Experiment: 1

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Branch: Computers Application   **Section/Group:** 4(A)

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Subject Name: Advanced Internet Programming   **Subject Code:** 23CAH-551

Aim:

Create a simple client-server communication application while creating an HTML with form and two input fields like First Name and Last Name. Submit the data to a servlet where the form data is retrieved and displayed. Create a form with the GET method and another with the POST method.

A. The task is to:

Develop a web application that includes an HTML form with fields for user data. Implement both GET and POST methods to send form data to a servlet. Ensure the servlet can handle and process the data properly.

B. Steps of Experiment:

- Open IDE(Integrated development environment) like NetBeans.

- Start by creating a new project file.

- Start by creating a new class file with the same name as the form action name.

- Structurally write your code taking care of indentation to maintain readability.

- Execute your code.

- Output in the browser window.

C. Practical Code:

(HTML CODE GET Method)

```html
<body>

    <<form action="Registration" method="get">

        <div class="ring">
            <i style="--clr:#00ff0a;"></i>
            <i style="--clr:#ff0057;"></i>
            <i style="--clr:#fffd44;"></i>
            <div class="login">
                <h2>Login</h2>
                <div class="inputBx">
                    <input type="text" name="fnamee" placeholder="First Name">
                </div>
                <div class="inputBx">
                    <input type="text" name="lnamee" placeholder="Last Name">
                </div>
                <div class="inputBx">
                    <input type="submit" value="Submit">
                </div>

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

(HTML CODE POST Method)

```html
<body>

    <<form action="Registration" method="post">

        <div class="ring">
            <i style="--clr:#00ff0a;"></i>
            <i style="--clr:#ff0057;"></i>
            <i style="--clr:#fffd44;"></i>
            <div class="login">
                <h2>Login</h2>
                <div class="inputBx">
                    <input type="text" name="fnamee" placeholder="First Name">
                </div>
                <div class="inputBx">
                    <input type="text" name="lnamee" placeholder="Last Name">
                </div>
                <div class="inputBx">
                    <input type="submit" value="Submit">
                </div>

            </div>
        </div>
    </form>
```

(JAVA GET Code)

```java
 * @author Nitish
 */
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.*;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.*;

@WebServlet("/Registration")
public class Registration extends HttpServlet {

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

        // read form fields
        String ffname = request.getParameter("fnamee");
        String llname = request.getParameter("lnamee");

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

        // build HTML code
        String htmlRespone = "<html>";
        htmlRespone += "<h2>Welcome " + ffname + " " + llname;
        htmlRespone += "</html>";

        // return response
        writer.println(htmlRespone);

    }
}
```

(JAVA POST Code)

```java
 * @author Nitish
 */
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.*;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.*;

@WebServlet("/Registration")
public class Registration extends HttpServlet {

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

        // read form fields
        String ffname = request.getParameter("fnamee");
        String llname = request.getParameter("lnamee");

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

        // build HTML code
        String htmlRespone = "<html>";
        htmlRespone += "<h2>Welcome " + ffname + " " + llname;
        htmlRespone += "</html>";

        // return response
        writer.println(htmlRespone);

