Spring Developer Boot Camp | Spring Core, Boot, AOP, Data, REST & More (TT3335)

Category: Software Development & Programming | **Vendor:** Trivera Tech

Duration: 32.00 hours (4 days) **26.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format:	Instructor Led - Online
Certification:	Cisco Certified Specialist – Service Provider Advanced Routing
Related Exam:	300-510

Course Overview

Spring Developer Boot Camp®is a hands-on Spring training course geared for experienced Java developers who need to understand what the Spring Framework is in terms of today's systems and architectures, and how to use Spring in conjunction with other technologies and frameworks.®

About This Course

The Spring framework is an application framework that provides a lightweight container that supports the creation of simpleto-complex components in a non-invasive fashion. Spring's flexibility and transparency is congruent and supportive of incremental development and testing. The framework's structure supports the layering of functionality such as persistence, transactions, view-oriented frameworks, and enterprise systems and capabilities. This course targets Spring 5.x, which includes full support for Java SE 11 and Java EE 8. Spring supports the use of lambda expressions and method references in many of its APIs.

Spring makes enterprise development easier. Spring simplifies common tasks and encourages good design based on

programming to interfaces. Spring makes your application easier to configure and reduces the need for many JEE design

patterns. Spring puts the OO design back into your enterprise application, and it integrates nicely with many view technologies and the new features of HTML5.

Mastering Spring 5.x Developer Boot Camp is a hands-on Spring training course geared for experienced Java developers who need to understand what the Spring Framework is in terms of today's systems and architectures, and how to use Spring in conjunction with other technologies and frameworks. This leading-edge course provides added coverage of Spring's AspectOriented Programming and the use of Spring Boot. Students will gain hands-on experience working with Spring, using Maven for project and dependency management.

Who Should Attend

This course is geared for experienced Java developers new to Spring.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

This course provides a solid understanding of what Spring brings to the table and how to use Spring in the context of other technologies and frameworks. Students are taken on an in-depth tour of the basic Spring framework, initially examining concepts such as Inversion of Control and Dependency Injection, and then working with the container and basic components. Students are introduced to Spring Boot and use Spring Boot throughout the remainder of the course. The latter part of the class looks at implementing REST with Spring and takes a deep dive into Spring Boot to prepare students for more extended Spring Boot usage.

Detailed Course Outline

1. The Spring Framework

¢ Understand the value of Spring

¢ Explore Dependency Injection (DI) and Inversion of Control (IoC)

