

Java Level 2

1- Course Topics :

Object-Oriented Programming

- Define modeling concepts: abstraction, encapsulation, and packages
- Discuss Java technology application code reuse
- Define class, member, attribute, method, constructor, and package
- Use the access modifiers private and public as appropriate for the guidelines of encapsulation
- Invoke a method on a particular object

Creating and Using Objects

- Declare, instantiate, and initialize object reference variables
- Compare how object reference variables are stored in relation to primitive variables
- Use a class (the String class) included in the Java Software Developer Kit (SDK)
- Use the Java 2 Platform, Standard Edition (J2SE[™]) class library specification to learn about other classes in this application programming interface (API)

Class Design

- Define inheritance, polymorphism, overloading, overriding, and virtual method invocation
- Use the access modifiers protected and the default (package-friendly)
- Describe the concepts of constructor and method overloading
- Describe the complete object construction and initialization operation

Advanced Class Features

- Create static variables, methods, and initializers
- Create final classes, methods, and variables
- Create and use enumerated types
- Use the static import statement
- Create abstract classes and methods
- Create and use an interface

Implementing Inheritance

- Define and test your use of inheritance
- Explain abstraction
- Explicitly identify class libraries used in your code

Implementing Applets

Building Java GUIs Using the Swing API

- Describe the JFC Swing technology
- Identify the Swing packages
- Describe the GUI building blocks: containers, components, and layout managers
- Examine top-level, general-purpose, and special-purpose properties of container
- Examine components
- Examine layout managers
- Build a GUI using Swing components

GUI-Based Applications

- Describe how to construct a menu bar, menu, and menu items in a Java GUI
- Understand how to change the color and font of a component

2- Prerequisites :

Required Prerequisites:

- Java Level 1

Duration :

No Of Sessions : 8 (7 Learning & 1 Exam).

No Of Hours Per Session : 3 Hours .

4- Tools Required For The Practical Training :

1- Desktop Computers with Windows xp/vista/7 .

2- JDK 6 Update 26 with NetBeans 7.0 :

Download Link :

<http://www.oracle.com/technetwork/java/javase/downloads/jdk-netbeans-isp-142931.html>