

## 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>
```

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

styles.css

```

'Poppins',
sans-serif;
    background: linear-gradient(to right, #fbc2eb, #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;
}

```

---

## 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
import java.io.PrintWriter; import
import javax.servlet.ServletException; import
import javax.servlet.annotation.WebServlet; import
import javax.servlet.http.HttpServlet; import
import javax.servlet.http.HttpServletRequest; import
import javax.servlet.http.HttpServletResponse; import
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
import java.io.IOExc
eption;
import
import java.io.Print
Writer;
import
import javax.servle
t.ServletException;
import
import javax.servle
t.annotation.W
ebServlet;

```

```

import
javax.servlet
.http.HttpServlet;
import
javax.servlet
.http.HttpServlet
ServletRequest;
import
javax.servlet
.http.HttpServlet
ServletResponse;
import
javax.servlet
.http.HttpServlet
Session;

@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>

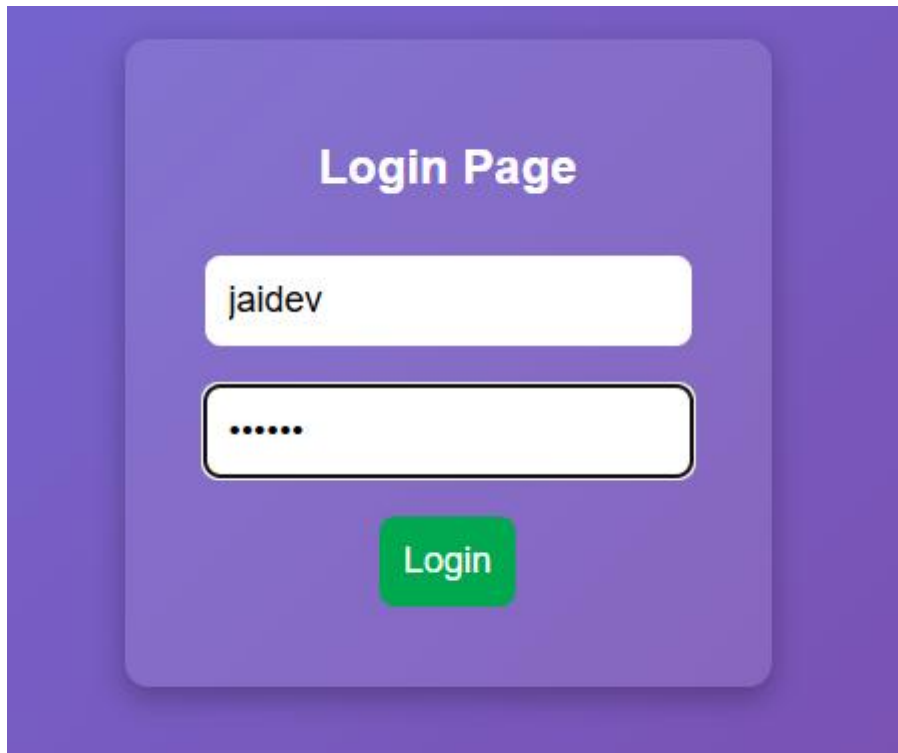
    <servlet>
        <servlet-name>DashboardServlet</servlet-name>
<servlet-class>DashboardServlet</servlet-class>    </servlet>
    <servlet-mapping>
        <servlet-name>DashboardServlet</servlet-name>
        <url-pattern>/DashboardServlet</url-pattern>
    </servlet-mapping>

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

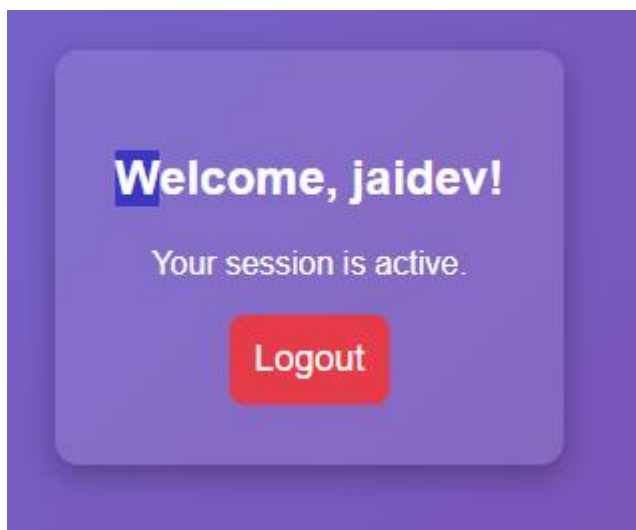
```

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

## OUTPUT:



A screenshot of a login page with a purple background. The page features a white rounded rectangle containing the text "Login Page" in bold. Below this, there are two input fields: the first contains the text "jaidev", and the second contains six dots, indicating a password field. Below the input fields is a green button with the text "Login" in white.



A screenshot of a welcome page with a purple background. The page features a white rounded rectangle containing the text "Welcome, jaidev!" in bold, with the "W" in blue. Below this, the text "Your session is active." is displayed. At the bottom of the rectangle is a red button with the text "Logout" in white.

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