Developing Enterprise Java Applications with Spring

IT ACADEMY TRAINING

Course Details | **Common Questions**

Duration

3 Days

8 AM-4 PM Central Daily

Course skill level

- Foundation
- Intermediate
- ✓ **Advanced**

This course qualifies for

2.4 CEUs

23 NASBA CPEs

Technology used during course

- AnyWare Classes use Zoom
- SkyTap Virtual Machines
- Computing Sandbox

Who should attend (Audience)

This course is designed for Application Administrators and other IT Professionals with Java programming experience who are involved in the development of complex enterprise-level Java applications.

What is this course about?

Increase productivity, accelerate development, and quickly build enterprise Java applications with this Spring training course. Learn how to simplify development and reduce code complexity with Spring and its ecosystem of tools and libraries. Through intensive hands-on exercises, you gain the skills to implement high-performance applications while reducing development time and applying robust transaction-handling policies including Spring Boot, simplifying database access and transactions, building Java web services, and deploying Java applications in containers using Docker.

Recommended prerequisites

- T471 - Java Programming Introduction

Previous knowledge & experience needed

- Three to six months of Java programming experience
- You should be able to:
  - Understand Java classes, the inheritance model, polymorphism, and encapsulation
  - Use fundamental standard edition Java APIs
  - Apply object-oriented analysis and design, including defining classes and creating objects

Course Details

Chapter 1: Modern Java Software Development
- Java and Spring Evolution and Trends – Functional Programming
- JEE vs Spring
- Architecting applications using Containers
- Java Microservices

Chapter 2: Spring Fundamentals
- Spring Architecture
- Spring Inversion of Control (IoC) and Aspect Oriented Programming (AOP)
- The Spring Object Factory
- Building Java Applications using Spring Boot

Chapter 3: Spring JDBC and Spring Data
- Simplifying relational database access with Spring JDBC
- Using JPA and Object Relational Management (ORM) implementations such as Hibernate
- Spring Data for accessing JPA repositories and NoSQL
- Constructing an Effective DataAccess Tier with Spring

Chapter 4: Spring Transaction Management
- Analyzing Java EE transaction support
- Controlling transactions with Spring transaction manager
- Declaring transaction policies with Spring annotations

Chapter 5: Spring MVC and Rest Services
- Analyzing Spring MVC architecture
- Mapping requests to controllers with Spring annotations
- Processing commands and form submissions
- Single Page Application (SPAs)
- Rendering the response and with Java template technologies (Thymeleaf)
- Building Controllers that Implementing REST services

Chapter 6: The Spring Ecosystem
- Deploying lightweight Java applications using Event Driven Programming
- Using Docker to build and deploy Java Containers
- Further Spring Projects – Lombok
- Spring Cloud and Spring Going Forward

Chapter 7: Course Summary

Common Questions – Attendance Policy, Contacts

What is the Attendance Policy for IT Academy Classes?

IT Academy attendees are expected to adjust their work schedule to match the IT Academy class hours of 8:00am – 4:00pm. 100% attendance is expected in each IT Academy class. Missing time in class may result in the following:

- No Show=Employees who do not show up for class or arrive more than one (1) hour after the start of class will be advised to reschedule for the next available course.
- Incomplete=Employees missing a half day or more of class-any day of class-will be advised to reschedule for the next available course. Employees not available to sit for the post-test will be considered incomplete.

AnyWare Technical Support contact?

AnyWare@LearningTree.com, 1-877-653-8733

IT Academy Classroom Point of Contact?

Christopher Marsh, Christopher.marsh@tn.gov, 615-532-5517

How do I access the new My IT Academy Portal?

1. Log into Edison
2. ELM Learning Home Page
3. Quick Links
4. My IT Academy (last link under Quick Link)

For more FAQs visit the IT Academy AEM Site

https://www.teamtn.gov/sts/sts-employee-engagement/itacademytn/it-academy-toolkit/faqs.html