

OJ-SE11-PC: Java SE 17: Programming Complete

Course Duration: 5 day; / 35 hours;
Instructor-led/ remote online training

Time: 9.00am – 5.00pm

Break: 10.15am – 10.30am / 3.15pm – 3.30pm

Lunch: 1.00pm – 2.00pm

WHAT YOU WILL LEARN

This comprehensive course is suitable for experienced programmers who want to learn the full Java programming language (Java SE), the language constructs, handle collections and concurrency, and utilize core language APIs and modularization. It is designed for people with existing knowledge of computing and programming concepts, and who need to learn all aspects of Java SE in the shortest possible time. Students practice the skills learned in each lesson through hands-on practices. The course is based on the current long-term support version, Java SE 17.

SKILLS COVERED

- Manipulate numeric, text, date and time values using appropriate Java primitives and classes
- Organise Java code using classes, interfaces and enumerations
- Implement program logic using variables, arrays, conditional and loop constructs
- Create Java applications that leverage the object-oriented features of the Java language, such as encapsulation, inheritance, and polymorphism
- Use Lambda Expressions
- Use Java Collections API
- Process information using Streams API
- Use Java Concurrency API
- Implement error propagation and handling
- Implement input/output (I/O) functionality to read and write binary and text data

- Manipulate files, directories and file systems
- Deploy and execute Java applications using a modularized approach

AUDIENCE

- Developers
- Implementors

PREREQUISITES

- Knowledge of basic computing concepts
- Knowledge and some experience with a programming language

COURSE OUTLINES

Module 1: Introduction to Java

Module 2: Primitive Types, Operators, and Flow Control statements

Module 3: Text, Date, Time, and Numeric objects

Module 4: Classes and Objects

Module 5: Improved Class Design

Module 6: Inheritance

Module 7: Interfaces

Module 8: Arrays and Loops

Module 9: Collections

Module 10: Nested Classes and Lambda expressions

Module 11: Java Streams API

Module 12: Handle Exceptions and fix bugs



Module 13: Java IO API

Module 14: Java Concurrency and Multithreading

Module 15: Open Modules Content

Module 16: Annotations

Module 17: Java Database Connectivity

Module 18: Java Security

Module 19: Advanced Generics

Module 20: Oracle Cloud Deployment