

## Keyboard Shortcuts

<b>Ctrl + C</b>	Kill process running in the terminal.
<b>Ctrl + Z</b>	Stop the current process. The process can be resumed in the foreground with <b>fg</b> or in the background with <b>bg</b> .
<b>Ctrl + W</b>	Cut one word before the cursor and add it to the clipboard.
<b>Ctrl + U</b>	Cut part of the line before the cursor and add it to the clipboard.
<b>Ctrl + K</b>	Cut part of the line after the cursor and add it to the clipboard.
<b>Ctrl + Y</b>	Paste from clipboard.
<b>Ctrl + R</b>	Recall the last command that matches the provided characters.
<b>Ctrl + O</b>	Run the previously recalled command.
<b>Ctrl + G</b>	Exit command history without running a command.
<b>clear</b>	Clear the terminal screen.
<b>!!</b>	Run the last command again.
<b>exit</b>	Log out of the current session.

## Searching

<b>find [path] -name [search_pattern]</b>	Find files and directories that match the specified pattern in a specified location.
<b>find [path] -size (+ 100M)</b>	See files and directories larger than a specified size in a directory.
<b>grep [search_pattern] [file_name]</b>	Search for a specific pattern in a file with grep.
<b>grep -r [search_pattern] [directory_name]</b>	Recursively search for a pattern in a directory.
<b>locate [name]</b>	Locate all files and directories related to a particular name.
<b>which [command]</b>	Search the command path in the <b>\$PATH</b> environment variable.
<b>whereis [command]</b>	Find the source, binary, and manual page for a command.
<b>awk 'search_pattern' [print \$0] [file_name]</b>	Print all lines matching a pattern in a file. See also the <b>gawk</b> command, the GNU version of <b>awk</b> .
<b>sed 's/[old_text]/[new_text]/' [file_name]</b>	Find and replace text in a specified file.

## Directory Navigation

<b>ls</b>	List files and directories in the current directory.
<b>ls -a</b>	List all files and directories in the current directory (shows hidden files).
<b>ls -l</b>	List files and directories in long format.
<b>pwd</b>	Show the directory you are currently working in.
<b>cd</b>	Change directory to <b>\$HOME</b> .
<b>cd ..</b>	Move up one directory level.
<b>cd -</b>	Change to the previous directory.
<b>cd [directory_path]</b>	Change location to a specified directory.
<b>dirs</b>	Show current directory stack.

## Packages (Debian/Ubuntu)

<b>sudo apt-get install [package_name]</b>	Install an APT package using the apt-get package utility.
<b>sudo apt install [package_name]</b>	Install an APT package using a newer APT package manager.
<b>apt search [keyword]</b>	Search for a package in the APT repositories.
<b>apt list</b>	List packages installed with APT.
<b>apt show [package_name]</b>	Show information about a package.
<b>sudo dpkg -i [package_name.deb]</b>	Install a .deb package with the Debian package manager.
<b>sudo dpkg -l</b>	List packages installed with dpkg.

## Users and Groups

<b>id</b>	See details about the active users.
<b>last</b>	Show the last system logins.
<b>who</b>	Display who is currently logged into the system.
<b>w</b>	Show which users are logged in and their activity.
<b>finger [user_name]</b>	Show user information.
<b>sudo useradd [user_name]</b>	Create a new user account.
<b>sudo adduser [user_name]</b>	Create a new user account through the adduser command interface.
<b>sudo userdel [user_name]</b>	Delete a user account.
<b>sudo usermod -aG [group_name] [user_name]</b>	Modify user information (add a user to a group).
<b>passwd</b>	Change the current user's or another user's password.
<b>sudo groupadd [group_name]</b>	Add a new group.
<b>sudo groupdel [group_name]</b>	Delete a group.
<b>sudo groupmod -n [new_name] [old_name]</b>	Modify a user group (change group name).
<b>sudo [command]</b>	Temporarily elevate user privileges to supervisor or root.
<b>su - [user_name]</b>	Switch the user account or become a supervisor.
<b>chgrp [group_name] [file/directory]</b>	Change file or directory group.

