



Introduction to Java Programming Course Overview

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Course Duration:

21 Hours / 3 Days

1. Java Runtime Environment

- The Java Virtual Machine
- The Java 2 Software Development Kit
- Java Comments

2. Data Types, Variables and Operators

- Data Types
- Declaring Variables
- Variable Scope
- Casting
- Operators
- Automatic Casting

3. Control Statements

- Code Blocks
- Conditional Statements
- Iterative Statements (Loops)
- Assertions

4. Methods

- Java Methods
- Return Statements
- Calling a Method
- Parameters
- Pass by Value
- Overloading

5. Arrays

- What Is an Array?
- Initializing an Array
- Objects
- Using an Array
- Passing an Array to a Method
- Garbage Collection

- Command Line Parameters
- Hashing

6. Classes and Objects

- Object-Oriented Programming
- What Is an Object?
- Instance and Class Members
- Abstraction
- Object References

7. Inheritance

- What Is Inheritance?
- Overriding Methods
- Overridden Methods and Variables

8. Constructors

- What Is a Constructor?
- Using Constructors
- The Keyword this
- Constructor Process
- Constructors and Callbacks
- String and StringBuffer
- Wrapper Classes

9. Interfaces and Abstract Classes

- What Is an Interface?
- Polymorphism
- What Is an Abstract Class?

10. Packages and Access Modifiers

- Introduction to Packages and Access
- Modifiers
- Packages
- Access Modifiers
- Java 2 Application Programming Interface
- Encapsulation

11. Swing Components

- What Is the AWT?
- What Is Swing?
- Basic Swing Components
- Swing Containers

- JavaBeans

12. Layout Managers

- What Is a Layout Manager?
- FlowLayout
- GridLayout
- BorderLayout
- BoxLayout
- Combining Layouts

13. Graphics in Java

- Graphics Class
- Color Class
- Font Class

14. The Event Delegation Model

- What Is an Event?
- JDK 1.0 Event Handling
- SDK 1.2 Event Handling

15. Inner Classes

- What Is an Inner Class?
- Inner Classes for Event Handling

16. Java Applets

- Programming Applets
- Applets and Web Browsers
- Converting an Application into an Applet
- Converting an Applet into an Application

17. Exceptions

- What Is an Exception?
- Handling Exceptions
- Creating User-Defined Exceptions
- Exception Handling Tips
- Exceptions and Inheritance