## **Linux Commands List**

The commands found in the downloadable cheat sheet are listed below.

**Hardware Information**

Show **bootup messages**:

dmesg

See **CPU information**:

cat /proc/cpuinfo

Display **free and used memory** with:

free -h

List**hardware configuration** information:

lshw

See information about **block devices**:

lsblk

Show **PCI devices** in a tree-like diagram:

lspci -tv

Display **USB devices** in a tree-like diagram:

lsusb -tv

Show **hardware information** from the BIOS:

dmidecode

Display **disk data** information:

hdparm -i /dev/disk

Conduct a **read-speed test** on device/disk:

hdparm -tT /dev/[device]

Test for **unreadable blocks** on device/disk:

badblocks -s /dev/[device]

**Searching**

[Search for a specific pattern](https://phoenixnap.com/kb/grep-multiple-strings) in a file with [grep](https://phoenixnap.com/kb/grep-command-linux-unix-examples):

grep [pattern] [file\_name]

**Recursively search for a pattern** in a directory:

grep -r [pattern] [directory\_name]

Find all **files and directories related to a particular name**:

locate [name]

List names that **begin with a specified character** **[a]** in a specified location **[/folder/location]** by using the [**find** command](https://phoenixnap.com/kb/guide-linux-find-command):

find [/folder/location] -name [a]

See **files larger than a specified size** **[+100M]** in a folder:

find [/folder/location] -size [+100M]

**File Commands**

**List files** in the directory:

ls

**List all files** ([shows hidden files](https://phoenixnap.com/kb/show-hidden-files-linux)):

ls -a

**Show directory** you are currently working in:

pwd

[Create a new directory](https://phoenixnap.com/kb/create-directory-linux-mkdir-command):

mkdir [directory]

[Remove a file](https://phoenixnap.com/kb/how-to-remove-files-directories-linux-command-line):

rm [file\_name]

**Remove a directory** recursively:

rm -r [directory\_name]

**Recursively remove a directory** without requiring confirmation:

rm -rf [directory\_name]

[Copy the contents of one file](https://phoenixnap.com/kb/how-to-copy-files-directories-linux) to another file:

cp [file\_name1] [file\_name2]

**Recursively copy the contents of one file** to a second file:

cp -r [directory\_name1] [directory\_name2]

**Rename** **[file\_name1]** to **[file\_name2]** with the command:

mv [file\_name1] [file\_name2]

[Create a symbolic link](https://phoenixnap.com/kb/symbolic-link-linux) to a file:

ln -s /path/to/[file\_name] [link\_name]

Create a **new file**:

touch [file\_name]

**Show the contents** of a file:

more [file\_name]

or use the [**cat** command](https://phoenixnap.com/kb/linux-cat-command):

cat [file\_name]

Append file contents to another file:

cat [file\_name1] >> [file\_name2]

Display the **first 10 lines** of a file with:

head [file\_name]

Show the **last 10 lines** of a file:

tail [file\_name]

**Encrypt** a file:

gpg -c [file\_name]

**Decrypt** a file:

gpg [file\_name.gpg]

Show the **number of words, lines, and bytes** in a file:

wc

**Note:**Want to read more about file creation? Check out an article about [how to create a file in Linux using the command line](https://phoenixnap.com/kb/how-to-create-a-file-in-linux).

**Directory Navigation**

Move **up one level** in the directory tree structure:

cd ..

Change **directory to** **$HOME**:

cd

**Change location** to a specified directory:

cd /chosen/directory

**File Compression**

**Archive an existing file**:

tar cf [compressed\_file.tar] [file\_name]

[Extract an archived file](https://phoenixnap.com/kb/extract-tar-gz-files-linux-command-line#htoc-using-tar-utility):

tar xf [compressed\_file.tar]

Create a **gzip compressed tar file** by running:

tar czf [compressed\_file.tar.gz]

**Compress** a file with the **.gz** extension:

gzip [file\_name]

**File Transfer**

[Copy a file to a server](https://phoenixnap.com/kb/how-to-use-linux-scp-command-examples) directory securely:

scp [file\_name.txt] [server/tmp]

**Synchronize** the contents of a directory **with a backup directory** using the [rsync command](https://phoenixnap.com/kb/rsync-command-linux-examples" \t "_blank):

rsync -a [/your/directory] [/backup/]

**Users**

See details about the **active users**:

id

Show**last system logins**:

last

Display who is**currently logged into the system** with the [who command](https://phoenixnap.com/kb/linux-who-command):

who

Show which users are**logged in** and **their activity**:

w

**Add a new group** by typing:

groupadd [group\_name]

Add a**new user**:

adduser [user\_name]

Add a **user to a group**:

usermod -aG [group\_name] [user\_name]

Temporarily **elevate user privileges** to superuser or root using the [sudo command](https://phoenixnap.com/kb/linux-sudo-command" \t "_blank):

sudo [command\_to\_be\_executed\_as\_superuser]

**Delete** a user:

userdel [user\_name]

**Modify** user information with:

usermod

**Note:**If you want to learn more about users and groups, take a look at our article on [how to add a user to a group in Linux](https://phoenixnap.com/kb/how-to-add-user-to-group-linux).

