

## Course duration

- 3 days

## Course Benefits

- Get an overview of Spring Core (focus on @Configuration) and maven/gradle - building blocks for Spring Boot
- Understand the needs that Spring Boot fulfills
- Use Spring Boot starters and start.spring.io to easily create new applications
- Understand and use Spring Boot's auto-configuration
- Customize your application configuration
- Understand and use Spring Boot's Spring Data / Spring Data JPA capabilities
- Understand and use Spring Boot's Web capabilities (focusing on Spring REST), including embedded servlet containers
- Become familiar with Spring Boot Data REST
- Use Spring Security with Spring Boot
- Understand and use Spring Boot's Actuator
- Use Actuator endpoints to monitor and manage applications
- Become familiar with and work with Spring DevTools
- Become familiar with the Spring CLI

### Available Delivery Methods

#### Public Class

Public expert-led online training from the convenience of your home, office or anywhere with an internet connection. Guaranteed to run .

#### Private Class

Private classes are delivered for groups at your offices or a location of your choice.

## Course Outline

1. Spring Configuration Overview
  1. Spring Review - XML and @Component
  2. Dependency Injection
  3. Java-based Configuration (@Configuration)
  4. Integrating Configuration of Different Types
2. Introduction to Spring

1. Brief maven Overview
2. Intro to Spring Boot - What is Spring Boot and What It Does
3. Spring Boot Hello World / SpringApplication
4. SpringBootApplication / CommandLineRunner / ApplicationRunner
3. Configuration and Customization
  1. Working with Properties - YAML and .properties
  2. Logging and its Configuration
  3. Spring TestContext Framework
  4. Auto-configuration Overview
  5. Customization
4. Spring Boot Database Support
  1. Basic Auto-configuration - Datasource and Pooling
  2. Configuration Properties
  3. Spring Boot's JPA Support - spring-boot-starter-data-jpa
  4. Spring Boot Data (with Data-JPA in Detail)
  5. Using Spring Boot Data - CrudRepository/JpaRepository
  6. Defining Queries with Spring Boot Data
5. Spring Boot Web/REST and Security
  1. DispatcherServlet Review
  2. Web Starters and Configuration spring-boot-starter-web
  3. Using Embedded Servers (Tomcat, Netty)
  4. Deploying to an External Server
  5. Spring Security Overview (Web)
  6. spring-boot-starter-security - Auto-configuration and Customization
  7. Spring Boot Data Rest - Generated Web Services from Repositories
6. Actuator and Devtools
  1. Actuator Overview and Capabilities
  2. Actuator Endpoints
  3. Custom Actuators and Health Checks
  4. Devtools Overview
  5. Other Tools and Features
7. Spring Boot CLI
  1. Overview and Capabilities
  2. Grabbing / @Grab
  3. Other Capabilities

## Class Materials

Each student will receive a comprehensive set of materials, including course notes and all the class examples.

### Class Prerequisites

Experience in the following *is required* for this Spring class:

- Good working knowledge of Java programming.
- Basic knowledge of Spring framework.