## SSH Login

<b>ssh [user_name]@[host]</b>	Connect to a remote host as a user via SSH.
<b>ssh [host]</b>	Securely connect to a host via SSH default port 22.
<b>ssh -p [port] [user_name]@[host]</b>	Connect to the host using a particular port.
<b>ssh-keygen</b>	Generate SSH key pairs.
<b>sudo service sshd start</b>	Start SSH server daemon.
<b>scp [file_name] [user_name]@[host]:[remote_path]</b>	Securely copy files between local and remote systems via SSH.
<b>sftp [user_name]@[host]</b>	Interactive file transfer over encrypted SSH session using SFTP protocol.
<b>telnet [host]</b>	Connect to the host via Telnet default port 23.

## File Permissions

<b>chmod 777 [file_name]</b>	Assign read, write, and execute file permission to everyone. ( <b>rwxrwxrwx</b> )
<b>chmod 755 [file_name]</b>	Give read, write, and execute permission to owner, and read and execute permission to group and others. ( <b>rwxr-xr-x</b> )
<b>chmod 766 [file_name]</b>	Assign full permission to the owner, and read and write permission to the group and others. ( <b>rwxrw-rw-</b> )
<b>chown [user_name] [file_name]</b>	Change the ownership of a file with chown command.
<b>chown [user_name]:[group_name] [file_name]</b>	Change the owner and group ownership of a file.

## Packages (Red Hat, CentOS, Fedora)

<b>sudo yum install [package_name]</b>	Install a package using the YUM package manager.
<b>yum search [keyword]</b>	Find a package in the YUM repositories based on the provided keyword.
<b>yum list installed</b>	List all packages installed with YUM.
<b>yum info [package_name]</b>	Show package information for a package.
<b>sudo dnf install [package_name]</b>	Install a package using the DNF package manager.
<b>sudo rpm -i [package_name.rpm]</b>	Install a .rpm package from a local file.

## Files

<b>mkdir [directory_name]</b>	Create a new directory.
<b>rm [file_name]</b>	Remove a file.
<b>rm -r [directory_name]</b>	Remove a directory recursively.
<b>rm -rf [directory_name]</b>	Recursively remove a directory without requiring confirmation.
<b>cp [source_file] [destination_file]</b>	Copy the contents of one file to another file.
<b>cp -r [source_directory] [destination_directory]</b>	Recursively copy a directory to a second directory.
<b>mv [source_file] [destination_file]</b>	Move or rename files or directories.
<b>ln -s [path]/[file_name] [link_name]</b>	Create a symbolic link to a file.
<b>touch [file_name]</b>	Create a new file.
<b>cat [file_name]</b>	Show the contents of a file.
<b>cat [source_file] &gt;&gt; [destination_file]</b>	Append file contents to another file.
<b>head [file_name]</b>	Show the first ten lines of a file.
<b>tail [file_name]</b>	Show the last ten lines of a file.
<b>more [file_name]</b>	Display contents of a file page by page.
<b>less [file_name]</b>	Show the contents of a file with navigation.
<b>nano [file_name]</b>	Open or create a file using the nano text editor.
<b>vi [file_name]</b>	Open or create a file using the Vi/Vim text editor.
<b>gpg -c [file_name]</b>	Encrypt a file.
<b>gpg [file_name].gpg</b>	Decrypt an encrypted .gpg file.
<b>wc -w [file_name]</b>	Show the number of words, lines, and bytes in a file.
<b>ls   xargs wc</b>	List the number of lines/words/characters in each file in a directory.
<b>cut -d [delimiter] [file_name]</b>	Cut a section of a file and print the result to standard output.
<b>[data]   cut -d [delimiter]</b>	Cut a section of piped data and print the result to standard output.
<b>shred -u [file_name]</b>	Overwrite a file to prevent its recovery, then delete it.
<b>diff [first_file] [second_file]</b>	Compare two files and display differences.
<b>source [file_name]</b>	Read and execute the file content in the current shell.
<b>[command]   tee [file_name] &gt;/dev/null</b>	Store the command output in a file and skip the terminal output.

