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>

styles.css

```css
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

```java
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)
```

```java
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
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
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("**You have been logged out successfully.**");
request.getRequestDispatcher("index.html").include(request, response); } }

---

web.xml (Servlet Configuration)

```xml
<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>
```
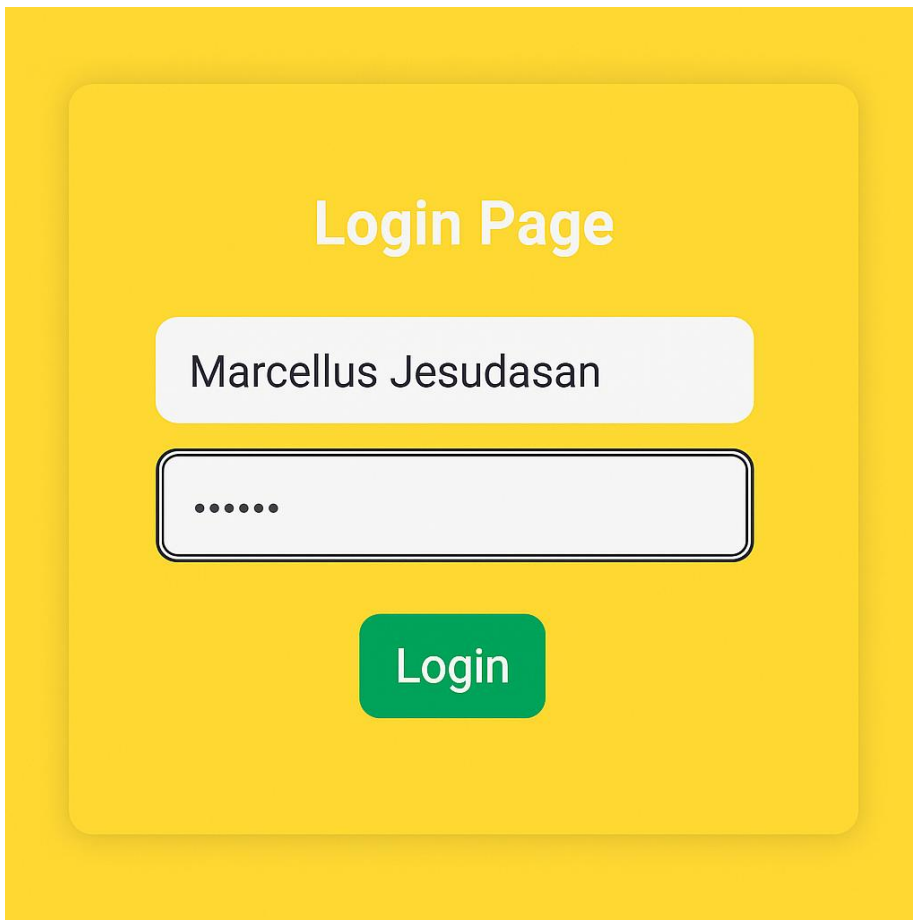
OUTPUT:

Welcome, Marcellus Jesudasan!

Your session is active.

Logout

RESULT:

The Session Tracking using HttpSession executed successfully