

5 Days

Java SE 8 Fundamentals

The Java SE 8 Fundamentals training is an introduction to object-oriented programming deploying the Java language. This is a fundamental class that delivers hands-on exercises followed by a theoretical base that will help to create foundations of your career in Java Language development.

Completion of this training course will enable candidates in:

- Understanding basic object-oriented concepts such as inheritance, encapsulation, and abstraction.
- Using and manipulate object references, and to write simple error handling code.
- Using Java programming language constructs to create a Java technology application.
- Using decision and looping constructs and methods to dictate program flow.
- Using the new SE 8 java.time and java.time.format packages to format and print the local date and time.
- Specifying a data modification by passing a predicate lambda expression to the Collections class.

Course Benefits:

Attaining certification of this course helps individuals to expand their knowledge with Java SE 8 while building the core Java skill set. You'll build a solid basis in the Java programming language upon which to base continued work and training.

Course Details

Course Outline

1. What Is a Java Program?

- Introduction to Computer Programs
- The Java Technology and Development Environment
- Key Features of the Java Language
- Running/testing a Java program

2. Creating a Java Main Class

- Java Classes
- The main Method

3. Data in the Cart

- Introduction to variables
- Work with Strings
- Work with numbers
- Manipulate numeric data

4. Managing Multiple Items

- Work with Conditions
- Work with a List of Items
- Process a list of items

5. Describing Objects and Classes

- Work with objects and classes
- Define fields and methods
- Declaring, Instantiating, and Initializing Objects
- Work with Object References
- Doing more with Arrays
- Introduction to NetBeans IDE
- Introduction to Soccer League Using Case

6. Manipulating and Formatting the Data in Your Program

- Use the String Class
- Use the Java API Docs
- Use the StringBuilder Class
- More about primitive data types
- The remaining numeric operators
- Promote and caste variables

7. Creating and Using Methods

- Use methods
- Static methods and variables
- Method arguments and return values
- How Arguments Are Passed to a Method
- Overload a method

8. Using Encapsulation

- Access Control
- Encapsulation
- Overloading constructors

9. More on Conditionals

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

10. More on Arrays and Loops

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

11. Using Inheritance

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

11. Using Interfaces

- Introducing Lambda expressions
- Polymorphism in the JDK foundation classes
- Use Interfaces
- Use the List Interface

12. Handling Exceptions

- Handling Exceptions: An overview
- Propagation of exceptions
- Catching and throwing exceptions
- Handle multiple exceptions and errors

Who Should Attend

The Oracle Java SE 8 Certification Course is ideal for:

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

Pre Requisite

None

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