**Validation of the User Login.**

DESCRIPTION

Create a servlet-based web application that shows a login page and validates it. The correct values are hard-coded. On successful login, a dashboard page is shown. The dashboard will provide a link for logging out. Incorrect logins need to be handled by showing an error message page.

**Background of the problem statement:**

As a part of developing an e-commerce web application, you have to prototype a login scenario for the user. There is no database involved here, so you have to use fixed values for login email id and password.

**You must use the following:**

* Eclipse as the IDE
* Apache Tomcat as the web server
* HTML pages for the front end
* Servlets for backend processing

**Following requirements should be met:**

* Show a login form in HTML
* Handle invalid logins and show appropriate error messages using servlets
* Show the dashboard page using servlets
* Handle logouts using servlets
* Document the step-by-step process involved in completing this task

Graphical user interface

Description automatically generated

Index.html

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Insert title here</title>

</head>

<body>

<form method=*"post"* action=*"login"*>

Email ID:<input type=*"text"* name=*"email"* /><br/>

Password:<input type=*"text"* name=*"pass"* /><br/>

<input type=*"submit"* value=*"login"* />

</form>

</body>

</html>

Graphical user interface, text, application

Description automatically generated

Login.java

**import** java.io.\*;

**import** javax.servlet.\*;

**import** javax.servlet.annotation.\*;

**import** javax.servlet.http.\*;

**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;

/\*\*

\* Servlet implementation class Login

\*/

@WebServlet("/Login")

**public** **class** Login **extends** HttpServlet {

**private** **static** **final** **long** ***serialVersionUID*** = 1L;

/\*\*

\* Default constructor.

\*/

**public** Login() {

**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

// response.getWriter().append("Served at: ").append(request.getContextPath());

// }

/\*\*

\* **@see** HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

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

// **TODO** Auto-generated method stub

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

PrintWriter out = response.getWriter();

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

String pass = request.getParameter("pass");

**if**(Validate.*checkUser*(email, pass))

{

RequestDispatcher rs = request.getRequestDispatcher("Welcome");

rs.forward(request, response);

}

**else**

{

out.println("Username or Password incorrect");

RequestDispatcher rs = request.getRequestDispatcher("index.html");

rs.include(request, response);

}

}

}

Graphical user interface, text, application

Description automatically generated

Logout.java

import java.io.\*;

import java.io.PrintWriter;

import javax.servlet.http.HttpSession;

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;

/\*\*

\* Servlet implementation class LoginLogout

\*/

@WebServlet("/LoginLogout")

public class Logout extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* Default constructor.

\*/

public Logout() {

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

HttpSession session=request.getSession();

session.invalidate();

PrintWriter out = response.getWriter();

out.println("<html><body>");

out.println("Logged out of session.<br>");

out.println("</body></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);

}

}

Graphical user interface, text, application

Description automatically generated

Validate.java

**import** java.sql.\*;

**public** **class** Validate {

**public** **static** **boolean** checkUser(String email,String pass)

{

**boolean** st =**false**;

**try** {

//loading drivers for mysql

// Class.forName("com.mysql.jdbc.Driver");

//creating connection with the database

// Connection con = DriverManager.getConnection("jdbc:mysql:/ /localhost:3306/test","root","studytonight");

// PreparedStatement ps = con.prepareStatement("select \* from register where email=? and pass=?");

// ps.setString(1, email);

// ps.setString(2, pass);

// ResultSet rs =ps.executeQuery();

// st = rs.next();

**if**(email.equals("xz@qq.com") && pass.equals("1234")) {

st = **true**;

}

}

**catch**(Exception e) {

e.printStackTrace();

}

**return** st;

}

}

Graphical user interface, text, application

Description automatically generated

Welcome.java

**import** java.io.\*;

**import** javax.servlet.\*;

**import** javax.servlet.annotation.\*;

**import** javax.servlet.http.\*;

**import** javax.servlet.ServletException;

**import** javax.servlet.annotation.WebServlet;

/\*\*

\* Servlet implementation class Welcome

\*/

@WebServlet("/Welcome")

**public** **class** Welcome **extends** HttpServlet {

**private** **static** **final** **long** ***serialVersionUID*** = 1L;

/\*\*

\* Default constructor.

