DevOpsSchool

Course curriculum · November 2026

LEVEL 04 OF 04 · ADVANCED

Linux Sysadmin Lfcs Advanced Training

Tune the kernel, enforce SELinux or AppArmor, run containers and VMs, recover failed systems and troubleshoot performance under time pressure.

LIVE ONLINE **Max 8-10 hours**	CORPORATE (DAY-WISE) **5 days · Days 1-5**	SELF-PACED VIDEO **1-year LMS access**
BATCH SIZE **Max 10 learners**	NEXT BATCHES **1st of every month · weekends: first Saturday**	CERTIFICATE **Verifiable certificate of completion**

Foundation	Essential	Intermediate	Advanced
1 day · Included	2 days · Included	3 days · Included	5 days · This curriculum

INSIDE THIS CURRICULUM

What you will achieve	Outcomes and level focus
Who should attend	Audience and prerequisites
Agenda	52 topics · Foundation to Advanced
Hands-on labs	4 labs
Formats and fees	Live, self-paced, corporate
Trainer and reviews	Rajesh Kumar
Enrolment	Batches, payment, contacts

WHY DEVOPSSCHOOL

- Rated 4.6 on Google
- 1,500+ verifiable certificates issued in the public registry
- Trainer Rajesh Kumar: 20 years in industry
- Small batches: max 10 learners, every session recorded

Course page: www.devopsschool.com/courses/linux/linux-sysadmin-lfcs-advance-training.html
Talk to us: WhatsApp +91 99057 40781 · +1 (469) 756-6329 · contact@DevOpsSchool.com · reply within 1 hour

OUTCOMES

What you will achieve

By the end of the Linux Sysadmin Lfcs course path, you will be able to:

1

Run Linux servers confidently

Perform day-to-day administration of users, services, packages and scheduled jobs from the command line.

2

Configure networks and storage

Set up IP networking, firewalls, SSH, LVM, swap and network filesystems and troubleshoot them.

3

Prepare for LFCS tasks

Solve timed, performance-based administration tasks across every LFCS domain area.

WHAT THE ADVANCED LEVEL ADDS

Security, virtualization, recovery and performance

Hands-on: Recover and harden a broken server. Repair a system that fails to boot, restore SELinux contexts, put a container app behind an Nginx reverse proxy and fix a performance problem caused by a runaway service.

WHO SHOULD ATTEND

- Experienced Linux Sysadmin Lfcs practitioners responsible for quality, security and scale.
- Senior engineers, architects and leads who design and troubleshoot Linux Sysadmin Lfcs solutions.
- Teams making Linux Sysadmin Lfcs an organisation-wide standard.

BEFORE YOU START

- The Intermediate level, or equivalent hands-on experience.
- You can already: Configure IP networking, name resolution, time sync, SSH server, firewalls, LVM, swap and network filesystems, and troubleshoot them.
- Basic computer skills and a laptop with a stable internet connection for the live sessions and labs.
- This curriculum includes every earlier level, so it is complete on its own.

AGENDA · FOUNDATION TO ADVANCED

Linux Sysadmin Lfcs Advanced Training agenda

52 topics. Each level builds on the one before it, so this curriculum lists every earlier level in full. Days are for corporate (day-wise) delivery; live online batches cover the same agenda in max 8-10 hours.

DAY 1 — Foundation: Linux install, essential commands and text tools

Included from Foundation

1. LFCS scope: performance-based sysadmin tasks, domain areas and the Ubuntu and Enterprise Linux distributions used
2. Installing Linux: downloads, VirtualBox or KVM networking, install from physical media or the network
3. First boot: configuring networking, adding guest additions and accessing consoles and terminals
4. Getting help: introduction and simple help, man pages and sections, info pages, apropos and /usr/share/doc
5. Listing files and file types: ls options, file, stat and inode details
6. Working with files, directories and links: cp, mv, rm, mkdir, hard links and symbolic links
7. Reading from files: cat, less, head, tail -f, wc and the tools used to read files
8. Regular expressions and grep: anchors, character classes, extended regex and recursive search
9. Editing and comparing: using sed to edit files in place, comparing files with diff, cmp and comm
10. Finding files: find by name, size, owner, permissions and time, with -exec actions; locate
11. Creating and editing files: touch, nano, learning vim with vimtutor and setting defaults in .vimrc
12. Pipelines and redirection: STDOUT, STDERR, noclobber, STDIN, HERE documents, command pipelines, named pipes, tee
13. Backups and archives: tar, gzip, bzip2 and xz compression, cpio and imaging with dd

