<https://www.tutorialworks.com/linux-commands/>

<https://www.tecmint.com/useful-linux-commands-for-system-administrators/>

<https://haydenjames.io/90-linux-commands-frequently-used-by-linux-sysadmins/>

Linux Command sheet

1. ls -- list the contents of the directory

Ex: ls --color=auto

ls -l (Long listing of files)

ls -a (List includes hidden files)

ls -lh (list files in human readable format)

ls -r (list files in reverse order)

ls -ltr (list files and directories in reverse order)

ls -lS (list files by size)

Ex: $ls -ltr

1. hostname – Prints the hostname on terminal

Ex: $hostname

1. pwd -- print working directory

Ex: $pwd

1. cd – change directory

Switches: cd / (changes to home directory)

cd (changes to home directory)

cd – (goes to previous directory)

cd.. (goes to parent directory)

1. cp -- copy files and folders

Ex: cp file\_to\_copy.txt new\_file.txt

cp -r dir\_to\_copy/ new\_copy\_dir/ (Copy entire directory)

1. rm -- remove files and directories

Ex: rm file\_to\_copy.txt

rm -r dir\_to\_remove/ (removes an empty directory)

rm -rf dir\_with\_content\_to\_remove/ (removes directory with content)

1. mv -- moves or renames a file

Ex: mv source\_file destination\_folder/ (moves a file)

mv /home/kinsta/BestMoviesOfAllTime ./ (moves a files with absolute path, ./ stands for the present directory)

mv old\_file.txt new\_named\_file.txt (Renames a file)

1. mkdir -- Creates a new directory

Ex: mkdir -p movies/2004/ (Creates with subdirectories)

1. man -- Displays command manuals.

Ex: $man mkdir

1. chmod- Change the file or directory permissions

r, w, x – read write execute permissions

u,g,o,a – User, group, other, all permissions

Ex:

chmod u+rwx <file\_name> [Read, write and execute permissions to the file owner]

chmod go-w [Remove write permission for the group and others}

chmod u+rw,go+r [Read and write for Owner, Read-only for the group and other]

Octal Mode

4 Read Permission

2 Write Permission

1 Execute Permission

Ex: chmod 674 <file\_name>

1. exit -- Ends the terminal session

Ex: $exit

1. sudo -- Superuser do

Ex: $sudo su -(logs in the user with root previlages)

1. shutdown -- Power Off the machine

Ex: $sudo shutdown now

$shutdown 20:40

1. echo -- Print passed string on terminal
2. cat -- create, view, and concatenate files directly from the terminal

Ex: cat long\_text\_file.txt

cat>newfile.txt [ctrl+d to save]

1. ps -- running process information

Ex: ps

ps -e to list all the processes running, -ef with full format, -el long listing -aux full format, ps -u <username> all process initiated by that user.

ps -e |more lists page by page

1. kill -- kills the unresponsive process

Ex: kill 533494

Kill firefox

1. ping -- to test network connectivity

Ex: $ping

1. passwd -- allows you to change the user passwords

Ex: sudo passwd username

1. whoami -- displays the username currently in use

Ex: $whoami

1. wget -- Download file from internet

ex: $ wget https://dl.google.com/drive-file-stream/GoogleDriveSetup.exe

1. chown – change file owner and group

To change owner of the file

chown owner\_name file\_name

Ex: chown suneelkb file1.txt

To change the group of the file

Ex: chown :groupname file1.txt

To change both owner and group of the file

Ex: chown suneelkb:groupname file1.txt

1. date –Prints date and time on Terminal
2. systemctl -- systemd management tool that is used to manage services, check running statuses, start and enable services and work with the configuration files

Ex: # systemctl start httpd.service

# systemctl enable httpd.service

# systemctl status httpd.service

# systemctl restart {servicename}(Restart service)

# systemctl reboot <poweroff> (Power off or reboot)

# systemctl get-default

# systemctl set-default graphical.target (boot gui)

# systemctl isolate multi-user.target (boot to cli)

# systemctl rescue (Switch to rescue mode for troubleshooting)

# systemctl list-units --type=service (to see status of all services)

# systemctl list-units --type=service --state=active

# systemctl list-units –failed

# systemctl mask {servicename} (mask, start, restart, stop, enable, disable, kill ect)

1. tar -- used to compress files and folders

ex: $tar -xvf archive-name.tar

1. fdisk -- manipulate the disk partition table
2. whois – Display information from user directory.

Ex: $whois

1. useradd -- create a new user or update default new user information

ex: $useradd username

$useradd -m name -p password [-m creates user directory matches the user name]

1. userdel -- used to delete a user account and all related files
2. clear -- clears the screen of the terminal
3. ifconfig -- to assign an address to a network interface and to configure or display the current

network interface configuration information. If the command doesn’t work we need to install $apt-get install net-tools.

Ex: $ifconfig

1. alias -- lets you define temporary aliases in your shell session. Instruct the shell to replace one string with another, while executing the commands

Ex: alias ls="ls --color=auto"

1. unalias -remove an alias from the already defined aliases

Ex: unalias ls

1. touch -- updates the timestamp of the specified files, create new files with time stamp.

Ex: touch new\_file\_name

1. ./ -- lets the shell run an executable file
2. htop -- manage the machine’s resources directly from the terminal
3. unzip -- Extract the file
4. apt, yum -- Package manger to install apps

Ex: sudo apt install gimp (Ubuntu, Mint)

sudo yum install gimp (Redhat, Fedora, Cent)

1. vim -- terminal text editor
2. history -- displays the list of commands used in the past
3. which -- outputs the full path of shell commands

Ex: which python

# /usr/bin/python

1. less -- is a program that lets you inspect files backward and forward
2. tail -- prints the contents of a file, last 10 lines. Can be modified with -n

Ex: tail long.txt

tail -n 4 long.txt

1. head -- outputs the first 10 lines of a text file, but can change with -n

Ex: head long.txt

head -n 5 long.txt

1. grep -- searches for lines that match a regular expression and print them

Ex: grep "linux" long.txt

grep -c "linux" long.txt ( Display the count)

1. whatis -- Prints single line description of a command
2. wc -- word count

Ex: wc long.txt

# 37 207 1000 long.txt (lines, words, bite size and filename)

1. neofetch --displays information about system — like kernel version, shell, and hardware
2. find -- command searches for files in a directory hierarchy based on a regex expression

Ex: find [flags] [path] -name [expression]

find ./ -name "long.txt" # ./long.txt (search a file long.txt in the current directory)

1. nano – Initialize nano editor

ex: lsof -u username

1. vmstat -- shows system memory, processes, interrupts, paging, block I/O, and CPU info
2. netstat -- for network statistics
3. nslookup -- query Internet name servers (NS) interactively
4. chroot -- run command or interactive shell with a special root directory
5. usermod -- used to modify or change any attributes of an existing user account
   1. usermod -aG writers Suneel [add Suneel to writers group/default group is Suneel]
   2. usermod -g editors Suneel [change suneel’s primary group to editors]
   3. To remove user from a group - $id -nG Suneel [find the secondary groups of a user then run the command - $usermod -G editors suneel
6. more -- display file contents one screen/page at a time
7. killall -- Sends a kill signal to all instances of a process by name
8. sleep -- suspends program execution for a specified time
9. wait -- Suspend script execution until all jobs running in the background have been terminated