Java SE 8 Essentials

Description

Java Platform, Standard Edition (Java SE) lets you develop and deploy Java applications on desktops and servers. Java offers the rich user interface, performance, versatility, portability, and security that today's applications require.

This Java SE 8 Fundamentals training introduces you to object-oriented programming using the Java language. By enrolling in this course, you'll expand your knowledge of Java SE 8, while building your Java skill set. Also, You'll build a solid basis in the Java programming language upon which to base continued work and training. Through hands-on exercises, you'll begin to build a baseline of knowledge to propel your career in development.

Delegates will learn how 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.

Outline

What Is a Java Program?

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

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

Manipulating and Formatting the Data in Your Program

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

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Creating and Using Methods

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

Using Encapsulation

- Access Control
- Encapsulation
- Overloading constructors

More on Conditionals

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

More on Arrays and Loops

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

Using Inheritance

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

Using Interfaces

- Introducing Lambda expressions

- Using Interfaces
- Polymorphism in the JDK foundation classes
- Using the List Interface

Handling Exceptions

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

Prerequisites

Herhangi bir ön koşul yoktur.