

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>");
    }
}

```

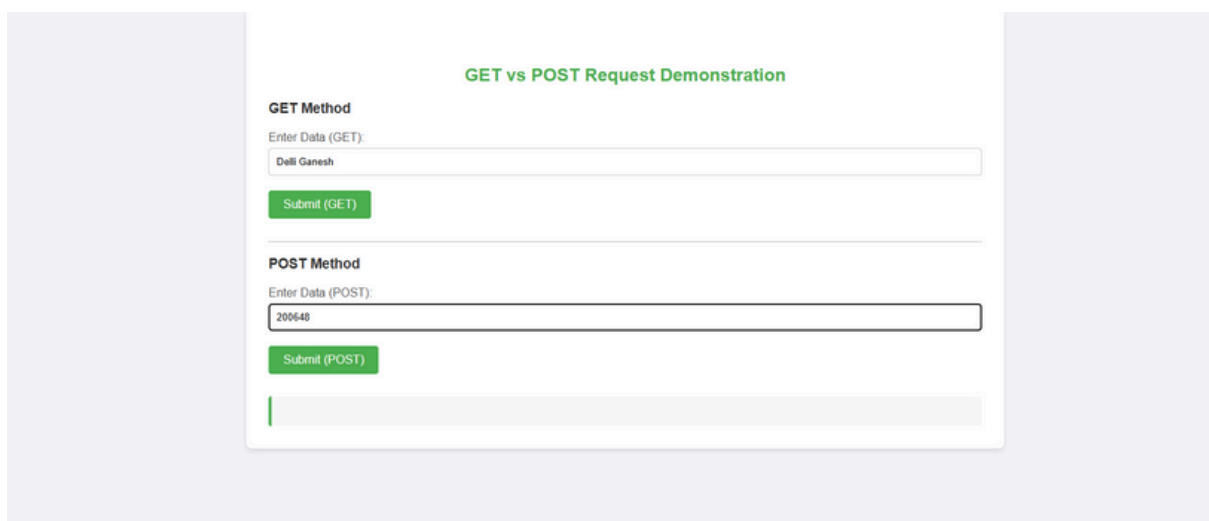
web.xml :

```
<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 with the title "GET vs POST Request Demonstration" in green text. It contains two sections: "GET Method" and "POST Method". The "GET Method" section has a label "Enter Data (GET):", a text input field containing "Dell Ganesh", and a green "Submit (GET)" button. The "POST Method" section has a label "Enter Data (POST):", a text input field containing "200648", and a green "Submit (POST)" button. Below the "POST Method" section, there is a long, empty text area.

GET Request Recevied

Data received via Get method:Delli Ganesh

POST Request Recevied

Data received via POST method:200648

RESULT :

Thus the give program is executed successfully.