

Java Spring Reactive Programming – Workshop

Course 90910 – 8 Hours

Overview

Latest Java releases supports 2 modern programming methodologies: Functional programming and reactive programming.

Functional programming allows Java programmers execute methods without being bounded to class and by that getting rid of class loading and object instantiating for a single method invocation.

Reactive programming provides easy to use platform for forking request handling and programming asynchronously to reduce back-pressure.

The first part of this workshop will allow you to experience basic and advanced functional programming with Java 8 LAMBDA expressions and method references. The second part is all about reactive programming. We will get to know Java 9 Flow API and Spring 5 WebFlux and then we'll build reactive REST web services using HTTP data streaming capabilities. The workshop also includes NoSQL Reactive interaction and uses MongoDB as an example for Reactive streaming

Who Should Attend

- Java developers that want to use Stream API
- Java developers that want to use Functional programming
- Java developers that want to use Reactive programming
- Java developers that want to construct reactive REST web-services

Prerequisites

- Experience in Java programming
- Experience in Spring, SpringBoot
- Experience in Spring Data & Spring MVC

Course Contents

- Java 8 Functional programming
 - Understanding Java dynamic invoker
 - Lambdas and Functional Interfaces
 - Functional programming with the new Functional Interfaces
 - Method References
 - Interface Default and Static Methods
 - Optional
 - Streams
 - Parallel Streams

- Java 9 Reactive programming
 - Java 9 Flow
 - What is reactive programming?
 - The need
 - Publisher
 - Subscriber
 - Processors
 - Dedicated executors
 - Spring 5
 - Introduction to Spring Reactive Platform
 - Boot support
 - Mono
 - Flux
 - Spring 5 – Reactive Web
 - Reactor vs Controller
 - HTTP Support
 - Creating Reactive REST Web-Services
 - Spring 5 – Reactive Data Streaming
 - NoSQL Reactive Drivers
 - Creating Reactive Repositories