

This two-day course teaches Java programmers how to build dynamic web applications using JavaServer Pages, Servlets and JavaBeans. These technologies combine to form the presentation side of a J2EE web-based application. Students will implement a Model-View-Controller (MVC) architecture for their web applications. This course is current to the Servlet 3.0 specification and runs on Tomcat 7.0.

Course Objectives:

- Write web applications that combine Java Servlets, JavaServer Pages, and JavaBeans using the Model-View-Controller architecture.
- Use JavaBeans to encapsulate business and data access logic.
- Generate HTML or XML output with JavaServer pages.
- Process HTTP requests with Java Servlets.
- Configure your web application with the *web.xml* deployment descriptor.
- Create scriptless JSPs by using JSTL tags combined with JSP Expression Language for functionality, such as conditionals, iteration, internalization and XML processing.

Audience: Java programmers who need to develop web applications using JSPs and Servlets.

Prerequisites: Java and HTML programming experience is required.

Number of Days: 2 days

<p>1 Course Introduction Course Objectives Course Overview Suggested References</p>	<p>3 Java Servlets HTTP Requests HttpServlet Servlet Lifecycle @WebServlet Annotation RequestDispatcher HttpSession ServletContext Servlet Filters JSP vs. Servlet</p>
<p>2 Web Applications and MVC Web Applications JSPs and Servlets Model-View-Controller Model 2 Architecture The WAR File web.xml Building the WAR Deploying the WAR</p>	<p>4 JavaBeans What is a JavaBean? Rules Properties Using JavaBeans in JSPs Properties and Forms Data Access Objects Resource Reference Bean Scopes in Servlets Bean Scopes in JSPs</p>
<p>3 JavaServer Pages Introduction to JSP JSP Syntax JSP Scripting Elements Request and Response Implicit Objects page Directive Error Handling The include Directive include and forward Actions</p>	<p>5 JSP Expression Language Literals</p>

Variables
The . and [] Operators
Other Operators
Implicit Objects

6 Introduction to JSTL

What is JSTL?
Core Tags – Conditionals
Core Tags – Iteration and Import
Variables, Output, and Exceptions
XML Manipulation Tags
Internationalization Tags
SQL Tags

7 Security

Concepts
Constraints
Roles
login-config
BASIC Authentication
FORM Authentication
Login and Error Pages

8 Appendix A – Tag Libraries

Custom Tags
Using Custom Tags
Defining Tags
Tags with Attributes
Fragments and Variables
Packaging Tag Files

9 Appendix B - Ant

What is Ant?
build.xml
Tasks
Properties and Property Files
Managing Files and Directories
Filesets
Java Tasks
Creating Java Archives
Specifying Paths
Miscellaneous Tasks