

## 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, #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;
}

```

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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);
    }
}
}

```

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### 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);
        }
    }
}
}

```

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### LogoutServlet.java (Session Invalidation)

```

java CopyEdit
import
java.io.IOExc
eption;
import
java.io.Print
Writer;
import
javax.servlet
.ServletExcep
tion; import
javax.servlet
.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;

@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);
    }
}

```

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## 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>

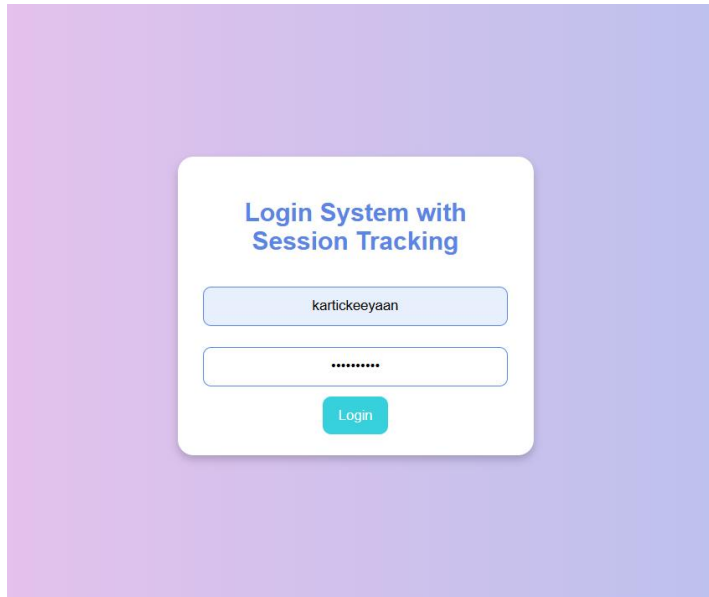
    <servlet>
        <servlet-name>DashboardServlet</servlet-name>
    <servlet-class>DashboardServlet</servlet-class>
    </servlet>
    <servlet-mapping>
        <servlet-name>DashboardServlet</servlet-name>
        <url-pattern>/DashboardServlet</url-pattern>
    </servlet-mapping>

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

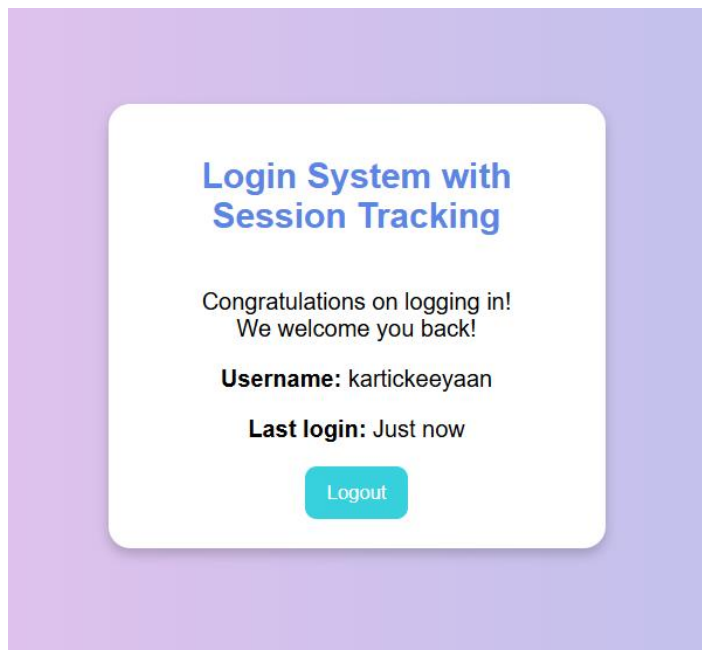
```

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

## OUTPUT:



A login form titled "Login System with Session Tracking" on a purple gradient background. The form is a white rounded rectangle containing a light blue input field with the text "kartickeeyaan", a yellow input field with masked characters "\*\*\*\*\*", and a teal "Login" button.



The same login form after a successful login. The title "Login System with Session Tracking" is at the top. Below it, the text "Congratulations on logging in! We welcome you back!" is displayed. Further down, it shows "Username: kartickeeyaan" and "Last login: Just now". At the bottom is a teal "Logout" button.

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