

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
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<!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>
```

[styles.css](#)

```
css
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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;
    }

```

LoginServlet.java (Login & Session Creation)

```

java
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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
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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
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```

```

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)

```

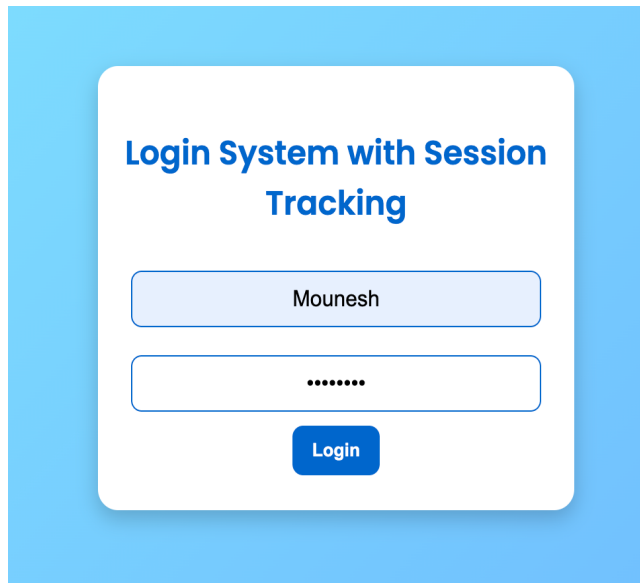
xml
CopyEdit
<web-app xmlns="http://java.sun.com/xml/ns/javaee" version="3.0">
    <servlet>
        <servlet-name>LoginServlet</servlet-name>
        <servlet-class>LoginServlet</servlet-class>
    </servlet>
    <servlet-mapping>
        <servlet-name>LoginServlet</servlet-name>
        <url-pattern>/LoginServlet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



A screenshot of a web application's login interface. The interface is centered on a light blue background. It features a white rounded rectangle containing the title "Login System with Session Tracking" in blue text. Below the title are two input fields: the first is a light blue box containing the text "Mounesh", and the second is a white box containing seven dots, representing a password. Below these fields is a blue button with the text "Login" in white.

RESULT:

The Session Tracking using HttpSession were executed successfully.