Java Full Stack Lab Manual - JDBC Experiment

Aim

To demonstrate the use of JSTL Core Tags such as <c:out>, <c:set>, <c:if>, <c:choose>, <c:when>, <c:otherwise>, and <c:forEach>.

Technologies Used

JSP, JSTL Library, Apache Tomcat

Directory Structure

```
JSTLDemo/
|
+- jstl-demo.jsp
+- WEB-INF/
   +- web.xml
   +- lib/
      +- jstl.jar
```

Required JARs (Place in WEB-INF/lib/)

jakarta.servlet.jsp.jstl-api-*.jar

jakarta.servlet.jsp.jstl-impl-*.jar

Java Full Stack Lab Manual - JDBC Experiment

jstl-demo.jsp

```
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
<html>
<head><title>JSTL Core Tag Demo</title></head>
<body>

<h2>JSTL Core Tag Examples</h2>

<!-- Set & Output -->
<c:set var="name" value="Madhu" />
<p>Hello <c:out value="${name}" />!</p>

<!-- Conditional Rendering -->
<c:if test="${name == 'Madhu'}">
  <p>Welcome, Madhu!</p>
</c:if>

<!-- Choose/When/Otherwise -->
<c:set var="role" value="admin" />
<c:choose>
  <c:when test="${role == 'admin'}">
    <p>You have administrative privileges.</p>
  </c:when>
  <c:otherwise>
    <p>You are a guest user.</p>
  </c:otherwise>
</c:choose>

<!-- Looping -->
<c:set var="colors" value="${['Red', 'Green', 'Blue']}" />
<ul>
  <c:forEach var="color" items="${colors}">
    <li>${color}</li>
  </c:forEach>
</ul>

</body>
</html>
```

web.xml

```
<web-app xmlns="http://xmlns.jcp.org/xml/ns/javaee"
         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
         xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee
         http://xmlns.jcp.org/xml/ns/javaee/web-app_3_1.xsd"
         version="3.1">
```

```
    <welcome-file-list>
        <welcome-file>jstl-demo.jsp</welcome-file>
    </welcome-file-list>

</web-app>
```

How to Run

1. Download required JSTL JARs and place them in `WEB-INF/lib`.

2. Deploy the `JSTLDemo` folder in Tomcat's `webapps` directory.

3. Start Tomcat and visit: http://localhost:8080/JSTLDemo/jstl-demo.jsp

Java Full Stack Lab Manual - JDBC Experiment

Expected Output

```
Hello Madhu!
Welcome, Madhu!
You have administrative privileges.
- Red
- Green
- Blue
```

Result

Successfully demonstrated key JSTL core tags for setting variables, conditional checks, choices, and looping.