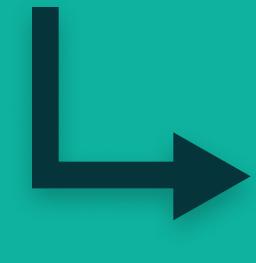


Linux Commands' Cheat Sheet



Hardware Information

<code>dmesg</code>	show bootup messages
<code>cat /proc/cpuinfo</code>	show CPU information
<code>free -h</code>	show free and used memory (-m flag indicates memory in MB)
<code>lshw</code>	list information about hardware configuration
<code>lsblk</code>	list information about block devices
<code>lspci -tv</code>	show PCI devices in a tree-like diagram
<code>lsusb -tv</code>	show USB devices in a tree-like diagram
<code>dmidecode</code>	show hardware information from the BIOS
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<code>hdparm -i /dev/[disk]</code>	show information about disk data
<code>hdparm -tT /dev/[disk]</code>	conduct a read speed test on disk
<code>badblocks -s /dev/[disk]</code>	test for unreadable blocks on disk



File Compression

<code>tar cf [compressed_file.tar] [file_name]</code>	create an archived file from a file
<code>tar xf [compressed_file.tar]</code>	extract archived file
<code>tar czf [compressed_file.tar.gz]</code>	create a gzip compressed tar file
<code>gzip [file_name]</code>	compress a file with the .gz extension

Package Installation

<code>yum search [keyword]</code>	find a package by a related keyword
<code>yum info [package_name]</code>	show package information and summary
<code>yum install [package_name.rpm]</code>	install a package using the YUM package manager
<code>dnf install [package_name.rpm]</code>	install a package using the DNF package manager
<code>rpm -i [package_name.rpm]</code>	install an rpm package from a local file
<code>rpm -e [package_name.rpm]</code>	remove an rpm package
<code>tar zxvf [source_code.tar.gz] cd [source_code] .configure make make install</code>	install software from source code



SSH Login

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

Searching

<code>grep [pattern] [file_name]</code>	search for a specific pattern in a file
<code>grep -r [pattern] [directory_name]</code>	search recursively for a specific pattern in a directory
<code>locate [name]</code>	find all files and directories by a specific name
<code>find [/folder/location] -name [a]</code>	list names that begin with [a] in [/folder/location]
<code>find [/folder/location] -size [+100M]</code>	list files larger than 100M in a particular folder

File Transfer

<code>scp [file_name.txt] [server/tmp]</code>	securely copy a specific file to a server directory
<code>rsync -a [/your/directory] [/backup/]</code>	synchronize the contents of a specific directory with a backup directory



Process Related

<code>ps</code>	show a snapshot of active processes
<code>ps tree</code>	show processes as a tree
<code>pmap</code>	shows a memory usage map of processes
<code>top</code>	show all running processes
<code>kill [process_id]</code>	kill a process under a given ID
<code>pkill [proc_name]</code>	kill a process under the specified name
<code>killall [proc_name]</code>	kill all processes labelled proc
<code>bg</code>	list and resume stopped jobs in the background
<code>fg</code>	bring the most recent suspended job to the foreground
<code>fg [job]</code>	bring a particular job to the foreground
<code>lsof</code>	list files opened by processes

Disk Usage

<code>df -h</code>	show free and used space on mounted systems
<code>df -i</code>	show free inodes on mounted filesystems
<code>fdisk -l</code>	show disk partitions, sizes, and types
<code>du -ah</code>	show disk usage for all files and directory
<code>du -sh</code>	show disk usage of current directory
<code>findmnt</code>	show target mount point for all filesystems
<code>mount [device_path] [mount_point]</code>	mount a device



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] [director_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

Directory Navigation

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



System Information

<code>uname -r</code>	show system information
<code>uname -a</code>	show kernel release information
<code>uptime</code>	show how long the system has been running, including, load average
<code>hostname</code>	show system hostname
<code>hostname -i</code>	show the ip address of the system
<code>last reboot</code>	show system reboot history
<code>date</code>	show current time and date
<code>timedatectl</code>	query and change the system clock
<code>cal</code>	show current calendar month and day
<code>w</code>	show logged in users in the system
<code>whoami</code>	show user you are using
<code>finger [username]</code>	show information about a user

Users

<code>id</code>	show details of the active user
<code>last</code>	show the last logins onto the system
<code>who</code>	show who is logged into the system
<code>w</code>	show who is logged in and their activity
<code>groupadd [group_name]</code>	add a new group
<code>adduser [user_name]</code>	add new user
<code>usermod -aG [group_name] [user_name]</code>	add a user to a group
<code>userdel [user_name]</code>	delete a user
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Network

<code>ip addr show</code>	show IP addresses and network interfaces
<code>ip address add [IP_address]</code>	assign an IP address to interface eth0
<code>ifconfig</code>	show IP addresses of all network interfaces
<code>netstat -pnltu</code>	show active (listening) ports
<code>netstat -nutlp</code>	show tcp and udp ports and their programs
<code>whois [domain]</code>	show more information about a domain
<code>dig [domain]</code>	show DNS information about a domain
<code>dig -x host</code>	reverse lookup on domain
<code>dig -x [ip_address]</code>	reverse lookup of an IP address
<code>host [domain]</code>	do an IP lookup for a domain
<code>hostname -l</code>	show the local IP address
<code>wget [file_name]</code>	download a file from a domain



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

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 previous recalled command
Ctrl + G	exit command history without running a command
!!	repeat the last command
exit	log out of current session

