Linux notebook

Topic A: working with directories:

man (look up the manual of something) [arguably the most important command]

pwd (print the name of working directory)

cd (change to the specified directory; by default, take you back to the home directory)

cd .. (Take you up one directory)

ls (list directory contents by directly pressing "enter")

ls -a (list all directory contents regardless of whether or not items are hidden)

ls -l (list directory contents with detailed information)

ls -la (combine ls -a and ls -l commands)

ls -h (list directory contents in human-readable way)

clear (clear the terminal window)

mkdir(make a new directory under the working directory)

mkdir -p (make parent directory as needed by specifying "**a series of directories**" [all created])

rmdir (remove directory caveat: we can only remove *empty* directory)

rmdir -p (remove parent directory as needed by specifying "a **series of directories**" [all deleted])

Topic B: working with files:

file (find the file type of certain file -> note: directories are also considered files)

touch (main purpose: create empty files)

rm (remove a file)

rm -I (remove a file by asking user to verify them)

cp (copy file by specifying the original file followed by the new file)

cp -r (copy one directory to another)

mv (move/rename files by specifying the original path/name followed by the new path/name)

Topic C: working with file contents:

head (output the first part (10 lines by default) of the file)

head -5 (customize it to output first 5 lines of the file)

tail (output the last part (10 lines by default) of the file)

echo (create a file along with contents in it : echo text > file)

cat (print the entire file; **cat file1.txt**

concatenate and print contents from multiple files: **cat file1.txt file2.txt**

concatenate and write contents from multiple files into a new file: **cat file1.txt file2.txt > file_merge.txt**

write contents into a file: **cat > file.txt**

//keep tying contents….

Ctrl + D to save it.

)

more (print the entire file where users can browse page by page)

Topic D: file structure

cd / (go into the whole file structure in Linux operating system)

overview of directory:

bin: store binary files

boot: store boot files

cdrom: store CD drives

dev: where physical devices are mounted.

etc: store configuration files

home: store user-named folders

lib: store program files

media: store external devices such as USB drives

mnt: placeholder folder to mount folders and drives.

proc: files about system information.

root: the home directory for root account

run: where a lot of drives are auto mounted.

tmp: where files are temporarily stored.

usr: utilities shared between users.

var: store variable data

System information

Activities -> search "System monitor"

uptime (how long the system has been running)

free (display the amount of free and used memory)

ps (display a snapshot of the current processes)

ps -A (select and display all process)

df (report file system disk space usage)

fdisk -l (list disk partition tables)

lsblk (list block devices)

top (display Linux processes, hit "q" to stop)

htop (**install first**. interactive process viewer)

<p align="center">Topic E: Networking</p>

sudo apt install net-tools (install first)

ifconfig (configure a network interface, old version)

ip (show/manipulate routing, network devices, new version)

ip -a (pull out all IP address information)

<p align="center">Topic F: package manager</p>

sudo (execute a command as another user; application: updating the system)

apt (command-line interface; application: installing and updating packages)

sudo apt update (**inform** you of available updates of packages)

sudo apt upgrade (**actually** updating and upgrading packages)

sudo apt search (search particular packages)

sudo apt install (install packages)

sudo apt remove (remove packages)

<p align="center">Topic G: text editors</p>

nano (open **nano** text editor)

vim (install first, another text editor. Press **"i"** to launch the "insert mode"; **":q!"** to exit the insert mode without saving any changes)