Updated 05/28/2025

Sign up

Java SE 21 Training: Oracle Certified Professional

ALL-IN-ONE: EXAMINATION INCLUDED IN PRICE

4 days (28 hours)

Presentation

Our Java SE 21: Oracle Certified Professional training course will give you all the skills you need to master advanced Java functions and pass the certification linked to Java SE Development Kit 21. Java is an extremely popular language, and a Java certification will make you stand out in the job market.

Our Java SE 21 training course is designed to give you a complete overview of how to use Java 21, while preparing you to take the 1Z0-830 certification.

The program designed by our trainer will also enable you to validate your skills and update your knowledge, focusing on the key points of the basic language and the main JDBC libraries.

What's more, this training will be accompanied by practical exercises that will enable you to validate the skills and concepts seen in the various chapters.

In accordance with the requirements of the 1Z0-830 certification, our course will be run on Java version 21.

Objectives

- Master object-oriented programming (OOP)
- Managing exceptions and assertions
- Mastering competition in Java
- Be ready to take the 1Z0-830 certification exam

Target audience

- Developers

Prerequisites

- Good knowledge of Java

Materials required

- Java SE Development Kit installed on your machine
- A webcam and microphone (for the exam)

Java SE 11 Training Program

Introduction to Java 11

- Java history and Java 11 overview
- Installation and configuration of the Java development environment
- Basic structure of a Java program

Java Basic Concepts

- Data types, variables and operators
- Control structures: loops and conditions
- Introduction to object-oriented programming (OOP)
- Syntax innovations: text blocks, var, switch expressions

Advanced OOP and Collections

- Classes, objects, inheritance and polymorphism
- Interfaces, abstract classes and inner classes
- Collections in Java: List, Set, Map and their handling
- Records (concise data classes)
- Sealed classes for controlled hierarchies

Lambda Expressions and Stream API

- Introduction to lambda expressions
- Use of Stream for data processing
- Intermediate and final operations on Stream

Management of Exceptions and Assertions

- Exception types in Java
- Exception handling and custom exception creation
- Using assertions

Competition in Java

- Basic concepts of multi-threading and concurrency
- Synchronization, thread management and concurrency problems
- Using the ExecutorService API and Futures
- Virtual threads
- Platform/virtual difference

Input/Output (IO) and New IO (NIO)

- IO vs NIO in Java
- File and directory management with NIO.2
- Channels, Buffers and Selectors in NIO

Security and Graphic Interfaces

- Basic security concepts in Java
- Cryptography, SSL/TLS, and certificate management

Exam preparation 1Z0-830

- Exam structure and content 1Z0-830
- Revision strategies and preparation tips
- Sample questions and practical exercises

Appendices

- Additional learning resources
- Java API references
- Practical projects and code examples

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.