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:**

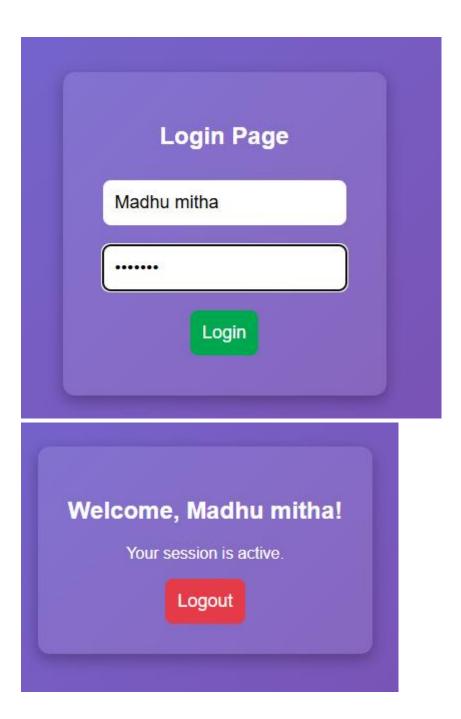
```
index.html (Login Page)
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
                                                                         <title>Login
Page</title>
  <link rel="stylesheet" href="styles.css"> </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>
```

```
body { font-family: 'Poppins',
styles.css
sans-serif;
               background: linear-gradient(to
right, #fbc2eb,
#a6c1ee);
             text-align: center;
                                 display:
       justify-content: center;
                                 align-
flex;
items: center;
                height: 100vh;
                                 margin:
                    background: #fff;
0; \ .container \{
padding: 20px;
                 border-radius: 15px;
box-shadow: 0 4px 8px rgba(0, 0, 0, 0.2);
width: 300px; } h2 {
                          color: #5B86E5;
            width: 90%;
                             padding:
} input {
          margin: 10px 0;
10px;
                               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",
                     response.sendRedirect("DashboardServlet");
username);
   // 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 +
                  out.println("<a href='LogoutServlet'>Logout</a>");
"!</h2>");
                    out.println("<h3>Session expired! Please login again.</h3>");
     } else {
request.getRequestDispatcher("index.html").include(request, response);
     } } }
LogoutServlet.java
                        (Session
                                     Invalidation)
                                                           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();
                                                                                                                                                                                                                                                                                                                 if (session !=
                                                                                                             HttpSession session = request.getSession(false);
null) { session.invalidate();
           // Destroy session } out.println("You have been logged out successfully.");
request.getRequestDispatcher("index.html").include(request, response); } }
web.xml (Servlet Configuration)
<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><url-pattern>/LoginServlet</url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern
         </servlet-mapping>
       <servlet>
                   <servlet-name>DashboardServlet</servlet-name>
                      <servlet-class>DashboardServlet</servlet-class>
           </servlet>
         <servlet-mapping>
                   <servlet-name>DashboardServlet/servlet-name>
                   <url>url-pattern>/DashboardServlet</url-pattern></url-pattern>
         </servlet-mapping>
         <servlet>
                   <servlet-name>LogoutServlet</servlet-name>
                     <servlet-class>LogoutServlet</servlet-class>
         </servlet>
         <servlet-mapping>
                   <servlet-name>LogoutServlet</servlet-name>
                   <url><url-pattern>/LogoutServlet</url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-pattern></url-patter
         </servlet-mapping>
</web-app>
```

# **OUTPUT:**



## **RESULT:**

The Session Tracking using HttpSession executed successfully