    }
}
```
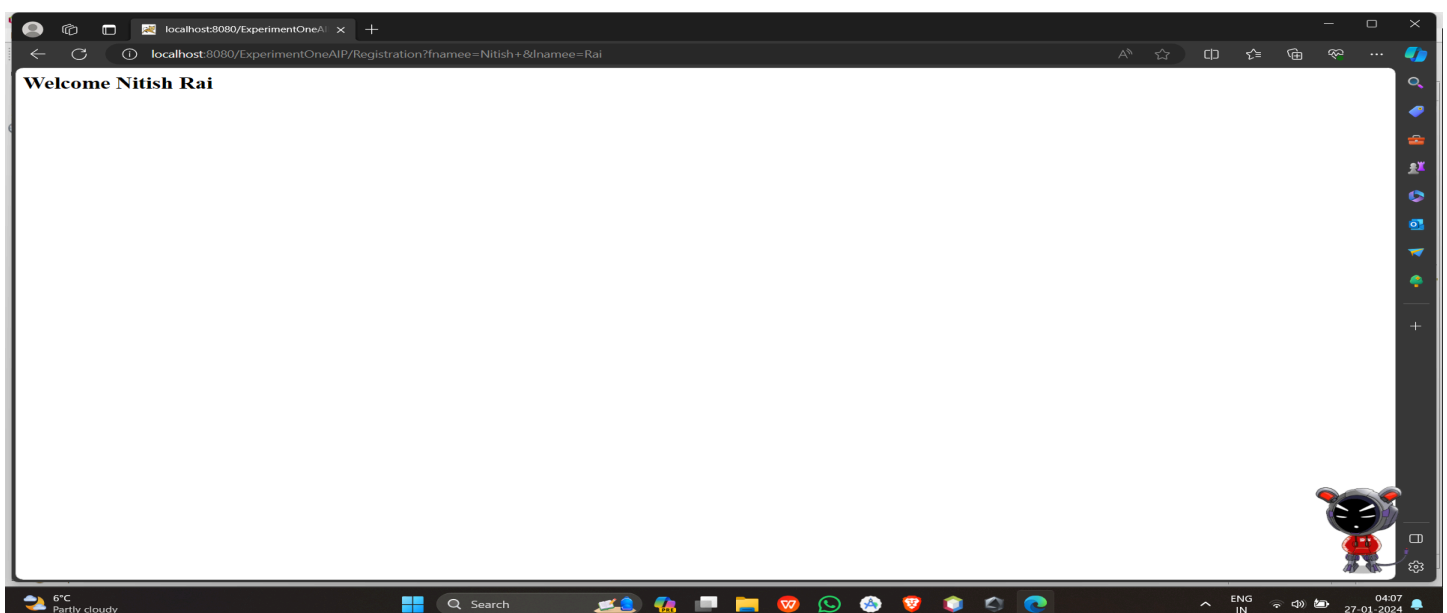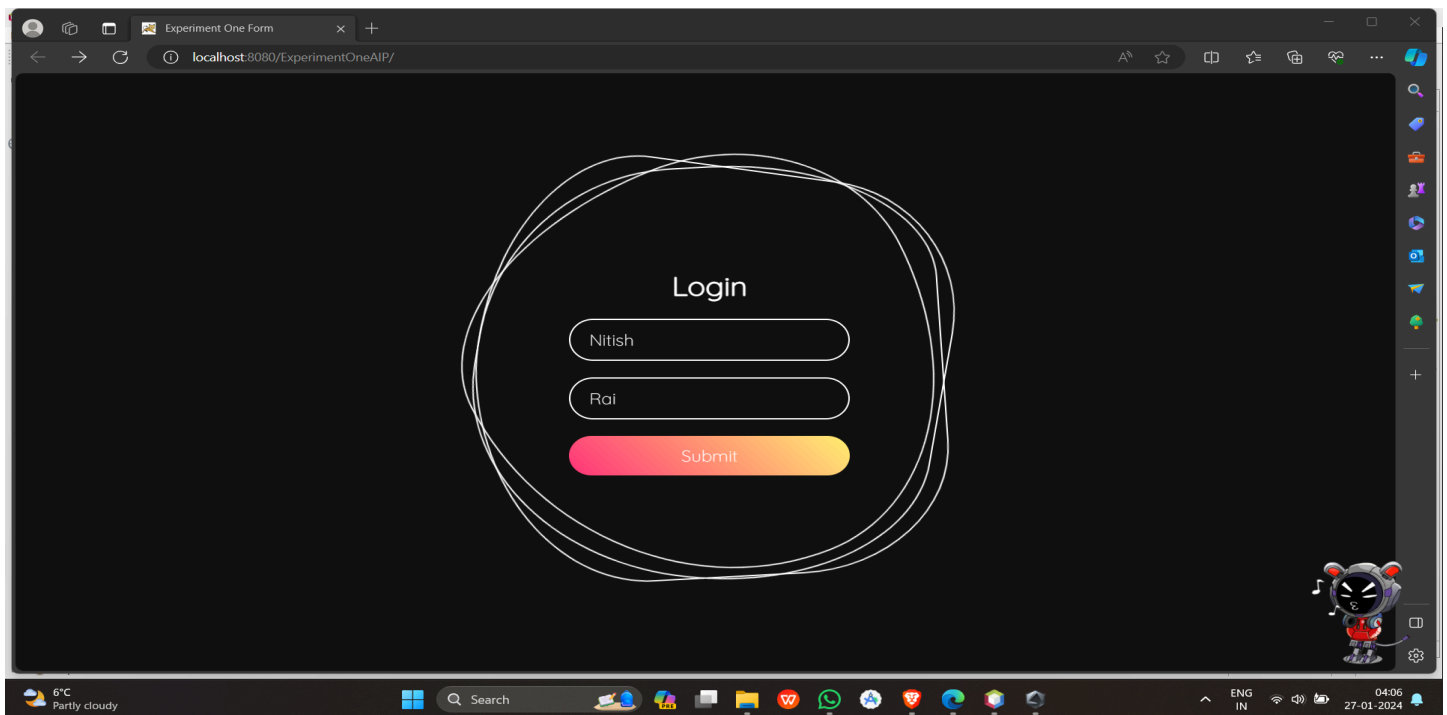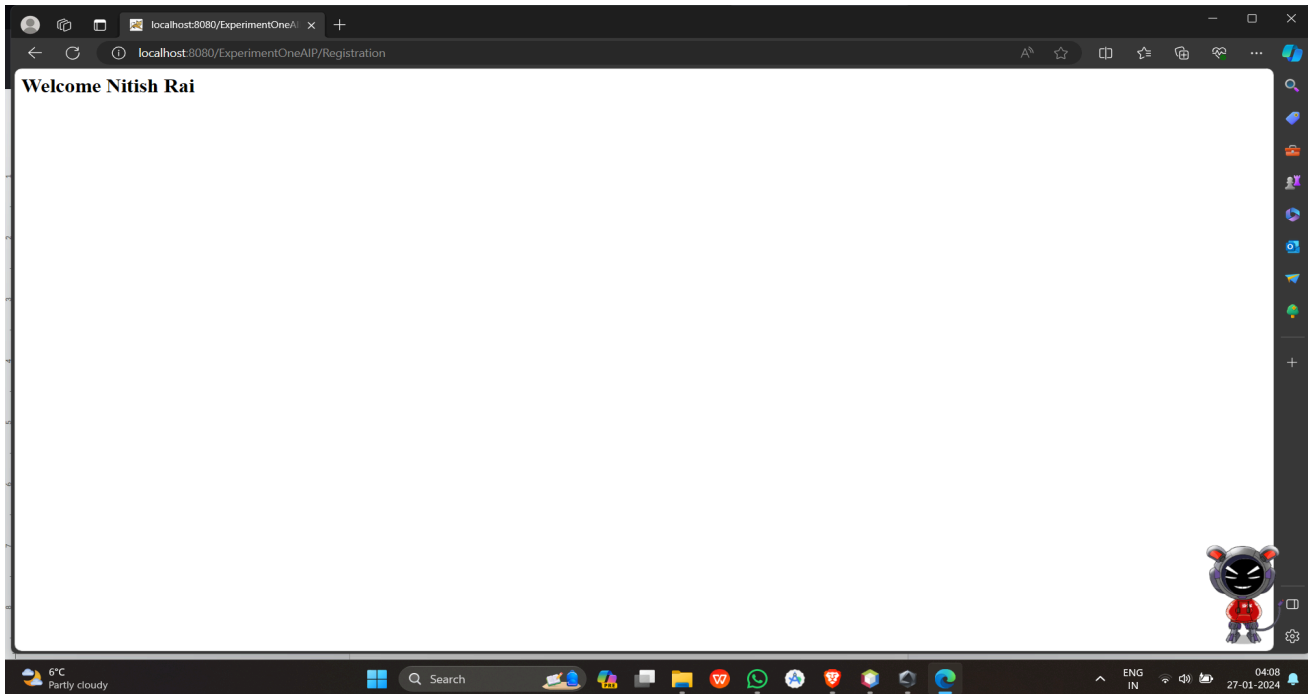
D. Output:

E. Learning outcomes:

- Understand how to do the setup of NetBeans and TomCat.

- Understand how to create an HTML page in NetBeans.

- Understand how to create a new package and class of Java.

- Understand concepts of GET and POST methods.

- Understand how to import libraries directly.