



JA1011: Introduction to Java Part 2

Course ID#: 0370-233-ZZ-W

35 Hrs

Course Content

Course Description:

This intermediate level Java course provides programmers, having a fundamental understanding of the basics of Java, with additional details regarding capabilities provided by the Java Programming Language and its associated standard classes and packages. Topics include writing Javadoc, JUnit, JavaBeans including comparing and sorting, Java 5 type safety enhancements (enums, generics, and annotations), the Collections Framework, Java Database Connectivity (JDBC), Java I/O, and (time permitting) reflection. The course begins with an optional section that provides a review of Java basics in case the students require a Java refresher.

For the most part, this course is independent of the Java development environment that is being used. Although the only requirement is access to the Java Development Kit, the course is best taught using a more formal Integrated Development Environment (IDE) such as Eclipse or RAD.

Audience:

Technical Users, Applications Programmers, and Systems Programmers.

Prerequisites:

Introduction to Java course or equivalent experience with basic Java programming.

Objectives:

- Code Javadoc comments in Java code and generate web-based documentation from them.
- Design and code test cases using JUnit and take advantage of the JUnit Wizards.
- Code Java Beans including support for comparison, sorting, stringifying and cloning
- Use the enums, generics and annotations to write more type-safe code
- Use the classes and interfaces that comprise the Collections Framework
- Process database tables using Java Database Connectivity (JDBC)
- Process input and output streams using Java's I/O capabilities
- Use the classes and interfaces that comprise the Collections Framework
- (Time and interest permitting) Reflection and Introspection



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Topics:

1. **Basic Java Review**
2. **Javadoc Documentation**
3. **Unit Testing with Junit**
4. **JavaBeans and Comparing Objects**
5. **Type Safety**
6. **Collections Framework**
7. **Manipulating Databases Using Java Database Connectivity (JDBC)**
8. **Input/Output Streams**
9. **Reflection and Introspection**