Java Level 1

1- Course Topics:

Explaining Java Technology

- Describe key concepts of the Java programming language

Developing and Testing a Java Technology Program

- Use the main method in a test class to run a Java technology program from the command line
- Compile and execute a Java technology program

Declaring, Initializing, and Using Variables

- Identify the use the syntax for variables and define the syntax for a variable
- List the eight Java programming language primitive data types
- Declare, initialize, and use variables and constants according to Java programming language guidelines and coding standards
- Modify variable values using operators
- Use promotion and type casting

Using Operators and Decision Constructs

- Identify relational and conditional operators
- Create if and if/else constructs
- Use the switch construct

Using Loop Constructs

- Create while loops
- Develop for loops
- Create do/while loops

Developing and Using Methods

- Describe the advantages of methods and define worker and calling methods
- Declare and invoke a method
- Compare object and static methods
- Use overloaded methods

Creating and Using Arrays

- Code one-dimensional arrays
- Set array values using length attribute and a loop
- Pass arguments to the main method for use in a program
- Create two-dimensional arrays

2- Objectives :

- Demonstrate knowledge of Java technology, the Java programming language, and the product life cycle
- Use various Java programming language constructs to create several Java technology applications
- Use decision and looping constructs and methods to dictate program flow

3- Who are the audience :

Beginners to programming who have basic mathematical, logical, and analytical problem-solving skills and who want to begin learning the Java programming language. This includes technical writers, web developers, technical managers, and individuals with a technical, non-programming background, such as system administrators

- Novice programmers and those programmers who prefer to start learning the Java programming language at an introductory level. However, individuals are encouraged to have had some programming experience, whether with a scripting language, such as Perl, or a third-generation language (such as Basic or C) prior to attending this course
- Students who wish to begin their study of the Sun Certified Java Associate (SCJA) exam

4- Prerequisites :

Required Prerequisites:

- Create programs using a procedural language, such as C, or a scripting language, such as Perl
- Create and edit text files using a text editor
- Use a World Wide Web (WWW) browser
- Solve logic problems

Suggested Prerequisites:

- Describe the concept of a variable
- Execute commands using a command-line interface

5- Benefits after taking the course :

enable students with little or no programming experience to begin to learn programming using the Java programming language. The course teaches the significance of object-oriented programming, the keywords and constructs of the Java programming language, and the steps required to create simple Java technology programs. Students taking this course can receive a solid basis in the Java programming language upon which to base continued work and training. The course features the Java Platform, Standard Edition 6 (Java SE 6) platform, and uses the Java SE Development Kit 6 (JDK 6) product.

6- Duration :

No Of Sessions : **8 (7 Learning & 1 Exam).**
No Of Hours Per Session : **3 Hours .**

7- 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-jsp-142931.html