■ Linux Commands Cheatsheet

Week 1 – Basics & Terminal Comfort

- **ls** – List files and directories
- **cd** – Change directory
- **pwd** – Print current working directory
- **tree** – Display directory tree structure
- **touch** – Create empty file
- **nano** – Open text editor (nano)
- **cp** – Copy files or directories
- **mv** – Move or rename files
- **rm** – Remove files or directories
- **mkdir** – Create a new directory
- **chmod** – Change file permissions
- **chown** – Change file ownership
- **ls -l** – List files with details
- **man** – Show manual page for a command
- **--help** – Show help for a command
- **grep** – Search inside files
- **find** – Search for files/directories
- **locate** – Quickly find files by name
- **apt update/upgrade** – Update package lists and upgrade packages
- **apt install** – Install a package

Week 2 – Deeper Usage

- **ps aux** – Show running processes
- **top** – Show active processes interactively
- **htop** – Better interactive process viewer
- **kill** – Terminate a process by ID
- **df -h** – Show disk usage in human-readable form
- **du -sh *** – Show size of directories/files
- **free -h** – Show memory usage
- **uname -a** – Show system information
- **lscpu** – Show CPU info
- **lsblk** – List block devices (disks)
- **uptime** – Show system uptime
- **ping** – Check connectivity to a host
- **curl** – Fetch content from a URL
- **wget** – Download file from a URL
- **ip a** – Show network interfaces and IPs
- **ss -tulpn** – Show listening network sockets
- **echo** – Print text or variables
- **read** – Take input from user
- **if/else** – Basic condition in bash scripting
- **for/while** – Loop over items or conditions

Week 3 – System Admin Skills

- **adduser** – Add a new user
- **usermod** – Modify a user account
- **groups** – Show groups for current user
- **id** – Show user and group IDs
- **systemctl status** – Check service status
- **systemctl start/stop** – Start or stop a service
- **journalctl -xe** – View system logs

- **/var/log/** – Directory containing logs
- **crontab -e** – Edit scheduled tasks
- **alias** – Create command shortcuts

Week 4 – Advanced & Projects

- **ssh user@host** – Connect to a remote machine
- **tar -czf file.tar.gz dir** – Archive and compress a directory
- **gzip/zip/unzip** – Compress or extract files
- **echo $PATH** – Show system PATH variable
- **export VAR=value** – Set an environment variable
- **nano/vim** – Text editors for editing files
- **git init** – Initialize a Git repository
- **git clone** – Clone a repository
- **git add** – Stage file changes
- **git commit -m 'msg'** – Save changes to repository
- **git push** – Upload commits to remote
- **docker run hello-world** – Run a Docker test container
- **nginx/apache** – Host a web server