

Spring Cloud Training

COURSE CONTENT

GET IN TOUCH



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About Multisoft

Train yourself with the best and develop valuable in-demand skills with Multisoft Systems. A leading certification training provider, Multisoft collaborates with top technologies to bring world-class one-on-one and certification trainings. With the goal to empower professionals and business across the globe, we offer more than 1500 training courses, which are delivered by Multisoft's global subject matter experts. We offer tailored corporate training; project Based Training, comprehensive learning solution with lifetime e-learning access, after training support and globally recognized training certificates.

About Course

Spring Cloud Training by Multisoft Systems is designed to help developers, architects, and software professionals master the modern world of microservices and cloud-native application development. As organizations shift from monolithic systems to distributed architectures, Spring Cloud has become a leading framework for building resilient, scalable, and manageable services.

Module 1: Introduction to Microservices & Spring Cloud

- ✓ Understanding monolithic vs. microservices architecture
- ✓ Need for microservices in modern applications
- ✓ Overview of Spring Framework and Spring Boot
- ✓ Role of Spring Cloud in distributed systems
- ✓ Cloud-native principles and 12-factor apps

Module 2: Spring Boot Fundamentals

- ✓ Building microservices with Spring Boot
- ✓ REST controllers, configurations, and packaging
- ✓ Externalized configuration and environment profiles
- ✓ Dependency management with Maven/Gradle

Module 3: Service Discovery & Registration (Eureka)

- ✓ Introduction to Netflix OSS
- ✓ Setting up Eureka Server and Eureka Client
- ✓ Service registration and lookup
- ✓ Load balancing using Ribbon

Module 4: Centralized Configuration Management

- ✓ Introduction to Spring Cloud Config Server
- ✓ Storing configurations in Git
- ✓ Managing configuration across environments
- ✓ Refresh Scope & Dynamic configuration updates
- ✓ Handling secure configs and encryption

Module 5: API Gateway & Intelligent Routing

- ✓ Overview of Spring Cloud Gateway
- ✓ Routing, filters, and predicates

- ✓ Implementing API Gateway for microservices
- ✓ CrossCutting concerns: Logging, validation, security

Module 6: Client-Side Load Balancing & Resilience

- ✓ Ribbon and LoadBalancerClient
- ✓ Introduction to Hystrix and Circuit Breaker pattern
- ✓ Rate limiting, retry patterns, and timeouts
- ✓ Resilience4j for fault-tolerant microservices

Module 7: Distributed Tracing & Monitoring

- ✓ Introduction to Spring Cloud Sleuth
- ✓ Trace IDs, span IDs, and request tracking
- ✓ Integrating Zipkin for distributed tracing
- ✓ Real-time monitoring and log correlation

Module 8: Messaging & Event-Driven Microservices

- ✓ Introduction to messaging patterns
- ✓ Spring Cloud Stream overview
- ✓ Working with Kafka/RabbitMQ
- ✓ Event publishing, processing, and consumption

Module 9: Security in Microservices

- ✓ OAuth2 fundamentals
- ✓ Securing microservices with Spring Security
- ✓ Token-based authentication and JWT
- ✓ Role-based access control
- ✓ API Gateway security best practices

Module 10: Containerization & Cloud-Native Deployment

- ✓ Introduction to Docker and containerization
- ✓ Packaging Spring Cloud microservices using Docker
- ✓ Container orchestration with Kubernetes
- ✓ Deploying microservices on cloud platforms (AWS/Azure/GCP)

Module 11: Real-World Microservices Design Patterns

- ✓ Saga pattern
- ✓ API aggregation
- ✓ Distributed caching
- ✓ Config best practices
- ✓ Observability and performance tuning