



## *Noble Software Consulting IT Training*

### **JAVA-J2EE COURSE OVERVIEW**

*This course is about basics & advanced features of Java & J2EE technologies By this course one will obtain practical knowledge of Java coding and J2EE architecture design methods, will provide the latest design patterns being utilized in the current industry.*

### **JAVA-J2EE COURSE OUTLINE – 60 HRS**

#### **CORE JAVA**

- ❖ Three OOPs principles.
- ❖ Your First Hello World Example
- ❖ Data Types, Variable, Arrays, Operators, Control statements etc.
- ❖ Classes, Objects
  - i) Fundamentals
  - ii) Garbage Collection
  - iii) Access specifiers
- ❖ Inheritance
  - i) Overloading
  - ii) Overriding
- ❖ Packages & Interfaces
- ❖ Exception Handling
- ❖ Multithread Programming
- ❖ Java API
  - i) String/StringBuffer
  - ii) I/O
  - iii) Exploring java.lang
- ❖ Collection Framework

# ADVANCED JAVA

## ❖ **Introduction to J2EE**

- Course Introduction
- Tiered Architecture
- Servlets & JSP
- Enterprise JavaBeans
- XML
- Transactions
- Installations
- Setting the PATH
- Starting & Stopping the Servers

## ❖ **JavaServer Pages**

- Introduction to JSP
- Writing JSP Pages
- Deploying a JSP Page
- Implicit Objects
- The Request & Response Objects
- Cookies & Sessions
- Init Parameters & Context
- Implicit Object Classes
- JSP Tags
- The Page Directive
- Include & Forward

## ❖ **JavaServer Pages Code**

- Expression Language Basics
- Method & Object References
- JSP to Java Mapping
- A Tag Handler - Lesson 1
- A Tag Handler - Lesson 2
- Two More Tag Handlers - Lesson 1
- Two More Tag Handlers - Lesson 2
- Tag Libraries

## ❖ **Servlets**

- Basic Servlet Design
- A Simple Servlet
- Posting to a Servlet
- Catching Exceptions
- Sending Messages
- Using Multiple Servlets
- Multi-Threading
- Event Logging
- Cookies

Filters  
MVC

❖ **Database**

JDBC & Drivers  
The Console  
Making a Connection - Lesson 1  
Making a Connection - Lesson 2  
Making a Simple Connection  
Making a Table  
Display a Table  
Statements & Result Sets  
Data Type Methods  
Writing Through the ResultSet  
Creating a Prepared Statement  
Transactions  
A Transaction Example  
Batch Updates  
Locking

❖ **Enterprise JavaBeans**

Introduction to EJB  
The Kinds of Beans  
Writing a Stateless Session Bean  
Deploying a Bean - Lesson 1  
Deploying a Bean - Lesson 2  
Calling Bean Methods  
A Session Bean with a State  
Writing a Stateful Session Bean  
Entity Beans  
Synchronization of Entity Beans  
Message Beans  
Code of a Message Bean

❖ **Struts**

MVC Architecture  
FormBeans  
Struts Validator  
Struts Tiles

❖ **Spring**

Wiring Beans  
AOP Concepts  
DAO Module

❖ **Hibernate**

Hibernate Mappings

Associations

HQL

❖ **Web Services**

Introduction to Web Services

JAX-RPC

Source Code of a Web Service

Web Service Description Language

Deploying a Web Service - Lesson 1

Deploying a Web Service - Lesson 2