**Package Installation**

[List all installed package](https://phoenixnap.com/kb/how-to-list-installed-packages-on-centos)s with **yum**:

yum list installed

Find a package by a **related keyword**:

yum search [keyword]

Show**package information and summary**:

yum info [package\_name]

Install a package using the **YUM package manager**:

yum install [package\_name.rpm]

Install a package using the **DNF package manager**:

dnf install [package\_name.rpm]

Install a package[using the **APT package manager**](https://phoenixnap.com/kb/how-to-use-apt-get-commands):

apt-get install [package\_name]

**Install** an **.rpm** package from a local file:

rpm -i [package\_name.rpm]

**Remove** an **.rpm** package:

rpm -e [package\_name.rpm]

Install software from **source code**:

tar zxvf [source\_code.tar.gz]

cd [source\_code]

./configure

make

make install

**Process Related**

See a **snapshot of active processes**:

ps

Show **processes in a tree-like diagram**:

pstree

Display a **memory usage map** of processes:

pmap

See **all running processes**:

top

[Terminate a Linux process](https://phoenixnap.com/kb/how-to-kill-a-process-in-linux) under a**given ID**:

kill [process\_id]

Terminate a process under a **specific name**:

pkill [proc\_name]

Terminate all processes **labelled** **“proc”**:

killall [proc\_name]

**List and resume stopped jobs** in the background:

bg

Bring the most **recently suspended job to the** **foreground**:

fg

Bring a **particular job to the** **foreground**:

fg [job]

List **files opened by running processes**:

lsof

**Note:**If you want to learn more about shell jobs, how to terminate jobs or keep them running after you log off, check out our article on [how to use disown command](https://phoenixnap.com/kb/disown-command-linux).

**System Information**

Show **system information**:

uname -r

See [kernel release information](https://phoenixnap.com/kb/check-linux-kernel-version):

uname -a

Display **how long the system has been running**, including load average:

uptime

See system **hostname**:

hostname

Show the**IP address** of the system:

hostname -i

List system **reboot history**:

last reboot

See current**time and date**:

date

Query and **change the system clock** with:

timedatectl

Show current **calendar** (month and day):

cal

List **logged in users**:

w

See which **user you are using**:

whoami

Show **information about a particular user**:

finger [username]

**Disk Usage**

You can use the df and du commands to [check disk space in Linux](https://phoenixnap.com/kb/linux-check-disk-space).

See **free and used space** on mounted systems:

df -h

Show **free inodes** on mounted filesystems:

df -i

Display **disk partitions, sizes, and types** with the command:

fdisk -l

See [**disk usage** for all files and directory](https://phoenixnap.com/kb/show-linux-directory-size):

du -ah

Show**disk usage of the directory** you are currently in:

du -sh

Display**target mount point** for all filesystem:

findmnt

**Mount a device**:

mount [device\_path] [mount\_point]

**SSH Login**

**Connect to host** as user:

ssh user@host

Securely **connect to host via SSH** default port 22:

ssh host

Connect to host **using a particular port**:

ssh -p [port] user@host

Connect to host **via telnet default port 23**:

telnet host

**Note**: For a detailed explanation of SSH Linux Commands, refer to our [19 Common SSH Commands in Linux](https://phoenixnap.com/kb/linux-ssh-commands) tutorial.

**File Permission**

[Chown command in Linux](https://phoenixnap.com/kb/linux-chown-command-with-examples) changes file and directory ownership.

Assign **read, write, and execute permission** to everyone:

chmod 777 [file\_name]

Give **read, write, and execute permission to owner**, and r**ead and execute permission to group and others**:

chmod 755 [file\_name]

Assign **full permission to owner**, and **read and write permission to group and others**:

chmod 766 [file\_name]

Change the **ownership of a file**:

chown [user] [file\_name]

Change the **owner and group ownership of a file**:

chown [user]:[group] [file\_name]

**Note**: To learn more about how to check and change permissions, refer to our [Linux File Permission Tutorial](https://phoenixnap.com/kb/linux-file-permissions).

**Network**

[List IP addresses](https://phoenixnap.com/kb/linux-ip-command-examples)and **network interfaces**:

ip addr show

Assign an **IP address to interface eth0**:

ip address add [IP\_address]

Display **IP addresses of all network interfaces** with:

ifconfig

See **active (listening) ports** with the [netstat command](https://phoenixnap.com/kb/netstat-command):

netstat -pnltu

Show **tcp** and **udp** **ports** and their programs:

netstat -nutlp

Display more **information about a domain**:

whois [domain]

Show **DNS information**about a domain using the [dig command](https://phoenixnap.com/kb/linux-dig-command-examples):

dig [domain]

Do a **reverse lookup** **on domain**:

dig -x host

Do **reverse lookup of an IP address**:

dig -x [ip\_address]

Perform an **IP lookup for a domain**:

host [domain]

Show the **local IP address**:

hostname -I

**Download a file** from a domain using the **[wget](https://phoenixnap.com/kb/wget-command-with-examples" \t "_blank)**[command](https://phoenixnap.com/kb/wget-command-with-examples" \t "_blank):

wget [file\_name]

**Linux Keyboard Shortcuts**

**Kill process** running in the terminal:

Ctrl + C

Stop**current process**:

Ctrl + Z

The process can be **resumed** in the **foreground** with **fg** or in the **background** with **bg**.

Cut **one word before the cursor** and add it to clipboard:

Ctrl + W

Cut **part of the line before the cursor** and add it to clipboard:

Ctrl + U

Cut **part of the line after the cursor** and add it to clipboard:

Ctrl + K

**Paste** from clipboard:

Ctrl + Y

**Recall last command** that matches the provided characters:

Ctrl + R

**Run** the previously recalled command:

Ctrl + O

**Exit command history** without running a command:

Ctrl + G

**Run the last command** again:

!!

**Log out** of current session:

exit