DevOpsSchool

Course curriculum · November 2026

MICROSERVICES AND CONTAINERS · CERTIFICATION-FOCUSED PROGRAM

Microservices Application Architecture Training

A practical, hands-on Microservices Application Architecture Training curriculum: 61 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	61 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/microservice/microservices-application-architecture.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 Microservices Application Architecture 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 · 61 TOPICS OVER 3 DAYS

Day 1

18 topics · Microservice Overview

Day 2

21 topics · Microservice Communications

Day 3

22 topics · Microservice Orchestration

AGENDA · 61 TOPICS OVER 3 DAYS

Microservices Application Architecture Training agenda

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

DAY 1

18 topics

1. Microservice Overview
2. Definition of microservice
3. Microservices benefits
4. Microservice challenges
5. Microservices contrasted with other architectural patterns Principles and Practices
6. LAB: Conceptualizing and Tooling a Microservice Solution
7. Microservice Communications
8. Interfaces and Contracts Cohesion and Bounded Context
9. The value of IDL (cases examining OpenAPI, gRPC/ProtoBuf and Thrift)
10. Service decomposition and recomposition
11. Breaking down monoliths LAB: Creating a REST API
12. Container Packaging
13. Why packaging is so important in microservice systems
14. Evolution of application runtime environments Isolation
15. constraints Introduction to Docker Images
16. metadata and distribution
17. Amazon EC2 Container Registry
18. LAB: Container packaging with Docker

DAY 2

21 topics

19. Microservice Communications
20. Loosely coupled systems
21. Asynchronous operations
22. Messaging patterns (oneway, streaming, req/resp, pub/sub, broadcast, anycast, multicast, etc.)
23. Brokered and Brokerless fabrics
24. Amazon SQS Apache Kafka Message serialization
25. LAB: IDLs and Serialization
26. Cloud Native Transactions CAP
27. Local and distributed transactions
28. Eventual consistency
29. Event sourcing
30. State logs and ordering
31. Immutability and Idempotence
32. LAB: Messaging and Event Sourcing
33. Stateless Services and Polyglot Persistence
34. Benefits of stateless systems

35. The challenges of state
36. Cloud native state management, patterns and practices
37. Monolithic and distributed state managers
38. Polyglot persistence
39. LAB: Resilient Clustered Persistence Engines

DAY 3 — 22 topics

40. Microservice Orchestration
41. Introduction to Orchestration
42. Scheduling Load balancing and scaling
43. Service discovery schemes
44. Orchestration cases: Kubernetes, Mesos/Marathon, Swarm, ECS
45. LAB: Orchestrating microservices
46. Serverless Systems
47. Serverless computing overview
48. Functions as a Service (FaaS)
49. Containers as a Service (CaaS)
50. Integrating functions with services
51. Serverless solutions and state
52. Serverless Standards
53. LAB: Functions as a Service
54. API Gateways
55. The role of gateways
56. Revisiting bounded context
57. Ingres integration schemes
58. Access control, circuit breaking, rate limiting
59. Proxy, aggregate and translation operations
60. Service mesh solutions
61. LAB: API gateways

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
Microservices Application Architecture Training

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