CHANDIGARH UNIVERSITY
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EXPERIMENT NUMBER –3.3

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CLASS AND GROUP – CSE-20IOT1

SEMESTER –3rd

1.TOPIC OF EXPERIMENT –

To write a java program to learn about the concept of swings and learning about database connectivity.

2. AIM OF THE EXPERIMENT -

Write a program to create a student registration form with the help of swings in Java and also do the database connectivity

3. PROGRAM CODE -

```
import java.awt.EventQueue;
import java.awt.Font;
import java.awt.Toolkit;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.Statement;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JPasswordField;
import javax.swing.JTextField;
import javax.swing.border.EmptyBorder;
public class StudentRegistration extends JFrame
{
private static final long serialVersionUID = 1L;
private JPanel contentPane; private JTextField firstname;
private JTextField lastname; private JTextField email;
private JTextField username;
private JTextField mob;
```

```
private JPasswordField passwordField;
private JButton btnNewButton;
public static void main(String[] args) {
EventQueue.invokeLater(new Runnable() {
public void run() {
try {
StudentRegistration frame = new StudentRegistration();
frame.setVisible(true); }
catch (Exception e) {
e.printStackTrace();
} } }); }
public StudentRegistration() {
setIconImage(Toolkit.getDefaultToolkit().getImage("C:\\ Users\\User\\Desktop\\CU USER.png"));
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setBounds(450, 190, 1014, 597); setResizable(false); contentPane = new JPanel();
contentPane.setBorder(new EmptyBorder(5, 5, 5, 5)); setContentPane(contentPane);
contentPane.setLayout(null); JLabel lblNewUserRegister = new JLabel("CU Student Registration");
lblNewUserRegister.setFont(new Font("Impact Regular", Font.PLAIN, 42));
lblNewUserRegister.setBounds(300, 52, 650, 50); contentPane.add(lblNewUserRegister);
JLabel lblName = new JLabel("First Name"); lblName.setFont(new Font("Arial", Font.PLAIN, 20));
lblName.setBounds(58, 152, 99, 43); contentPane.add(lblName);
JLabel lblNewLabel = new JLabel("Last Name");
lblNewLabel.setFont(new Font("Arial", Font.PLAIN, 20));
 lblNewLabel.setBounds(58, 243, 110, 29); contentPane.add(lblNewLabel);
JLabel lblEmailAddress = new JLabel("Email\r\n Address");
lblEmailAddress.setFont(new Font("Arial", Font.PLAIN, 20));
lblEmailAddress.setBounds(58, 324, 150, 36);
contentPane.add(lblEmailAddress); firstname = new JTextField();
firstname.setFont(new Font("Arial", Font.PLAIN, 32)); firstname.setBounds(214, 151, 228, 50);
contentPane.add(firstname); firstname.setColumns(10); lastname = new JTextField();
lastname.setFont(new Font("Arial", Font.PLAIN, 32)); lastname.setBounds(214, 235, 228, 50);
contentPane.add(lastname); lastname.setColumns(10); email = new JTextField();
email.setFont(new Font("Arial", Font.PLAIN, 32));
email.setBounds(214, 320, 228, 50); contentPane.add(email); email.setColumns(10);
username = new JTextField(); username.setFont(new Font("Tahoma", Font.PLAIN, 32));
username.setBounds(707, 151, 228, 50); contentPane.add(username);
username.setColumns(10); JLabel lblUsername = new JLabel("Enter UID");
lblUsername.setFont(new Font("Arial", Font.PLAIN, 20));
lblUsername.setBounds(542, 159, 99, 29); contentPane.add(lblUsername);
JLabel lblPassword = new JLabel("Password");
lblPassword.setFont(new Font("Arial", Font.PLAIN, 20)); lblPassword.setBounds(542, 245, 99, 24);
contentPane.add(lblPassword); JLabel lblMobileNumber = new JLabel("Mobile Number");
lblMobileNumber.setFont(new Font("Arial", Font.PLAIN, 20));
lblMobileNumber.setBounds(542, 329, 139, 26);
contentPane.add(lblMobileNumber); mob = new JTextField();
```

```
mob.setFont(new Font("Arial", Font.PLAIN, 32)); mob.setBounds(707, 320, 228, 50);
contentPane.add(mob); mob.setColumns(10); passwordField = new JPasswordField();
passwordField.setFont(new Font("Arial", Font.PLAIN, 32)); passwordField.setBounds(707, 235, 228, 50);
contentPane.add(passwordField); btnNewButton = new JButton("Register Me");
btnNewButton.addActionListener(new ActionListener() {
public void actionPerformed(ActionEvent e) {
String firstName = firstname.getText(); String lastName = lastname.getText();
String emailId = email.getText(); String userName = username.getText();
String mobileNumber = mob.getText(); int len = mobileNumber.length();
String password = passwordField.getText();
String msg = "" + firstName; msg += " \n";
if (len != 10) { JOptionPane.showMessageDiaalog(btnNewButton, "KINDLY ENTER VALID MOBILE NO.");
}
try {
Connection connection = DriverManager.getConnection("jdbc:mysql://localhost:3306/swing_demo", "root",
"USER2002");
String query = "INSERT INTO account values('" + firstName + "','" + lastName + "','" + userName + "','" +
password + "','" + emailId + "','" + mobileNumber + "')";
Statement sta = connection.createStatement();
int x = sta.executeUpdate(query);
if (x == 0) { JOptionPane.showMessageDialog(btnNewButton, "DATA ALREADY EXISTS!"); }
else { JOptionPane.showMessageDialog(btnNewButton, "Welcome to CU, " + msg + "Thanks for registering");
} connection.close(); }
catch (Exception exception) {
exception.printStackTrace(); } } });
btnNewButton.setFont(new Font("Arial", Font.PLAIN, 22));
btnNewButton.setBounds(399, 447, 259, 74);
contentPane.add(btnNewButton); } }
```

