



# Diploma in JAVA - J2EE (Professional) Application Development Framework Training Contents





# **Delivery Method** \*

Instructor-Led-Training (ILT)

# Course Duration (\*)

6 months or 6 Weeks

# Pre-Requisites (\*)

You are required to have an understanding of Java Standard and Enterprise Editions and UML.

# Overview 💲



### **Java Platform:**

The Java platform is a software-only platform that runs on top of other hardware-based platforms. Because hardwarebased platforms vary in their storage, memory, network connection, and computing power capabilities, specialized Java Training are available to address applications development for and deployment to those different environments.

# Course Contents (\*)

# **Diploma in Java - J2EE Application Development Framework**

## Module 1: SDLC

- Introduction to SDLC
- Stages in SDLC

#### **Module 2: SQL SERVER 2005**

- DDL, DML, DCL
- Constraints, Operators, Functions
- Joins & Sub Queries
- Stored procedures, Triggers, Transaction

## **Module 3: Core JAVA**

- Object-Oriented Programming Concepts
- An overview of JAVA, Language Basics
- Introduction to Classes and Objects
- Member accessibility modifiers
- Other modifiers for Members
- Introduction to Packages
- Inheritance & Working with Interfaces
- **Exception Handling, Generics**
- Collection frameworks
- Threads and Synchronization
- Web based development using Java Applets
- Working with AWT
- Handling events for AWT Components
- File Handling and Data Handling
- I/O Streams
- **JDBC**
- **Networks Socket Programming**

# **Module 4: Web Application Technologies**

- HTML
- Introduction to HTML
- Tag references
- Basic tags
- Text Formatting tags
- List, Frameset, Link & Image tag and its Attributes
- Table tag with attributes
- Form & Input Tags
- DHTML
- Introduction about DHTML
- Applying Styles using CSS
- Writing Style Sheet internally
- Writing Style Sheet externally
- **XML**
- Introduction about XML
- What is XML parser?
- About DTD & XML schema
- **Defining Entities**
- DOM &DSO







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- Java Scripts
- Introduction about Client side Scripting
- JavaScript Basics
- Methods in JavaScript
- Form objects and its events
- Other objects & User defined objects
- Form validation

# **Module 5: Advanced JAVA Web Application Technologies**

- Introduction to JEE
- Web Application Structure
- Model-View-Controller
- J2EE Design Pattern
- About Application server & Web Server

#### **Module 6: Servlets**

- What is Servlet?
- Roles and Life Cycle of Servlets
- Configuring Servlet in Tomcat WebServer
- Generic Servlet & HTTP servlet
- Servlet API
- Handling HTTP Request & Response
- ServletContext and ServletConfig
- Session Management
- Using Hidden form fields & URL Rewriting
- Using Cookies & HttpSession Object
- Creating Filters
- Java Database Connectivity (JDBC) with DAO

## **Module 7: Java Server Pages (JSP)**

- Life cycle of JSP
- Basic Tag Syntax
- Directives
- Implicit Objects
- Custom tags Reusable
- Dispatching with RequestDispatcher
- JavaBeans Component Model
- Web Presentation Components
- Security

# **Module 8: Struts**

- Introduction
- Structs for Internationalisation
- Structs for Forums Templates
- Beans to XML Introducing AspectJ
- Ant for Compilation and Distribution

## Module 9: RMI & EJB

- Introduction about Distributed Computing
- RMI
- Introduction about RMI

- Related Technologies
- RMI over IIOP
- FIR
- Enterprise Java Beans
- EJB 2.x Overview
- Session Bean (EJB 2.x)
- Introduction to Java Annotations
- Session Bean (EJB 3.0)
- Message Driven Bean
- Java Message Service(JMS)
- Introduction
- JMS overview and architecture
- Point-to-point interfaces
- Point-to-point programming
- Pub/sub interfaces
- Pub/sub programming
- JQuery

# Module 10: Hibernate & Spring

• Introduction to Windows Presentation Foundation

#### **Hibernate:**

- Introduction
- Architecture
- Configuration
- Persistent Classes
- Basic O/R MappingCollection Mapping

## **Spring:**

- Introduction
- Building web applications with the Spring Framework
- The Multi Action controller

## **Module 11: AJAX & Web Services**

- AJAX
- Basic AJAX Process
- Using dynamic content and JSP
- Sending data through Get /Post method
- Parsing and displaying XML results
- Web service, Introduction to Web Service
- Java API for XML Parsing and Transformation
- SOAP
- WSDL and JAX WS
- Develop Web Service







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## **Module 12: Aptitude Skills**

- Quantity Aptitude
- Percentages
- Time and Work Problems
- Profit and Loss Problems
- Time and Distance Problems
- Problems on Age and Relations
- Direction Problems
- ODD Man Out and Series Problems
- Puzzles
- Verbal and Non Verbal Reasoning

#### **Module 13: Soft Skills**

- Quantity Aptitude
- Personality Development and Enhancement
- Positive Thinking, Effective Communication
- Presentation Skills
- Leadership and Team Work
- Inter-Personal Skills
- Resume Building
- Group Discussions
- Interview Etiquettes

#### **PROJECTS:**

- Designing a user friendly project using Swing with database connectivity
- Designing a web based application project using Servlet/JSP with database connectivity

