

### Hardware Information

<b>dmesg</b>	Show bootup messages
<b>cat /proc/cpuinfo</b>	Show CPU information
<b>free -h</b>	Show free and used memory
<b>lshw</b>	Hardware configuration info
<b>lsblk</b>	Block devices info
<b>lspci -tv</b>	Tree-diagram of PCI devices
<b>lsusb -tv</b>	Tree-diagram of USB devices
<b>dmidecode</b>	Show BIOS hardware info
<b>hdparm -i /dev/[disk]</b>	Show disk data info
<b>hdparm -t /dev/[disk]</b>	Disk read speed test
<b>badblocks -s /dev/[disk]</b>	Unreadable blocks test

### File Compression

<b>tar cf [file.tar] [file]</b>	Create a tar file from a file
<b>tar xf [file.tar]</b>	Extract archived file
<b>tar czf [file.tar.gz]</b>	Create a gzip tar file
<b>gzip [file]</b>	Create a gz compressed file

### Package Installation

<b>yum search [keyword]</b>	Find a package by a keyword
<b>yum info [package]</b>	Package info & summary
<b>yum install [package.rpm]</b>	Install a package with YUM
<b>dnf install [package.rpm]</b>	Install a package with DNF
<b>rpm -i [package.rpm]</b>	Install a local rpm package
<b>rpm -e [package.rpm]</b>	Remove an rpm package
<b>apt install [package]</b>	Install a package with APT
<b>tar zxvf [source_code.tar.gz]</b> <b>cd [source_code]</b> <b>./configure</b> <b>make</b> <b>make install</b>	Install software from source code

### SSH Login

<b>ssh [user]@[host]</b>	Connect to host as user
<b>ssh [host]</b>	Connect to host via port 22
<b>ssh -p [port] [user]@[host]</b>	Use a non-default port
<b>telnet [host]</b>	Connect to Telnet via port 23

### Searching

<b>grep [pattern] [file]</b>	Search for a pattern in a file
<b>grep -r [pattern] [directory]</b>	Search a pattern recursively
<b>locate [name]</b>	Search for files & directories
<b>find [/location] -name [x]</b>	List items beginning with [x]
<b>find [/location] -size [+100M]</b>	List items larger than 100MB

### File Transfer

<b>scp [file.txt] [server/tmp]</b>	Securely copy file to server
<b>rsync -a [/location] [/backup/]</b>	Sync the contents of a location with the backup directory

### Process Related

<b>ps</b>	Show active process snapshot
<b>pstree</b>	Show processes as a tree
<b>pmap</b>	Show process memory usage
<b>top</b>	Show all running processes
<b>kill [process_id]</b>	Kill the process by ID
<b>kill [process_name]</b>	Kill the process by name
<b>killall [process_name]</b>	Kill all processes by name
<b>bg</b>	List background processes
<b>fg</b>	Most recent suspended job to foreground
<b>fg [job]</b>	Bring [job] to foreground
<b>ls -of</b>	List files opened by processes
<b>trap "[commands]" [signal]</b>	Execute command on signal
<b>wait</b>	Pause terminal until process completes
<b>nohup [command] &amp;</b>	Run a process in background

### File Permission

<b>chmod 777 [file]</b>	File read, write, execute permissions to everyone
<b>chmod 755 [file]</b>	Full permission to owner, read permissions for others
<b>chmod 766 [file]</b>	Full permission to owner, read and write for others
<b>chown [user] [file]</b>	Change file ownership
<b>chown [user]:[group] [file]</b>	Change file owner and group

### File Commands

<b>ls</b>	List files in the directory
<b>ls -a</b>	List files, include hidden files
<b>pwd</b>	Show current directory
<b>mkdir [name]</b>	Create a directory
<b>rm [file]</b>	Remove a file
<b>rm -r [directory]</b>	Recursively remove directory
<b>rm -rf [directory]</b>	Force remove directory
<b>cp [file1] [file2]</b>	Copy file1 to file2
<b>cp -r [directory1] [directory2]</b>	Copy directory1 to directory2
<b>mv [filename1] [filename2]</b>	Rename a file
<b>ln -s [/path/file] [link]</b>	Create a symbolic link to file
<b>touch [file]</b>	Create a new file
<b>more [file]</b>	Show file contents
<b>head [file]</b>	Show first 10 lines of a file
<b>tail [file]</b>	Show last 10 lines of a file
<b>gpg -c [file]</b>	Encrypt a file
<b>gpg [file.gpg]</b>	Decrypt a file
<b>wc</b>	Count words/lines/bytes
<b>ls   xargs wc</b>	Words/lines/bytes in directory
<b>cut -d[delimiter] [file]</b>	Cut file section and print
<b>[data]   cut -d[delimiter]</b>	Cut data section and print
<b>awk '[pattern] {print \$0}' [file]</b>	Print lines matching a pattern
<b>shred -u [file]</b>	Overwrite and delete a file
<b>diff [file1] [file2]</b>	Compare two files
<b>source [file]</b>	Compile from source code
<b>[command]   tee [filename] &gt;/dev/null</b>	Store command output to a file, skip terminal output

