

JSTL in JSP - Step by Step Notes

1. Introduction to JSTL

- JSTL (JavaServer Pages Standard Tag Library) is a set of custom tags that simplify JSP development.
- It reduces the need for Java code (scriptlets) inside JSP pages.
- JSTL includes different tag libraries:
 - Core (c): Variables, loops, conditions, redirections.
 - Formatting (fmt): Numbers, dates, currencies.
 - SQL (sql): Database operations.
 - Functions (fn): String and collection operations.
 - XML (x): XML processing.

2. Setting Up JSTL in JSP

A) If Using Maven

Add these dependencies in pom.xml:

```
<dependency>

    <groupId>jakarta.servlet.jsp.jstl</groupId>

    <artifactId>jakarta.servlet.jsp.jstl-api</artifactId>

    <version>2.0.0</version>

</dependency>

<dependency>

    <groupId>org.glassfish.web</groupId>

    <artifactId>jakarta.servlet.jsp.jstl</artifactId>

    <version>2.0.0</version>
```

</dependency>

B) If Using JARs

- Download these JARs and place them in WEB-INF/lib:
 - jakarta.servlet.jsp.jstl-api-2.0.0.jar
 - jakarta.servlet.jsp.jstl-2.0.0.jar

3. Importing JSTL in JSP

At the top of your JSP file, import JSTL core tags:

```
<%@ taglib uri="http://jakarta.apache.org/jstl/core" prefix="c" %>
```

4. JSTL Core Tags (c Tag Library) with Examples

1. c:set - Setting Variables

- Stores values in a variable for later use.

```
<c:set var="name" value="Rahul Kirpekar"/>
```

```
<p>Welcome, <c:out value="${name}" />!/</p>
```

Output: Welcome, Rahul Kirpekar!

2. c:out - Displaying Values

- Displays variable content while avoiding XSS attacks.

```
<c:set var="email" value="rahul@example.com" />
```

```
Email: <c:out value="${email}" />
```

Output: Email: rahul@example.com

3. c:if - Conditional Execution

- Executes a block if a condition is true.

```
<c:set var="age" value="20" />
```

```
<c:if test="${age} >= 18">
```

```
    <p>You are eligible to vote.</p>
```

```
</c:if>
```

Output: You are eligible to vote.

4. c:choose, c:when, c:otherwise - Switch-Case

- Works like a switch-case statement in Java.

```
<c:set var="userRole" value="admin" />
```

```
<c:choose>
```

```
    <c:when test="${userRole} == 'admin'">
```

```
        <p>Welcome, Admin!</p>
```

```
    </c:when>
```

```
    <c:when test="${userRole} == 'user'">
```

```
        <p>Welcome, User!</p>
```

```
    </c:when>
```

```
    <c:otherwise>
```

```
        <p>Unknown role!</p>
```

```
    </c:otherwise>
```

```
</c:choose>
```

Output: Welcome, Admin!

5. c:forEach - Looping

- Loop over a list

```
<%@ page import="java.util.*" %>
```

```
<%  
    List<String> courses = Arrays.asList("Java", "Spring", "Hibernate");  
    request.setAttribute("courseList", courses);  
%>  
  
<c:forEach var="course" items="${courseList}">  
    <p>Course: ${course}</p>  
</c:forEach>
```

Output:

Course: Java

Course: Spring

Course: Hibernate

5. Full JSP Example Using JSTL Core Tags

```
<%@ taglib uri="http://jakarta.apache.org/jstl/core" prefix="c" %>  
  
<html>  
  
<head><title>JSTL Example</title></head>  
  
<body>  
  
    <c:set var="username" value="Rahul Kirpekar" />  
  
    <h2>Welcome, <c:out value="${username}" />!</h2>  
  
    <c:set var="age" value="25" />  
  
    <c:if test="${age >= 18}">  
        <p>You are eligible to vote.</p>  
    </c:if>
```

```
<c:set var="role" value="user" />
```

```
<c:choose>
```

```
  <c:when test="${role == 'admin'}">
```

```
    <p>Admin Dashboard</p>
```

```
  </c:when>
```

```
  <c:when test="${role == 'user'}">
```

```
    <p>User Dashboard</p>
```

```
  </c:when>
```

```
  <c:otherwise>
```

```
    <p>Access Denied</p>
```

```
  </c:otherwise>
```

```
</c:choose>
```

```
<h3>Course List:</h3>
```

```
<c:forEach var="course" items="${['Java', 'Spring', 'Hibernate']}">
```

```
  <p>Course: ${course}</p>
```

```
</c:forEach>
```

```
</body>
```

```
</html>
```

Output:

Welcome, Rahul Kirpekar!

You are eligible to vote.

User Dashboard

Course: Java

Course: Spring

6. Summary of JSTL Core Tags

JSTL Core Tag	Purpose
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<c:set>	Define variables
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<c:out>	Output variable values
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<c:if>	Conditional statements
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<c:choose>, <c:when>, <c:otherwise>	Switch-case logic
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<c:forEach>	Loop over lists/arrays
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<c:forTokens>	Split strings into tokens
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<c:import>	Include JSP files
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<c:redirect>	Redirect to another page
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<c:param>	Pass parameters to another page
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