

Spring Microservices

Duration: 5 Days

Description

Spring is a Java-based programming framework and consists of various modules. Spring Boot, on the other hand, is a sublibrary in the Spring ecosystem that supports fast and easy application development for microservice architectures. What is Microservice Architecture? Microservices architecture is an approach to software development that breaks down large and complex software into smaller, independent, and manageable parts. Each part (microservice) represents a specific functionality or service. These microservices can be developed, deployed, scaled, and managed independently. This way, you can develop and deploy different components of an application at different speeds. Spring Microservices Spring offers a range of tools and modules for developing applications for microservices architecture. Spring microservices enable developers to quickly build and deploy their applications, easily manage communication between different microservices, and reduce the complexity associated with microservices architecture in general. This, in turn, makes large-scale and complex systems easier to manage and scalable. The main purpose of this 5-day Spring microservice training is to explain microservice architecture to the participants and to teach them how to develop microservice applications using technologies such as Spring Boot and Spring Cloud.

Outline

Microservice Overview

Architecture

Design Patterns

Domain Driven Design

Microservice Discovery

Eureka

Registering microservices to Eureka

Microservice Configuration

Spring Config Server

Encryption , decryption

Encryption with Jasypt

Microservice Communication

Synchronous communications

Spring RESTful Services

- API Design
- Validation
- Error Handling
- Object Mapping
- Web Security

Spring REST Clients

- RestTemplate
- OpenFeign

Asynchronous communications

Kafka

Rabbit MQ

Spring Cloud bus

Load balancing

Client side load balancing

- Spring load balancer

API Gateway

- Spring API Gateway

Microservice resilience patterns

Resilience4j

Retry

Circuit breaker

Rate Limiter

Prerequisites

Having basic Java, basic database and basic spring knowledge