

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>
```

```

styles.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  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)

```

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)

```

<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 UI mockup of a login page. It features a light gray background with a darker gray rounded rectangle in the center. Inside this rectangle, the text "Login Page" is centered at the top. Below it are two input fields: the first contains the text "Kanishka", and the second contains six dots, indicating a password field. Below the input fields is a dark gray rounded rectangle with the text "Login" in white.

Login Page

Kanishka

.....

Login

Welcome, Kanishka!

Your session is active.

Logout

RESULT:

The Session Tracking using HttpSession executed successfully