

■ USER MANAGEMENT

Create user: sudo adduser Techie — creates a new user named Techie.

Give sudo access: sudo usermod -aG sudo Techie — gives Techie admin rights.

■ FILE & DIRECTORY COMMANDS

Go to home directory: cd ~ — go to your home folder.

Create a new directory: mkdir mydir — create folder named mydir.

List contents: ls — show files and folders.

Change directory: cd mydir — go into mydir folder.

Create empty file: touch file1.txt — make new empty file.

View file contents: cat file1.txt — display file content.

Copy file: cp file1.txt /tmp/ — copy to another location.

Move file: mv file1.txt /tmp/ — move file to another place.

Rename file: mv oldname.txt newname.txt — change file name.

Delete file: rm file1.txt — remove file permanently.

■ PERMISSIONS

Give all permissions: chmod 777 file1.txt — full access to everyone.

Remove write permission: chmod -w file1.txt — make it read-only.

■ SYSTEM INFO

Show date/time: date — see current date and time.

Check uptime: uptime — see how long system is on.

View processes: ps aux — list running programs.

Kill a process: kill — stop a process.

■ PACKAGE MANAGEMENT

Install package: sudo apt install nginx -y — install nginx server.

Update all packages: sudo apt update && sudo apt upgrade -y — update everything.

■ LINKS

Create symbolic link: ln -s /path/to/file /path/to/linkname — make shortcut.

■ SEARCH

Find files: find /home -name "file1.txt" — search for a file.

■ COMPRESSION

Compress folder: tar -czvf backup.tar.gz mydir/ — make zip file.

Decompress: tar -xzvf backup.tar.gz — unzip it.

■ MONITORING

Monitor system: top — show CPU, memory, and processes.

Use htop: htop — colorful live view (if installed).

■ GROUPS

Create group: sudo groupadd devteam — make new group.

Add user to group: sudo usermod -aG devteam Techie — add Techie to group.

■ SSH PASSWORDLESS

Generate keys: ssh-keygen — create key pair.

Copy key to server: ssh-copy-id user@server-ip — enable passwordless login.

■ LOG FILES

View live logs: tail -f /var/log/syslog — see logs live.

Search logs: grep "error" /var/log/syslog — find error lines.

■ WEB SERVERS

Install Apache: sudo apt install apache2 -y — install web server.

Install Nginx: sudo apt install nginx -y — install Nginx server.

■ MYSQL DATABASE

Install MySQL: sudo apt install mysql-server -y — install MySQL DB.

■ TOMCAT SERVER

Install Tomcat: sudo apt install tomcat9 -y — install and start Tomcat.

Create service file: sudo nano /etc/systemd/system/tomcat.service — create Tomcat service.

■ TEXT PROCESSING (AWK)

Print column: awk '{print \$2}' file.txt — show 2nd column.

Sum column: awk '{sum+=\$3} END {print sum}' file.txt — total column 3.

Average column: awk '{sum+=\$3} END {print sum/NR}' file.txt — find average.

Filter lines: awk '\$3>100' file.txt — print lines if column3>100.

Uppercase: awk '{print toupper(\$1)}' file.txt — make text uppercase.

■ TEXT PROCESSING (sed)

Replace text: sed 's/old/new/g' file.txt — replace words.

Delete line: sed '3d' file.txt — remove 3rd line.

Delete pattern: sed '/error/d' file.txt — remove lines with error.

Insert before line: sed '/pattern/i Inserted text' file.txt — add before pattern.

Append after line: sed '/pattern/a Appended text' file.txt — add after pattern.

■ EXTRA

Print lines 5–10: sed -n '5,10p' file.txt — show lines 5 to 10.

Copy file to Windows: scp file.txt user@windows-ip:/path — send file to Windows.