## Disk Usage

<b>df -h</b>	Check free and used space on mounted systems.
<b>df -i</b>	Show free inodes on mounted file systems.
<b>fdisk -l</b>	Display disk partitions, sizes, and types with the command.
<b>du -ah</b>	See disk usage for all files and directories.
<b>du -sh</b>	Show disk usage of the current directory.
<b>mount</b>	Show currently mounted file systems.
<b>findmnt</b>	Display target mount point for all file systems.
<b>mount [device_path] [mount_point]</b>	Mount a device.

## Packages (Universal)

<b>tar xzf [file_name.tar.gz] cd [extracted_directory] /configure make install</b>	Install software from source code.
<b>sudo snap install [package_name]</b>	Install a Snap package.
<b>sudo snap find [keyword]</b>	Search for a package in the Snap store.
<b>sudo snap list</b>	List installed Snap packages.
<b>flatpak install [package_name]</b>	Install a Flatpak package.
<b>flatpak search [keyword]</b>	Search for a Flatpak application in repositories.
<b>flatpak list</b>	List installed Flatpak packages.

## System Management

<b>uname -r</b>	Show system information via uname command.
<b>uname -a</b>	See kernel release information.
<b>uptime</b>	Display how long the system has been running, including the load average.
<b>hostname</b>	View system hostname.
<b>hostname -i</b>	Show the IP address of the system.
<b>last reboot</b>	List system reboot history.
<b>date</b>	See current time and date.
<b>timedatectl</b>	Query and change the system clock.
<b>cal</b>	Show current calendar (month and day).
<b>w</b>	List logged-in users.
<b>whoami</b>	See which user you are using.
<b>finger [user_name]</b>	Show information about a particular user.
<b>ulimit [flags] [limit]</b>	View or limit system resource amounts.
<b>shutdown [h:mm]</b>	Schedule a system shutdown.
<b>shutdown now</b>	Shut down the system immediately.
<b>modprobe [module_name]</b>	Add a new kernel module.
<b>dmesg</b>	Show bootup messages.

## Network

<b>ip addr show</b>	List IP addresses and network interfaces.
<b>ip address add [IP_address]</b>	Assign an IP address to interface <b>eth0</b> .
<b>ifconfig</b>	Display IP addresses of all network interfaces.
<b>ping [remote_host]</b>	Ping remote host.
<b>netstat -pnltu</b>	See active (listening) ports with the netstat command.
<b>netstat -tuln</b>	Show TCP and UDP ports and their programs.
<b>whois [domain_name]</b>	Display more information about a domain.
<b>dig [domain_name]</b>	Show DNS information about a domain using the dig command.
<b>dig -x [domain_name]</b>	Do a reverse DNS lookup on the domain.
<b>dig -x [IP_address]</b>	Do a reverse DNS lookup of an IP address.
<b>host [domain_name]</b>	Perform an IP lookup for a domain.
<b>hostname -i</b>	Show the local IP address.
<b>nslookup [domain_name]</b>	Receive information about an internet domain.

## File Compression

<b>tar cf [archive.tar] [files/directory]</b>	Archive an existing file or directory.
<b>tar xf [archive.tar]</b>	Extract an archived file.
<b>tar czf [archive.tar.gz]</b>	Create a .gz compressed tar archive.
<b>gzip [file_name]</b>	Compress or decompress .gz files.
<b>gunzip [file_name.gz]</b>	Compress or decompress .gz files.
<b>bzip2 [file_name]</b>	Compress or decompress .bz2 files.
<b>bunzip2 [file_name.bz2]</b>	Compress or decompress .bz2 files.