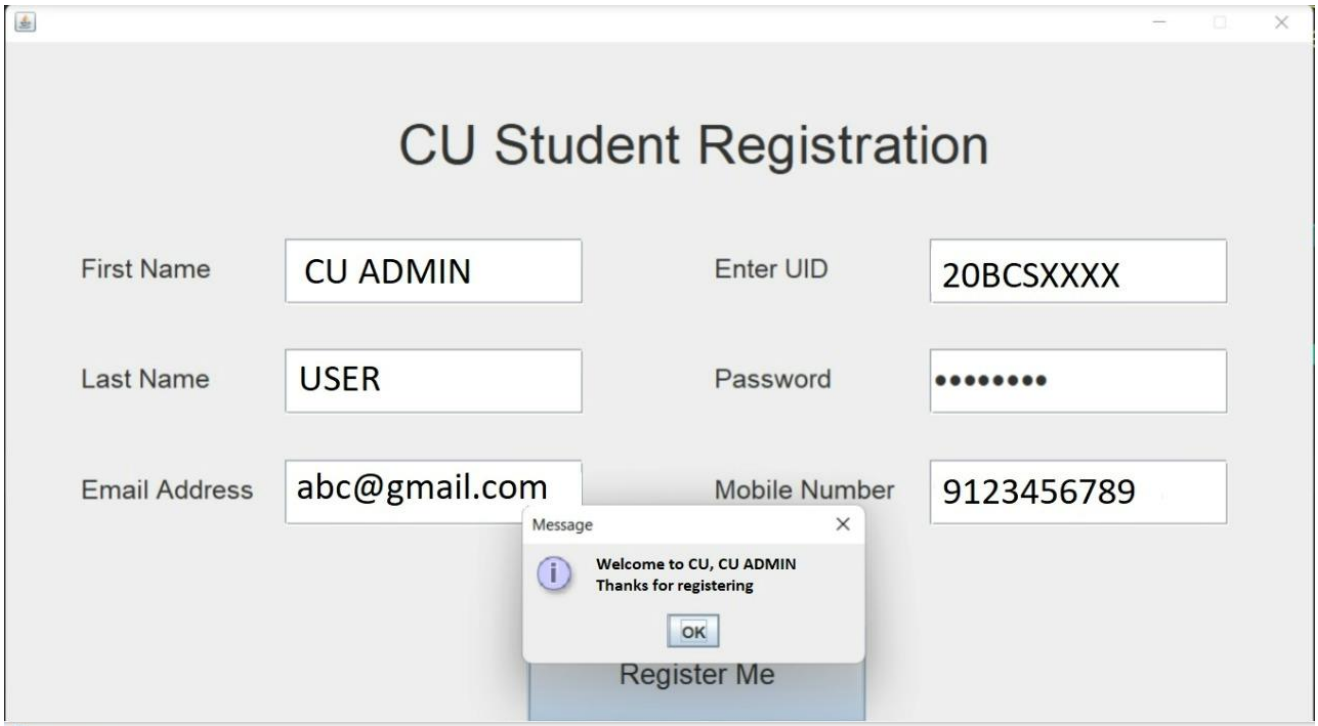
4. ERRORS ENCOUNTERED DURING PROGRAM'S EXECUTION (Kindly jot down the compile time errors encountered) -

