

## Core & Advance JAVA Training

**Durations:- 4 or 6 Months**

**Fee:-12,500 only**

### Core Java Syllabus

#### **Introduction to Java programming**

The Java Virtual Machine, Variables and data types, Conditional and looping constructs, Arrays

#### **Object-oriented programming with Java Classes and Objects**

Fields and Methods, Constructors, Overloading methods, Garbage collection, Nested classes

**Inheritance** (Overriding methods, Polymorphism, Making methods and classes final, Abstract classes and methods, Interfaces)

**Exception handling with try-throw-catch-finally construct** (The Exception class)

**The Object class** (Cloning objects, The JDK Linked List class, Strings, String conversions)

**Working with types: Wrapper classes** (Enumeration interface)

**Packages** (Package access, Documentation comments)

**Applets** (Configuring applets, Applet capabilities and restrictions)

**Basics of AWT and Swing** (*Layout Managers, Event Handling, The Action Listener interface, Panels, Classes for various controls, such as label, choice, list, Checkbox etc., Dialogs and frames, Using menus*)

**Threads** (Synchronisation)

**The I/O Package** (Input Stream and Output Stream classes, Reader and Writer classes)

**Basic concepts of networking** (Working with URLs, Concepts of URLs, Socket)

**Database connectivity with JDBC** (Java security)

### Java/J2ee or Advance Java SYLLABUS

Introduction to Enterprise Edition, Distributed Multitier Applications, J2EE Containers, Web Services Support, Packaging Applications, J2EE 1.4 APIs)

**Web Designing:-**(HTML 5, CSS3, JavaScript, JQuery, AJAX)

### **SQL(DDL, DML)**

#### **JDBC**

What Is the JDBC API?, Driver Types, Two-tier and Three-tier Models, Connection Overview, Transactions, DriverManager Overview, Statement Overview, Sending Batch Updates, ResultSet Overview, Types of Result Sets, Concurrency Types, PreparedStatement Overview, CallableStatement Overview

#### **Java Servlet Technology**

What is Web Application? What is a Servlet? Servlet Life Cycle, Sharing Information, Using Scope Objects, Controlling Concurrent Access, Getting Information from Requests, Constructing Responses, Filtering Requests and Responses, Programming Filters, Customized Requests and Responses, Specifying Filter Mappings, Invoking Other Web Resources, Including Other Resources in, the Response, Transferring Control, Accessing the Web Context, Maintaining Client State, Session Management, Session Tracking, Tracking Service Requests, Notifying Methods to Shut Down, Creating Polite Long-Running Methods.

#### **JSP Technology**

Java Server Pages Technology, The Life Cycle of a JSP Page, Translation and Compilation, Creating Static Content, Response and Page Encoding, Creating Dynamic Content, Using Objects within JSP Pages, Expression Language, Deactivating Expression Evaluation, Implicit Objects, Literals & Operators, Reserved Words, JavaBeans Components, Reusing Content in JSP Pages, Transferring Control, jsp:param Element, Including an Applet, Setting Properties for, Groups of JSP Pages.

**Custom Tags in JSP Pages** (What Is a Custom Tag? Types of Tags, Tags with Attributes, Tags with Bodies, Tags That Define Variables, Communication between Tags, Tag Library Descriptors, Declaring Tag Files)

,Declaring Tag Handlers , Declaring Tag Attributes for , Tag Handlers , Declaring Tag Variables for Tag Handlers  
Programming Simple Tag Handlers , Including Tag Handlers in ,Web Applications ,Cooperating Tags)

## **Enterprise Beans**

What Is an Enterprise Bean? , What Is a Session Bean? , What Is an Entity Bean? , What Is a  
Message-Driven Bean? , Client Access with Interfaces, The Contents of an Enterprise Bean Naming  
Conventions for Enterprise Beans , The Life Cycles of Enterprise Beans)

**Session Bean** (Session Bean Class, Home Interface, Remote Interface, Helper Classes , Creating the  
Application , Stateless Session Bean , Implementation Class)

**Bean Managed Persistence** (Entity Bean Class , Home Interface ,Remote Interface , Mapping Table  
Relationships for BMP , One-to-One Relationships , One-to-Many Relationships , Many-to-Many  
Relationships , Primary Keys for BMP)

**Container Managed Persistence** (Method Invocations ,Building and Running ,Creating the Database  
Tables , Creating the Data Source, Capturing the Table Schema ,Building the Enterprise Beans , Primary Keys  
for CMP , Finder and Selector Methods)

**Message Driven Bean** (The Application Client, The Message-Driven Bean Class, The onMessage  
Method, The ejbCreate and ejb, Remove Methods, Advanced Enterprise Beans, EJB: Query Language)

## **Java Message Service API**

Overview, What Is Messaging? , When Can You Use the JMS API? ,Basic JMS API Concepts ,JMS API  
Architecture , The JMS API Programming Model , Administered Objects , Connections , Sessions, Message  
Producers, Message Consumers , Writing Simple JMS Client Applications

## **STRUTS**

Introduction, The MVC Design Pattern , System State and Business Logic , JSP Pages and Presentation,  
Components, ActionServlet and ActionMapping, Struts Control Flow, Building Model Components,  
ActionForm Beans, Forms and FormBean Interactions, Automatic Form Validation, Building Controller  
Components, The ActionServlet, ActionForm Classes & Action Classes, The ActionMapping Implementation,  
The Struts Configuration File, Controller Configuration, Module Configuration Files, Add Struts Components  
To, Your Application, Logging in Struts Applications

## **Java Server Faces**

Introduction to JSF, JSF Features , JSF for Web Application , JSF components , JSF Tags, Life Cycle &  
Architecture , JSF Renderers , JSF HTML Tag Reference , JSF Core Tag Reference , JSF Facelet Tag Reference ,  
JSF Navigation, JSF with Ajax.

## **Hibernate**

Introduction to O-R Mapping , Hibernate Basics, Object Identifier , One-to-One Association , One-to-Many  
Association , Many-to-One Association , Many-to-Many Association , Collection Mapping, Component  
Mapping, Inheritance Mapping ,Hibernate Query Language , Hibernate in Web Application

## **Spring**

Spring Core, Dependency Injunction , Aspect Oriented Programming, Major concepts in Spring, Spring  
Architecture, Installation Procedure, Spring in Web Application, Bean descriptor, Spring and Struts, Spring  
data access, Spring using Hibernate

## **Note:**

**Project Work is Compulsory after the Completion of training Program.**