

**Reactive Spring with Spring Boot**

**Course Number:** SPRG-210
**Duration:** 3 days

**Overview**

Accelebrate's Reactive Spring with Spring Boot training course teaches experienced Spring developers how to build Spring Boot applications. Attendees then learn how to leverage Project Reactor to build modern Reactive systems.

**Prerequisites**

All attendees must have six months of real-world Core Spring experience. Students will also need a comprehensive understanding of lambdas in Java and the Java Stream API to work with Project Reactor. If your attendees do not have lambdas and Java Stream API experience, please ask us for a five-day training proposal that includes these.

**Materials**

All attendees receive comprehensive courseware covering all topics in the course.

**Software Needed on Each Student PC**

For in-person deliveries, attendees require computers with the Java Development Kit version 8 and an internet connection. Students also require a Java Integrated Development Environment like Eclipse or IntelliJ. We will provide full classroom setup instructions that will include seating in small groups, with supplies such as flipcharts, sticky notes, markers, and pens for the attendees and a projector and Internet connection for the instructor's laptop.

Online deliveries for this interactive training will use an online meeting platform (such as Zoom, WebEx, GoTo, or Teams) to have face-to-face contact online, including use of breakout rooms for group activities.

**Objectives**

* Use Spring Boot to bootstrap a project
* Understand the fundamentals of Reactive programming
* Use Project Reactor to build Reactive systems

**Outline**

* Introduction
* Spring Introduction
	+ Spring Background
	+ Dependency Injection
	+ Constructor Injection
* Spring Boot Basics
	+ Start with Groovy and CLI
	+ Spring Starter Projects
	+ Using application.properties
	+ Initializers
* Configurations
	+ Externalize Configuration
	+ Logging
* Controllers
	+ Controllers and RestControllers
	+ Content Negotiation
	+ WAR Deployment
* Actuators
	+ Actuators
	+ EventListeners
* Reactive Programming
	+ The Reactive Manifesto
	+ Responsiveness
	+ Resiliency
	+ Elasticity
	+ Message-driven Systems
* Reactive Streams Standard
	+ Publisher
	+ Subscriber
	+ Subscription
	+ Processor
* Project Reactor
	+ Reactor Pattern
	+ Design Goals of Project Reactor
	+ Basics of Flux and Mono
* Basic Operations on Flux and Mono
	+ Filtering
	+ Peeking
	+ Handling Errors
	+ Transforming
	+ Subscribing
* Conclusion