

Linux Command Cheat Sheet

Basic Commands	
	pipe (redirect) output
sudo [command]	run [command] in superuser mode
nohup [command]	run < command> immune to hangup signal
man [command]	display help pages of <command>
[command] &	run < command> and send task to background
>> [fileA]	append to fileA, preserving existing contents
> [fileA]	output to fileA, overwriting contents
xargs	build command line from previous output
1>2&	Redirect stdout to stderr
fg %N	go to task N
jobs	list task
disown {PID}	allow sub-processes live beyond the shell that it attached to

Hardwares	
arch	display the name of the system architecture
badblocks	unreadable block test
dmidecode	show BIOS hardware info
hdparm	show disk data info
lsblk	block devices info
lscpu	display information about the CPU architecture
lshw	hardware configuration info
lsmem	list the ranges of available memory with their online status
lspci	PCI devices info
lsusb	USB devices info

OS	
uname	show distro/kernel info
cat /etc/**release	show all detail distro/kernel info
hostname/hostnamectl	get/set hostname of computer
modprobe [module-name]	add new kernel module
ulimit	get/set system resources limit
uname	show distro/kernel info
uptime	show system uptime

About detail command examples, please install [tldr](#) tools and search [tldr {command}](#)

Basic Shortcuts			
CTRL + L	Clear the terminal screen	ALT + L	List current files + folders in current directory
CTRL + D	Logout / Delete character on the right	ALT + D	Delete word on the right
CTRL + A	Cursor to the start of line		
CTRL + E	Cursor to the end of line	ALT + E	Open \$VISUAL or \$EDITOR
CTRL + U	Delete left of the cursor	ALT + U	Upper word on the right
CTRL + K	Delete right of the cursor		
CTRL + W	Delete word on the left	ALT + W	Appropriate word on the left (equivalent to `man -k {word}`)
CTRL + Y	Paste (after CTRL U/K or W)		
CTRL + Z	Stop the current command		
CTRL + H	Delete left character		
CTRL + B	Move cursor backward 1 block	ALT + B	Move cursor backward 1 word
CTRL + F	Move cursor forward 1 block	ALT + F	Move cursor forward 1 word

Files & Folders	
chattr	change attributes of files or directories (for example: immutable to changes & deletion)
chmod	change files/folders permission
chown	change files/folders owner user/group
cp	copy files/folders
diff	compare 2 files
file	check current file type
find	find files/folders in a director
ln	create file/folder symbolic link
locate	find filenames quickly
ls	list files & folder in current dir
mkdir	create new dir
mv	move/rename file/folder
rm/rmdir	remove files or directories
rename	rename multiple files
pwd	show current dir path
touch	create file or set access/modification times
tree	list files & folder in current dir in tree graph

Processes	
at	execute commands once at a later time
bg	list backgroud processes
crontab	schedule cron jobs to run on a time interval for the current user
dmesg	write the kernel messages to stdout
fg	most recent suspended job to foreground
htop	display dynamic real-time information about running processes
kill	kill process by ID
killall	kill all processes by name
lsuf	list files opened by processes
nice	execute a program with a custom scheduling priority
pgrep	find or signal processes by name
pkill	kill process by name
ps	show active process snapshot
psree	show processes as tree
renice	change process priority
sar	monitor performance of various Linux subsystems
time	measure how long a command took to run
timeout	run cmd w/time limit
top	show all running processes & info
sleep	delay specified time

Command Helpers	
apropos	find command brief information based on a `keyword`
history	command-line history
man	show command manual
tldr	3rd tools that show simple & frequently-using command examples
which	locate command binary path(s)
{command} help   {command} -help	show brieft command helper

Timezone & Locale	
date	set or display the system date
localectl	control the system locale and keyboard layout settings
timedatectl	control the system time and date

Disks & Partitions	
blkid	lists all recognized partitions and their UUID
dd	low level data duplicator
df	show free space on system
du	show disk usage for all files
eject	ejects the specified disk
fdisk/cfdisk	manipulate partition table
fdupes	find duplicate files
findmnt	show target mount point
fsck	check & repair filesystem
iostat	statistics report for devices and partitions.
lsblk	report info about block devices
lvcreate	create a logical volume
mkfs	make/create a filesystem
mkisofs	create ISO files from directories
mkswap	set up a Linux swap area on a device or in a file
mount/umount	mount/unmount a device
pvcreeate	create a physical volume
resize2fs	update a filesytem, after lvextend*

