



BASIC JAVA TRAINING

Course Outline

Module 1 – Getting Started

- Describe the key features of Java technology
- Write, compile, and run a simple Java technology application
- Describe the Java™ virtual machine's (JVM™ machine's) function
- Define garbage collection
- List the three tasks performed by the Java platform that handle code security

Module 2 – Identifiers, Keywords, and Types

- Use comments in a source program
- Distinguish between valid and invalid identifiers
- Recognize Java technology keywords
- List the eight primitive types
- Define literal values for numeric and textual types
- Define the terms primitive variable and reference variable
- Declare variables of class type
- Construct an object using new
- Describe default initialization
- Describe the significance of a reference variable
- State the consequence of assigning variables of class type

Module 3 – Expressions and Flow Control

- Distinguish between instance and local variables
- Describe how to initialize instance variables
- Identify and correct a possible reference before assignment compiler error
- Recognize, describe, and use Java software operators
- Distinguish between legal and illegal assignments of primitive types
- Identify boolean expressions and their requirements in control constructs
- Recognize assignment compatibility and required casts in fundamental types
- Use if, switch, for, while, and do constructions and the labeled forms of break and continue as flow control structures in a program



Module 4 – Arrays

- Declare and create arrays of primitive, class, or array types
- Explain why elements of an array are initialized
- Explain how to initialize the elements of an array
- Determine the number of elements in an array
- Create a multidimensional array
- Write code to copy array values from one array type to another

Module 5 – Text-Based Applications

- Write a program that uses command-line arguments and system properties
- Write a program that reads from standard input
- Write a program that can create, read, and write files

Module 6 – Java Collections

- Describe the basic hierarchy of collections in Java 2 SDK
- Write a program that uses sets and lists
- Write a program to iterate over a collection