Experiment 5: Servlet to Demonstrate Difference Between GET and POST Methods

Aim:

To create a Java Servlet that handles both **GET** and **POST** requests, and displays the type of request used along with user input for better understanding of the HTTP methods.

Algorithm:

1. **Start**

2. Create an HTML form that collects the user's **name** and has two buttons: one to submit using **GET**, and one using **POST**.

3. Create a servlet named `GetPostServlet` that extends `HttpServlet`.

4. Override `doGet()` to handle GET requests.

5. Override `doPost()` to handle POST requests.

6. In each method, retrieve the user's name and print a message indicating the request type used.

7. Compile and deploy the servlet using Apache Tomcat.

8. Access the form via browser, submit with both GET and POST, and observe the behavior.

9. **End**

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index.html

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

```html
<head>
    <title>GET vs POST</title>
</head>
<body>
    <h2>GET vs POST Demo</h2>
    <form action="getpost" method="get">
        Name: <input type="text" name="username">
        <input type="submit" value="Submit with GET">
    </form>
    <br>
    <form action="getpost" method="post">
        Name: <input type="text" name="username">
        <input type="submit" value="Submit with POST">
    </form>
</body>
</html>
```

GetPostServlet.java

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

public class GetPostServlet extends HttpServlet {
    @Override
    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("<h2>GET Method Used</h2>");
        out.println("<p>Hello, " + name + "!</p>");
    }

    @Override
```

```java
    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("<h2>POST Method Used</h2>");
        out.println("<p>Hello, " + name + "!</p>");
    }
}
```

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web.xml

```xml
<web-app xmlns="http://xmlns.jcp.org/xml/ns/javaee" version="3.1">
    <servlet>
        <servlet-name>GetPost</servlet-name>
        <servlet-class>GetPostServlet</servlet-class>
    </servlet>
    <servlet-mapping>
        <servlet-name>GetPost</servlet-name>
        <url-pattern>/getpost</url-pattern>
    </servlet-mapping>
</web-app>
```

OUTPUT:

Result:

Submitting the form with **GET** displays:

```
pgsql
CopyEdit
GET Method Used
```

```
Hello, [Name]!
```

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Submitting the form with **POST** displays:

```
 pgsql
CopyEdit
POST Method Used
Hello, [Name]!
```

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This demonstrates the difference between how **GET** (visible in URL) and **POST** (hidden in request body) methods work.