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## Introduction to Spring Boot 2

**Duration:** 21 hours

**Price:** \$900

**Prerequisites:** Java SE programming experience equivalent to completing the **Java Programming** course and knowledge of Spring equivalent to completing the **Introduction to Spring 5, Spring MVC and Spring REST** course.

**Description:** As the Spring framework has grown, creating and configuring Spring applications has become more and more complex. Spring Boot takes an "opinionated" view of an application (via intelligent defaults) that minimizes configuration and boilerplate Spring code. Spring Boot makes it easier to use Spring's many frameworks, and adds advanced capabilities such as health monitoring. This course introduces Spring Boot from the ground up, including overviews of building blocks such as Maven. It covers the key features and capabilities of Spring Boot, and teaches experienced Spring developers the skills they need to use Spring Boot productively. This course covers Spring Boot 2 and Spring 5 - the current releases of these frameworks.

This course does all labs with the Eclipse IDE, and the lab instructions include detailed directions for setting up and using it.

### Course Overview

#### Spring Configuration Overview

- Spring Review
- Using the Spring Container
- Overview of XML and @Component
- Dependency Injection (DI) in Spring
  - Dependencies in Configuration Classes
  - Injecting Configuration Classes
- Using Java-based Configuration

#### Introduction to Spring Boot

- Maven Overview
  - Core Maven Concepts
  - The Project Object Model (POM)
- Spring Boot Overview
  - Dependency Management
  - Configuration with Spring Boot
  - Programming with Spring Boot

(@Configuration)

- Integrating Configuration of Different Types
- Importing Between XML and @Configuration

## Configuration and Customization

- Working with Properties
- Overview of YAML
- Configuring File Logging
- Using the Spring TestContext Framework
- Auto-Configuration Overview
- Customizing SpringApplication

## Spring Boot Web/REST and Security

- DispatcherServlet Review
- Web Starters and Configuration Using `spring-boot-starter-web`
- Using Embedded Servers (Tomcat, Netty)
- Deploying to an External Server
- Spring Security Overview
- Auto-configuration and Customization Using `spring-boot-starter-security`
- Overview of Spring Boot Data REST

## Spring Boot CLI

- Overview of Spring Boot CLI
- Installing and Running the CLI
- Grabbing / @Grab

- Spring Boot Hello World / SpringApplication
- SpringApplication Overview
  - @SpringBootApplication
  - CommandLineRunner
  - ApplicationRunner

## Spring Boot Database Support

- JDBC Auto-Configuration Using `spring-boot-starter-jdbc`
- Embedded Database Auto-Configuration
- Configuring DataSource Properties
- Spring Boot's JPA Support Using `spring-boot-starter-data-jpa`
- Spring Data Overview
  - Using the `CrudRepository/JpaRepository` Methods
  - Defining Queries with Spring Boot Data

## Spring Boot Actuator and DevTools

- Overview of `spring-boot-starter-actuator`
  - Actuator Endpoints
  - Configuring Endpoint Access
  - Customizing Actuators and Health Checks
- Overview of `spring-boot-starter-devtools`

