15-Day Linux Roadmap for DevOps

Key Topics for DevOps Linux

• Basics & Navigation – File system, commands, editors (**vi**/nano).

• File Permissions & Ownership – **chmod**, **chown**.

• User & Group Management – **adduser**, **passwd**, **sudo**.

• Package Management – **apt, yum, dnf**.

• System Services & Processes – **systemctl**, **ps**, **kill**, **top**, htop.

• Disk & File Systems – **df**, **du**.

• Networking & Firewalls – **ping**, **netstat**, **ss**, **iptables**.

• SSH & Remote Access – Key-based authentication.

• Logs & Monitoring – **/var/log/, journalctl.**

• Shell Scripting – Automating tasks.

• Cron Jobs & Scheduling – **cron**.

• Environment Variables & Profile Scripts – .bashrc, .bash_profile.(Not mandatory)

• Archiving & Compression – tar, gzip, rsync.

• Security Basics – **firewalld**, permissions hardening.

• Must for DevOps – **grep, awk, sed, curl, wget.**

15-Day Linux Roadmap

Day 1–3: Linux Fundamentals & File System

• Day 1: Intro to Linux, distros, kernel, shell. Commands: **pwd**, ls, cd, mkdir, rmdir, **cat**, **less**, **head**, **tail**. Practice navigating directories.

• Day 2: File system hierarchy, file operations (cp, mv, rm, touch), text editors (**vi basics**).

• Day 3: Wildcards & paths, commands: **find**, **locate**, **which**, **whereis**. Practice searching files.

Day 4–6: Permissions, Users, Packages

• Day 4: File permissions (**ls -l, chmod, chown**). Practice permission changes.

• Day 5: User & group management (**useradd**, **usermod**, **passwd**, **sudo**). Practice creating users and assigning sudo.

• Day 6: Package managers (**apt**, yum, dnf). Install/remove software (htop, **curl**).

Day 7–9: Processes, Disk, Networking

• Day 7: Process management (**ps**, **top**, **htop**, **kill**, jobs, bg, fg). Systemd basics (**systemctl**).

• Day 8: Disk & storage (**df**, **du**).

• Day 9: Networking (**ifconfig/ip addr**, **ping**, **netstat**, **ss**, **curl**, **wget**). Practice checking IP, downloading files.

Day 10–12: SSH, Logs, Automation

• Day 10: **SSH basics, key-based auth, scp. Practice passwordless SSH.**

• Day 11: Logs (**/var/log/**, **journalctl**, **dmesg**). **Practice checking logs with grep**.

• Day 12: Shell scripting basics (**variables**, **loops**, conditions). Practice writing backup scripts.

Day 13–15: Advanced & DevOps-oriented

• Day 13: Cron jobs (**crontab**, at), archiving & compression (**tar**, **gzip**, rsync).

• Day 14: Environment variables (.bashrc, .bash_profile). Practice custom **aliases**. (Good to have but not required)

• Day 15: Advanced text processing (**grep**, **awk**, **sed**). Practice log analysis.

Hands-on Labs

- Katacoda Linux Scenarios: *https://www.katacoda.com/*
- Linux Journey: *https://linuxjourney.com/*