Linux commands cheat sheet

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Works on most distributions (Ubuntu, Debian, RHEL, Rocky). Commands that change the system usually need sudo.

Files and folders

Command	What it does
`pwd / ls -lah`	Where am I / list files with sizes and hidden files
`cd /etc`	Change directory (cd .. = up, cd ~ = home)
`mkdir -p logs/2026`	Create folders (with parents)
`cp -r src/ backup/`	Copy files or folders
`mv old.txt new.txt`	Move or rename
`rm file / rm -r dir`	Delete (no recycle bin: be careful)
`cat / less file`	Show a file / page through it
`head -n 20 / tail -f file`	First lines / follow a growing log
`find / -name "*.conf"`	Find files by name
`grep -ri "error" /var/log`	Search text inside files

Permissions and users

Command	What it does
`chmod 640 file`	Owner rw, group r, others none
`chown user:group file`	Change owner
`sudo command`	Run as administrator
`id / whoami`	Who am I and my groups
`sudo adduser alice`	Create a user (Debian/Ubuntu)
`sudo usermod -aG sudo alice`	Add a user to a group
`passwd`	Change your password

Processes and system

Command	What it does
`top / htop`	Live CPU and memory use
`ps aux | grep nginx`	Find a running process
`kill PID / kill -9 PID`	Stop a process (force with -9)
`df -h / du -sh *`	Disk space / folder sizes
`free -h`	Memory use
`uptime`	Load and time since boot
`uname -a / cat /etc/os-release`	Kernel / distribution version

Services (systemd)

Command	What it does
`systemctl status ssh`	Is the service running?
`sudo systemctl restart nginx`	Restart a service
`sudo systemctl enable --now nginx`	Start now and at boot
`journalctl -u ssh --since today`	Logs for one service
`journalctl -p err -b`	Errors since last boot

Networking

Command	What it does
`ip a`	IP addresses on each interface
`ip r`	Routing table and default gateway
`ping -c 4 8.8.8.8`	Test reachability
`traceroute / tracepath host`	Path to a host
`dig example.com / nslookup`	DNS lookups
`ss -tulpn`	Listening ports and which program owns them
`curl -I https://site`	HTTP response headers
`cat /etc/resolv.conf`	DNS servers in use
`nmcli / netplan`	Network configuration tools

Packages

Command	What it does
`sudo apt update && sudo apt upgrade`	Update (Debian/Ubuntu)
`sudo apt install nmap`	Install a package
`sudo dnf update`	Update (RHEL/Rocky/Fedora)

Security basics

Command	What it does
`sudo ufw allow 22/tcp sudo ufw enable`	Simple firewall (Ubuntu)
`last / lastb`	Recent logins / failed logins
`sudo tail -f /var/log/auth.log`	Watch login attempts (Debian/Ubuntu)
`ssh-keygen -t ed25519`	Create an SSH key pair
`sha256sum file.iso`	Check a download's hash

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Archives and transfer

Command	What it does
`tar -czf backup.tgz dir/`	Create a compressed archive
`tar -xzf backup.tgz`	Extract it
`scp file user@host:/tmp/`	Copy over SSH
`rsync -av src/ host:dst/`	Sync folders efficiently

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