DAY 2 — Essential: Permissions, users, processes, services and packages

Included from Essential

14. Introduction to permissions: listing permissions, setting them with chmod symbolic and octal modes
15. Managing default permissions and ownership: umask, chown, chgrp, SUID, SGID and the sticky bit
16. Root access: using su, implementing sudo with visudo and sudoers.d, restricting root access over SSH
17. Local user and group accounts: useradd, usermod, userdel, groupadd, passwd, chage and account files
18. Environment profiles: /etc/profile, /etc/profile.d, ~/.bashrc and /etc/skel for system-wide and personal settings
19. User resource limits and ACLs: ulimit, limits.conf, setfacl and getfacl
20. SSH client: configuring the client, key-based authentication, ssh-agent and copying files securely with scp and rsync
21. Screen and script: script as a collaboration tool and running commands across your estate with screen or tmux
22. Processes: ps, top, pgrep, kill signals, nice and renice, jobs, bg and fg
23. systemd services: systemctl start, enable and status, unit files, overrides and journalctl
24. Scheduling jobs: cron and crontab, anacron, at and systemd timers
25. Software packages: apt and dnf, repositories, searching, installing, verifying and removing packages
26. Using version control systems: basic Git operations, clone, add, commit, push, pull and branches

DAY 3 — Intermediate: Networking, firewall, storage and certificates

Included from Intermediate

27. IPv4 and IPv6 networking: ip addr and ip route, Netplan on Ubuntu and nmcli with NetworkManager
28. Hostname resolution: hostnamectl, /etc/hosts, systemd-resolved, resolv.conf and dig

29. Time synchronisation: timedatectl, chrony and NTP time servers
30. Network troubleshooting: ss, ping, traceroute, mtr, nc and tcpdump
31. OpenSSH server: sshd_config hardening, key-only login, ports, AllowUsers and drop-in files
32. Packet filtering: ufw, firewalld and nftables rules, port redirection and NAT
33. Static routing and network devices: persistent routes, bridge and bonding configuration
34. Partitions and filesystems: fdisk, gdisk, parted, mkfs for ext4 and XFS, fsck, xfs_repair and fstab UUIDs
35. LVM storage: physical volumes, volume groups, logical volumes, extending and resizing filesystems
36. Swap space: swap partitions and swap files, mkswap, swapon and priorities
37. Remote filesystems: NFS server and client, CIFS mounts, network block devices and autofs automounting
38. Disk space and storage performance: df, du, lsof for deleted open files, iostat and iotop
39. SSL certificates: generating keys, CSRs and self-signed certificates with openssl and inspecting them

DAYS 4-5 **Advanced: Security, virtualization, recovery and performance** **New at this level**

40. Kernel parameters: sysctl at runtime and persistently through /etc/sysctl.d
41. Mandatory access control: SELinux modes, contexts, booleans, restorecon and audit2why; AppArmor profiles
42. Containers: Docker or Podman images, run options, volumes, port mappings and restart policies
43. Virtual machines: libvirt with virsh and virt-install, start, stop, autostart and console access
44. Reverse proxies and load balancers: Nginx proxy_pass, upstream pools and health considerations
45. LDAP user and group accounts: configuring SSSD so the system uses directory accounts
46. Advanced storage: software RAID with mdadm and encrypted volumes with LUKS
47. Recovery: boot process, GRUB, rescue and emergency targets, root password reset and filesystem repair
48. Performance troubleshooting: load average, vmstat, sar, free and service-specific constraints with systemd limits
49. Logging: persistent journald, rsyslog forwarding and logrotate policies
50. Automation: Bash scripts for repeatable admin tasks and verifying their results
51. Timed practice: performance-based tasks across every domain under exam-like conditions
52. Capstone: rebuild and harden a broken multi-service server from a written brief

PRACTICE

Hands-on labs

You build these yourself during the course, guided by the trainer.

