

## EXP 6 Demonstrate Session Tracking using HttpSession

### **AIM:**

To implement a simple login system using **HttpSession** to track user sessions in a Java Servlet.

### **ALGORITHM:**

**Step 1:** Create an HTML **Login Form** to take **username & password** as input.

**Step 2:** Develop a **Servlet** (`LoginServlet.java`) to handle login requests.

**Step 3:** Validate the user credentials and start an **HttpSession**.

**Step 4:** Redirect users to the **DashboardServlet**, where session details are displayed.

**Step 5:** Provide a **LogoutServlet** to end the session.

**Step 6:** Run the server and test session tracking.

### **PROGRAM:**

#### [index.html \(Login Page\)](#)

```
html
CopyEdit
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Login Page</title>
    <link rel="stylesheet" href="styles.css"> </head>
<body>
    <div class="container">
        <h2>Login System with Session Tracking</h2>
        <form action="LoginServlet" method="POST">
            <input type="text" name="username" placeholder="Enter Username" required>
            <input type="password" name="password" placeholder="Enter Password" required>
            <button type="submit">Login</button>
        </form>
    </div>
</body>
</html>
```

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[styles.css](#)

```
css CopyEdit
body {
font-family:
```

```

'Poppins',
sans-serif;
background: linear-gradient(to right, #fbcb2eb, #a6c1ee);
text-align: center; display: flex; justify-content: center; align-items: center; height: 100vh;
margin: 0;
}

.container {
background: #fff;
padding: 20px;
border-radius: 15px;
box-shadow: 0 4px 8px rgba(0, 0, 0, 0.2);
width: 300px;
}
h2 {
color: #5B86E5;
} input { width: 90%; padding: 10px; margin: 10px 0; border: 1px solid #5B86E5; border-radius: 8px; text-align: center; }
button {
background: #36D1DC;
color: white; border: none; padding: 10px 15px; border-radius: 8px; cursor: pointer; transition: 0.3s;
}
button:hover {
background: #1e6e8c;
}

```

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## LoginServlet.java (Login & Session Creation)

```

java CopyEdit
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; import
javax.servlet.http.HttpSession;
@WebServlet("/LoginServlet")
public class LoginServlet extends HttpServlet {
protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
response.setContentType("text/html"); PrintWriter out =
response.getWriter();

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

// Simple validation (In real apps, use a database)
if(username.equals("admin") && password.equals("password")) {

```

```

        HttpSession session = request.getSession();
        session.setAttribute("user", username);
        response.sendRedirect("DashboardServlet"); // Redirect to
Dashboard
    } else {
        out.println("<h3>Invalid Credentials! Try Again.</h3>");
        request.getRequestDispatcher("index.html").include(request, response);
    }
}

```

---

### DashboardServlet.java (Session Tracking & Dashboard)

```

java CopyEdit
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; import
javax.servlet.http.HttpSession;

@WebServlet("/DashboardServlet")
public class DashboardServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out =
        response.getWriter();

        HttpSession session = request.getSession(false); // Get session
without creating a new one
        if (session != null && session.getAttribute("user") != null) {
            String username = (String) session.getAttribute("user");
            out.println("<h2>Welcome, " + username + "</h2>");
            out.println("<a href='LogoutServlet'>Logout</a>");
        } else {
            out.println("<h3>Session expired! Please login again.</h3>");
            request.getRequestDispatcher("index.html").include(request, response);
        }
    }
}

```

---

### LogoutServlet.java (Session Invalidation)

```

java CopyEdit
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;
import
javax.servlet
.http.HttpSession;

```

```

@WebServlet("/LogoutServlet")
public class LogoutServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
        response.setContentType("text/html");           PrintWriter out =
        response.getWriter();

        HttpSession session = request.getSession(false);
        if (session != null) {
            session.invalidate(); // Destroy session
        }
        out.println("<h3>You have been logged out successfully.</h3>");
        request.getRequestDispatcher("index.html").include(request, response);
    }
}

