives users current on the machine.

Mount🡪 displays free space on mounted devices.

Free -m 🡪 display free space on the device

**Lesson9 - Linux Process Basic commands**

**Process related command**

"Process is nothing but a file-content which is residing in RAM"

"In computing, a process is an instance of a computer program

that is being executed."

Use ps command, like ls command ps will show file residing on RAM where as ls shows files on disk.

Ps🡪 prints currently running process

Ps -o ppid 31400 🡪 gives parent of pid 31400

**Lesson10 – More about process**

**Jobs 🡪 list background processes that are running.**

**List background jobs**

pstree gives information about all jobs. We do not need pstree(6410), because are intereste in only background jobs. How to view only those jobs. For this purpose, we have 'jobs' command will give output like:

jobs

[1] Running sleep 145 &

[2] Running sleep 145 &

[3]- Running sleep 145 &

[4]+ Running sleep 145 &

[5]+ Running sleep 3000 &

It lists only our background processes and its status. So far good right?

**Foreground process**

Our process-[5] runs for 3000 seconds, it takes long time to complete. Background will take less CPU time compared to non-background process .ie foreground process. So lets bring to foreground process. type, fg in our case, we need to bring background job-5.

fg 5

sleep 3000

Can you shell hanging now? wait..hanging is a wrong word to use. shell executing sleep command now? :) Are you going to wait for 3000 seconds? aka 50 minutes?