



## Linux CLI Cheat Sheet

*Built for operators. Maintained in the open.*

Essential Linux command-line commands for navigating systems, inspecting files, and performing safe day-to-day operations in servers, containers, and bastion hosts.

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### Where Am I?

`pwd` → print working directory

`whoami` → current user

`hostname` → system hostname

`uname -a` → kernel and system info

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### Directory Navigation

`i` → insert mode (start editing)

`ls` → list files

`ls -la` → detailed list (including hidden files)

`cd /path` → change directory

`cd ..` → up one directory

`cd ~` → home directory

`cd /` → filesystem root

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### Files & Directories

`touch file.txt` → create empty file

`mkdir dir` → create directory

`rmdir dir` → remove empty directory

`cp src dst` → copy file

`cp -r dir1 dir2` → copy directory recursively

`mv src dst` → move or rename

`rm file` → delete file

`rm -rf dir` → delete directory recursively (DANGEROUS)

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## Viewing Files

cat file.txt → print file contents

less file.txt → paged view (q to quit)

head file.txt → first 10 lines

tail file.txt → last 10 lines

tail -f file.txt → follow file output (logs)

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## Searching & Filtering

grep text file → search for text in file

grep -R text dir → recursive search

→ pipe output to another command

## Example:

ps aux | grep nginx

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## Processes

ps aux → list running processes

top → live process view

htop → enhanced process view (if installed)

kill PID → terminate process

kill -9 PID → force kill (last resort)

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## Disk & Memory

df -h → disk usage by filesystem

du -sh dir → size of directory

free -h → memory usage

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## Networking

ip a → network interfaces

ss -lntp → listening ports

curl url → HTTP request

ping host → connectivity test

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## Permissions & Ownership

ip a → network interfaces

ls -l → view permissions

chmod 644 file → change file permissions

chmod +x script.sh → make executable

chown user:group file → change ownership

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## Environment & Shell

env → list environment variables

echo \$VAR → print variable

export VAR=value → set variable (current shell)

history → command history

clear → clear screen

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## Operator Safety Tips

- Pause before running rm -rf
- Verify your path with pwd
- Use less instead of cat for large files
- Read commands twice before pressing Enter