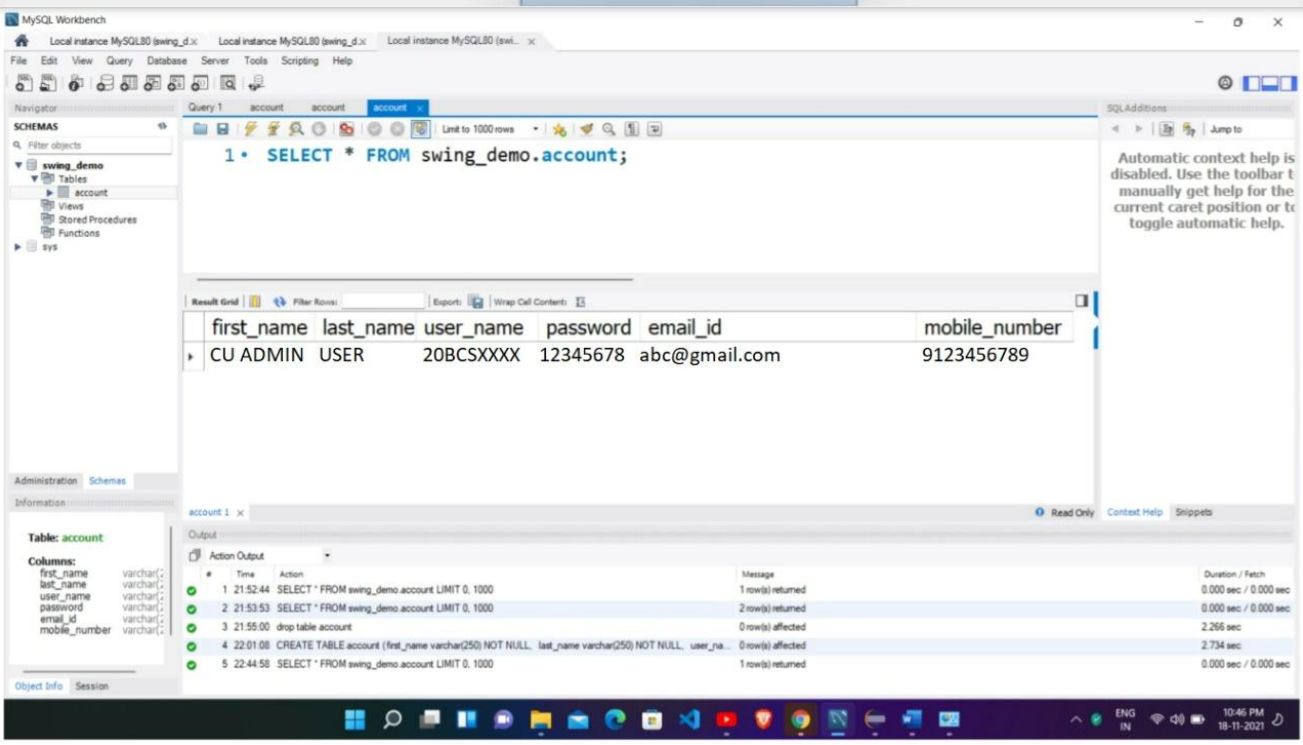
Semi-colon missing in few statements.
Double quotes not closed
Comma not used.

