

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 Apache 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 Serlets.
- Configure your web applications with the *web.xml* deployment descriptor.
- Create scriptless JSPs by using JSTL tags combined with JSP Expression Language for functionality, such as conditions, iteration, internationalization, and XML processing.

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

**Prerequisites:** Java programming experience and basic HTML knowledge are required.

**Number of Days:** 2 days

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

- Bean Scopes in JSPs
- 6 JSP Expression Language**
  - JSP Expression Language
  - Literals
  - Variables
  - The . and [ ] Operators
  - Other Operators
  - Implicit Objects
- 7 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
- 8 Security**
  - Concepts
  - Constraints
  - Roles
  - login-config
  - BASIC Authentication
  - FORM Authentication
  - Login and Error Pages
- 9 Appendix A – Tag Libraries**
  - Custom Tags
  - Using Custom Tags
  - Defining Tags
  - Tags with Attributes
  - Fragments and Variables
  - Packaging Tag Files
- 10 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