

Practical – 6

JSP Standard Tag Library (JSTL)

AIM : Demonstrate the application of JSTL.

Theory :

The JSP Standard Tag Library (JSTL) represents a set of tags to simplify the JSP development.

Advantage of JSTL :-

- **Fast Development :** JSTL provides many tags that simplify the JSP.
- **Code Reusability :** We can use the JSTL tags on various pages.
- **No need to use scriptlet tag :** It avoids the use of scriptlet tag.

JSTL provides following 5 types of tags :

Tag Name	Description
Core tags	The JSTL core tag provide variable support, URL management, flow control, etc. The URL for the core tag is http://java.sun.com/jsp/jstl/core . The prefix of core tag is c .
Function tags	The functions tags provide support for string manipulation and string length. The URL for the functions tags is http://java.sun.com/jsp/jstl/functions and prefix is fn .
Formatting tags	The Formatting tags provide support for message formatting, number and date formatting, etc. The URL for the Formatting tags is http://java.sun.com/jsp/jstl/fmt and prefix is fmt .
XML tags	The XML tags provide flow control, transformation, etc. The URL for the XML tags is http://java.sun.com/jsp/jstl/xml and prefix is x .
SQL tags	The JSTL SQL tags provide SQL support. The URL for the SQL tags is http://java.sun.com/jsp/jstl/sql and prefix is sql .

CODE :

Java Beans Class –

```
package com.journaldev.model;

public class Employee {

    private int id;
    private String name;
    private String role;
    public Employee() {
    }
    public int getId() {
        return id;
    }
    public void setId(int id) {
        this.id = id;
    }
    public String getName() {
        return name;
    }
    public void setName(String name) {
        this.name = name;
    }
    public String getRole() {
        return role;
    }
    public void setRole(String role) {
        this.role = role;
    }
}
```

Servlet Class –

```
package com.journaldev.servlet;

import java.io.IOException;
import java.util.ArrayList;
import java.util.List;

import javax.servlet.RequestDispatcher;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

import com.journaldev.model.Employee;

@WebServlet("/HomeServlet")
public class HomeServlet extends HttpServlet {
    private static final long serialVersionUID = 1L;

    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
        List<Employee> empList = new ArrayList<Employee>();
        Employee emp1 = new Employee();
        emp1.setId(1); emp1.setName("Pankaj");emp1.setRole("Developer");
        Employee emp2 = new Employee();
        emp2.setId(2); emp2.setName("Meghna");emp2.setRole("Manager");
        empList.add(emp1);empList.add(emp2);
        request.setAttribute("empList", empList);

        request.setAttribute("htmlTagData", "<br/> creates a new line.");
        request.setAttribute("url", "https://www.journaldev.com");
        RequestDispatcher rd = getServletContext().getRequestDispatcher("/home.jsp");
        rd.forward(request, response);
    }
}
```

JSP Page –

```

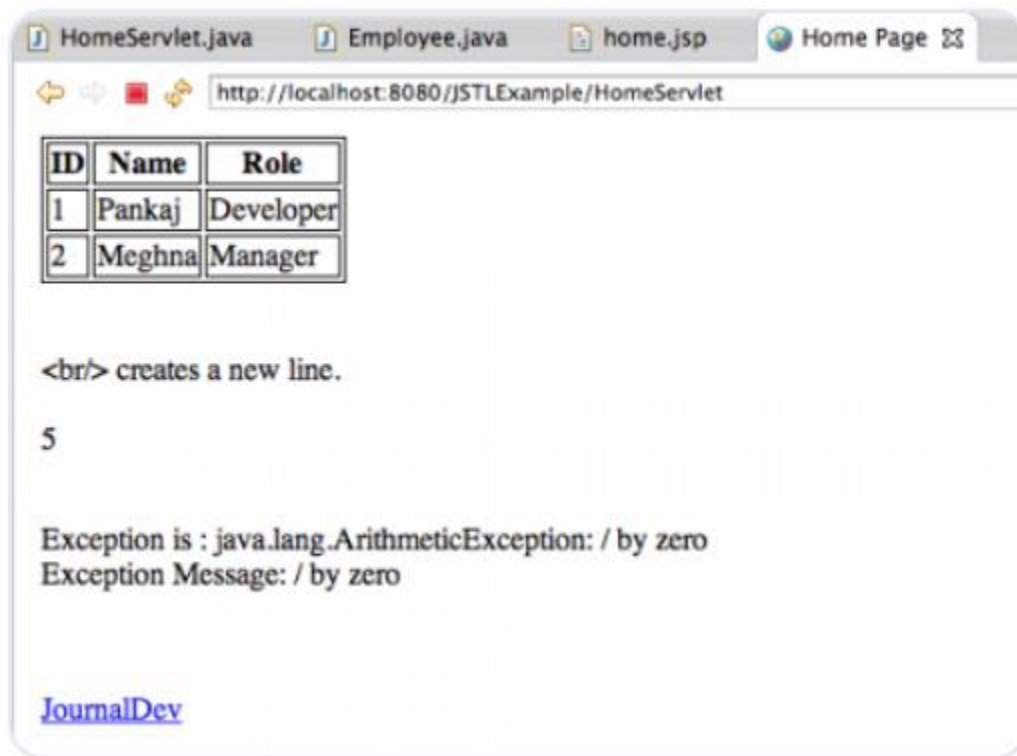
<%@ page language="java" contentType="text/html; charset=US-ASCII"
    pageEncoding="US-ASCII"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "https://www.w3.org/TR/html4/lo
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=US-ASCII">
<title>Home Page</title>
<%@ taglib uri="https://java.sun.com/jsp/jstl/core" prefix="c" %>
<style>
table,th,td
{
border:1px solid black;
}
</style>
</head>
<body>
<%-- Using JSTL forEach and out to loop a list and display items in table --%>
<table>
<tbody>
<tr><th>ID</th><th>Name</th><th>Role</th></tr>
<c:forEach items="${requestScope.emplist}" var="emp">
<tr><td><c:out value="${emp.id}"></c:out></td>
<td><c:out value="${emp.name}"></c:out></td>
<td><c:out value="${emp.role}"></c:out></td></tr>
</c:forEach>
</tbody>
</table>
<br><br>
<%-- simple c:if and c:out example with HTML escaping --%>
<c:if test="${requestScope.htmlTagData ne null }">
<c:out value="${requestScope.htmlTagData}" escapeXml="true"></c:out>
</c:if>
<br><br>
<%-- c:set example to set variable value --%>
<c:set var="id" value="5" scope="request"></c:set>
<c:out value="${requestScope.id }" ></c:out>
<br><br>
<%-- c:catch example --%>
<c:catch var ="exception">
    <% int x = 5/0;%>
</c:catch>

<c:if test = "${exception ne null}">
    <p>Exception is : ${exception}<br>
    Exception Message: ${exception.message}</p>
</c:if>
<br><br>
<%-- c:url example --%>
<a href="<c:url value="${requestScope.url }"></c:url>">JournalDev</a>
</body>
</html>

```

Output :

Running the application with URL <https://localhost:8080/JSTLExample/HomeServlet>



Result : Demonstrated application of JSTL.