CAT D: JDBC

D1- Create a User Registration Form using Swing, JDBC & MySQL.

Code:

```java
import java.awt.EventQueue;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import javax.swing.JLabel;

import javax.swing.JOptionPane;

import javax.swing.JTextField;

import javax.swing.JTextArea;

import javax.swing.JPasswordField;

import javax.swing.JButton;

import java.awt.event.ActionListener;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.awt.event.ActionEvent;


public class Registration extends JFrame {


        private JPanel contentPane;

        private JTextField textField;

        private JTextField textField_1;

        private JTextField textField_2;

        private JTextField textField_3;
```

```java
private JPasswordField passwordField;


/**
 * Launch the application.
 */
public static void main(String[] args) {
	EventQueue.invokeLater(new Runnable() {
		public void run() {
			try {
				Registration frame = new Registration();
				frame.setVisible(true);
			} catch (Exception e) {
				e.printStackTrace();
			}
		}
	});
}


/**
 * Create the frame.
 */
public Registration() {
	setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
	setBounds(100, 100, 651, 384);
	contentPane = new JPanel();
	contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
	setContentPane(contentPane);
```

```java
contentPane.setLayout(null);

JLabel lblNewLabel = new JLabel("User Registration");
lblNewLabel.setBounds(268, 11, 117, 14);
contentPane.add(lblNewLabel);

JLabel lblNewLabel_1 = new JLabel("Name:");
lblNewLabel_1.setBounds(63, 53, 46, 14);
contentPane.add(lblNewLabel_1);

JLabel lblNewLabel_1_1 = new JLabel("Address:");
lblNewLabel_1_1.setBounds(63, 86, 61, 14);
contentPane.add(lblNewLabel_1_1);

JLabel lblNewLabel_1_3 = new JLabel("Age:");
lblNewLabel_1_3.setBounds(63, 158, 46, 14);
contentPane.add(lblNewLabel_1_3);

JLabel lblNewLabel_1_4 = new JLabel("Mobile No:");
lblNewLabel_1_4.setBounds(63, 183, 61, 14);
contentPane.add(lblNewLabel_1_4);

JLabel lblNewLabel_1_5 = new JLabel("User Name:");
lblNewLabel_1_5.setBounds(63, 217, 74, 14);
contentPane.add(lblNewLabel_1_5);

JLabel lblNewLabel_1_6 = new JLabel("Password:");
```

```java
lblNewLabel_1_6.setBounds(63, 245, 61, 14);

contentPane.add(lblNewLabel_1_6);


textField = new JTextField();

textField.setBounds(166, 50, 139, 20);

contentPane.add(textField);

textField.setColumns(10);


JTextArea textArea = new JTextArea();

textArea.setBounds(166, 81, 139, 63);

contentPane.add(textArea);


textField_1 = new JTextField();

textField_1.setBounds(166, 155, 139, 20);

contentPane.add(textField_1);

textField_1.setColumns(10);


textField_2 = new JTextField();

textField_2.setBounds(166, 183, 139, 20);

contentPane.add(textField_2);

textField_2.setColumns(10);


textField_3 = new JTextField();

textField_3.setBounds(166, 214, 139, 20);

contentPane.add(textField_3);

textField_3.setColumns(10);
```

```java
passwordField = new JPasswordField();

passwordField.setBounds(166, 241, 139, 23);

contentPane.add(passwordField);


JButton btnNewButton = new JButton("Submit");

btnNewButton.addActionListener(new ActionListener() {

    @SuppressWarnings("deprecation")

    public void actionPerformed(ActionEvent e) {

        try

        {

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

            Connection con = DriverManager.getConnection("com.mysql.cj.jdbc.Driver:mysql://localhost:3306/Registration", "root","1234");

            String query = "insert into users value(?,?,?,?,?)";

            PreparedStatement ps = con.prepareStatement(query);

            ps.setString(1, textField.getText());

            ps.setString(2, textField_1.getText());

            ps.setString(3, textField_2.getText());

            ps.setString(4, textField_3.getText());

            ps.setString(5, passwordField.getText());

            ps.executeUpdate(); //Important

            JOptionPane.showMessageDialog(btnNewButton, "Registration Done..");

        }

        catch(Exception ex)

        {

            System.out.println(ex);
```

```
                    }

                }

            });

            btnNewButton.setBounds(88, 284, 89, 23);

            contentPane.add(btnNewButton);


            JButton btnNewButton_1 = new JButton("Reset");

            btnNewButton_1.addActionListener(new ActionListener() {

                public void actionPerformed(ActionEvent e) {

                    textField.setText("");

                    textField_1.setText("");

                    textField_2.setText("");

                    textField_3.setText("");

                    passwordField.setText("");

                }

            });

            btnNewButton_1.setBounds(216, 284, 89, 23);

            contentPane.add(btnNewButton_1);

        }

}
```

Output:

D2- Create Login Form using Swing, JDBC & MySQL.

Code:

```
JButton l1 = new JButton("LOGIN");

        l1.addActionListener(new ActionListener() {

                public void actionPerformed(ActionEvent a) {

                        Connection con;


                        PreparedStatement ps;

                        ResultSet rs;

                                try

                                {

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

con=DriverManager.getConnection("jdbc:mysql://localhost:3306/singh","root","pass123");

                                                System.out.println("ConnectionCreated");

                                                ps=con.prepareStatement("select  USERNAME
```

```java
                                      from login where USERNAME=? and PASSWORD=?");
                                                ps.setString(1,t1.getText());
                                                ps.setString(2,t2.getText());
                                                rs=ps.executeQuery();


                                                if(rs.next())
                                                        JOptionPane.showMessageDialog(l1,
"Login Sucessful...");

                                                else

        JOptionPane.showMessageDialog(l1,"Login failed...");

                                                ps.close();
                                                con.close();
                                }
                                catch(Exception e)
                                {
                                        System.out.println(e);



                                }
                        }
                });


                JButton r1 = new JButton("RESET ");
                r1.addActionListener(new ActionListener() {
                        public void actionPerformed(ActionEvent e) {
                                t1.setText("");
                                t2.setText("");
```

```
        }

    });
```