

Course Description: Advanced Java is a comprehensive study of many advanced Java topics. These include swing, awt, Jsp, advanced Jsp, Remote Method Invocation, and Java Database Connectivity.

Who Should Attend? This course is intended for Java programmers who wish to write programs using many of the advanced Java features

Prerequisites: Students should have completed a beginning Java course or have programmed in Java for at least three to six months.

Benefits of Attendance: **Upon completion of this course, students will be able to:**

- Document and package a Java application.
- Use many of the new enhancements added to the Java API.
- Use assertions to write robust Java code.
- Use regular expressions for efficient pattern matching.
- Choose appropriate data structures from the Java Collection API.
- Use Generics to create type safe collections.
- Serialize Java objects.
- Use features of the new I/O API.
- Write multi-threaded Java applications.
- Perform database queries and updates using JDBC.

Course Outline:

SWING – Overview

- SWING – Environment
- SWING – Controls
- SWING – Event Handling
- SWING – Event Classes
- SWING – Event Listeners
- SWING – Event Adapters
- SWING – Layouts
- SWING – Menu
- SWING – Containers

AWT – Overview

- AWT – Environment
- AWT – Controls
- AWT – Event Handling
- AWT – Event Classes
- AWT – Event Listeners
- AWT – Event Adapters
- AWT – Layouts
- AWT – Containers
- AWT – Menu
- AWT – Graphics

JSP – Overview

- JSP – Environment
- JSP – Architecture
- JSP – Life Cycle
- JSP – Syntax
- JSP – Directives
- JSP – Actions
- JSP – Implicit Objects
- JSP – Client Request
- JSP – Server Response
- JSP – Http Codes
- JSP – Form Processing

- JSP – Writing Filters
- JSP – Cookies Handling
- JSP – Session Tracking
- JSP – File Uploading
- JSP – Handling Date
- JSP – Page Redirect
- JSP – Hits Counter
- JSP – Auto Refresh
- JSP – Sending Email

Advanced JSP

- JSP – Standard Tag Library
- JSP – Database Access
- JSP – XML Data
- JSP – Java Beans
- JSP – Custom Tags
- JSP – Expression Language
- JSP – Exception Handling
- JSP – Debugging
- JSP – Security
- JSP – Internationalization

JDBC Tutorial

- JDBC – Introduction
- JDBC – SQL Syntax
- JDBC – Environment
- JDBC – Sample Code
- JDBC – Driver Types
- JDBC – Connections
- JDBC – Statements
- JDBC – Result Sets
- JDBC – Data Types
- JDBC – Transactions
- JDBC – Exceptions
- JDBC – Batch Processing
- JDBC – Stored Procedure
- JDBC – Streaming Data
- JDBC Examples
- JDBC – Create Database
- JDBC – Select Database
- JDBC – Drop Database
- JDBC – Create Tables
- JDBC – Drop Tables
- JDBC – Insert Records
- JDBC – Select Records

Eclipse – Overview

- Eclipse – Installation
- Eclipse – Explore Windows
- Eclipse – Explore Menus
- Eclipse – Explore Views
- Eclipse – Perspectives
- Eclipse – Workspaces
- Eclipse – Create Java Project
- Eclipse – Create Java Package
- Eclipse – Create Java Class
- Eclipse – Create Java Interface
- Eclipse – Create XML File
- Eclipse – Java Build Path

- Eclipse – Run Configuration
- Eclipse – Running Program
- Eclipse – Create Jar Files
- Eclipse – Close Project
- Eclipse – Reopen Project
- Eclipse – Build Project
- Eclipse – Debug Configuration
- Eclipse – Debugging Program
- Eclipse – Preferences
- Eclipse – Content Assist
- Eclipse – Quick Fix
- Eclipse – Hover Help
- Eclipse – Search Menu
- Eclipse – Navigation
- Eclipse – Refactoring
- Eclipse – Add Bookmarks
- Eclipse – Task Management
- Eclipse – Install Plugins
- Eclipse – Code Templates
- Eclipse – Shortcuts
- Eclipse – Restart Option
- Eclipse – Tips & Tricks
- Eclipse – Web Browsers