Linux Command Shell

File Commands

Ls	list files in directory
Ls –a	list all files, including hidden
Pwd	show the directory currently working in
Mkdir [directory]	create a new directory
Rm [file_name]	remove a file
Rm -r [directory_name]	remove a directory recursively
Rm -rf [directory_name]	remove a directory recursively without requiring confirmation
Cp [file_name1] [file_name2]	copy the contents of the first file to the second file
Cp -r [directory_name1]. [directory_name2]	recursively copy the contents of the first directory into the second directory
Mv [file_name1] [file_name2]	rename file_name1 to file_name2
Ln -s /path/to/[file_name] [link_name]	create a symbolic link to a file
Touch [file_name]	create a new file
More [file_name]	show the contents of a file
Head [file_name]	show the first 10 lines of a file
Tail [file_name]	show the last 10 lines of a file
Gpg -c [file_name]	encrypt a file
Gpg [file_name.gpg]	decrypt a file
Wc	print the number of words, lines, and bytes in a file

Users

Id	show details of the active user
Last	show the last logins onto the system
Who	show who is logged into the system
W	show who is logged in and their activity
Groupadd [group_name]	add a new group
Adduser [user_name]	add new user
Usermod –aG [group_name] [user_name]	add a user to a group
Userdel [user_name] usermod	use for changing / modifying user information

Directory Navigation

Cd ..   move up one level in the directory
                                         tree structure

Cd   change directory to $HOME

Cd /chosen/directory   change to specified directory

Disk Usage

Df –h   show free and used space on
                                         mounted systems

Df –I   show free inodes on mounted
                                         filesystems

Fdisk –l   show disk partitions, sizes, and types

Du –ah   show disk usage for all files and
                                         directory

Du –sh   show disk usage of current directory

Findmnt   show target mount point for all filesystems

Mount [device_path]
[mount_point]   mount a device

Searching

Grep [pattern]
[file_name]   search for a specific pattern in a file

Grep -r [pattern]
[directory_name]   search recursively for a specific
                                                  pattern in a directory

Locate [name]   find all files and directories by a
                                                  specific name

Find [/folder/location]
-name [a]   list names that begin with [a] in
                                                  [/folder/location]

Find [/folder/location]
-size [+100M]   list files larger than 100M in a
                                                  particular folder

File Transfer

**Scp [file_name.txt]
[server/tmp]**   securely copy a specific file to a
                                        server directory

**Rsync -a
[/your/directory]
[/backup/]**   synchronize the contents of a
                                        specific directory with a backup
                                        directory

File Compression

**Tar cf [compressed_file.
tar] [file_name]**   create an archived file from a file

**Tar xf [compressed_file.
tar]**   extract archived file

**Tar czf
[compressed_file.tar.gz]**   create a gzip compressed tar file

Gzip [file_name]   compress a file with the .gz
                                        Extension

System Information

Uname –r   show system information

Uname –a   show kernel release information

Uptime   show how long the system has been
                                            running, including load average

Hostname   show system hostname

Hostname –i   show the IP address of the system

Last reboot   show system reboot history

Date   show current time and date

Timedatectl   query and change the system clock

Cal   show current calendar month and day

W   show logged in users in the system

Whoami   show user you are using

**Finger
[username]**   show information about a user

Package Installation

**Yum search
[keyword]**   find a package by a related
                                         keyword

**Yum info
[package_name]**   show package information and
                                         summary

**Yum install
[package_name.
rpm]**   install a package using the YUM
                                         package manager

**Dnf install
[package_name.
rpm]**   install a package using the DNF
                                         package manager

**Rpm -i
[package_name.
rpm]**   install an rpm package from a local file

**Rpm -e
[package_name.
rpm]**   remove an rpm package

Hardware Information

Dmesg   show bootup messages

Cat /proc/cpuinfo   show CPU information

Free –h   show free and used memory (-m flag
                                   indicates memory in MB)

Lshw   list information about hardware
                                   configuration

Lsblk   list information about block devices

Ispci –tv   show PCI devices in a tree-like diagram

Isusb –tv   show USB devices in a tree-like
                                   diagram

Dmidecode   show hardware information from the
                                   BIOS

Hdparm -i /dev/[disk]   show information about disk data

Hdparm -tT /dev/[disk]   conduct a read speed test on disk

Badblocks -s /dev/[disk]   test for unreadable blocks on disk

Process Related

Ps — show a snapshot of active processes

Pstree — show processes as a tree

Pmap — shows a memory usage map of processes

Top — show all running processes

Kill [process_id] — kill a process under a given ID

Pkill [proc_name] — kill a process under the specified name

Killall [proc_name] — kill all processes labelled proc

Bg — list and resume stopped jobs in the background

Fg — bring the most recent suspended job to the foreground

Fg [job] — bring a particular job to the foreground

Lsof — list files opened by processes

Network

Ip addr show	show IP addresses and network interfaces
Ip address add [IP_address]	assign an IP address to interface eth0
Ifconfig	show IP addresses of all network interfaces
Netstat –pnltu	show active (listening) ports
Netstat –nutlp	show tcp and udp ports and their programs
Whois [domain]	show more information about a domain
Dig [domain]	show DNS information about a domain
Dig -x host	reverse lookup on domain
Dig -x [ip_address]	reverse lookup of an IP address
Host [domain]	do an IP lookup for a domain
Hostname –I	show the local IP address
Wget [file_name]	download a file from a domain

Keyboard Shortcuts

Ctrl + **C**   kill current process running in the
                                            terminal

Ctrl + **Z**   stop current process (can be
                                            resumed in the foreground with fg
                                            or in the background with bg)

Ctrl + **W**   cut one word before the cursor and
                                            add it to clipboard

Ctrl + **U**   cut part of the line before the
                                            cursor and add it to clipboard

Ctrl + **K**   cut part of the line after the cursor
                                            and add it to clipboard

Ctrl + **Y**   paste from clipboard

Ctrl + **R**   recall last command that matches
                                            the provided characters

Ctrl + **O**   run the previously recalled command

Ctrl + **G**   exit command history without
                                            running a command

!!   repeat the last command

Exit   log out of current session