**R. CONCEICAO RODRIGUES COLLEGE OF ENGINEERIG**

**Department of Computer Engineering**

**Experiment 10- Based on JDBC**

1. **Course Details:**

| **Academic Year** | **2023 - 24** | **Estimated Time** | **Experiment No.10– 02 Hours** |
| --- | --- | --- | --- |
| **Course & Semester** | **S.E. (COMP) – Sem. III** | **Subject Name** | **Skill based lab Course-OOP with Java** |
| **Module No.** | **06** | **Chapter Title** | **GUI programming in Java** |
| **Experiment Type** | **Software Performance** | **Subject Code** | **CSL304** |
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| **Name of Student** | Vivian Vijay Ludrick | **Roll No.** | 9914 |
| --- | --- | --- | --- |
| **Date of**  **Performance:** |  | **Date of Submission:** |  |
| **CO Mapping** | **CSL304.5 Develop real world application using libraries/GUI, Database in Java** | | |

| **Timeline**  **(2)** | **Preparedness**  **(2)** | **Effort**  **(3)** | **Result**  **(3)** | **Total (10)** |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

**Problem statement:**

1. Design a UI that accepts Username and Password from user. The application should check if the user is a valid user by checking the records stored in **database**. Acceptance/Rejection of user should be shown by displaying appropriate message on the dialog box.

CODE:

import java.sql.\*;

import java.awt.\*;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

import javax.swing.\*;

public class LoginWithDB extends JFrame implements ActionListener {

private JLabel lUserName, lPassword;

private JTextField tfUserName;

private JPasswordField pfPassword;

private JButton btnLogin;

public **LoginWithDB**() {

*// username*

lUserName = new **JLabel**("Username:");

**add**(lUserName);

tfUserName = new **JTextField**(20);

**add**(tfUserName);

*// password*

lPassword = new **JLabel**("Password:");

**add**(lPassword);

pfPassword = new **JPasswordField**(20);*// used for obsuring the text*

**add**(pfPassword);

*// login button*

btnLogin = new **JButton**("Login");

btnLogin.**addActionListener**(this);

**add**(btnLogin);

}

public void **actionPerformed**(ActionEvent *e*) {

String username = tfUserName.**getText**();

String password = new **String**(pfPassword.**getPassword**());

try {

Class.**forName**("com.mysql.cj.jdbc.Driver");*// load driver*

Connection c = DriverManager.**getConnection**(

"jdbc:mysql://localhost:3306/userLogin", "root", "");*// eslablish connection*

Statement statement = c.**createStatement**();

ResultSet resultSet = statement.**executeQuery**(

"SELECT \* FROM credentials WHERE username = '" + username

+ "' AND password = '" + password + "'");

if (resultSet.**next**()) {

*// returns true if the current row is valid else false*

JOptionPane.**showMessageDialog**(this, "Login Successful!");

} else {

JOptionPane.**showMessageDialog**(this, "Login Failed! Invalid username or password.");

}

c.**close**();*// close the conenction*

} catch (Exception *ex*) {

*// print the exception if encountered*

JOptionPane.**showMessageDialog**(this, "Error: " + ex.**getMessage**(),

"Error", JOptionPane.ERROR\_MESSAGE);

}

}

public static void **main**(String[] *args*) {

LoginWithDB login = new **LoginWithDB**();

login.**setTitle**("Login Page");

login.**setLayout**(new **FlowLayout**());

login.**setSize**(350, 250);

login.**setDefaultCloseOperation**(JFrame.EXIT\_ON\_CLOSE);

login.**setVisible**(true);

}

}

OUTPUT: