

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

```
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("Logout");

} else { out.println("<h3>Session expired! Please login
 again.</h3>");

request.getRequestDispatcher("index.html").include(request, response);

} } }

LogoutServlet.java (Session Invalidation)

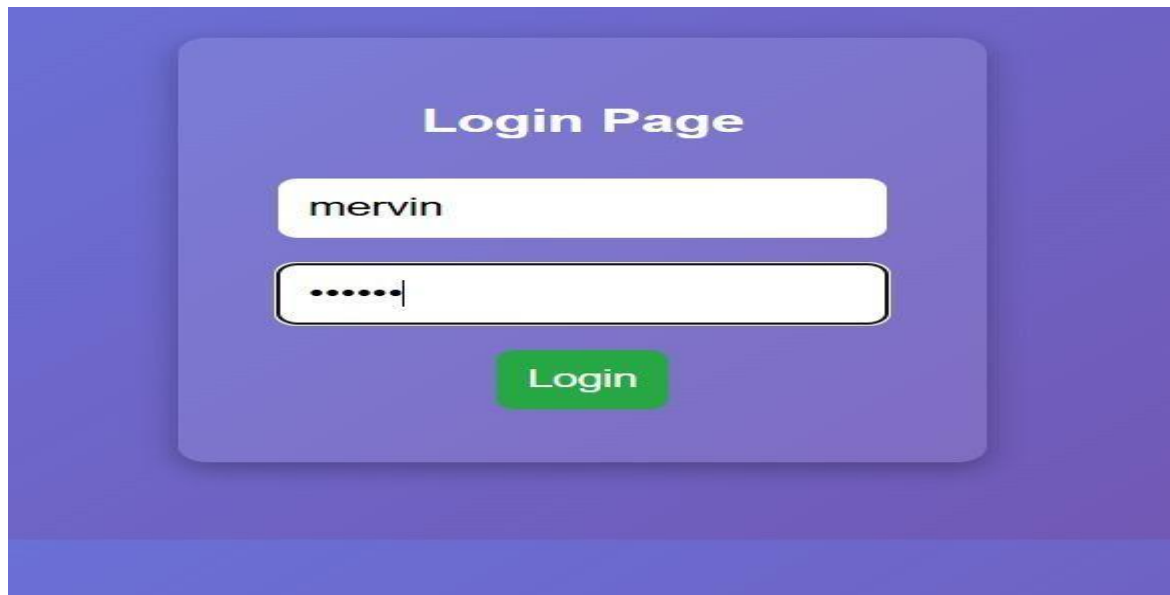
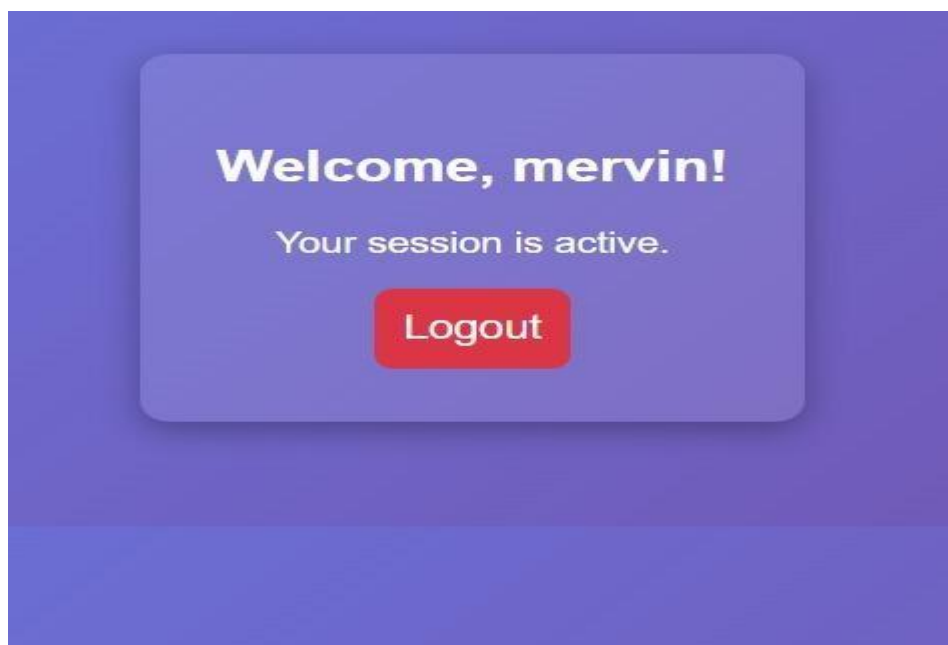
```
import java.io.IOException; import
java.io.PrintWriter; import
javax.servlet.ServletException; import
javax.servlet.annotation.WebServlet; import
javax.servlet.http.HttpServlet; import
javax.servlet.http.HttpServletRequest; import
javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
@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 screenshot of a web application's login page. The page has a solid purple background. In the center, there is a lighter purple rounded rectangle. Inside this rectangle, the text "Login Page" is displayed in white. Below the title, there are two white input fields. The first field contains the text "mervin". The second field contains five dots, indicating a password. Below the input fields, there is a green button with the text "Login" in white.A screenshot of a web application's welcome page. The page has a solid purple background. In the center, there is a lighter purple rounded rectangle. Inside this rectangle, the text "Welcome, mervin!" is displayed in white. Below this, the text "Your session is active." is displayed in a smaller white font. At the bottom of the rectangle, there is a red button with the text "Logout" in white.

RESULT:

The Session Tracking using HttpSession executed successfully