DevOpsSchool

Course curriculum · November 2026

LEVEL 04 OF 04 · ADVANCED

Performance Monitoring Advanced Training

Plan capacity, engineer performance at scale, balance cost and speed, and run a performance engineering practice across teams.

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	47 topics · Foundation to Advanced
Hands-on labs	4 labs
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/performancemonitoring/performance-monitoring-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 Performance Monitoring course path, you will be able to:

1

Measure performance correctly

Use the right metrics, methods and tools to measure system and application performance.

2

Find and fix bottlenecks

Diagnose slow systems with APM, profiling, tracing and load testing.

3

Engineer for scale

Plan capacity and run a performance practice that balances speed, reliability and cost.

WHAT THE ADVANCED LEVEL ADDS

Capacity planning, scale, cost and performance engineering

Hands-on: Plan capacity for peak traffic. Model expected peak load, run scalability and soak tests, right-size the platform and present a capacity and cost plan.

WHO SHOULD ATTEND

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

BEFORE YOU START

- The Intermediate level, or equivalent hands-on experience.
- You can already: Find bottlenecks with profiling and tracing, automate performance tests in CI and monitor containers and Kubernetes workloads.
- 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

Performance Monitoring Advanced Training agenda

47 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: Performance concepts, key metrics and core tools

Included from Foundation

1. Performance monitoring defined: monitoring, observability, APM and capacity management compared
2. Key metrics: latency, throughput, error rate, saturation and utilisation
3. Methods: the USE method for resources and the RED method for services
4. Percentiles: averages versus p50, p95 and p99 and why tail latency matters
5. Linux tools: top, htop, vmstat, iostat, free and sar for CPU, memory and disk
6. Windows tools: Task Manager, Resource Monitor and Performance Monitor counters
7. Network basics: bandwidth, latency, packet loss and measuring with ping, mtr and iperf3
8. Application timing: response time breakdown across front end, back end and database
9. Monitoring stack overview: Prometheus and Grafana, and APM suites such as Datadog, Dynatrace and New Relic
10. First dashboard: node_exporter metrics in Grafana for one server
11. Baselines: establishing normal behaviour before setting alerts

DAY 2 — Essential: APM, load testing, alerting and user experience

Included from Essential

12. APM instrumentation: agents and OpenTelemetry for transactions, traces and service maps
13. Database performance: slow query logs, EXPLAIN plans, connection pools and index usage
14. JVM and runtime metrics: heap, garbage collection, threads, JMX and JDK Flight Recorder
15. Load testing basics: Apache JMeter, k6 and Gatling scenarios, ramp-up and think time
16. Test types: load, stress, soak, spike and capacity tests and what each reveals
17. Real user monitoring: Core Web Vitals LCP, INP and CLS and browser RUM agents
18. Synthetic monitoring: scripted checks, uptime probes and multi-location tests
19. Alerting: thresholds versus baselines, alert severity and avoiding alert fatigue
20. SLIs and SLOs: defining latency and availability objectives for user journeys
21. Dashboards: service overview, dependency and infrastructure views for on-call engineers
22. Front-end performance: Lighthouse audits, caching, compression and CDN effects
23. Reporting: weekly performance reports, trend analysis and regression tracking

DAY 3 — Intermediate: Bottleneck analysis, profiling, automation and Kubernetes

Included from Intermediate

24. Bottleneck analysis: CPU-bound, memory-bound, I/O-bound and lock contention patterns
25. Profiling: CPU and memory profiling, flame graphs, async-profiler and py-spy
26. Distributed tracing for performance: critical path analysis and slow dependency detection
27. Container performance: cgroups limits, CPU throttling, memory limits and cAdvisor metrics
28. Kubernetes monitoring: kube-state-metrics, resource requests and limits and HPA behaviour
29. Performance testing in CI/CD: k6 or JMeter in pipelines with pass and fail thresholds
30. Caching performance: Redis and CDN hit ratios, cache invalidation and stampede protection

31. Network performance: TCP retransmits, connection reuse, TLS handshake cost and HTTP/2 and HTTP/3
32. Log-based performance analysis: access log latency fields and percentile queries
33. Automating responses: autoscaling policies and runbooks triggered by performance alerts
34. Monitoring security: protecting monitoring endpoints and masking sensitive data in traces
35. Troubleshooting: memory leaks, thread pool exhaustion, GC pauses and connection pool saturation

DAYS 4-5 **Advanced: Capacity planning, scale, cost and performance engineering** **New at this level**

36. Capacity planning: demand forecasting, headroom targets and modelling with Little's Law and queueing theory
37. Scalability testing: finding breaking points, scalability curves and horizontal versus vertical scaling
38. Performance at scale: sharding, read replicas, asynchronous processing and back pressure
39. eBPF-based performance analysis: bpftrace, BCC tools and continuous profiling in production
40. Chaos and resilience testing: latency injection and dependency failure experiments
41. Cost and performance: right-sizing, autoscaling efficiency and cost per transaction
42. Long-term metrics: Thanos or Mimir for retention and trend analysis
43. AIOps: anomaly detection, forecasting and event correlation in monitoring tools
44. Performance governance: budgets per release, performance requirements and sign-off criteria
45. Mobile and global performance: CDN strategy, edge computing and regional latency
46. Building a performance engineering practice: roles, tooling standards and a reporting cadence
47. Capstone: capacity plan, performance test suite and monitoring design for a high-traffic platform

PRACTICE

Hands-on labs

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

FOUNDATION

Measure a server and its app

Collect CPU, memory, disk and network metrics from a Linux server with node_exporter and Grafana and correlate them with app response times.

ESSENTIAL

Load test and monitor an app

Run a k6 load test against a web app instrumented with APM, find the slowest transaction and database query, and set an SLO-based alert.

INTERMEDIATE

Find and fix a bottleneck

Profile a slow service with flame graphs and traces, fix a thread pool and query bottleneck, and gate the fix with a CI performance test.

ADVANCED

Plan capacity for peak traffic

Model expected peak load, run scalability and soak tests, right-size the platform and present a capacity and cost plan.

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	All four Performance Monitoring 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).	**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 PERFORMANCE MONITORING 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 levels of this course: www.devopsschool.com/courses/performancemonitoring/

ENROL OR RESERVE A SEAT
Performance Monitoring Advanced Training

WHATSAPP · INDIA
+91 99057 40781

WHATSAPP · USA
+1 (469) 756-6329

EMAIL
contact@DevOpsSchool.com