

[.https://www.w3schools.com/bash/index.php](https://www.w3schools.com/bash/index.php)

🐧 Basic Linux Commands Cheat Sheet

📁 1. **Directory Navigation**

* `pwd` — Show current directory

```
```bash
pwd
Output: /home/user
```
```

* `ls` — List directory contents

```
```bash
ls
ls -l # Long listing
ls -a # Show hidden files
```
```

* `cd` — Change directory

```
```bash
cd /home/user/Documents
cd .. # Go up one directory
cd ~ # Go to home directory
```
```

📄 2. **File Operations**

* `touch` — Create empty file

```
```bash
touch file.txt
```
```

* `cat` — View file contents

```
```bash
cat file.txt
```
```

* `cp` — Copy files/directories

```
```bash
cp file1.txt file2.txt
cp -r folder1/ folder2/
```
```

* `mv` — Move or rename

```
```bash
mv oldname.txt newname.txt
mv file.txt /home/user/Desktop/
```
```

* `rm` — Delete file/directory

```
```bash
rm file.txt
rm -r folder/
```
```

📦 3. **Installing & Managing Packages (Debian/Ubuntu)**

* `sudo apt update` — Refresh package list
* `sudo apt install packagename` — Install a package
* `sudo apt remove packagename` — Uninstall a package

Example:

```
```bash
sudo apt install curl
```
```

⚙️ 4. **System Info**

* `uname -a` — Full system info
* `top` or `htop` — Show running processes

* `df -h` — Disk usage
* `free -h` — Memory usage

👤 5. **User Commands**

* `whoami` — Show current user
* `id` — Show user ID and groups
* `adduser username` — Add a new user
* `passwd username` — Set user password

🔍 6. **Search & Find**

* `find` — Search for files

```
```bash
find /home/user -name "file.txt"
```
```

* `grep` — Search inside files

```
```bash
grep "text" filename.txt
grep -r "text" /path/
```
```

📄 7. **Permissions**

* `chmod` — Change permissions

```
```bash
chmod +x script.sh # Make script executable
chmod 755 file.txt
```
```

* `chown` — Change ownership

```
```bash
```

```
sudo chown user:group file.txt
```
```

🧰 8. **Others**

* `clear` — Clear terminal screen

* `history` — Show command history

* `man command` — Manual for a command

```
```bash
man ls
```
```

* `exit` — Close terminal session

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📁 **Directory & File Management**

* `mkdir` – Create a new directory

```
```bash
mkdir myfolder
mkdir -p folder1/folder2 # Create nested folders
```
```

* `rmdir` – Remove an empty directory

```
```bash
rmdir myfolder
```
```

* `tree` – Display directory structure

```
```bash
tree
```
```

📄 **File Viewing & Manipulation**

* `head` – Show first 10 lines of a file

```
```bash
head file.txt
head -n 5 file.txt # Show first 5 lines
```
```

* `tail` – Show last 10 lines

```
```bash
tail file.txt
tail -f file.txt # Follow live log
```
```

* `less` – View long files (scrollable)

```
```bash
less file.txt
```
```

* `wc` – Word/line/char count

```
```bash
wc file.txt
wc -l file.txt # Count lines
```
```

📦 **Compression & Archiving**

* `tar` – Archive files/folders

```
```bash
tar -cvf archive.tar folder/
```

```
tar -xvf archive.tar # Extract
'''
```

\* `gzip` / `gunzip` – Compress and decompress

```
'''bash
gzip file.txt
gunzip file.txt.gz
'''
```

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## 🔍 \*\*Search & Find\*\*

\* `locate` – Quickly find files

```
'''bash
locate filename.txt
'''
```

\* `find` – Flexible file search

```
'''bash
find / -name "*.log" # Find .log files
find . -type f -size +1M # Files larger than 1MB
'''
```

\* `grep` – Text search in files

```
'''bash
grep "error" log.txt
grep -i "Error" log.txt # Case-insensitive
'''
```

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## 🌐 \*\*Networking\*\*

\* `ping` – Test network connection

```
'''bash
ping google.com
'''
```

\* `ifconfig` or `ip a` – Show IP addresses

\* `netstat -tuln` – Show open ports/services

\* `curl` – Transfer data from/to server

```
```bash
curl https://example.com
```
```

\* `wget` – Download files

```
```bash
wget https://example.com/file.zip
```
```

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## ## \*\*System Monitoring & Info\*\*

\* `uptime` – Show system uptime

\* `top` – Real-time process viewer

\* `htop` – Enhanced top (if installed)

\* `ps aux` – Show running processes

\* `kill PID` – Kill a process

```
```bash
kill 1234
kill -9 1234 # Force kill
```
```

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## ## \*\*Permissions & Ownership\*\*

\* `chmod` – Change file permissions

```
```bash
chmod 755 script.sh
chmod +x script.sh
```
```

\* `chown` – Change file ownership

```
```bash
sudo chown user:group file.txt
```
```

\* `umask` – View/set default permissions

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## ## 🧑 \*\*User & Group Management\*\*

\* `who` – Show who is logged in

\* `users` – Show active users

\* `adduser` – Add a new user

```
```bash
sudo adduser newuser
```
```

\* `deluser` – Delete a user

\* `groupadd` – Create a group

\* `usermod` – Modify a user (e.g., add to group)

```
```bash
sudo usermod -aG sudo newuser
```
```

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## ## 🖱️ \*\*Command Shortcuts\*\*

\* `!!` – Run last command

\* `!abc` – Run last command starting with `abc`

\* `ctrl + c` – Cancel running command

\* `ctrl + d` – Logout from terminal

\* `ctrl + r` – Reverse search in history

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## ## 🗄️ \*\*Disk & File System\*\*

- \* `df -h` – Disk usage of mounted filesystems
- \* `du -sh folder/` – Size of folder
- \* `mount` / `umount` – Mount/unmount devices
- \* `lsblk` – List block devices (disks/USBs)

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## ## 🖋️ \*\*Script Execution & Environment\*\*

- \* Run a script:

```
```bash
./myscript.sh
bash myscript.sh
```
```

- \* `env` – Show environment variables
- \* `export VAR=value` – Set a variable
- \* `echo \$VAR` – Display a variable

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