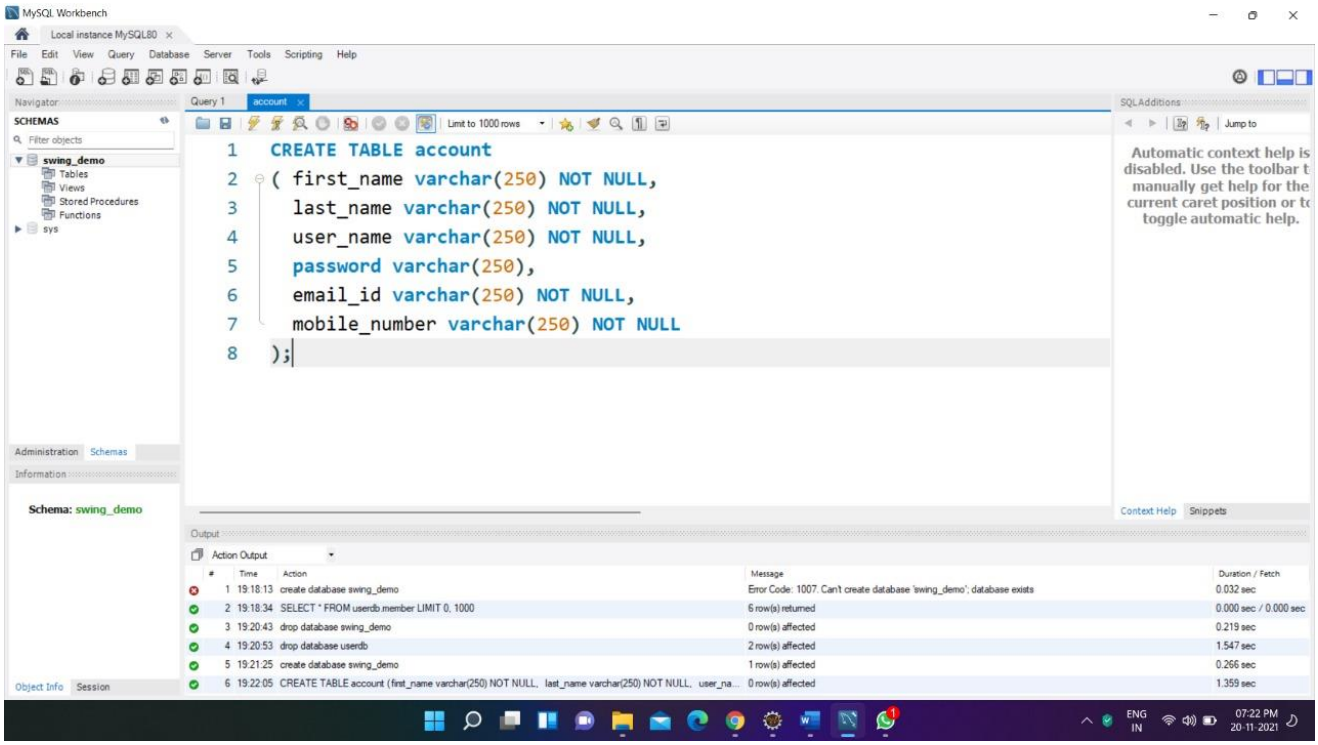
5. PROGRAMS' EXPLANATION (in brief) -

In this program I made the use of J-Frame to edit the context menu such as for designing the registration box and also learned about the use of swing in building the java web applications.
After the successful execution of the Java Program, I got to learn about building java web application, connecting the data to a database server (such as My SQL used by me for this particular exp), use of swing etc.

6. OUTPUT-


CU Student Registration
First Name
CU ADMIN
Enter UID
20BCSXXXX
Last Name
USER
Password
Email Address
abc@gmail.com
Mobile Number
9123456789
Message
Welcome to CU, CU ADMIN
Thanks for registering
OK
Register Me


MySQL Workbench
SELECT * FROM swing_demo.account;
first_name last_name user_name password email_id mobile_number
CU ADMIN USER 20BCSXXXX 12345678 abc@gmail.com 9123456789



7. LEARNING OUTCOMES-

1. I learned about writing a java program based on the concept of swings and learned about connecting the data to a database server.

2. I got to learn about building java web application, connecting the data to a database server.

3. Syntax and use of respective functions used in this experiment.

EVALUATION COLUMN (To be filled by concerned faculty only)

Sr. No.	Parameters	Maximum Marks	Marks Obtained
1.	Worksheet Completion including writing learning objective/ Outcome	10	
2.	Post Lab Quiz Result	5	
3.	Student engagement in Simulation/ Performance/ Pre Lab Questions	5	
4.	Total Marks	20	