

LINUX COMMANDS

Here's a **structured list of Linux commands** grouped from **basic** → **intermediate** → **advanced**, so you can learn section by section:

1. Basic Commands (Getting Around)

- `pwd` → show current directory
 - `ls`, `ls -l`, `ls -a` → list files
 - `cd` → change directory
 - `mkdir`, `rmdir` → make/remove directory
 - `touch` → create empty file
 - `cat`, `less`, `more` → view file contents
 - `cp`, `mv`, `rm` → copy, move, remove files
 - `echo` → print text
 - `history` → show command history
 - `clear` → clear terminal
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2. File & Permissions Management

- `ls -l` → list with permissions
- `chmod` → change permissions
- `chown` → change ownership
- `chgrp` → change group

- `umask` → default permissions
 - `stat` → file details
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3. File Search & Processing

- `find` → search files
 - `locate` → quick file search
 - `grep` → search inside files
 - `awk` → pattern scanning & processing
 - `sed` → stream editing
 - `sort`, `uniq`, `wc`, `cut`, `head`, `tail`
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4. User & Group Management

- `whoami` → show current user
- `id` → show UID, GID
- `useradd`, `usermod`, `userdel` → manage users
- `groupadd`, `groupdel` → manage groups
- `passwd` → change password
- `su` → switch user
- `sudo` → run as superuser

● 5. Process & Job Management

- `ps` → list processes
- `top`, `htop` → monitor processes
- `kill`, `killall`, `pkill` → end processes
- `jobs`, `fg`, `bg` → manage jobs
- `nice`, `renice` → process priority
- `uptime`, `dmesg` → system status

● 6. Package Management (depends on distro)

- Debian/Ubuntu: `apt-get`, `apt`
- RHEL/CentOS: `yum`, `dnf`
- OpenSUSE: `zypper`
- `rpm` → install/remove/check packages

● 7. Disk, Storage & File System

- `df -h` → disk space
- `du -sh` → folder size
- `lsblk` → block devices

- `mount, umount` → attach/detach disks
 - `fdisk, parted` → partition management
 - `mkfs` → create filesystem
 - `fscck` → check filesystem
 - `blkid` → get UUIDs
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8. Networking

- `ping` → test connectivity
 - `curl, wget` → download files
 - `ifconfig, ip a` → show interfaces
 - `netstat, ss` → check connections/ports
 - `scp, rsync` → copy over network
 - `ssh` → remote login
 - `traceroute` → trace packet path
 - `dig, nslookup` → DNS queries
 - `iptables, ufw, firewallld` → firewall
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9. System Services & Logs

- `systemctl start/stop/status` → manage services

- `journalctl` → system logs
 - `service` → older systems
 - `uptime`, `who`, `last` → system/users info
 - `tail -f /var/log/syslog` → real-time logs
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10. Shell Scripting & Automation

- `#!/bin/bash` → shebang
 - Variables: `VAR=value`
 - Conditions: `if`, `else`, `elif`
 - Loops: `for`, `while`
 - Functions
 - Exit codes `$?`
 - `cron`, `at` → job scheduling
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11. Security & Monitoring

- `chmod 700` (secure files)
- `ssh-keygen` (keys)
- `fail2ban` basics
- `getenforce`, `setenforce` (SELinux)

- Monitoring:
 - `vmstat, iostat, sar`
 - `free -h` → memory
 - `uptime` → load average

⚡ With these sections, you can progress step by step — from **basic navigation** → **scripting** → **security & monitoring**.