

EXP 5: GET AND POST METHODS

Write a Servlet to demonstrate the difference between HTTP GET and POST methods by creating a form and handling requests accordingly.

AIM:

To write a Java Servlet that demonstrates the difference between HTTP GET and POST methods by creating a form and processing the request accordingly.

ALGORITHM:

1. Create an HTML form with input fields (e.g., name, email) and two buttons to submit the form using GET and POST.
2. Design a servlet that overrides both doGet() and doPost() methods.
3. When the form is submitted using the GET method:
 - The form data is appended to the URL as query parameters.
 - The doGet() method processes and displays the data.
4. When the form is submitted using the POST method:
 - The form data is sent in the body of the request.
 - The doPost() method processes and displays the data.
5. Output the received data on the web page along with a note about which method was used.
6. Deploy the servlet and access the form via browser to test both methods.

SOURCE CODE:

HelloWorldServlet.java

```
import java.io.IOException;
import java.io.PrintWriter;

import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;

✓ public class HelloWorldServlet extends HttpServlet {
    private static final long serialVersionUID = 1L;

    @Override
    ✓ protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {

        // Set response content type
        response.setContentType("text/html");

        // Get the writer to send output
        PrintWriter out = response.getWriter();

        // Write HTML response
        out.println("<h1>Hello, World!</h1>");
    }
}
```

MethodDemoServlet.java

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

@WebServlet("/methodDemo")
public class MethodDemoServlet extends HttpServlet {

    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        String name = request.getParameter("username");
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        out.println("<h3>This is a GET request</h3>");
        out.println("<p>Hello, " + name + "</p>");
    }

    protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        String name = request.getParameter("username");
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        out.println("<h3>This is a POST request</h3>");
        out.println("<p>Hello, " + name + "</p>");
    }
}
```

UserFormServlet.java

```
import jakarta.servlet.*;
import jakarta.servlet.http.*;
import java.io.IOException;
import java.io.PrintWriter;

public class UserFormServlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {

        response.setContentType("text/html");
        PrintWriter out = response.getWriter();

        String name = request.getParameter("username");
        String age = request.getParameter("age");

        out.println("<html><body>");
        out.println("<h2>Name: " + name + "</h2>");
        out.println("<h2>Age: " + age + "</h2>");
        out.println("</body></html>");
    }
}
```

Web.xml

```
<web-app xmlns="http://jakarta.ee/xml/ns/jakartaee" version="5.0">
    <servlet>
        <servlet-name>MethodDemo</servlet-name>
        <servlet-class>MethodDemoServlet</servlet-class>
    </servlet>
    <servlet-mapping>
        <servlet-name>MethodDemo</servlet-name>
        <url-pattern>/methodDemo</url-pattern>
    </servlet-mapping>
    <web-app xmlns="http://jakarta.ee/xml/ns/jakartaee"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:schemaLocation="http://jakarta.ee/xml/ns/jakartaee
            http://jakarta.ee/xml/ns/jakartaee/web-app_5_0.xsd"
        version="5.0">

        <servlet>
            <servlet-name>UserFormServlet</servlet-name>
            <servlet-class>UserFormServlet</servlet-class>
        </servlet>

        <servlet-mapping>
            <servlet-name>UserFormServlet</servlet-name>
            <url-pattern>process</url-pattern>
        </servlet-mapping>

    </web-app>
```

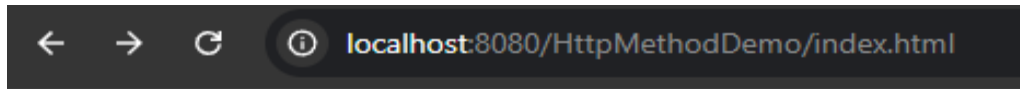
Index.html

```
<!DOCTYPE html>
<html>
<head>

    <title>GET vs POST Demo</title>
</head>
<body>
    <h2>GET Method Form</h2>
    <form method="get" action="methodDemo">
        Name: <input type="text" name="username" />
        <input type="submit" value="Submit with GET" />
    </form>

    <h2>POST Method Form</h2>
    <form method="post" action="methodDemo">
        Name: <input type="text" name="username" />
        <input type="submit" value="Submit with POST" />
    <title>User Form</title>
</head>
<body>
    <h2>Enter Your Details</h2>
    <form action="process" method="post">
        Name: <input type="text" name="username" required><br><br>
        Age: <input type="number" name="age" required><br><br>
        <input type="submit" value="Submit">
    </form>
</body>
</html>
```

OUTPUT:

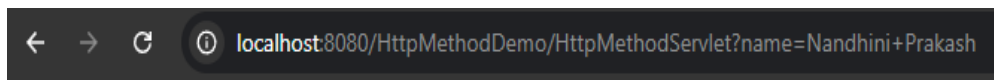


Form using GET Method

Name:

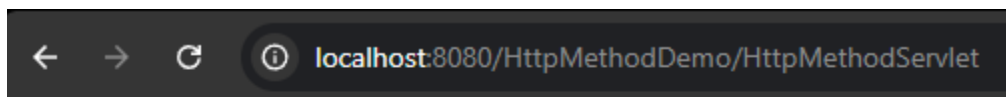
Form using POST Method

Name:



GET Request Received

Hello, Nandhini Prakash



POST Request Received

Hello, Nandhini Prakash

RESULT:

Thus, the program was executed successfully.