

# 1. File and Directory Management

- **ls** – List directory contents
- **cd** – Change directory
- **pwd** – Print working directory
- **cp** – Copy files and directories
- **mv** – Move or rename files and directories
- **rm** – Remove files or directories
- **mkdir** – Make directories
- **rmdir** – Remove empty directories
- **touch** – Change file timestamps or create empty files
- **find** – Search for files in a directory hierarchy
- **locate** – Find files by name
- **tree** – Display directories in a tree-like format
- **chmod** – Change file permissions
- **chown** – Change file owner and group
- **chgrp** – Change group ownership
- **stat** – Display file or file system status

# 2. File Viewing and Editing

- **cat** – Concatenate and display file content
- **tac** – Concatenate and display file content in reverse
- **more** – View file content interactively (page by page)
- **less** – View file content interactively (scrollable)
- **head** – Output the first part of a file
- **tail** – Output the last part of a file
- **nano** – Text editor (terminal-based)
- **vim / vi** – Advanced text editors
- **emacs** – Text editor
- **grep** – Search text using patterns
- **sed** – Stream editor for filtering and transforming text
- **awk** – Pattern scanning and processing language
- **cut** – Remove sections from each line of files
- **sort** – Sort lines of text files

- **uniq** – Report or omit repeated lines

### 3. Process Management

- **ps** – Report a snapshot of current processes
- **top** – Display Linux tasks
- **htop** – Interactive process viewer (advanced top)
- **kill** – Send a signal to a process, typically to terminate
- **killall** – Terminate processes by name
- **bg** – Resume a suspended job in the background
- **fg** – Bring a job to the foreground
- **jobs** – List active jobs
- **nice** – Run a program with modified scheduling priority
- **renice** – Alter priority of running processes
- **uptime** – Show how long the system has been running
- **time** – Measure program running time

### 4. Disk Management

- **df** – Report file system disk space usage
- **du** – Estimate file space usage
- **fdisk** – Partition table manipulator for Linux
- **lsblk** – List information about block devices
- **mount** – Mount a file system
- **umount** – Unmount a file system
- **parted** – A partition manipulation program
- **mkfs** – Create a file system
- **fsck** – File system consistency check and repair
- **blkid** – Locate/print block device attributes

### 5. Networking

- **ifconfig** – Configure network interfaces
- **ip** – Show/manipulate routing, devices, and tunnels
- **ping** – Send ICMP Echo requests to network hosts

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- **netstat** – Network statistics
  - **ss** – Socket statistics (faster than netstat)
  - **traceroute** – Trace the route packets take to a network host
  - **nslookup** – Query Internet name servers interactively
  - **dig** – DNS lookup utility
  - **wget** – Non-interactive network downloader
  - **curl** – Transfer data with URLs
  - **scp** – Secure copy files between hosts
  - **ssh** – Secure shell for remote login
  - **ftp** – File Transfer Protocol client

## 6. User and Group Management

- **useradd** – Add a user to the system
- **usermod** – Modify a user account
- **userdel** – Delete a user account
- **groupadd** – Add a group to the system
- **groupdel** – Delete a group
- **passwd** – Change user password
- **chage** – Change user password expiry information
- **whoami** – Print the current logged-in user
- **who** – Show who is logged in
- **w** – Show who is logged in and what they're doing
- **id** – Display user and group information
- **groups** – Show user's groups

## 7. System Information and Monitoring

- **uname** – Print system information
- **hostname** – Show or set the system's hostname
- **uptime** – How long the system has been running
- **dmesg** – Boot and system messages
- **free** – Display memory usage
- **top** – Display Linux tasks
- **vmstat** – Report virtual memory statistics