Linux Command Cheat Sheet

*About detail command examples, please install **tldr** tools and search **tldr** {command}*

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

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 (equivilent 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

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

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

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
lsof	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
pstree	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

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	
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
pvcreate	create a physical volume
resize2fs	update a filesytem, after lvextend*

Input/Output Manipulators

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

Users & Groups

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

Networking

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

Packages Managements

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

Remote

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

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

Services & Daemons

initctl	upstart systems & services manager
journalctl	query the systemd journal
rc-service	openrc systems & services manager
service	mange services by running init scripts
sv	runit services manager
systemctl	systemd systems & services manager

Misc Commands

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

Security

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

Editor

pico/nano	nano editor
vi/vim	vim editor
view	a read-only version of vim

Session Controls

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