Input/Output Manipulators	
<i>awk,gawk</i>	pattern scanning
<i>l</i>	print or concatenate files
<i>cut</i>	cut out fields from stdin or files
<i>clear</i>	clears the screen of the terminal
<i>column</i>	format stdin or a file into multiple columns
<i>echo</i>	print line of text
<i>grep</i>	print lines matching pattern
<i>head/tail</i>	output the first/last part of files
<i>jq/yq</i>	JSON/YAML processor
<i>less/more</i>	interactive reading, allowing scrolling and search
<i>sed</i>	edit text in a scriptable manner
<i>sort</i>	sort lines of text files
<i>tee</i>	read from stdin and write to stdout and files (or commands)
<i>uniq</i>	output the unique lines from a input or file
<i>watch</i>	execute a command repeatedly, and monitor the output in full-screen mode
<i>wc</i>	count lines, words, and bytes

Compress & Depress	
bzip2,bunzip2	create or extract .bz2 files
gzip,gunzip,zcat	create or extract .gz file from files
rar	create or extract .rar files
rpm	create or extract .rpm file from files
tar	create or extract .tar, .tgz file from files
uuencode,uudecode	create or extract .Z files
zip,unzip	create or extract .zip file from files

Users & Groups	
<i>chage</i>	change user's password expiration
<i>chfn</i>	update user information
<i>chgrp</i>	change group ownership of files & folders
<i>chown</i>	change user, group ownership of files & folders
<i>id</i>	get id of active users
<i>last</i>	last logged users & reboots
<i>lastb</i>	last bad logins (btmp)
<i>lastlog</i>	recent login users
<i>lslogins</i>	show known users
<i>passwd</i>	change user password
<i>su [user]</i>	login as other user
<i>useradd</i>	add a new user
<i>userdel</i>	remove a user
<i>usermod</i>	modify user info
<i>visudo</i>	edit /etc/sudoers
<i>who</i>	get information about who login & time
<i>whoami/users</i>	get current user name

Services & Daemons	
<i>initctl</i>	upstart systems & services manager
<i>journalctl</i>	query the systemd journal
<i>rc-service</i>	openrc systems & services manager
<i>service</i>	mange services by running init scripts
<i>sv</i>	runit services manager
<i>systemctl</i>	systemd systems & services manager

Networking	
<i>arp</i>	get/manage system ARP cache
<i>dig/nslookup [domain]</i>	show domain DNS info
<i>host [domain]</i>	IP lookup for a domain
<i>ifconfig</i>	show all network interfaces
<i>ip addr show</i>	show IP address
<i>iptables</i>	configure tables, chains and rules of the Linux kernel IPv4 firewall
<i>nc</i>	cat via network connection
<i>netstat</i>	show network statistics
<i>nmap [host]</i>	network security scanner
<i>nmtui</i>	text user interface for controlling NetworkManager
<i>ping [host]</i>	send ICMP to host
<i>route</i>	network route table management
<i>ss</i>	show socket statistics
<i>telnet</i>	connect to specific port on host with telnet protocol
<i>traceroute [host]</i>	print route packets
<i>whois [domain]</i>	get info about domain (only .COM, .NET, .EDU)

Misc Commands	
<i>export</i>	export shell variables to child processes
<i>source / .</i>	execute commands from a file in the current shell
<i>set</i>	oggle shell options or set the values of positional parameters
<i>make</i>	task runner for targets described in Makefile
<i>eval</i>	execute arguments as a single command in the current shell and return its result

Editor	
<i>pico/nano</i>	nano editor
<i>vi/vim</i>	vim editor
<i>view</i>	a read-only version of vim

Packages Managements	
<i>apt/apt-get/aptitude</i>	package management utility for Debian based distributions
<i>dnf</i>	package management utility for RHEL, Fedora, and CentOS (replaces yum)
<i>dpkg</i>	Debian package manager
<i>emerge</i>	Gentoo Linux package manager utility
<i>pacman</i>	Arch Linux package manager utility
<i>rpm</i>	RPM Package Manager
<i>yum</i>	package management utility for RHEL, Fedora, and CentOS (for older versions)
<i>zypper</i>	SUSE & openSUSE package management utility

Remote	
<i>curl</i>	transfers data from or to a server (support most protocols)
<i>ftp/lftp/tftp</i>	tools to interact with a server via FTP
<i>scp/rsync</i>	transfer files either to or from a remote host
<i>sftp</i>	interactive program to copy files between hosts over SSH
<i>ssh</i>	connect to remote machine
<i>sshfs</i>	filesystem client based on SSH
<i>wget</i>	download files from the Web (support HTTP[S], FTP)

Security	
<i>gpg</i>	GNU Privacy Guard cli tools for encrypt/decrypt secret
<i>openssl</i>	OpenSSL cryptographic toolkit
<i>ssh-add</i>	manage loaded SSH keys in the ssh-agent
<i>ssh-keygen</i>	generate SSH keys
<i>ssh-agent</i>	spawn an SSH Agent process

Session Controls	
<i>w</i>	Show logged users and activity
<i>CTRL + ALT + F[1-12]</i>	start new terminal session on current machine, F7 normally the GUI session
<i>screen</i>	a session open on a remote server
<i>tmux</i>	terminal multiplexer

