EXP 5 HTTP GET and POST methods

AIM:

To demonstrate the difference between HTTP GET and POST methods using a Java Servlet by creating a form that sends data using both methods.

ALGORITHM:

Step 1: Create an HTML form with GET and POST methods.

Step 2: Develop a Servlet (`GetPostServlet.java`) to handle requests.

Step 3: Implement `doGet()` to handle GET requests.

Step 4: Implement `doPost()` to handle POST requests.

Step 5: Configure `web.xml` to map the Servlet to `/GetPostServlet`.

Step 6: Run the server and observe how GET and POST work differently.

PROGRAM:

index.html (Form Page)

```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 Demo</title>
    <link rel="stylesheet" href="styles.css">
</head>
<body>
    <div class="container">
        <h2>GET vs POST Servlet Demo</h2>

        <div class="form-container">
            <h3>Submit with GET</h3>
            <form action="getServlet" method="GET">
                <input type="text" name="name" placeholder="Enter Name" required>
                <input type="number" name="age" placeholder="Enter Age" required>
                <button type="submit" class="get-button">Submit (GET)</button>
            </form>

            <h3>Submit with POST</h3>
            <form action="postServlet" method="POST">
                <input type="text" name="name" placeholder="Enter Name" required>
                <input type="number" name="age" placeholder="Enter Age" required>
                <button type="submit" class="post-button">Submit (POST)</button>
```

```
            </form>
        </div>
    </div>
</body>
</html>
```

styles.css

```css
body {
    font-family: Arial, sans-serif;
    background: linear-gradient(to right, #6a0dad, #a855f7, #d8b4fe);
    display: flex;
    justify-content: center;
    align-items: center;
    height: 100vh;
    margin: 0;
}

.container {
    text-align: center;
    background: #f3e8ff;
    padding: 20px;
    border-radius: 10px;
    box-shadow: 0px 4px 10px rgba(0, 0, 0, 0.1);
    width: 350px;
}

h2 {
    color: #6a0dad;
}

h3 {
    color: #5b21b6;
    margin-top: 20px;
}

input {
    width: 90%;
    padding: 10px;
    margin: 10px 0;
    border: 1px solid #a855f7;
    border-radius: 5px;
}

button {
    width: 100%;
    padding: 10px;
    border: none;
    color: white;
    font-size: 16px;
    cursor: pointer;
    border-radius: 5px;
}
```

```css
.get-button {
    background-color: #7c3aed;
}

.get-button:hover {
    background-color: #6d28d9;
}

.post-button {
    background-color: #9333ea;
}

.post-button:hover {
    background-color: #7e22ce;
}

.form-container {
    background: white;
    padding: 20px;
    border-radius: 10px;
    box-shadow: 0px 4px 8px rgba(0, 0, 0, 0.1);
}
```

GetPostServlet.java (Servlet to Handle GET & POST)

```java
java CopyEdit
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("/GetPostServlet")
public class GetPostServlet extends HttpServlet { private static final long
serialVersionUID = 1L;

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

String name = request.getParameter("username");
out.println("<html><body>"); out.println("<h2>GET Method Received</h2>");
out.println("<p>Hello, <b>" + name + "</b>! Data sent using GET.</p>");
out.println("</body></html>");
}

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

String name = request.getParameter("username");
```
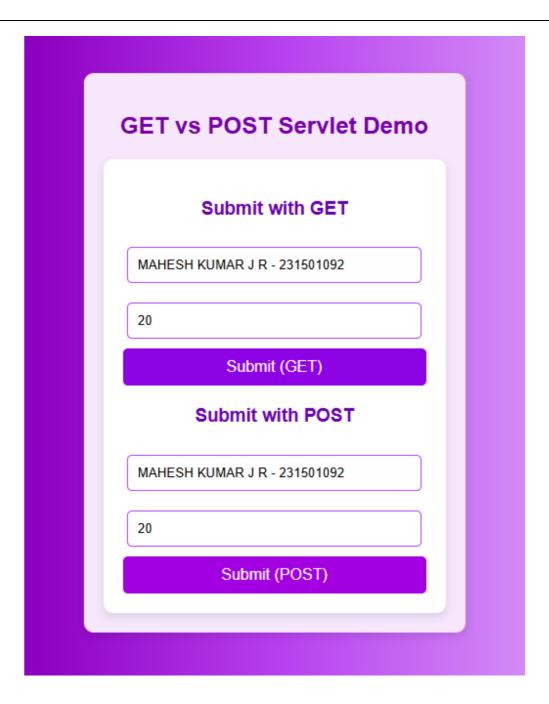
```
out.println("<html><body>"); out.println("<h2>POST Method Received</h2>");
out.println("<p>Hello, <b>" + name + "</b>! Data sent using POST.</p>");
out.println("</body></html>");
}
}
```

web.xml (Servlet Configuration)

```xml
CopyEdit
<web-app xmlns="http://java.sun.com/xml/ns/javaee" version="3.0">
<servlet>
<servlet-name>GetPostServlet</servlet-name>
<servlet-class>GetPostServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>GetPostServlet</servlet-name>
<url-pattern>/GetPostServlet</url-pattern>
</servlet-mapping>
</web-app>
```

OUTPUT:

GET vs POST Servlet Demo

Submit with GET

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20

Submit (GET)

Submit with POST

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20

Submit (POST)

RESULT: The Get and Post methods were executed successfully.