

# **Java – JSP and Servlet Application Development (Using Tomcat)**

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## **Length:**

3 Days

## **Description:**

The course presents an in-depth look at the fundamentals of enterprise Java Development with regards to web-based interfaces and messaging systems. The Java 2 Enterprise Edition (J2EE) is becoming the standard interface for developing robust, secure, scalable, distributed applications in Java. J2EE incorporates a variety of specifications including: Enterprise JavaBeans (EJBs); Java Database Connectivity (JDBC); Remote Method Invocation (RMI); Java Naming and Directory Interface (JNDI); **Servlets, Java Server Pages (JSPs)**; Web Applications (WAR); Java Transaction Service (JTS); and others.

This course was designed to be specification-based, and as such, a vast majority of the course topics revolve around the J2EE standard Application Programming Interfaces (APIs) and how to develop according to their guidelines. This course is also valuable for individuals who have not selected a particular application server and want to understand the full breadth of the enterprise Java technologies. This course provides a thorough look at the J2EE specifications.

## **Course Objectives:**

- Gain a strong understanding of the J2EE APIs and their implementation.
- Learn how to create re-usable applications in a Web/distributed environment
- Understand the basic framework of the Java programming environment
- Understand the essential syntax
- Create basic Java applications
- Create basic Java Servlets
- Create basic JavaServer Pages
- Create basic JavaBeans
- Understand the essential design patterns for creating

## **Audience:**

Programmers, developers, and project managers who will be involved with the development of an enterprise or e-commerce system using Java.

## **Prerequisites:**

Introduction to Java Programming  
Object Oriented Programming using Java

## **Course Contents:**

- **Chapter 1 – About this Course**  
This chapter introduces the objectives and contents of the course.
- **Chapter 2 – Development Environment**  
Your first step is to download software that implements the Java Servlet 2.1 or 2.2 and Java Server Pages 1.0 or 1.1 specifications.
- **Chapter 3 – JavaServer Pages**  
Java Server Pages (JSP) is a technology that lets you mix regular, static HTML with dynamically-generated HTML. Many Web pages that are built by CGI programs are mostly

static, with the dynamic part limited to a few small locations. But most CGI variations, including servlets, make you generate the entire page via your program, even though most of it is always the same. JSP lets you create the two parts separately.

- **Chapter 4 – JSP Custom Tags**

Custom tag libraries allow the Java programmer to write code that provides data access and other services, and they make those features available to the JSP author in a simple to use XML-like fashion.

- **Chapter 5 – Servlets**

Servlets are Java's answer to CGI programming. They are programs that run on a Web server and build Web pages.

- **Chapter 6 – JDBC**

Shows how to access enterprise information from JSP and Servlets

- **Chapter 7 – XML**

Examines how to utilize XML