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.

Where Am I?

pwd → print working directory

whoami → current user

hostname → system hostname

uname -a → kernel and system info

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

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)

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)

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

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)

Disk & Memory

df -h → disk usage by filesystem

du -sh dir → size of directory

free -h → memory usage

Networking

ip a → network interfaces

ss -lntp → listening ports

curl url → HTTP request

ping host → connectivity test

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

Environment & Shell

env → list environment variables

echo $VAR → print variable

export VAR=value → set variable (current shell)

history → command history

clear → clear screen

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