

Linux Command Cheat Sheet

1. Navigation & Directory Management

Command	Example	Explanation
<code>pwd</code>	<code>pwd</code>	Print working directory (current folder path).
<code>ls</code>	<code>ls -l</code>	List files and folders (<code>-l</code> for details).
<code>cd</code>	<code>cd /home/user/folder</code>	Change directory.
<code>mkdir</code>	<code>mkdir myfolder</code>	Make a new directory.
<code>rmdir</code>	<code>rmdir myfolder</code>	Remove empty directory.

2. File Operations

Command	Example	Explanation
<code>touch</code>	<code>touch file.txt</code>	Create a new empty file.
<code>cp</code>	<code>cp src.txt dst.txt</code>	Copy a file.
<code>mv</code>	<code>mv old.txt new.txt</code>	Move or rename a file.
<code>rm</code>	<code>rm file.txt</code>	Delete a file.
<code>cat</code>	<code>cat file.txt</code>	View file content.
<code>less</code>	<code>less bigfile.txt</code>	View file with paging (scroll up/down).
<code>head</code>	<code>head file.txt</code>	Show first 10 lines.
<code>tail</code>	<code>tail file.txt</code>	Show last 10 lines.
<code>echo</code>	<code>echo "hello" > hi.txt</code>	Output text to terminal or file.

3. Searching & Filtering

Command	Example	Explanation
<code>grep</code>	<code>grep "error" logfile.txt</code>	Search for text pattern in file.
<code>find</code>	<code>find . -name "*.py"</code>	Recursively find files by name.
<code>sort</code>	<code>sort numbers.txt</code>	Sort file lines.
<code>uniq</code>	<code>uniq sorted.txt</code>	Filter duplicate lines (file must be sorted first).

4. Permission & Ownership

Command	Example	Explanation
chmod	chmod +x script.sh	Change file mode (here: make script executable).
chown	sudo chown user:group file	Change file owner and group (need sudo if not owner).

5. Process & System Management

Command	Example	Explanation
ps	ps aux	Show running processes.
top	top	View live system resource usage.
kill	kill 12345	End process with PID 12345.
df	df -h	Show disk space usage (-h for human-readable).
free	free -m	Display memory usage (-m for MB).
uptime	uptime	See system run time and load.

6. Networking

Command	Example	Explanation
curl	curl https://site.com	Fetch data from URL.
wget	wget https://file.com/file	Download file from web.
ping	ping 8.8.8.8	Test network connectivity.
ifconfig or ip addr	ifconfig	Show network interfaces. Use ip addr on modern systems)
ssh	ssh user@host	Secure remote login.

7. Archiving & Compression

Command	Example	Explanation
tar	tar -czvf file.tar.gz folder	Archive & compress folder to .tar.gz
unzip	unzip file.zip	Unpack a .zip file.
gzip	gzip file.txt	Compress file to .gz.

8. Bash Scripting Basics

Command/Syntax	Example	Explanation
----------------	---------	-------------

Shebang	<code>#!/bin/bash</code>	Placed at top of scripts to use Bash shell.
Variables	<code>MYVAR=123</code> <code>echo \$MYVAR</code>	Define and use variable.
For loop	<code>for f in *.csv; do echo \$f; done</code>	Loop through files and print names.
If statement	<code>if [-f file.txt]; then echo "Yes";</code> <code>fi</code>	Check if file exists and print a message.
Function	<code>myfun() { echo "Hello \$1"; }</code> <code>myfun John</code>	Define & call a function with argument.
Make executable	<code>chmod +x script.sh</code>	Grant execute permissions to a script.

How to Use

- Try each command in a terminal, replacing arguments as needed for your own files and directories.
- You can always view built-in help for any command:

`command --help` or `man command`

Example: `man ls`)

This cheat sheet covers the most practical, commonly used commands for everyday Linux use and automation. If you want to dive deeper or get examples for advanced use cases (like pipelines, process substitution, or cron jobs), let me know!