Advanced Spring Framework

Course Summary

Description

This course is designed for experienced spring developers looking to develop a deeper understanding of spring and how to integrate it seamlessness into existing enterprise infrastructure. The course provides an in-depth coverage of how the spring bean factory works, along with how it can be extended, and how to define custom XML namespaces for use with this spring configuration files. Students will also learn how to effectively use Spring Security to secure spring based applications. Also spring JMX and OSGI support is covered at a level to allow students to see how to make use of JMX and OSGI to improve their applications. For the experienced developers and team leads this course provides the breadth needed to make the key decisions about how to best utilize spring on current and future projects.

Topics

- Spring Bean Factory in Depth
- Custom XML Namespaces
- Selecting a Spring AOP implementation
- Spring Security
- Spring JMX
- Spring and OSGI
- Architecting Spring Applications

Audience

This course is designed for team leads, and solution architects who need an advanced in depth understanding of spring.

Prerequisites

Students should have knowledge of spring dependency injection, Spring AOP, spring transactions, spring data access. Students who lack introductory spring knowledge can take an introductory spring course first.

Duration

Four days

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... to Your Success!"

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Course Outline

I. Spring Bean Factory in Depth
- A. Architecture of the Bean Factory
- B. Bean Factory Implementations
- C. Extending the Spring Bean Factory

II. Custom XML Namespaces
- A. Spring XML Namespaces Overview
- B. XML Namespaces Review
- C. XML Schema Review
- D. Designing a custom XML namespace
- E. Implementing a custom XML namespace
- F. When to use custom XML namespaces

III. Selecting a Spring AOP Implementation
- A. Dynamic Proxy AOP configuration, pros, and cons
- B. Load Time Weaving AOP configuration, pros, and cons
- C. Compile Time Weaving AOP configuration, pros, and cons
- D. Selecting the best AOP implementation for your project

IV. Spring Security
- A. Overview of Spring Security Project
- B. Spring Security Architecture
- C. Configuring Spring Security Authentication
- D. Customizing Spring Security Authentication
- E. Extending Spring Security Authentication
- F. Configuring Spring Security Authorization
- G. Customizing Spring Security Authorization
- H. Extending Spring Security Authorization

V. Spring JMX
- A. JMX Overview
- B. JMX Architecture
- C. Spring JMX Support
- D. Practical JMX use cases
- E. A JMX Based Circuit Breaker
- F. Making applications transparent

VI. Spring and OSGI
- A. OSGI Overview
- B. Why OSGI Matters
- C. Spring support for OSGI
- D. Using OSGI on your projects

VII. Architecting Spring Applications
- A. Spring best practices
- B. Various Architecture Scenarios Discussions
- C. Q&A session

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