

Login page

```
<!DOCTYPE html>
<html>
<head>
    <title>Login</title>
</head>
<body>
    <h2>Login</h2>
    <form action="LoginServlet" method="post">
        Email: <input type="text" name="email" required><br>
        Password: <input type="password" name="password" required><br>
        <input type="submit" value="Login">
    </form>
</body>
</html>
```

Login Servlet

```
import java.io.IOException;
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;

/**
 * Servlet implementation class LoginServlet
 */
@WebServlet("/LoginServlet")
public class LoginServlet extends HttpServlet {
    private static final long serialVersionUID = 1L;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public LoginServlet() {
        super();
        // TODO Auto-generated constructor stub
    }

    /**
     * @see HttpServlet#doGet(HttpServletRequest request,
    HttpServletResponse response)
     */
    protected void doGet(HttpServletRequest request, HttpServletResponse
    response) throws ServletException, IOException {
        // TODO Auto-generated method stub
        doPost(request, response);
    }
}
```

```

    /**
     * @see HttpServlet#doPost(HttpServletRequest request,
    HttpServletResponse response)
     */
    protected void doPost(HttpServletRequest request, HttpServletResponse
    response) throws ServletException, IOException {
        // Hard-coded values for demonstration purposes
        String validEmail = "user@example.com";
        String validPassword = "password";

        String email = request.getParameter("email");
        String password = request.getParameter("password");

        if (email != null && password != null && email.equals(validEmail) &&
        password.equals(validPassword)) {
            // Successful login, redirect to dashboard
            HttpSession session = request.getSession(true); // Create a new
            session or get the existing one
            session.setAttribute("userEmail", email);
            response.sendRedirect("DashboardServlet");
        } else {
            // Invalid login, show error message
            response.sendRedirect("ErrorPage.html");
        }
    }
}

```

Dashboard Servlet

```

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;

/**
 * Servlet implementation class DashboardServlet
 */
@WebServlet("/DashboardServlet")
public class DashboardServlet extends HttpServlet {
    private static final long serialVersionUID = 1L;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public DashboardServlet() {

```

```

        super();
        // TODO Auto-generated constructor stub
    }

    /**
     * @see HttpServlet#doGet(HttpServletRequest request,
     HttpServletResponse response)
     */
    protected void doGet(HttpServletRequest request, HttpServletResponse
    response) throws ServletException, IOException {
        // Display the dashboard page
        HttpSession session = request.getSession(false); // Get the existing
        session or return null

        if (session != null && session.getAttribute("userEmail") != null) {
            // User is logged in, show the dashboard
            response.setContentType("text/html");

            // Prevent caching by setting HTTP headers
            response.setHeader("Cache-Control", "no-cache, no-store, must-
revalidate");
            response.setHeader("Pragma", "no-cache");
            response.setHeader("Expires", "0");
            String email = (String) session.getAttribute("userEmail");
            response.setContentType("text/html");
            PrintWriter out = response.getWriter();

            out.println("<html><head><title>Dashboard</title></head><body>");
            out.println("<h2>Welcome to the Dashboard "+ email + "</h2>");
            out.println("<a href='LogoutServlet'>Logout</a>");
            out.println("</body></html>");
        } else {
            // User is not logged in, redirect to the login page
            response.sendRedirect("index.html");
        }
    }

    /**
     * @see HttpServlet#doPost(HttpServletRequest request,
     HttpServletResponse response)
     */
    protected void doPost(HttpServletRequest request, HttpServletResponse
    response) throws ServletException, IOException {
        // TODO Auto-generated method stub
        doGet(request, response);
    }
}

```

Logout Servlet

```
import java.io.IOException;

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;


/**
 * Servlet implementation class LogoutServlet
 */
@WebServlet("/LogoutServlet")
public class LogoutServlet extends HttpServlet {

    private static final long serialVersionUID = 1L;


    /**
     * @see HttpServlet#HttpServlet()
     */
    public LogoutServlet() {

        super();

        // TODO Auto-generated constructor stub
    }


    /**
     * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
     */
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {

        // Handle logout action
    }
}
```

```

// You can invalidate the session and redirect to the login page

    HttpSession session = request.getSession(false);

    if (session != null) {

        session.invalidate(); // Invalidate the session

    }

    response.sendRedirect("index.html");

}

/**
 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
 */
protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {

    // TODO Auto-generated method stub

    doGet(request, response);

}

}

```

Error Page

```

<!DOCTYPE html>
<html>
<head>
    <title>Error</title>
</head>
<body>
    <h2>Error</h2>
    <p>Invalid login credentials. Please try again.</p>
    <a href="index.html">Back to Login</a>
</body>
</html>

```

Web.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://xmlns.jcp.org/xml/ns/javaee"
xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee
http://xmlns.jcp.org/xml/ns/javaee/web-app_4_0.xsd" id="WebApp_ID"
version="4.0">
  <display-name>UserInputValidation</display-name>
  <welcome-file-list>
    <welcome-file>index.html</welcome-file>
    <welcome-file>index.jsp</welcome-file>
    <welcome-file>index.htm</welcome-file>
    <welcome-file>default.html</welcome-file>
    <welcome-file>default.jsp</welcome-file>
    <welcome-file>default.htm</welcome-file>
  </welcome-file-list>
  <servlet>
    <servlet-name>LoginServlet</servlet-name>
    <servlet-class>LoginServlet</servlet-class>
  </servlet>
  <servlet>
    <servlet-name>DashboardServlet</servlet-name>
    <servlet-class>DashboardServlet</servlet-class>
  </servlet>
  <servlet>
    <servlet-name>LogoutServlet</servlet-name>
    <servlet-class>LogoutServlet</servlet-class>
  </servlet>

  <servlet-mapping>
    <servlet-name>LoginServlet</servlet-name>
    <url-pattern>/LoginServlet</url-pattern>
  </servlet-mapping>
  <servlet-mapping>
    <servlet-name>DashboardServlet</servlet-name>
    <url-pattern>/DashboardServlet</url-pattern>
  </servlet-mapping>
  <servlet-mapping>
    <servlet-name>LogoutServlet</servlet-name>
    <url-pattern>/LogoutServlet</url-pattern>
  </servlet-mapping>

  <error-page>
    <error-code>404</error-code>
    <location>/ErrorPage.html</location>
  </error-page>
</web-app>
```