

Advance Java training topics

1. Programming with Servlets & JSP

JSP/Servlets Training Course Objective

- Explaining HTML and HTTP
- Explaining JSP and Servlets
- Explain the use of directives on JSPs.
- Implement simple JSPs that use Java code in declarations, expressions and scriptlets.
- Using the implicit objects available to scripting elements.
- Using Java exception handling and JSP error pages to handle errors
- Explaining session management
- Managing cookies to store client-specific information
- Describing custom tags in JSP
- Describing the various uses of XML in JSP applications.
- Describing the use of the JSP expression language to simplify dynamic page output.
- Deriving information from parsed XML content by using XPath expressions.
- Implementing conditional processing and loops based on XML information.
- Applying XSLT transformations to XML content.

Eligibility: Having the working knowledge of the following languages.

- HTML
- XML

JSP/Servlet Training Course Topics

1. Introduction to Java Server Pages

- **Web Applications**
 - The World Wide Web
 - HTML
 - Web Servers
 - HTTP
 - Dynamic Web Pages
 - CGI
 - Java Web Technologies
 - Servlet

- JSP
- **JSP Architecture**
- JSP Containers
- Servlets Architecture
- Page Translation
- Directives
- Buffering
- Scripting Elements
- JSP Expressions
- Standard Actions
- Custom Actions and JSTL
- Implicit Objects
- JSP Lifecycle
- **Scripting Elements**
- Scriptlets
- Expressions
- Declarations
- Implicit Objects for Scriptlets
- Request Object
- Response Object
- Out Object
- **Using JavaBeans**
- Separating Presentation and Business Logic
- JSP Actions
- JavaBeans
- <jsp:useBean>
- <jsp:getProperty> and <jsp:setProperty>
- Form Parameters with Beans
- **The Expression Language and the JSTL**
- The JSP Expression Language
- EL Syntax
- Error Handling
- Implicit Objects
- The JSP Standard Tag Library
- Role of JSTL
- The Core Actions
- Using Beans with JSTL
- The Formatting Actions
- Scripts vs. EL/JSTL
- **Advanced JSP Features**
- Web Components
- Forwarding
- Inclusion
- Passing Parameters
- Custom Tag Libraries

- Tag Library Architecture
- Implementing in Java or JSP
- XML and JSP
- JSP and Web Services

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2.The JSP Standard Tag Library

- **JSTL**
 - The JSP Standard Tag Library
 - JSTL Namespaces
 - Going Scriptless
 - Object Instantiation
 - Sharing Objects
 - Decomposition
 - Parameterization
- **The Core Actions**
 - The JSTL Core Library
 - <c:out>
 - <c:set>
 - Conditional Processing
 - Iterative Processing
 - Iterating Over Maps
 - Tokenizing Strings
 - Catching Exceptions
 - Resource Access
- **The Formatting and i18n Actions**
 - The JSTL Formatting Library
 - Locales
 - Determining Locale
 - Time Zones
 - Setting Locale and Time Zone
 - Formatting and Parsing Dates
 - Formatting and Parsing Numbers
 - Internationalization
 - Working with Resource Bundles
 - Supporting Multiple Languages
- **The SQL Actions**
 - The JSTL SQL Library
 - Using Relational Data
 - Connecting with a DriverManager
 - Connecting via a DataSource
 - The Result Interface
 - Making a Query
 - Inserts, Updates and Deletes
 - Parameterized SQL

- Transactions
- **The XML Actions**
- The JSTL XML Library
- Using XML
- XML Data Sources
- Parsing and Addressing
- Using XPath in JSTL
- XPath vs. EL
- XPath Context
- Implicit Objects for XPath
- Conditional Processing
- Iterative Processing
- Changing XPath Context
- Working with XML Namespaces
- Using XSLT
- Chaining Transformations
- Reading XML from the Request Body
- XML and SOAP Web Services