ls : list directories

ls -R : list subdirectories recursively

ls -l : use long listing format

pwd : print name of current working directory

cd : change the working directory

mkdir : make directories

mkdir -p : make parent directories as needed

mv : move files or rename

mv -f : don't prompt before overwriting

mv -i : interactive, prompt before overwrite

mv -v : versions

cp : copy files or copy group of files

cp -i : prompt before overwrite

cp -b : create backup of destination

cp -R : suppose we want to copy a directory containing many file, directories into directory

cp *.txt : suppose we have text document In a directory and want to copy it to another directory

rm : removes file, directory, symlink

rm -f : ignore non-existent files & arguments, never prompt

rm -I : prompt before every removal

rm -d : remove empty directories

touch : change file timestamps

touch -a : change only the access time

touch -c : do not create any files

cat : concatenate files and print on the standard output

cat >filename : create new file

cat filename : print content of file

echo : display a line of text

grep : print lines that matches pattern

wc : to display the number of lines, words and bytes in the files

head : display first 10 lines

tail : display last 10 lines

cd : to navigate through directories

cd ~ : used to return to the current user's home directory

cd - : returns to the working directory before the current working directory

ln : to create hardlink that prompt to the existing file

ln [filename1][filename2] : hardlink

ln -s [file1][file2] : softlink

{a..z} : it expands to a sequence

ssh user@servera : entering to servera

pipe : to combine two or more commands and in this the output of first command acts as input to another command

example – sort filename.txt | uniq

vim/vi : edit text files

- ✓ **i [insert]** : to edit in file
- ✓ **:w[save]** : to save file
- ✓ **:q![exit]** : to exit from editor

echo " " : to add any text in the file

id : to show information about the currently logged in user

id username : to view basic information about another user

ps -all : to view process information

cat /etc/passwd :

sudo -i : command switches to the root user's default shell

su – username : to switch from root user to user

su – : to switch to root user

is/home : to list all user

useradd [username] : to create new user

userdel -r [username] : to delete user

passwd username : set password to the user

groupadd groupname : creates group

date : to get the date

usermod : restrict access

chmod : it changes file and directory permissions

chmod go-rw directory : remove read and write permission for group and other on the directory

chmod u+rx directory : adding read and execute permission for user on the directory

chmod 644 filename : set read and write permission for user and read permission for group and other on file

chown student app.conf : to grant ownership of the app.conf file to the student user

top : state of each process

ps : for testing detailed information for current processes

jobs : to display list of jobs for the shells session

fg %1 : to brings background job to the foreground

ps j : display info about jobs

kill : to active processes by process ID or name

pstree : to view a process tree for the system or single user

w : to list user logins and currently running processes

pgrep -l -u user : to identify the PID number to kill

uptime : to display current load average

lscpu : to determine the number of cpu's that are represent on a system

systemctl list-units –type=service : command to explore the system's current state

systemctl : lists units that are both loaded and active

systemctl status sshd.service : view unit's status using above command

systemctl is-enabled ssh.service : verify whether a service unit is enabled to start automatically during system boot

systemctl is-failed ssh.service : to verify whether the unit failed during startup

systemctl start ssh : to start services

systemctl stop ssh.service : to stop service

systemctl mask sendmail.services : masking service prevents an administrations from accidentally starting a service that conflict with others

w –from : to display IP address of the server

ssh-keygen : to create a key pair

timedatectl : command shows an overview of the current time related system setting

timedatectl list-timezones : to list a database of time zone

timedatectl set-timezone America/Phoenix : to set the time and date to America/Phoenix

timedatectl set-ntp false : to disables automatic time sync

timedatectl set-time 9:30:34 : to change time

tzselect : select the appropriate time zone for Haiti

ip addr show dev eth0 : to retrieve the link local IPV6 address

ip -br addr show dev eth0 : to brief listing of IPV4 and IPV6 address only

ss : to display socket statistics

ip route servera : display the route information

ss -lt : display the listening TCP socket on the local system

nmcli dev status : view network information

nmcli con show : display a list of all connections

nmcli dev disconnect en3 : to disconnect the network device and brings down the connection

nmcli gen permissions : to view your current permissions

nmcli cm show –active : to show active connections

hostname : displays the current hostname

hostnamectl status : display the hostname status

hostnamectl set-hostname \ serverc.lab.ex.com : to change host name (permanently)

hostname host : to change host name (temporarily)

cat /etc/hostname : view the content of file

tar : to extract and compress files in linux

tar -cvf filename.tar s1.txt s2.txt s3.txt : creates the filename.tar archive containing the files s1.txt s2.txt s3.txt

tar -tf filename : to display the contents of the files

rpm -qa : list all installed packages

rpm -qf filename : determine what package provides filename

rpm -q packagename : lists the currently installed package version

rpm -qi packagename : get detailed package information

rpm -ql packagename : lsit the files that the package installs

rpm -qc openssh-clients : lists only the configuration files that the package installs

rpm-qd openssh-clients : list only the documentation files that the package installs

rpm -q –changelog audit : list the change long information for the package

rpm -ivh packagename : to install rpm package

dnf list 'http*' : displays installed and available packages

dnf search all 'web server" : lists packages by keyword found in the names and summary fields only

dnf info httpd : returns detailed information about a package

dnf provides /var/www/html : display package that matter the specified path name

dnf install packagename : install a software packages

dnf update packagename : update the package

dnf list kernel : to list all installed and available kernels

dnf remove pakagename : to remove an installed software package

dnf group list : display names of installed and available groups

dnf history : displays summary of installed and removal transaction

dnf repolist all : lists all available repositories and these statuses

dnf config-manager –enable packagename : this can enables and disables repositories

dnf config-manager \ --add-repo=https://d1.fedo..... : this command can also add the repositories to the machine

df : to display an overview of local and remote file system. Device which includes total disk space, used disk space, free disk space and percentage of the entire disk space

df -h : view the file system on the host machine with all limits converted to human readable format

lsblk : to list the details of a specified block device or of all the available devices

ll /dev/ l grep -I cd : list all the cd drives

find : command locate files by searching in real time int the file system hierarchy

find /-name sshd-config : to return the path of files that match filename exactly

find /etc -name '*pass*' : to search for files in the /etc/directory that contain the pass string

find /-name '*.txt' : to search for files that ends with the .txt extension

find /-iname '*message*' : to perform a case insensitive search for a file name

find /home/student -mmin +120 : list all files in the /home/student directory that changed in last 120 min

find /dev -type b list all block device files in the/dev directory

find /user/share -size +50M -size -100M : search result of all files in /user/share directory that are greater than 50MB and less than 100MB

diff : difference between two files

date +%M : minutes

date +%l : hours

date +%p : am/pm

date +%R : time

date +%x : date , date +%A : day

Shortcuts:

Alt+f2 : open GNOM terminal

; : command separator

Ctrl+shift+"+" : to zoom font size

Ctrl+ "-" : to reduce font size

Ctrl+A : jump to the beginning of command line

Ctrl+E : jump to end of the command line

ESC + "+" : history shortcut

Ctrl+v : visual block

Shift+v : select

X : delete

!23 : execute command number 23 from history

!! : previous command