\*/

**public** Welcome() {

**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

}

/\*\*

\* **@see** HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

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

// **TODO** Auto-generated method stub

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

PrintWriter out = response.getWriter();

out.println("<html><body>");

out.println("Welcome user<br>");

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

String userId = **null**;

out.println("<a href='logout'>Logout of session</a><br>");

out.println("</body></html>");

}

}

Graphical user interface, application

Description automatically generated

web.xml

<?xml version="1.0" encoding="UTF-8"?>

<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://java.sun.com/xml/ns/javaee" xsi:schemaLocation="http://java.sun.com/xml/ns/javaee http://java.sun.com/xml/ns/javaee/web-app\_3\_0.xsd" id="WebApp\_ID" version="3.0">

<display-name>ValidationOfTheUserLogin</display-name>

<welcome-file-list>

<welcome-file>index.html</welcome-file>

<welcome-file>index.htm</welcome-file>

<welcome-file>index.jsp</welcome-file>

<welcome-file>default.html</welcome-file>

<welcome-file>default.htm</welcome-file>

<welcome-file>default.jsp</welcome-file>

</welcome-file-list>

<servlet>

<servlet-name>login</servlet-name>

<servlet-class>Login</servlet-class>

</servlet>

<servlet>

<servlet-name>Welcome</servlet-name>

<servlet-class>Welcome</servlet-class>

</servlet>

<servlet>

<servlet-name>Logout</servlet-name>

<servlet-class>Logout</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>login</servlet-name>

<url-pattern>/login</url-pattern>

</servlet-mapping>

<servlet-mapping>

<servlet-name>Welcome</servlet-name>

<url-pattern>/Welcome</url-pattern>

</servlet-mapping>

<servlet-mapping>

<servlet-name>Logout</servlet-name>

<url-pattern>/logout</url-pattern>

</servlet-mapping>

</web-app>

Checking for servlet-api.jar

* Before building the project, we need to add **servlet-api.jar** to the project
* Servlet-api.jar file is already present in your practice lab. (Refer FSD: Lab Guide - Phase 2)
* To add it to the project, follow the below mentioned steps:
  + In the Project Explorer, right click on **ValidationOfTheUserLogin** and choose **Properties**
  + Select **Java Build Path** from the options on the left
  + Click on **Libraries** tab on the right
  + Under **ClassPath,** expand the node that says **Apache Tomcat**
  + If there is an existing entry for the **servlet-api.jar,** then click on **Cancel** and exit the window
  + If it is not there, then click on **Classpath** entry and click on the **Add External JARs** button on the right
  + From the file list, select the **servlet-api.jar** file and click on **Ok**
  + Click on **Apply and Close**

Building the project

* From the **Project** menu at the top, click on **Build**
* If any compile errors are shown, fix them as required

Publishing and starting the project

* If you do not see the **Servers** tab near the bottom of the IDE, go to **Window** menu and click on **Show View->Servers**
* Right click on the **Server** entry and choose **Add and Remove**
* Click the **Add** button to move **ValidationOfTheUserLogin** from the **Available** list to the **Configured** list
* Click on **Finish**
* Right click on the **Server** entry and click on **Publish**
* Right click on the **Server** entry and click on **Start**
* This will start the server

Running the project

* To run the project, open a web browser and type:

[**http://localhost:8080/**](http://localhost:8080/) **ValidationOfTheUserLogin**

**Step 1.10.11:** Pushing the code to your GitHub repositories

* Open your command prompt and navigate to the folder where you have created your files.

**cd <folder path>**

* Initialize your repository using the following command:

**git init**

* Add all the files to your git repository using the following command:

**git add .**

* Commit the changes using the following command:

**git commit . -m “Changes have been committed.”**

* Push the files to the folder you initially created using the following command:

**git push -u origin master**

Graphical user interface, text, application, email

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