

ASSIGNMENT NO. 7

7. Problem Statement: Simple Servlet Application for Session Management

LoginServlet.java

```
package EXP;

import java.io.*;
import javax.servlet.*;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.*;

@WebServlet("/LoginServlet")

public class LoginServlet extends HttpServlet {

    protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {

        String username = request.getParameter("username");
        String password = request.getParameter("password");
        // Hardcoded credentials
        String validUsername = "admin";
        String validPassword = "password123";

        if (username != null && username.equals(validUsername) &&
            password != null && password.equals(validPassword)) {

            // Create session
            HttpSession session = request.getSession();
            session.setAttribute("username", username);

            // Redirect to welcome page
            response.sendRedirect("WelcomeServlet");
```

```

    } else {
        // Invalid credentials
        request.setAttribute("error", "Invalid username or password.");
        RequestDispatcher rd = request.getRequestDispatcher("login.jsp");
        rd.forward(request, response);
    }
}
}

```

WelcomeServlet.java

```
package EXP;
```

```
import java.io.*;
```

```
import javax.servlet.*;
```

```
import javax.servlet.annotation.WebServlet;
```

```
import javax.servlet.http.*;
```

```
@WebServlet("/WelcomeServlet")
```

```
public class WelcomeServlet extends HttpServlet {
```

```
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
```

```
        throws ServletException, IOException {
```

```
        response.setContentType("text/html;charset=UTF-8");
```

```
        PrintWriter out = response.getWriter();
```

```
        // Retrieve session (false means: don't create a new one if it doesn't exist)
```

```
        HttpSession session = request.getSession(false);
```

```
        if (session == null || session.getAttribute("username") == null) {
```

```
            // Not logged in, redirect to login page
```

```
            response.sendRedirect("login.jsp");
```

```

        return;
    }

    String username = (String) session.getAttribute("username");

    out.println("<!DOCTYPE html>");
    out.println("<html>");
    out.println("<head>");
    out.println("<title>Welcome Page</title>");
    out.println("<style>");
    out.println("body { font-family: Arial, sans-serif; margin: 40px; }");
    out.println(".container { max-width: 600px; margin: 0 auto; padding: 20px; border: 1px solid #ccc; border-radius: 5px; }");
    out.println(".logout { margin-top: 20px; }");
    out.println("</style>");
    out.println("</head>");
    out.println("<body>");
    out.println("<div class='container'>");
    out.println("<h2>Welcome, " + username + "!</h2>");
    out.println("<p>You have successfully logged in.</p>");
    out.println("<div class='logout'>");
    out.println("<a href='LogoutServlet'>Logout</a>");
    out.println("</div>");
    out.println("</div>");
    out.println("</body>");
    out.println("</html>");
}
}

```

LogoutServlet.java

```
package EXP;
```

```

import java.io.*;

import javax.servlet.*;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.*;

@WebServlet("/LogoutServlet")

public class LogoutServlet extends HttpServlet {

    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {

        HttpSession session = request.getSession(false);

        if (session != null) {
            session.invalidate(); // Destroys the session
        }

        // Redirect to login page
        response.sendRedirect("login.jsp");
    }
}

```

Login.jsp

```

<!DOCTYPE html>

<html>

<head>

    <title>Login Page</title>

    <style>

        body {

            font-family: Arial, sans-serif;

            margin: 40px;

```

```
    background-color: #f4f4f4;
}

.login-container {
    max-width: 400px;
    margin: 0 auto;
    padding: 20px;
    background: white;
    border-radius: 5px;
    box-shadow: 0 0 10px rgba(0,0,0,0.1);
}

.form-group {
    margin-bottom: 15px;
}

label {
    display: block;
    margin-bottom: 5px;
}

input[type="text"],
input[type="password"] {
    width: 100%;
    padding: 8px;
    border: 1px solid #ddd;
    border-radius: 4px;
    box-sizing: border-box;
}

input[type="submit"] {
    background-color: #4CAF50;
    color: white;
    padding: 10px 15px;
    border: none;
    border-radius: 4px;
}
```

```

        cursor: pointer;

        width: 100%;
    }

    input[type="submit"]:hover {
        background-color: #45a049;
    }

    .error {
        color: red;
        margin-top: 10px;
        text-align: center;
    }
</style>
</head>
<body>
    <div class="login-container">
        <h2>Login Page</h2>
        <form action="LoginServlet" method="post">
            <div class="form-group">
                <label for="username">Username:</label>
                <input type="text" id="username" name="username" required>
            </div>
            <div class="form-group">
                <label for="password">Password:</label>
                <input type="password" id="password" name="password" required>
            </div>
            <div class="form-group">
                <input type="submit" value="Login">
            </div>
        </form>

        <!-- Display error message if present -->

```

```
<div class="error">

    <%

        String error = (String) request.getAttribute("error");

        if (error != null) {

            out.print(error);

        }

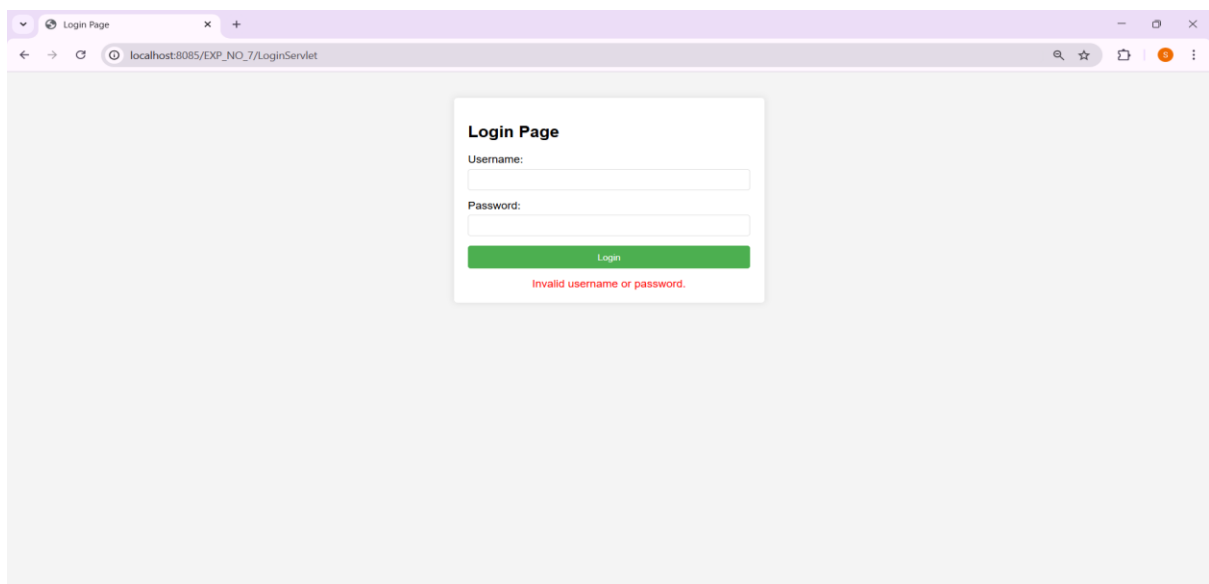
    %>

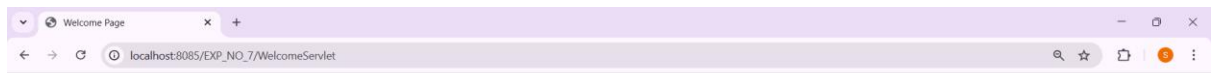
</div>

</div>

</body>

</html>
```





Welcome, admin!

You have successfully logged in.

[Logout](#)