

## **EX:NO:5 Write a Servlet to demonstrate the difference between HTTP GET and POST methods by creating a form and handling requests accordingly.**

### **Aim:**

To demonstrate the difference between the HTTP GET and POST methods using a Java Servlet, where a form will be created and requests will be handled accordingly by the GET and POST methods.

### **Algorithm**

1. **Create an HTML Form:**
  - The form will have two buttons: one for sending a GET request and one for sending a POST request. The form will also contain a field to input some text.
2. **Handle GET Request:**
  - In the servlet, when a GET request is received, display the value of the parameter sent via the URL (query string) on the webpage.
3. **Handle POST Request:**
  - When a POST request is received, retrieve and display the data sent in the body of the request.
4. **Result:**
  - The user will see different results depending on whether they use the GET or POST method to submit the form.

### **CODE:**

#### **HTML :**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>GET vs POST Example</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #f4f4f9;
      color: #333;
```

```
    margin: 0;
    padding: 0;
}

h2 {
    color: #4CAF50;
    text-align: center;
    margin-top: 50px;
}

.container {
    width: 50%;
    margin: 0 auto;
    background-color: #fff;
    padding: 30px;
    border-radius: 8px;
    box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
}

.form-group {
    margin-bottom: 20px;
}

label {
    font-size: 16px;
    color: #555;
}

input[type="text"] {
    width: 100%;
```

```
padding: 10px;
margin-top: 5px;
border-radius: 4px;
border: 1px solid #ccc;
box-sizing: border-box;
}

button {
background-color: #4CAF50;
color: white;
padding: 10px 20px;
border: none;
border-radius: 4px;
cursor: pointer;
font-size: 16px;
}

button:hover {
background-color: #45a049;
}

.form-container {
margin-bottom: 30px;
}

hr {
border: 1px solid #ddd;
}

.result {
```

```
        background-color: #f9f9f9;
        border-left: 4px solid #4CAF50;
        padding: 20px;
        margin-top: 20px;
        font-size: 16px;
        border-radius: 4px;
    }
</style>
</head>
<body>
    <div class="container">
        <h2>GET vs POST Request Demonstration</h2>

        <!-- Form to demonstrate GET method -->
        <div class="form-container">
            <h3>GET Method</h3>
            <form action="DemoServlet" method="GET">
                <div class="form-group">
                    <label for="data">Enter Data (GET):</label>
                    <input type="text" name="data" required>
                </div>
                <button type="submit">Submit (GET)</button>
            </form>
        </div>

        <hr>

        <!-- Form to demonstrate POST method -->
        <div class="form-container">
            <h3>POST Method</h3>
```

```

        <form action="DemoServlet" method="POST">
            <div class="form-group">
                <label for="data">Enter Data (POST):</label>
                <input type="text" name="data" required>
            </div>
            <button type="submit">Submit (POST)</button>
        </form>
    </div>

    <!-- Result section will be dynamically updated -->
    <div class="result" id="result">
        <!-- Display GET or POST request result here -->
    </div>
</div>
</body>
</html>

```

### **Servlet.java:**

```

import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class DemoServlet extends HttpServlet {
    // Handle GET request
    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        // Set response content type
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        String data = request.getParameter("data");

        out.println("<html><body>");
    }
}

```

```

        out.println("<h2>GET Request Received</h2>");

        if (data != null && !data.isEmpty()) {
            out.println("<p>Data received via GET method: " + data + "</p>");
        } else {
            out.println("<p>No data received in GET request.</p>");
        }

        out.println("</body></html>");
    }

    // Handle POST request
    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        // Set response content type
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        String data = request.getParameter("data");
        out.println("<html><body>");
        out.println("<h2>POST Request Received</h2>");

        if (data != null && !data.isEmpty()) {
            out.println("<p>Data received via POST method: " + data + "</p>");
        } else {
            out.println("<p>No data received in POST request.</p>");
        }

        out.println("</body></html>");
    }
}

```

## web.xml :

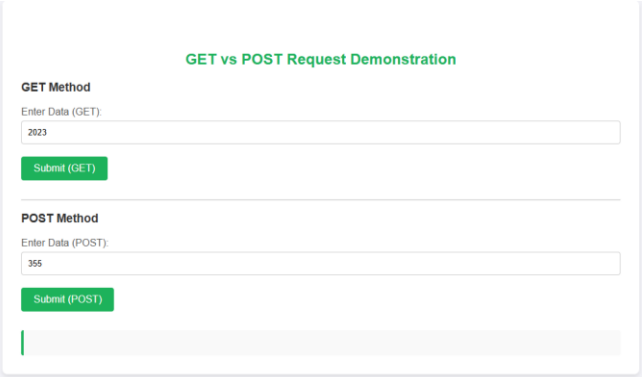
```
<web-app xmlns="http://java.sun.com/xml/ns/javaee"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
    http://java.sun.com/xml/ns/javaee/web-app_3_1.xsd" version="3.1">

  <servlet>
    <servlet-name>DemoServlet</servlet-name>
    <servlet-class>DemoServlet</servlet-class>
  </servlet>

  <servlet-mapping>
    <servlet-name>DemoServlet</servlet-name>
    <url-pattern>/DemoServlet</url-pattern>
  </servlet-mapping>

</web-app>
```

## OUTPUT :



The screenshot displays a web interface for demonstrating GET and POST requests. It features two sections: 'GET Method' and 'POST Method'. Each section has a text input field for data, a 'Submit' button, and a corresponding output area. The GET section shows the value '2023' entered and the POST section shows '355' entered. The output area for the POST method is currently empty.

GET vs POST Request Demonstration	
<b>GET Method</b>	
Enter Data (GET):	
2023	
Submit (GET)	
<b>POST Method</b>	
Enter Data (POST):	
355	
Submit (POST)	

## **GET Request Received**

Data received via GET method: 2023

---

## **POST Request Received**

Data received via POST method: 355

### **RESULT :**

Thus the give program is executed successfully.