### Users and Groups

<b>id</b>	Show active user details
<b>last</b>	Show last system logins
<b>who</b>	Show who is logged in
<b>w</b>	Show logged users and activity
<b>groupadd [group]</b>	Add a new group
<b>adduser [user]</b>	Add a new user
<b>usermod -aG [group] [user]</b>	Add user to group
<b>userdel [user]</b>	Delete a user
<b>usermod</b>	Modify user information
<b>chgrp [group] [directory]</b>	Change directory group

### System Management and Info

<b>uname -r</b>	Show system information
<b>uname -a</b>	Show kernel release info
<b>uptime</b>	Show uptime length/avg. load
<b>hostname</b>	Show system hostname
<b>hostname -I</b>	Show system IP address
<b>last reboot</b>	Show reboot history
<b>date</b>	Show current time and date
<b>timedatectl</b>	Manage the system clock
<b>cal</b>	Show current day and month
<b>whoami</b>	Show current user
<b>finger [username]</b>	Show user information
<b>ulimit [flags] [limit]</b>	View or limit system resources
<b>shutdown [hh:mm]</b>	Schedule a system shut down
<b>shutdown now</b>	Shut down immediately
<b>modprobe [module-name]</b>	Add a new kernel module

### Network Management

<b>ip addr show</b>	Show IP addresses
<b>ip address add [ip]</b>	Assign IP address to interface
<b>ifconfig</b>	Show all network interfaces
<b>netstat -nltu</b>	Show active listening ports
<b>netstat -nutlp</b>	Show tcp and udp ports
<b>whois [domain]</b>	Show domain information
<b>dig [domain]</b>	Show domain's DNS info
<b>dig -x [host]</b>	Domain reverse lookup
<b>dig -x [ip]</b>	IP address reverse lookup
<b>host [domain]</b>	IP lookup for a domain
<b>hostname -I</b>	Show local IP address
<b>wget [file_url]</b>	Download a file from url
<b>curl -O [file_url]</b>	Download a file from url
<b>nslookup [domain]</b>	Show domain information

### Directory Navigation

<b>cd ..</b>	Move up one level
<b>cd</b>	Change directory to \$HOME
<b>cd [/location]</b>	Change to specified directory

### Disk Usage

<b>df -h</b>	Show free space on system
<b>df -l</b>	Show free nodes on system
<b>fdisk -l</b>	Disk partition types and sizes
<b>du -ah</b>	Show disk usage for all files
<b>du -sh</b>	Show disk usage for current directory
<b>findmnt</b>	Show target mount point
<b>mount [device] [mount_point]</b>	Mount a device

### Variables

<b>let "[variable]=[value]"</b>	Assign integer value to var
<b>export [variable]</b>	Export a Bash variable
<b>declare [variable]="[value]"</b>	Declare a Bash variable
<b>set</b>	List variables and functions
<b>echo \${variable}</b>	Display value of the variable

### Shell Command Management

<b>alias [alias]='[command]'</b>	Create command alias
<b>watch -n [interval] [command]</b>	Set interval to run a command
<b>sleep [interval] &amp;&amp; [command]</b>	Postpone command execution
<b>at [hh:mm]</b>	Schedule a job
<b>man [command]</b>	Display command manual
<b>history</b>	Print command history

### Keyboard Shortcuts

<b>Ctrl + C</b>	Kill current process
<b>Ctrl + Z</b>	Stop process (can be resumed)
<b>Ctrl + W</b>	Cut the word before the cursor
<b>Ctrl + U</b>	Cut part of the line before the cursor
<b>Ctrl + K</b>	Cut part of the line after the cursor
<b>Ctrl + Y</b>	Paste from clipboard
<b>Ctrl + R</b>	Recall last command
<b>Ctrl + O</b>	Run the recalled command
<b>Ctrl + G</b>	Exit command history
<b>!!</b>	Repeat the last command
<b>exit</b>	Log out of the session