



Enterprise Computing Solutions - Education Services

TRAINING OFFERING

Skontaktuj się z nami

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Kod:	Czas trwania:	Cena netto:
VMW_SCT	32 Hours (4 days)	zł8,200.00

Description

This 4-day course offers hands-on experience with the major features of Spring and Spring Boot, which includes configuration, data access, REST, AOP, auto-configuration, actuator, security, and Spring testing framework to build enterprise and microservices applications. On completion, participants will have a foundation for creating enterprise and cloud-ready applications. This course prepares students for the Spring Professional certification exam.

Cel szkolenia

By the end of the course, you should be able to meet the following objectives:

- • Spring configuration using Java Configuration and Annotations
- • Aspect oriented programming with Spring
- • Testing Spring applications using JUnit 5
- • Spring Data Access - JDBC, JPA and Spring Data
- • Spring Transaction Management
- • Simplifying application development with Spring Boot
- • Spring Boot auto-configuration, starters and properties
- • Build a simple REST application using Spring Boot, embedded Web Server and fat JARs or classic WARs
- • Implementing REST client applications using RestTemplate and WebClient
- • Spring Security
- • Enable and extend metrics and monitoring capabilities using Spring Boot actuator
- • Utilize Spring Boot enhancements to testing

Uczestnicy

Application developers who want to increase their understanding of Spring and Spring Boot with hands-on experience and a focus on fundamentals.

Wymagania wstępne

Some developer experience using Java, an IDE (Eclipse, STS or IntelliJ) and build tools such as Maven or Gradle

Program szkolenia

- 1 Introduction to Spring

- Java configuration and the Spring application context
- @Configuration and @Bean annotations
- @Import: working with multiple configuration files
- Defining bean scopes
- Launching a Spring Application and obtaining Beans

2 Spring JAVA Configuration: A Deeper Look

- External properties & Property sources
- Environment abstraction
- Using bean profiles
- Spring Expression Language (SpEL)

3 Annotation-based Dependency Injection

- Component scanning
- Autowiring using @Autowired
- Java configuration versus annotations, mixing.
- Lifecycle annotations: @PostConstruct and @PreDestroy
- Stereotypes and meta-annotations

4 Factory Pattern in Spring

- Using Spring FactoryBeans

5 Advanced Spring: How Does Spring Work Internally?

- The Spring Bean Lifecycle
- The BeanFactoryPostProcessor interception point
- The BeanPostProcessor interception point
- Spring Bean Proxies
- @Bean method return types

6 Aspect-oriented programming

- What problems does AOP solve?
- Defining pointcut expressions
- Implementing various types of advice

7 Testing a Spring-based Application

- Spring and Test-Driven Development
- Spring 5 integration testing with JUnit 5
- Application context caching and the @DirtiesContext annotation
- Profile selection with @ActiveProfiles
- Easy test data setup with @Sql

8 Data Access and JDBC with Spring

- How Spring integrates with existing data access technologies
- DataAccessException hierarchy
- Spring's JdbcTemplate

9 Database Transactions with Spring

- Transactions overview
- Transaction management with Spring
- Transaction propagation and rollback rules
- Transactions and integration testing

10 Spring Boot Introduction

- Introduction to Spring Boot Features
- Value Proposition of Spring Boot
- Creating a simple Boot application using Spring Initializer website

11 Spring Boot Dependencies, Auto-configuration, and Runtime

- Dependency management using Spring Boot starters
- How auto-configuration works
- Configuration properties
- Overriding auto-configuration
- Using CommandLineRunner

12 JPA with Spring and Spring Data

- Quick introduction to ORM with JPA
- Benefits of using Spring with JPA
- JPA configuration in Spring
- Configuring Spring JPA using Spring Boot

- Spring Data JPA dynamic repositories

13 Spring MVC Architecture and Overview

- Introduction to Spring MVC and request processing
- Controller method signatures
- Using @Controller, @RestController and @GetMapping annotations
- Configuring Spring MVC with Spring Boot
- Spring Boot packaging options, JAR or WAR

14 Rest with Spring MVC

- An introduction to the REST architectural style
- Controlling HTTP response codes with @ResponseStatus
- Implementing REST with Spring MVC, @RequestMapping, @RequestBody and @ResponseBody
- Spring MVC's HttpMessageConverters and automatic content negotiation

15 Spring Security

- What problems does Spring Security solve?
- Configuring authentication
- Implementing authorization by intercepting URLs
- Authorization at the Java method level
- Understanding the Spring Security filter chain
- Spring security testing

Terminy

Na żądanie. [Prosimy o kontakt](#)

Dodatkowe informacje

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