FOUNDATION **Install Linux and master the shell**

Install a Linux VM, then complete timed tasks that find, filter, edit, redirect and archive files using grep, sed, find, pipelines and tar.

ESSENTIAL **Administer users, services and schedules**

Create users and groups with shared ACL-controlled directories, grant limited sudo, install and enable a web service and schedule a nightly backup with a systemd timer.

INTERMEDIATE **Build a networked storage server**

Configure static IP, DNS and time sync, lock down SSH and the firewall, build LVM volumes with swap, and export an NFS share that clients automount with autofs.

ADVANCED

Recover and harden a broken server

Repair a system that fails to boot, restore SELinux contexts, put a container app behind an Nginx reverse proxy and fix a performance problem caused by a runaway service.

HOW YOU CAN LEARN

Formats and fees

The same agenda in three formats. Fees are in Indian rupees as of November 2026; the course page shows them in your currency.

FORMAT	DURATION	WHAT YOU GET	FEE
Live & interactive (online)	Max 8-10 hours	Instructor-led public batch of max 10 learners with demos, labs, Q&A and assignment review. Weekday batches start on the 1st of every month, weekend batches on the first Saturday of every month.	**INR 34,999**
Self-paced video	1-year LMS access	All four Linux Sysadmin Lfcs levels, plus 20+ more courses and 50+ tools, at your own pace.	**INR 833/month** billed yearly at INR 9,996
Corporate (day-wise)	5 days for this level	A private batch for your team, on demand. Foundation 1 day, Essential 2, Intermediate 3, Advanced 5 (cumulative). 1:1 training is also available on demand.	**Quote on request**

ASSESSMENT AND CERTIFICATE

Your progress is checked through hands-on labs and assignments at every level. On completion you receive a DevOpsSchool certificate of completion with a unique credential ID that anyone can verify at devopsschool.com/certificates.

INCLUDED WITH EVERY LIVE BATCH

- Every live session is recorded and stays in your LMS for a year.
- Can't attend your batch? Move to next month's batch.
- Free demo class before you pay.
- Free 10-15 minute call with an advisor or the trainer to check the course fits you.

YOUR TRAINER

Learn from Rajesh Kumar

Principal Architect, trainer and mentor in DevOps, SRE, DevSecOps and platform engineering, with 20 years across 8+ software MNCs, including Staff DevOps/SRE Engineer for a leading Japanese mobile-payment platform and Principal DevOps Architect and Manager in Europe.

Profile: www.rajeshkumar.xyz · Videos: youtube.com/@TheDevOpsSchool

20 years in industry	**200+** corporate trainings
10,000+ engineers mentored	**70+** organisations coached

REVIEWS

What learners say

Rated 4.6 on Google · more reviews at devopsschool.com/testimonials and in our video testimonials.

> “Rajesh is very good trainer. Rajesh was able to resolve our queries and question effectively. We really liked the hands-on examples covered during this training program.”
>
> Indrayani, India

> “The training was very useful and interactive. Rajesh helped develop the confidence of all.”
>
> Abhinav Gupta, Pune

START YOUR LINUX SYSADMIN LFCS TRAINING

Join the next batch

Weekday batches start on the 1st of every month and weekend batches on the first Saturday of every month, with max 10 learners each. Corporate and 1:1 batches run on demand. We reply within 1 hour.

Pay by UPI, credit and debit cards, net banking or PayPal. Before you pay, read our refund policy. All levels of this course: www.devopsschool.com/courses/linux/

ENROL OR RESERVE A SEAT **Linux Sysadmin Lfcs Advanced Training**	WHATSAPP · INDIA **+91 99057 40781**
WHATSAPP · USA **+1 (469) 756-6329**	EMAIL **contact@DevOpsSchool.com**