Experiment No. 5

Problem stmt1:

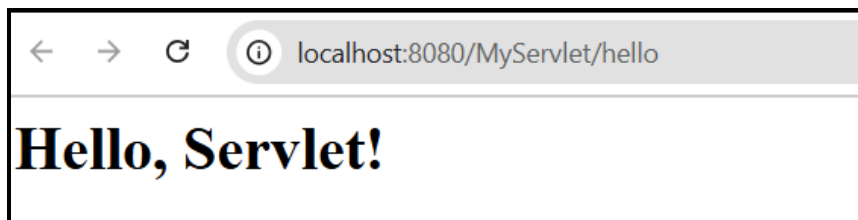Create a simple servlet that prints "Hello, Servlet!" in the browser.

Code:

```
package vaish1;

import java.io.IOException;
import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
// URL Mapping
@WebServlet("/hello")
public class MyServlet extends HttpServlet {
private static final long serialVersionUID = 1L;
protected void doGet(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
response.setContentType("text/html");
response.getWriter().println("<h1>Hello, Servlet!</h1>");
}
}
```

Output:

Problem stmt2:

Deploy and access the servlet using any web server like Tomcat.

Code:

```
package vaish;

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

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

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

        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        out.println("<h1>Deployment of Servlet using Tomcat 9 was Successful!!!</h1>");
    }
}
```

Output:

Problem stmt3:

Modify the servlet to accept a user's name as a request parameter and display a personalized greeting

Code:

```java
package vaish;

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("/My")
public class Greetings extends HttpServlet {
    private static final long serialVersionUID = 1L;
```

```java
protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {

  // Get the 'name' parameter from the URL
  String name = request.getParameter("name");

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

  if (name == null || name.trim().isEmpty()) {
    out.println("<h2>Hello, guest!</h2>");
    out.println("<p>Try adding ?name=YourName to the URL!</p>");
  } else {
    out.println("<h2>Hello, " + name + "!</h2>");
    out.println("<p>Welcome to your first servlet with a personalized greeting!</p>");
  }
}
}
```
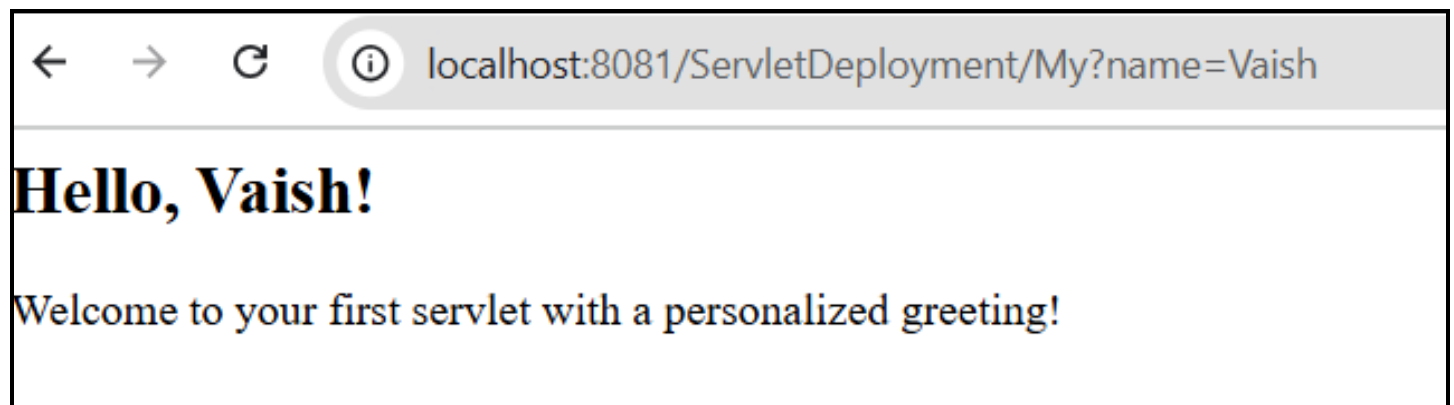
Output:

Problem stmt4:

Implement a servlet that handles both GET and POST requests differently.

Code:

package vaish;

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("/student")

```java
public class GetPost extends HttpServlet {
    private static final long serialVersionUID = 1L;

    // Show the form (GET request)
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {

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

        out.println("<h2>Student Info Form</h2>");
        out.println("<form method='POST' action='student'>");
        out.println("Name: <input type='text' name='name'><br><br>");
        out.println("PRN No: <input type='text' name='prn'><br><br>");
        out.println("Email: <input type='email' name='email'><br><br>");
        out.println("<input type='submit' value='Submit'>");
        out.println("</form>");
    }

    // Handle form submission (POST request)
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {

        String name = request.getParameter("name");
        String prn = request.getParameter("prn");
        String email = request.getParameter("email");

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

        out.println("<h2>Student Info Received</h2>");
        out.println("<p>Name: " + name + "</p>");
        out.println("<p>PRN No: " + prn + "</p>");
        out.println("<p>Email: " + email + "</p>");
    }
}
```

Output:

Student Info Form

Name: [   ]

PRN No: [   ]

Email: [   ]

[Submit]

Student Info Received

Name: Vaishnawi Abhay Chandavale

PRN No: 2217021

Email: 2217021@ritindia.edu