

Advanced Java

Mode: Classroom

Duration: 40 hours

Course Outline

JDBC

- Introduction to JDBC
- JDBC architecture
- java.sql Package
- Connection, Statement, ResultSet
- Prepared Statement
- Callable Statement
- Scrollable and Updatable ResultSet
- Batch Updates
- ResultSetMetaData
- Simple Transaction Management
- Four Levels of JDBC drivers, their pros & cons
- Features of JDBC 3.0/4.0

Servlets

- Need of Server side Programming
- Introduction to Servlets
- Servlet Life Cycle
- javax.servlet package
- ServletConfig, ServletContext, ServletResponse
- Supplying initialization parameters to Servlets
- Performing database operations in Servlets
- Include and forward mechanisms
- Applying filters to Servlets
- javax.servlet.http Package
- HttpServlet Life Cycle
- Http request methods GET vs POST
- HttpServletRequest, HttpServletResponse
- Dealing with Http headers & error codes
- Session Tracking, purpose
- Hidden form fields, Cookies
- Http Session, URL rewriting
- Event listeners
- Web application security

JSP

- Disadvantages of Servlets
- Introduction to JSP
- JSP Life Cycle
- Creating dynamic Web content with JSP
- Scripting elements
- Scriptlet
- Declaration
- Expression
- XML syntax for JSP elements
- JSP directives page, include and taglib
- JSP implicit objects
- JSP scopes
- Include and forward mechanism
- Using a Java bean in a JSP
- JSP Model 1 architecture
- JSP Model 2 (MVC) architecture
- Custom Tag Development
- Classic Tags, Simple Tags
- Error Handling in a JSP
- JSTL
- Expression Language
- Processing XML in a JSP