

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
lspci -tv	show PCI devices in a tree-like diagram
lsusb -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

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

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
tar zxvf [source_code.tar.gz] cd [source_code] ./configure make make install	install software from source code

SSH Login

ssh user@host	connect to host as user
ssh host	securely connect to host via SSH default port 22
ssh -p [port] user@host	connect to host using a particular port
telnet host	connect to host via telnet default port 23

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

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

File Permission

chmod 777 [file_name]	give read, write, and execute permission to everyone
chmod 755 [file_name]	give full permission to owner, and read and execute permission to group and others
chmod 766 [file_name]	give full permission to owner, and read and write permission to group and others
chown [user] [file_name]	change the file ownership
chown [user]: [group] [file_name]	change the owner and group ownership of a file

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

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 calender month and day
w	show logged in users in the system
whoami	show user you are using
finger [username]	show information about a user

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

Directory Navigation

cd ..	move up one level in the directory tree structure
cd	change directory to \$HOME
cd /chosen/directory	change to specified directory

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]	delete a user
usermod	use for changing / modifying user information

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

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