**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>

## 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;

}

## 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"](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>

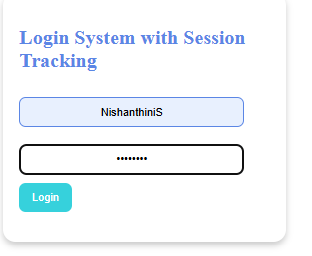
<servlet-name>LogoutServlet</servlet-name>

<url-pattern>/LogoutServlet</url-pattern>

</servlet-mapping>

</web-app>

**OUTPUT:**

****

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