DevOpsSchool

Course curriculum · November 2026

LEVEL 04 OF 04 · ADVANCED

Apache Camel Enterprise Integration Advanced Training

Run Camel at scale on Kubernetes with resilience patterns, clustering, security hardening and Camel 3 to 4 migration.

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	46 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/apache-camel/apache-camel-enterprise-integration-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 Apache Camel Enterprise Integration course path, you will be able to:

1

Design with integration patterns

Model integration problems with Enterprise Integration Patterns and implement them as Camel routes.

2

Build reliable integrations

Connect files, APIs, messaging, databases and cloud services with robust error handling and transactions.

3

Operate Camel in production

Monitor, scale, secure and migrate Camel applications on modern cloud-native runtimes.

WHAT THE ADVANCED LEVEL ADDS

Cloud-native scale, resilience and enterprise patterns

Hands-on: Event-driven platform on Kubernetes. Deploy a clustered set of Camel routes on Kubernetes with circuit breakers, a saga flow, Vault secrets and dashboards.

WHO SHOULD ATTEND

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

BEFORE YOU START

- The Intermediate level, or equivalent hands-on experience.
- You can already: Integrate messaging, databases and cloud services reliably with error handling, transactions and production monitoring.
- 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

Apache Camel Enterprise Integration Advanced Training agenda

46 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: Integration concepts, Camel architecture and first route

Included from Foundation

1. Enterprise integration challenges: point-to-point sprawl, messaging and the Enterprise Integration Patterns catalogue
2. What Apache Camel is: an integration framework with 300+ components, EIPs and multiple DSLs
3. Camel architecture: CamelContext, routes, endpoints, components, processors and the routing engine
4. Exchange and Message: headers, body, properties, exchange patterns InOnly and InOut
5. Camel 4 runtimes: Java 17+, Camel Main, Spring Boot 3 and Quarkus, and when to pick each
6. Project setup: Maven archetypes, Camel JBang (camel init and camel run) and IDE tooling
7. Route DSLs: Java DSL, YAML DSL and XML DSL compared on the same route
8. Endpoint URIs: scheme, context path and options, and reading component documentation
9. Core components: timer, log, file and direct to build simple flows
10. First route: a timer-to-log route, then file-to-file copy with a filename filter

DAY 2 — Essential: EIPs, transformation, data formats and testing

Included from Essential

11. Expression languages: Simple, Constant, Header, JSONPath and XPath in predicates and expressions
12. Message transformation: processors, beans, setBody and setHeader and type converters
13. Data formats: marshalling and unmarshalling JSON with Jackson, CSV, and XML with JAXB
14. Content-based router: choice, when and otherwise for routing decisions
15. Message filter and wire tap: dropping unwanted messages and auditing traffic
16. Splitter and aggregator: splitting large payloads, aggregation strategies and completion conditions
17. Recipient list and dynamic router: routing to endpoints computed at runtime
18. Bean integration: calling Java beans, parameter binding and the bean component
19. File and FTP integration: file and SFTP components, idempotent read options and done files
20. REST DSL and HTTP: exposing REST endpoints with platform-http and calling APIs with the http component
21. Configuration: externalised properties, application.properties, profiles and environment variables
22. Testing routes: camel-test-junit5, MockEndpoint expectations, AdviceWith and NotifyBuilder

DAY 3 — Intermediate: Messaging, error handling, transactions and operations

Included from Intermediate

23. Messaging with JMS: ActiveMQ Artemis queues and topics, request-reply and durable subscriptions
24. Apache Kafka component: producers, consumers, partitions, offsets and manual commits
25. Error handling: default error handler, redelivery policies, Dead Letter Channel and onException
26. Transactions: JMS and JDBC transactional routes, transacted and transaction policies
27. Idempotent consumer: duplicate detection with in-memory, JDBC and Redis repositories
28. Database integration: sql, jdbc and jpa components and batch inserts
29. Cloud components: AWS S3, SQS and SNS, Azure Storage Blob and Google Pub/Sub
30. Kamelets: reusable route snippets as connectors and using the Kamelet catalogue

31. Security basics: TLS with SSLContextParameters, credentials in properties and secured endpoints
32. Monitoring: JMX, Micrometer metrics, health checks and the Camel console
33. Tracing: OpenTelemetry tracing and the Camel message history and tracer
34. Troubleshooting routes: Camel JBang debugging, Hawtio and reading route statistics

DAYS 4-5 **Advanced: Cloud-native scale, resilience and enterprise patterns** — **New at this level**

35. Cloud-native Camel: Quarkus native builds and exporting Camel JBang projects to Kubernetes
36. Camel on Kubernetes: deployments, ConfigMaps, Secrets, probes and the Camel K approach
37. Concurrency and throughput: threads, parallelProcessing, SEDA queues and throttling
38. Resilience patterns: Circuit Breaker with Resilience4j, timeouts and fallbacks
39. Clustering and high availability: route policies, the master component and leader election
40. Saga EIP: long-running transactions and compensation across microservices
41. Performance tuning: streaming large files, stream caching, back-pressure and profiling routes
42. Security hardening: secrets from HashiCorp Vault or cloud secret managers, mTLS and auditing
43. Custom components: developing a Camel component with endpoints, producers and consumers
44. Migration to Camel 4: javax to jakarta, removed components and the Camel upgrade recipes
45. Integration governance: API-first design with OpenAPI, versioning and route documentation
46. Capstone: a resilient event-driven integration platform running on Kubernetes

PRACTICE

Hands-on labs

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

FOUNDATION

First file-polling Camel route

Create a Camel project with JBang, build a route that polls a folder, logs each file and moves it to an archive directory.

ESSENTIAL

Order-processing integration

Read CSV orders from SFTP, split and validate them, route by order type to JSON REST calls and test the flow with mocks.

INTERMEDIATE

Reliable messaging pipeline

Build an Artemis-to-Kafka-to-database pipeline with redelivery, a dead letter queue, idempotency and Micrometer metrics.

ADVANCED

Event-driven platform on Kubernetes

Deploy a clustered set of Camel routes on Kubernetes with circuit breakers, a saga flow, Vault secrets and dashboards.

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 Apache Camel Enterprise Integration 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 APACHE CAMEL ENTERPRISE INTEGRATION 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/apache-camel/

ENROL OR RESERVE A SEAT
Apache Camel Enterprise Integration Advanced Training

WHATSAPP · INDIA
+91 99057 40781

WHATSAPP · USA
+1 (469) 756-6329

EMAIL
contact@DevOpsSchool.com