

Here's another example for students to implement, focusing on **Session Tracking Using URL Rewriting** in NetBeans.

Implementing Session Tracking Using URL Rewriting in NetBeans

Step-by-Step Example

1. Create a New Servlet Project:

- Open NetBeans.
- Go to **File > New Project**, select **Java Web > Web Application**, and click **Next**.
- Name the project URLRewritingExample and select **Apache Tomcat** as the server.

2. Create the First Servlet: This servlet will create a session and store user information using URL rewriting.

- Right-click on **Source Packages** and create a new servlet named StartSessionServlet.

```
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;
import javax.servlet.http.HttpSession;

@WebServlet("/startsession")
public class StartSessionServlet extends HttpServlet {

    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        // Create a new session or retrieve an existing one
        HttpSession session = request.getSession();

        // Set an attribute "username" with a sample value
        session.setAttribute("username", "JaneDoe");

        // Send a response with a link to the next servlet, using URL rewriting
        String url = response.encodeURL("retrieveSession");
        response.setContentType("text/html");
```

```

        response.getWriter().println("Session started. <a href='" + url + "'>Go to Retrieve Session</a>");
    }
}

```

3. **Create the Second Servlet:** This servlet will retrieve and display the session attribute.

- Right-click and create another servlet named RetrieveSessionServlet.

```

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;
import javax.servlet.http.HttpSession;

@WebServlet("/retrieveSession")
public class RetrieveSessionServlet extends HttpServlet {

    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        // Retrieve the session
        HttpSession session = request.getSession(false);
        String username = null;

        // Check if session exists and get the "username" attribute
        if (session != null) {
            username = (String) session.getAttribute("username");
        }

        // Set response content type and display the username
        response.setContentType("text/html");
        if (username != null) {
            response.getWriter().println("Welcome back, " + username + "!");
        } else {
            response.getWriter().println("No active session found.");
        }
    }
}

```

4. **Run the Project:**

- Access the first servlet via <http://localhost:8080/URLRewritingExample/startsession> to create the session and store the user attribute.
- Click the generated link to visit <http://localhost:8080/URLRewritingExample/retrieveSession>, where the second servlet retrieves and displays the session data ("Welcome back, JaneDoe!").