```

### [web.xml \(Servlet Configuration\)](#)

```

xml CopyEdit
<web-app xmlns="http://java.sun.com/xml/ns/javaee" version="3.0">
    <servlet>
        <servlet-name>LoginServlet</servlet-name>          <servlet-
        class>LoginServlet</servlet-class>
    </servlet>
    <servlet-mapping>
        <servlet-name>LoginServlet</servlet-name>          <url-
        pattern>/LoginServlet</url-pattern>
    </servlet-mapping>

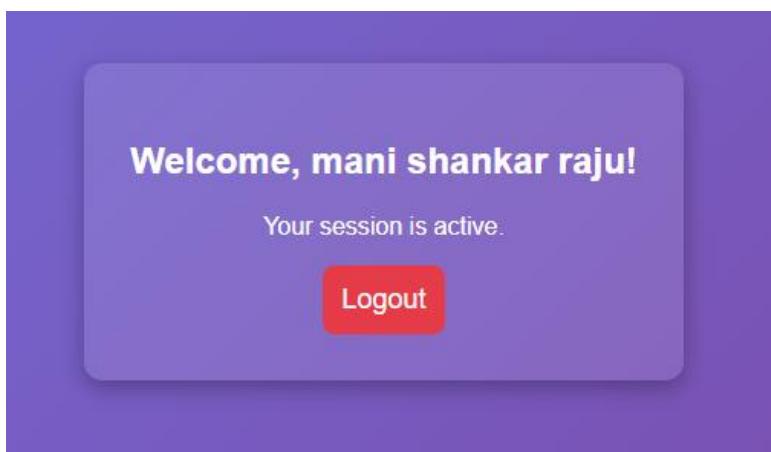
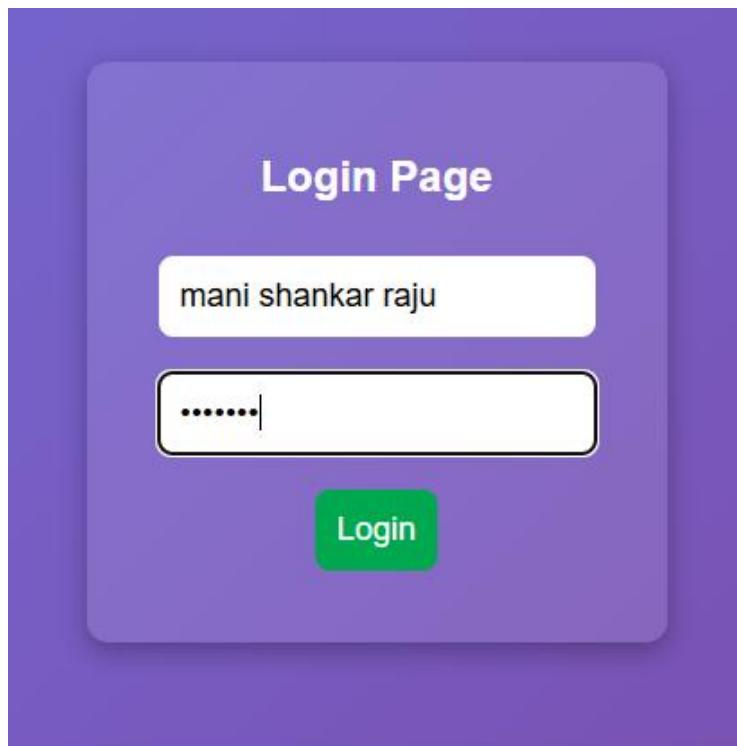
    <servlet>
        <servlet-name>DashboardServlet</servlet-name>
    <servlet-class>DashboardServlet</servlet-class>      </servlet>
    <servlet-mapping>
        <servlet-name>DashboardServlet</servlet-name>
        <url-pattern>/DashboardServlet</url-pattern>
    </servlet-mapping>

    <servlet>
        <servlet-name>LogoutServlet</servlet-name>          <servlet-
        class>LogoutServlet</servlet-class>
    </servlet>
    <servlet-mapping>
        <servlet-name>LogoutServlet</servlet-name>

```

```
<url-pattern>/LogoutServlet</url-pattern>
</servlet-mapping>
</web-app>
```

**OUTPUT:**



**RESULT:** The Session Tracking using HttpSession were executed successfully.