



Modern Java

Duration 3 day(s) (MODERN-JAVA)

From Java 7 to Java 12

Description

Have you kept up with the new release rate for Java versions? Do you want to discover and gain practical experience on the new features of Java from version 7 until now? You will learn to migrate an old Java application, practice reactive programming, manipulate the new APIs via the new Java shell and many other things in order to quickly upgrade yourself!

Goals

- Take an interest in the principles of functional programming
- Master lambda expressions and method references
- Implement Streams to manipulate data flows
- Implement "traits" using default methods
- Understand the Date & Time API (JSR 310)
- Demystify the module system of the Jigsaw project
- Know how to gradually migrate a Java application
- Learn the latest news in language and APIs
- Discover the evolutions of the JVM

Public

Java Developer, Tech Lead

Prerequisites

- Professional Java language practice
- Be familiar with versions of Java 7 or earlier

Structure

50% Theory, 50% Practice

Program

Presentation

- History
- New release rate
- Content of Java 7, 8, 9 and following

Lambda Expressions, Default Methods

- The Java 8 revolution
- Principles of functional programming
- Anatomy of a Lambda Expression
- Method references
- Default methods
- Line oriented programming

Streams, Date & Time API

- Notion of Stream
- Data generation
- Processing and filtering
- Collectors and terminal operations
- Date & Time API (JSR 310)
- The thousand and one improvements of Java

The module system

- Definition and objectives of the Jigsaw project
- The modularization of the JDK
- Definition of a module
- Modularize your application
- Implementation with Maven and Gradle
- Legacy code, automatic modules
- Unit tests

The other contributions of the latest version of Java

Improvements to existing APIs

- Collections, Streams, Process ...

New APIs introduced

- Responsive programming, HTTP client ...

Language and JVM evolutions

Tools