Linux Commands

Navigation & Directories

- `pwd` : Print current directory path
- `cd /path` : Change directory
- `cd ..` : Go up one level
- `cd` : Go to home directory
- `ls` : List files and directories
- `ls -l` : Long list format
- `ls -a` : Show hidden files
- `mkdir dir` : Create directory
- `mkdir -p a/b/c` : Nested directory creation
- `rmdir dir` : Remove empty directory

File Management

- `touch file` : Create empty file
- `cp src dest` : Copy file or directory
- `mv old new` : Rename or move
- `rm file` : Delete file
- `rm -r dir` : Delete directory recursively
- `rm -f file` : Force delete
- `shred file` : Securely delete contents
- `ln -s src link` : Create symbolic link

- `zip archive file` : Compress file
- `unzip archive.zip` : Extract zip

File Viewing and Editing

- `cat file` : Show file contents
- `tac file` : Show in reverse
- `less file` : Scrollable viewer
- `head file` : First 10 lines
- `tail file` : Last 10 lines
- `nano file` : Edit file with nano
- `echo "text"` : Print text to terminal or file
- `cmp file1 file2` : Compare byte-by-byte
- `diff file1 file2` : Line-by-line difference

Search and Filters

- `grep "term" file` : Search in file
- `find .  -name "*.sh"` : Find by pattern
- `locate name` : Fast file finder
- `wc -l file` : Line count
- `sort file` : Sort lines

- `uniq file` : Remove duplicates

- `tr a-z A-Z` : Translate characters

Permissions

- `chmod +x file` : Make executable

- `chmod 755 file` : Set specific permissions

- `chown user file` : Change owner

- `chown user:group file` : Change owner and group

- `su` : Switch user

Networking

- `ping host` : Check connectivity

- `ssh user@host` : Secure remote login

- `scp file user@host:/path` : Secure copy to remote

- `curl url` : Fetch URL data

- `wget url` : Download from web

- `traceroute host` : Show route to host

- `netstat -tuln` : Show open ports

- `ss -tuln` : Replacement for netstat

- `iptables -L` : View firewall rules

- `ufw enable` : Enable simple firewall

System Monitoring

- `top` : Real-time process view

- `htop` : Interactive top (if installed)

- `ps aux` : Show all processes

- `kill PID` : Terminate process

- `pkill name` : Kill by process name

- `free -h` : RAM usage

- `df -h` : Disk space usage

- `uptime` : System running time

Package Management

- `apt update` : Update repo index

- `apt upgrade` : Upgrade packages

- `apt install pkg` : Install package

- `dpkg -i file.deb` : Install DEB package

- `yum install pkg` : Install package (RHEL)

Help and Documentation

- `man command` : Manual for command

- `--help` : Show inline help

Services and System Control

- `systemctl start service` : Start a service

- `systemctl stop service` : Stop a service

- `systemctl status service` : Service status

- `systemctl enable service` : Enable on boot

- `systemctl restart service` : Restart service