EXPERIMENT – 4 JAVA SERVLET

CREATE A WEB FORM THAT ACCPETS A USER'S NAME AND AGE. WRITE A SERVLET PROCESS TO PROCESS THE FORM DATA AND DISPLAY IT BACK ON THE BROWSER.

AIM:

TO CREATE A WEB FORM THAT ACCPETS A USER'S NAME AND AGE. WRITE A SERVLET PROCESS TO PROCESS THE FORM DATA AND DISPLAY IT BACK ON THE BROWSER.

ALGORITHM:

Step 1: Create a Dynamic Web Project

1. Open Eclipse IDE or any preferred IDE.
2. Go to File > New > Dynamic Web Project.
3. Name the project (e.g., UserFormServlet).
4. Choose Apache Tomcat as the runtime server.
5. Click Finish.

Step 2: Create a HTML Form

1. 1.Create userform.html
2. Add input fields for name,age,gender,email,password and address.
3. Set action= "UserServlet" and method="post"
4. Add a Submit Button

Step 3: Add CSS and JavaScript

1. Style the form using basic CSS for better layout.
2. Add an alert message on form submission.

Step 4:Create a Servlet Class

1. Right-click on the src folder.
2. Choose New > Servlet.
3. Name the class UserServlet.java.
4. Make sure the class extends HttpServlet.

5. Add the @WebServlet("/UserServlet") annotation to map the URL.

Step 5: Write Servlet Code

1. Inside the dopost() method, get values using request.getParameter("name"), request.getParameter("age"), request.getParameter("e-mail"), request.getParameter("gender"),request.getParameter("password") and request.getParameter("address").
2. Display them using response.getWriter()
3. Handle exceptions using throws ServletException, IOException.

Step 6: Fix Import Statements and Build

1. Correct import packages (jakarta.servlet.* for Jakarta EE or javax.servlet.* for older versions).
2. Save and build the project.

Step 7: Deploy to Apache Tomcat

1. Add the project to the Tomcat server from the Servers tab.
2. Start the Tomcat server.
3. Ensure the application is published successfully.

Step 8: Access the Servlet in a Browser

1. Open a browser.
2. Go to: http://localhost:8080/UserFormServlet/index.html
3. You should see : The UserForm

Step 9: Troubleshoot if 404 Error Occurs

1. Check if the URL pattern is correct.
2. Confirm the project is deployed to the server.
3. Clean and rebuild the project if needed.
4. Make sure the server is running.

CODE:

1.UserServlet.java

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

```java
import jakarta.servlet.http.*;

import java.io.*;

import java.io.PrintWriter;

@WebServlet("/UserFormServlet")

public class UserServlet extends HttpServlet {

    private static final long serialVersionUID = 1L;


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


        response.setContentType("text/html");

        PrintWriter out = response.getWriter();


        try {
            String name = request.getParameter("name");

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

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

            String password = request.getParameter("password");

            String gender = request.getParameter("gender");

            String address = request.getParameter("address");


            out.println("<html><body>");

            out.println("<h2>Submitted User Info:</h2>");

            out.println("<p><strong>Name:</strong> " + name + "</p>");

            out.println("<p><strong>Age:</strong> " + age + "</p>");

            out.println("<p><strong>Email:</strong> " + email + "</p>");
```

```java
        out.println("<p><strong>Gender:</strong> " + gender + "</p>");

        out.println("<p><strong>Address:</strong> " + address + "</p>");

        out.println("</body></html>");

    } catch (Exception e) {

        e.printStackTrace(); // This prints error in the server console

        out.println("<h3>Something went wrong: " + e.getMessage() +
"</h3>");

    }

  }

}}
```

2.Index.html

```html
<!DOCTYPE html>

<html>

<head>

    <title>User Info Form</title>

    <style>

      body {

          font-family: Arial;

          background: #f1f1f1;

      }

      .form-container {

          background: white;

          padding: 20px;

          margin: 100px auto;

          width: 390px;

          border-radius: 10px;
```
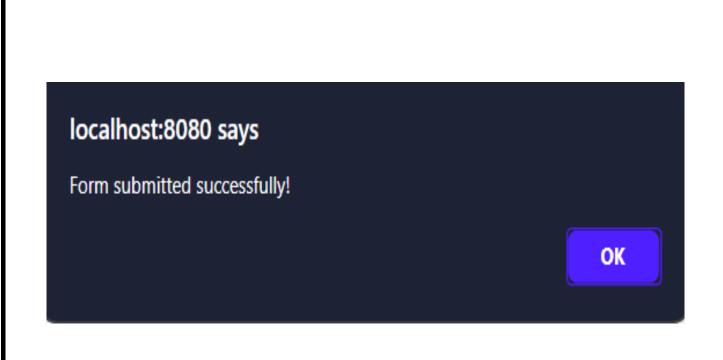
```css
        box-shadow: 0 0 10px rgba(0,0,0,0.3);
    }
    .form-container input, select, textarea {
        width: 90%;
        padding: 8px;
        margin-top: 10px;
        border: 1px solid #ccc;
        border-radius: 5px;
    }
    .form-container button {
        background-color: #28a745;
        color: white;
        border: none;
        padding: 10px;
        width: 100%;
        border-radius: 5px;
        cursor: pointer;
        margin-top: 15px;
    }
    .form-container button:hover {
        background-color: #218838;
    }
    </style>
</head>
<body>
    <div class="form-container">
```

```html
<form action="UserServlet" method="post" onsubmit="return showAlert()">
    <h2>User Information</h2>
    <input type="text" name="name" placeholder="Full Name" required>
    <input type="number" name="age" placeholder="Age" required>
    <input type="email" name="email" placeholder="Email" required>
    <input type="password" name="password" placeholder="Password" required>
    <select name="gender" required>
        <option value="" disabled selected>Select Gender</option>
        <option>Male</option>
        <option>Female</option>
        <option>Other</option>
    </select>
    <textarea name="address" placeholder="Enter your address" rows="3" required></textarea>
    <button type="submit">Submit</button>
</form>
</div>

<script>
    function showAlert() {
        alert("Form submitted successfully!");
        return true;
    }
</script>
```

```
</body>

</html>
```

OUTPUT:

User Information

| Adharsh |

| 19 |

| adharshshankar24@gmail.com |

| •••••••• |

| Male ⌄ |

| T-Nagar |

| **Submit** |

localhost:8080 says

Form submitted successfully!

OK

RESULT: Thus the servlet program was successfully executed.