JAVA SE 17 Programming II

Description

This is a second-level course for programmers learning the Java language. It rounds-out the topics that were taught in the previous course, Java SE: Programming I, and provides additional key skills for Java programmers, such as secure coding, modular programming, and database access.This course uses today's main Java version for its practices (currently Java 17).

Course Content
Module 1: Functional Programming

- Lesson 1: Functional Interfaces and Lambda Expressions
- Lesson 2: Collections Streams, and Filters
- Lesson 3: Built-in Functional Interfaces

Module 2: Modular Programming

- Lesson 1: Introduction to Modular Programming in Java
- Lesson 2: Services in a Modular Application
- Lesson 3: Migration to a Modular Application

Module 3: Streams and Parallel Streams

- Lesson 1: Concurrency
- Lesson 2: Parallel Streams
- Lesson 3: Terminal Operations: Collectors
- Lesson 4: Creating Custom Streams

Module 4: Java API Programming and Secure Coding Concepts

- Lesson 1: I/O (Fundamentals and NIO2)
- Lesson 2: Secure Coding
- Lesson 3: Database Applications with JDBC
- Lesson 4: Localization

Module 5: Collections and Generics

- Lesson 1: What is the Collections Framework?
- Lesson 2: Iterators
- Lesson 3: Type-Wrapper Classes
- Lesson 4: What are Generics?

Module 6: Exception Handling and Assertions

- Lesson 1: Exceptions
- Lesson 2: Error handling
- Lesson 3: Assertions

Lab / Exercises

- During the course participants are encouraged to actively participate in the learning experience by running example files during lectures and performing coding challenges during labs
- Each lab session allows you to compare your solution to the instructor's

Documentation

- Digital courseware included

Exam

- This course prepares you to the 1Z0-829 exam. If you wish to take this exam, please contact our secretariat who will let you know the cost of the exam and will take care of all the necessary administrative procedures for you

Participant profiles

- Data Scientists
- Developers
- Implementers

Prerequisites

- Be certified in Java 17 - I: Programming I

Objectives

- Create Java applications that leverage the object-oriented features of the Java language
- Execute a Java application from the command line
- Create applications that use the Java Collections framework
- Search and filter collections using Lambda Expressions
- Implement error-handling techniques using exception handling
- Perform multiple operations on database tables
- Use Lambda Expression concurrency features
- Apply modular programming practices and services to applications
- Create high-performing multi-threaded applications

Niveau
Intermédiaire
Classroom Registration Price (CHF)
3800
Virtual Classroom Registration Price (CHF)
3550
Duration (in Days)
5
Reference
JAVA17-02