

## Java Programming

**Length:** 5 Days

**Summary:** Our accelerated Java Programmer training program is an accelerated, residential, fully-immersed course, designed for programmers that require effective, real-world skill-building and timely certification. This course will teach the fundamentals of the latest Java 2 Platform 6 Programming Language.

### COURSE CONTENT

#### Module 1 Topics

What is 'Java Technology'?

Differences between J2SE, J2EE, and J2ME

The concept of the Java Virtual Machine

Compiling and executing a simple Java application

SCJP Exam Overview

#### Module 2 Topics

Implementing an OO model

Classes vs Objects

Class syntax

Overloading

Instantiation, dot notation and garbage collection

Encapsulation (including JavaBeans convention), Cohesion & Coupling

The static keyword

The concept of packages (including package & import statements)

Javadoc overview

Using the API documentation

#### Module 3 Topics

Local variables & arguments (including this & pass-by-value)

Operands and Operators

Assignment compatibility

Conditions Loops & Arrays

#### Module 4 Topics

The concept of inheritance

Constructors in inheritance hierarchies

Overriding

Polymorphism (including virtual method invocation)

The Objectclass

The abstractkeyword

The finalkeyword

#### Module 5 Topics

Checked vs Unchecked Exceptions

Exception syntax & flow control

Some key exceptions and errors

The concept of assertions Assertion management

### **Module 6 Topics**

Strings, StringBuffer & StringBuilder

Wrapper Classes

java.text

java.util.Date & Locale

java.util.regex

java.io & serialization

### **Module 7 Topics**

Nested types

Interfaces

Enumerated types

Static imports

### **Module 8 Topics**

The concept of Collections

Collections interfaces

Collections implementations

Generic collections (including invariance)

Other applications of generics

### **Module 9 Topics**

The concept of threads

The ThreadAPI

Thread management

Synchronization

### **Module 10 Topics**

Exam format

Exam technique

Exam logistics

Review and Testing