¢ Introduce different ways of configuring collaborators

¢ Spring as an Object Factory

¢ Initializing the Spring IoC Container

2. Configuring Spring Managed Beans

¢ Introduce Java-based configuration

¢ The @Configuration and @Bean annotations

¢ Define bean dependencies

¢ Bootstrapping Java Config

¢ Context Injection in Configuration classes

¢ Using context Profiles

¢ Conditionally loading beans and configurations

¢ Bean Life-Cycle Methods

3. Defining Bean dependencies

¢ Introduce Spring annotations for defining dependencies

¢ Explore the @Autowired annotation

¢ Stereotype Annotations

¢ Qualifying injection points

¢ Lifecycle annotations

¢ Using properties in Java based configuration

¢ The @Value annotation

¢ Using the Candidate Components Index

4. Introduction to Spring Boot

¢ Introduce the basics of Spring Boot

¢ Explain auto-configuration

¢ Introduce the Spring Initializr application

¢ Bootstrapping a Spring Boot application

5. Working with Spring Boot

¢ Provide an overview of Spring Boot

¢ Introduce starter dependencies

¢ Introduce auto-configuration

¢ @Enable... annotations

¢ Conditional configuration

¢ Spring Boot Externalized Configuration

¢ Bootstrapping Spring Boot

Session: Spring AOP

6. Introduction to Aspect Oriented Programming

¢ Aspect Oriented Programming

¢ Cross Cutting Concerns

7. Spring AOP

¢ Spring AOP in a Nutshell

¢ @AspectJ support

¢ Spring AOP advice types

¢ AspectJ pointcut designators

Session: Spring Data

8. Spring Data Overview

¢ Spring Data Capabilities and Features

¢ Spring Data repositories

¢ The Repository interfaces

¢ Defining the JPA entity

¢ Persisting entities using Spring Data JPA

¢ Bootstrapping the Spring Data application

9. Spring Data Query Methods

¢ Querying data using Query methods

¢ Query builder mechanism

¢ Handling an Absence of Value

¢ Pagination and Ordering

¢ Asynchronous query methods

¢ Count and Delete Derived Query methods

10. Spring Data JPA Queries

¢ JPA named queries

¢ @Query and @NamedQuery annotations

¢ Defining Query parameters

¢ Executing native queries

¢ SpEL expressions in queries

¢ Managing the Persistence Context after updates

Session: Implementing REST with Spring

11. REST principles

¢ Introduce the six architectural constraints of REST

¢ Introduce Resources and Resource representations

¢ Best practices for defining Resource URIs

12. Introduction to RESTful Services in Spring

¢ Discuss the request-response cycle of REST requests

¢ Defining a REST Controller in Spring

¢ Explain the @ResponseBody annotation

¢ Define request mappings

¢ Use path variables

13. Introduction to REST Clients in Spring

¢ Introduce RestTemplate class

¢ Making GET, POST, PUT, HEAD, OPTIONS and DELETE requests

¢ Introduce the UriTemplate class

¢ Using HttpEntity and RequestEntity

¢ Use the exchange method to define Ëœcomplex' requests

¢ Process requests and responses using callback

¢ Configure the RestTemplate

14. Bootstrapping the REST application

¢ Describe steps needed to bootstrap Spring REST application

¢ Configure Content Representation libraries

¢ Configure Spring MVC and map the Dispatcher Servlet

¢ Explain the advantages of using Spring Boot to setup the REST project

¢ Setup a Spring REST application using Spring Boot

15. Content Representation

¢ Returning different media types from service

¢ Introduce negotiated resource representation

¢ Configure Message Converters

16. Implementing the REST Service

¢ Process for Spring REST Implementation

¢ The Domain object

¢ Using Project Lombok to define the domain object

¢ (Not) Using Data Transfer Objects

¢ ResponseEntity builder interfaces

¢ Setting Location header using UriComponentsBuilder

Session: Spring Boot 2

17. Spring Boot Actuator

¢ Understand Spring Boot Actuators

¢ Work with predefined Actuator endpoints

¢ Enabling Actuator endpoints

¢ Securing the Actuator

Bonus Topics: Time Permitting

These topics will be included in your course materials but may or may not be presented during the live class depending on the pace of the course and attendee skill level and participation.

18. Developing in Spring Boot

¢ Introduce Spring Boot Devtools

¢ Enable the ConditionEvaluationReport

¢ Debugging Spring Boot applications

19. Thymeleaf

¢ Provide a quick overview of Thymeleaf

¢ Introduce Thymeleaf templates

¢ Create and run a Spring Thymeleaf MVC application

Certification Path

Cisco Certified Specialist – Service Provider Advanced Routing

Exam: 300-510

Additional Course Details

Nexus Humans Spring Developer Boot Camp | Spring Core, Boot, AOP, Data, REST & More (TT3335) training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the Spring Developer Boot Camp | Spring Core, Boot, AOP, Data, REST & More (TT3335) course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for Spring Developer Boot Camp | Spring Core, Boot, AOP, Data, REST & More (TT3335)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: What certification does this course prepare me for?

The Spring Developer Boot Camp | Spring Core, Boot, AOP, Data, REST & More (TT3335) course helps prepare you for the Cisco Certified Specialist – Service Provider Advanced Routing certification path.

Q: Which exam does this course prepare me for?

This course prepares you for the 300-510 official exam. You can take this exam at any exam center across United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online wherever you are located.

Q: How many CPD hours does this course provide?

The 4-day Spring Developer Boot Camp | Spring Core, Boot, AOP, Data, REST & More (TT3335) course provides up to 26.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Spring Developer Boot Camp | Spring Core, Boot, AOP, Data, REST & More (TT3335) training?

The training takes place over 4 day(s), with each day lasting approximately 32.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Spring Developer Boot Camp | Spring Core, Boot, AOP, Data, REST & More (TT3335)?

Yes, we provide corporate training, dedicated training, and closed classes for Spring Developer Boot Camp | Spring Core, Boot, AOP, Data, REST & More (TT3335). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Java; Spring

Q: Why choose Nexus Human for Spring Developer Boot Camp | Spring Core, Boot, AOP, Data, REST & More (TT3335)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Spring Developer Boot Camp | Spring Core, Boot, AOP, Data, REST & More (TT3335) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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