DevOpsSchool

Course curriculum · November 2026

LINUX SYSADMIN (LFCS) · TRAINING PROGRAM

Linux Kernel Programming Training

A practical, hands-on Linux Kernel Programming Training curriculum: 52 topics over 3 days. Learn live online in a small batch, as a private corporate batch, or self-paced with one year of LMS access.

LIVE ONLINE Max 8-10 hours	**CORPORATE** Private team batch, on demand	**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

INSIDE THIS CURRICULUM

Who should attend	Objectives, audience, prerequisites
Agenda	52 topics over 3 days
Formats and fees	Live, 1:1, 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-kernel-programming.html
Talk to us: WhatsApp +91 99057 40781 · +1 (469) 756-6329 · contact@DevOpsSchool.com · reply within 1 hour

COURSE FIT

Who this program is for

Use this page to decide whether Linux Kernel Programming Training matches your role and experience.

1

Objectives

Understand the core concepts and usage model, apply practical workflows through examples and guided tasks, and prepare for implementation, certification or team adoption.

2

Who should attend

Developers, DevOps engineers, administrators, SREs, security engineers, platform teams, release teams, technical leads and corporate teams working with this topic.

3

Before you start

Basic computer literacy and awareness of software, operations, cloud, DevOps or security workflows is helpful. Deep programming experience is not needed unless the topic requires it.

AGENDA AT A GLANCE · 52 TOPICS OVER 3 DAYS

Day 1

21 topics · Module 1: Introduction to Linux Driver

Day 2

16 topics · Module 3: Process Management

Day 3

15 topics · Module 5: Kernel Timing Management

AGENDA · 52 TOPICS OVER 3 DAYS

Linux Kernel Programming Training agenda

Days are for corporate (day-wise) delivery; live online batches cover the agenda in max 8-10 hours.

DAY 1

21 topics

1. Module 1: Introduction to Linux Driver
2. Linux Driver Ecosystem
3. Kernel Source organization
4. Understanding the Kernel module
5. Building a Kernel module
6. Excercises
7. Configure & build the kernel
8. Writing a simple Linux kernel module
9. Statically building the driver into the kernel
10. Module 2: Character Driver
11. What is Character driver?
12. Major & Minor Number
13. Registering & Unregistering the driver
14. Registering the file operations
15. Udev & automatic device file creation
16. IOCTL
17. Write a simple character driver
18. Enchance the driver to register the file operations
19. Enhance the driver to exchange the information
20. Write the driver to control the on-board leds (Only if physical board is used)
21. Enhance the driver to support the IOCTLS

DAY 2

16 topics

22. Module 3: Process Management
23. Waiting in Process
24. Sleeping & Waking up
25. Wait Queues
26. Using select & poll
27. Excercises
28. Write a simple linux driver to block the process
29. Enhance the driver to use the wait queues
30. Write the driver to enable the support for select & poll
31. Module 4: Synchronization
32. Atomic variables
33. Mutex & Semaphore
34. Spinlocks

35. Write a driver to demonstrate the atomic variables
36. Write a driver to handle the consumer/producer problem
37. Write a driver to demonstrate the usage of spinlocks

DAY 3 — 15 topics

38. Module 5: Kernel Timing Management
39. Timing Architecture
40. Kernel Timers
41. Excercises
42. Write a driver to demonstrate the usage of Kernel timers
43. Module 6: Interrupt Management & Deferred work
44. What is interrupt?
45. Need for interrupts
46. How interrupts work?
47. Registering an interrupts handler in linux
48. Soft IRQ
49. Bottom halves - Tasklets & Work Queues
50. Write a driver to handle the interrupts
51. Register the tasklet as the bottom half
52. Register the work queue as the bottom half

HOW YOU CAN LEARN

Formats and fees

The same agenda in four 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**
1:1 live training (online)	Max 8-10 hours, one-to-one	The same agenda, taught one-to-one by the trainer. Starts immediately, without waiting for the next batch; sessions planned around your working hours, at your pace.	**INR 99,999**
Self-paced video	1-year LMS access	This program plus 20+ more courses and 50+ tools, at your own pace.	**INR 833/month** billed yearly at INR 9,996
Corporate	Planned with your team	A private batch for your team, on demand, with examples mapped to your platforms.	**Quote on request**

ASSESSMENT AND CERTIFICATE

Your progress is checked through hands-on tasks and assignments. 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 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. 1:1 training can start immediately; corporate 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 courses: www.devopsschool.com/courses/

ENROL OR RESERVE A SEAT
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