Spring Microservices in Action Syllabus

Semester: One (1) Summer Term lasting 3 weeks between Fall and Spring terms/semesters. / 2020

Instructor Information

Instructor

Email

Office Location & Hours

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Tehran, 4 hours a week

General Information

Description

Spring Cloud is an open source Java-based framework used to create a Micro Service.

Course Materials

Required Materials

This tutorial is written for readers who have a prior experience of Java, Spring, Maven, Gradle and Gradle. You can easily understand the concepts of Spring Boot if you have knowledge on these concepts. It would be an additional advantage if you have an idea about writing a RESTful Web Service. If you are a beginner, we suggest you to go through tutorials related to these concepts before you start with Spring Boot. Working With:

Required

Java SE, Java EE, Spring Framework

Course Schedule

| Week | Topic | Description |
|---------|---|--|
| Week 1 | Welcome to the cloud, Spring | What's a microservice? |
| Week 2 | Building microservices with Spring Boot | Decomposing the business problem |
| Week 3 | Controlling your configuration with Spring Cloud configuration server | configuration management architecture |
| Week 4 | On service discovery | Where's my service? |
| Week 5 | When bad things happen: client resiliency patterns with Spring Cloud and Netflix $\ensuremath{Hystrix}$ | Client-side load balancing |
| Week 6 | Service routing with Spring Cloud and Zuul | What is a services gateway? |
| Week 7 | Securing your microservices | Introduction to OAuth2 |
| Week 8 | Event-driven architecture with Spring Cloud Stream | Tight Coupling Between Services |
| Week 9 | Distributed tracing with Spring Cloud Sleuth and Zipkin | |
| Week 10 | Deploying your microservices | Anatomy of a Spring Cloud Sleuth trace |
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