## File Transfer

<b>scp [source_file] [user]@[remote_host]:[destination_path]</b>	Copy a file to a server directory securely.
<b>rsync -a [source_directory] [user]@[remote_host]:[destination_directory]</b>	Synchronize the contents of a directory with a backup directory.
<b>wget [link]</b>	Download files from FTP or web servers.
<b>curl -O [link]</b>	Transfer data to or from a server with various protocols.
<b>ftp [remote_host]</b>	Transfer files between local and remote systems interactively using FTP.
<b>sftp [user]@[remote_host]</b>	Securely transfer between local and remote hosts using SFTP.

## Processes

<b>ps</b>	List active processes.
<b>pstree</b>	Show processes in a tree-like diagram.
<b>mpmap</b>	Display a memory usage map of processes.
<b>top</b>	See all running processes.
<b>htop</b>	Interactive and colorful process viewer.
<b>kill [process_id]</b>	Terminate a Linux process under a given ID.
<b>pkill [process_name]</b>	Terminate a process under a specific name.
<b>killall [label]</b>	Terminate all processes with a given label.
<b>prgrrp [keyword]</b>	List processes based on the provided keyword.
<b>pidof [process_name]</b>	Show the PID of a process.
<b>bg</b>	List and resume stopped jobs in the background.
<b>fg</b>	Bring the most recently suspended job to the foreground.
<b>fg [job]</b>	Bring a particular job to the foreground.
<b>ls of</b>	List files opened by running processes.
<b>trap "[commands]" [signal]</b>	Catch a system error signal in a shell script. Executes provided commands when the signal is caught.
<b>wait</b>	Pause the terminal or a Bash script until a running process is completed.
<b>nohup [command] &amp;</b>	Run a Linux process in the background.

## Hardware Information

<b>lscpu</b>	See CPU information.
<b>lsblk</b>	See information about block devices.
<b>lspci -tv</b>	Show PCI devices in a tree-like diagram.
<b>lsusb -tv</b>	Display USB devices in a tree-like diagram.
<b>lshw</b>	List hardware configuration information.
<b>cat /proc/cpuinfo</b>	Show detailed CPU information.
<b>cat /proc/meminfo</b>	View detailed system memory information.
<b>cat /proc/mounts</b>	See mounted file systems.
<b>free -h</b>	Display free and used memory.
<b>sudo dmidecode</b>	Show hardware information from the BIOS.
<b>hdparm -i /dev/[device_name]</b>	Display disk data information.
<b>hdparm -tT /dev/[device_name]</b>	Conduct a read speed test on the device/disk.
<b>badblocks -s /dev/[device_name]</b>	Test for unreadable blocks on the device/disk.
<b>fsck /dev/[device_name]</b>	Run a disk check on an unmounted disk or partition.

## Shell Commands

<b>alias [alias-name]="[command]"</b>	Create an alias for a command.
<b>watch -n [interval-in-seconds] [command]</b>	Set a custom interval to run a user-defined command.
<b>sleep [time-interval] &amp;&amp; [command]</b>	Postpone the execution of a command.
<b>at [hh:mm]</b>	Create a job to be executed at a certain time ( <b>Ctrl-D</b> to exit prompt after command).
<b>man [command]</b>	Display a built-in manual for a command.
<b>history</b>	Print the command history used in the terminal.

## Variables

<b>let "[variable_name]=[value]"</b>	Assign an integer value to a variable.
<b>export [variable_name]</b>	Export a Bash variable.
<b>declare [variable-name]=[value]"</b>	Declare a Bash variable.
<b>set</b>	List the names of all the shell variables and functions.
<b>unset [variable_name]</b>	Remove an environment variable.
<b>echo \${variable-name}</b>	Display the value of a variable.