

JAVA SE 8 PROGRAMMING

Overview

This Java SE 8 Programming training covers the core language features and Application Programming Interfaces (API) you will use to design object-oriented applications with Java Standard Edition 8 (Java SE 8) Platform.

Learn To:

- Create Java technology applications with the latest JDK Technology
- Develop your object-oriented skills
- Identify good practices in the use of the language to create robust Java application
- Use Lambda expressions in Java applications
- Store and manipulate data using collections
- Manipulate files, directories and file systems
- Connect to databases using standard SQL queries through JDBC
- Create high-performance multi-threaded applications

Benefits to You

You can use this course to further develop your skills with the Java language and prepare for the Oracle Certified Professional, Java SE 8 Programmer Exam!

Course Topics

Java Platform Overview

- Defining how the Java language achieves platform independence
- Defining how the Java language continues to evolve
- Differentiating between the Java ME, Java SE, and Java EE Platforms
- Evaluating Java libraries, middle-ware, and database options

Java Syntax and Class Review

- Using operators
- Creating primitive variables
- Creating simple Java classes
- Using if-else and switch statements
- Creating and manipulate strings
- Iterating with loops: while,do-while,for,enhanced for
- Creating arrays
- Using Java fields, constructors, and methods
- Encapsulation and Subclassing
- Creating and use Java subclasses
- Using encapsulation in Java class design
- Overloading methods
- Making classes immutable

Overriding Methods, Polymorphism, and Static Classes

- Using the instanceof operator to compare object types
- Using varargs to specify variable arguments
- Using access levels: private, protected, default, and public.
- Overriding methods
- Implementing the singleton design pattern
- Modeling business problems by using the static keyword
- Using upward and downward casts
- Using virtual method invocation

Required Prerequisite

Java SE 8 Fundamentals