

■ 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.