

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 an input field for the user to enter some text.
2. **Handle GET Request:**
 - In the servlet, when a **GET** request is received, retrieve the parameter sent via the **URL (query string)**.
 - Display the received data on the webpage.
3. **Handle POST Request:**
 - In the servlet, when a **POST** request is received, retrieve the data sent in the **request body**.
 - Display the received data on the webpage.
4. **Result:**
 - The user will see different outputs depending on whether they submit the form using **GET** or **POST**.

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 Servlet</title>

    <style>

        body {

            font-family: 'Arial', sans-serif;
```

```
background-color: #121212;

color: #ffffff;

text-align: center;

margin: 0;

padding: 0;

}
```

```
h2 {

color: #00ffcc;

margin-top: 40px;

font-size: 26px;

}
```

```
.container {

width: 50%;

margin: auto;

background: #222;

padding: 30px;

border-radius: 10px;

box-shadow: 0px 0px 15px rgba(0, 255, 204, 0.5);

}
```

```
.form-container {

margin-bottom: 25px;

padding: 20px;

background: #333;

border-radius: 10px;
```

```
}
```

```
input[type="text"] {  
    width: 90%;  
    padding: 12px;  
    margin: 10px 0;  
    border: 2px solid #00ffcc;  
    background: #222;  
    color: #ffffff;  
    border-radius: 5px;  
    font-size: 16px;  
}
```

```
button {  
    background: #00ffcc;  
    color: #121212;  
    padding: 12px 18px;  
    border: none;  
    font-size: 16px;  
    border-radius: 5px;  
    cursor: pointer;  
    transition: 0.3s;  
}
```

```
button:hover {  
    background: #00b38f;  
    color: #fff;
```

```
}
```

```
.result {
```

```
    margin-top: 20px;
```

```
    padding: 15px;
```

```
    background: #1a1a1a;
```

```
    border-left: 5px solid #00ffcc;
```

```
    color: #00ffcc;
```

```
    font-size: 18px;
```

```
    border-radius: 5px;
```

```
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<h2> ♦ GET vs POST Servlet Example ♦ </h2>
```

```
<div class="container">
```

```
<!-- Form to demonstrate GET method -->
```

```
<div class="form-container">
```

```
<h3 style="color:#00ffcc;">GET Method</h3>
```

```
<form action="DemoServlet" method="GET">
```

```
    <input type="text" name="data" placeholder="Enter Data (GET)" required>
```

```
    <button type="submit">Submit (GET)</button>
```

```
</form>
```

```
</div>
```

```
<!-- Form to demonstrate POST method -->
```

```

<div class="form-container">

    <h3 style="color:#00ffcc;">POST Method</h3>

    <form action="DemoServlet" method="POST">

        <input type="text" name="data" placeholder="Enter Data (POST)" required>

        <button type="submit">Submit (POST)</button>

    </form>

</div>

<!-- Result Display Section -->

<div class="result">

    <p>Submit data via GET or POST to see the result.</p>

</div>

</div>

</body>

</html>

```

Servlet.java:

```

import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

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

    // Handle GET request
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();

        String data = request.getParameter("data");

        out.println("<html><body style='background-color:#121212; color:#00ffcc; text-
align:center;'>");

```

```

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

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

        out.println("<a href='index.html' style='color:#00ffcc;'>Go Back</a>");
        out.println("</body></html>");
    }

    // Handle POST request
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();

        String data = request.getParameter("data");

        out.println("<html><body style='background-color:#121212; color:#00ffcc; text-align:center;'>");
        out.println("<h2>POST Request Received</h2>");

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

        out.println("<a href='index.html' style='color:#00ffcc;'>Go Back</a>");
        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 :

◆ GET vs POST Servlet Example ◆

GET Method

Enter Data (GET)

Submit (GET)

POST Method

Enter Data (POST)

Submit (POST)

Submit data via GET or POST to see the result.

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.