

JAVA -SE-8- Fundamentals

Course Duration 40 Hours

Why Java ?

- Oracle's Java Programmer certification is critical to maximizing your potential and moving your Java career forward.
- Over 30, 000 Java Developers per year become certified on Java.
- More than 800,000 of these Java developers are using the knowledge, skills and recognition learned through Java Certifications to improve their job prospects, earn more money* and become more valuable employees.
- With 3 billion devices running Java worldwide, the world's top companies rely on experienced Java Programmers to build and maintain these critical applications.
- Java is the number one development platform.
- 97% of desktops run Java.
- Java is the number one language for enterprise development.
- Java Programmers Are In Demand

Because of the prevalence of Java, there is a continued demand for well-trained, highly-skilled Java programmers to create and maintain critical applications.

Student benefits

- 1) Oracle License ekit *
- 2) 25% discount on certification exam (1z0-80) *
- 3) Course Completion Certificate from Oracle University *

What you will learn

This Java SE 8 Fundamentals training introduces you to object-oriented programming using the Java language. Through hands-on exercises, you'll begin to build a baseline of knowledge to propel your career in development.

Learn To:

Use Java programming language constructs to create a Java technology application.

Use decision and looping constructs and methods to dictate program flow.

Understand basic object oriented concepts such as inheritance, encapsulation, and abstraction.

Use and manipulate object references, and to write simple error handling code.

Use the new SE 8 java.time and java.time.format packages to format and print the local date and time.

Specify a data modification by passing a predicate lambda expression to the Collections class.

Benefits to You

By enrolling in this course, you'll expand your knowledge of Java SE 8, while building your Java skill set. You'll build a solid basis in the Java programming language upon which to base continued work and training.

Audience

Application Developers
Developer
Project Manager
System Administrator
Team Leader
Technical Administrator
Technical Consultant
Web Administrator

Course Objectives

Write Java code that uses variables, arrays, conditional and loop constructs
Manipulate primitive numeric data and string data using Java operators
Create Java classes and use object references
Access the fields and methods of an object
Manipulate text data using the methods of the String and StringBuilder classes
Use casting without losing precision or causing errors
Declare, override, and invoke methods
Access and create static fields and methods
Use classes from the java.time and java.time.format packages to format and print the local date and time
Encapsulate a class using access modifiers and overloaded constructors
Define and implement a simple class hierarchy
Demonstrate polymorphism by implementing a Java Interface
Use a Predicate Lambda expression as the argument to a method
Handle a checked exception in a Java application

Course Topics

What Is a Java Program?

Introduction to Computer Programs
Key Features of the Java Language

The Java Technology and Development Environment
Running/testing a Java program

Creating a Java Main Class

Java Classes
The main Method

Data In the Cart

Introducing variables
Working with Strings
Working with numbers
Manipulating numeric data

Managing Multiple Items

Working with Conditions
Working with a List of Items
Processing a list of items

Describing Objects and Classes

Working with objects and classes
Defining fields and methods
Declaring, Instantiating, and Initializing Objects
Working with Object References
Doing more with Arrays
Introducing the NetBeans IDE
Introducing the Soccer League Use Case

Manipulating and Formatting the Data in Your Program

Using the String Class
Using the Java API Docs
Using the StringBuilder Class
More about primitive data types
The remaining numeric operators
Promoting and casting variables

Creating and Using Methods

- Using methods
- Method arguments and return values
- Static methods and variables
- How Arguments are Passed to a Method
- Overloading a method

Using Encapsulation

- Access Control
- Encapsulation
- Overloading constructors

More on Conditionals

- Relational and conditional operators
- More ways to use if/else constructs
- Using Switch Statements
- Using the NetBeans Debugger

More on Arrays and Loops

- Working with Dates
- Parsing the args Array
- Two-dimensional Arrays
- Alternate Looping Constructs
- Nesting Loops
- The ArrayList class

Using Inheritance

- Overview of inheritance
- Working with subclasses and superclasses
- Overriding methods in the superclass
- Introducing polymorphism
- Creating and extending abstract classes

Using Interfaces

- Polymorphism in the JDK foundation classes

Using Interfaces

Using the List Interface

Introducing Lambda expressions

Handling Exceptions

Handling Exceptions: An overview

Propagation of exceptions

Catching and throwing exceptions

Handling multiple exceptions and errors

Exam details :

Exam Code : 1z0-808

Certification : Oracle Certified **Associate** , Java SE 8 Programmer

Exam duration : 150 minutes

Questions : 80

Passing Score : 65%

Format : Multiple Choice