**Practical No:-Cat B.3**

**Aim –**Write a JDBC program that will user to navigate & update records to Emp table.

Code:-

package p1;

import java.awt.BorderLayout;

import java.awt.EventQueue;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import javax.swing.plaf.basic.BasicInternalFrameTitlePane.IconifyAction;

import javax.swing.JLabel;

import javax.swing.JOptionPane;

import javax.swing.JTextField;

import javax.swing.JButton;

import java.awt.event.ActionListener;

import java.io.BufferedReader;

import java.io.InputStreamReader;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Statement;

import java.awt.event.ActionEvent;

public class cat3 extends JFrame {

private JPanel contentPane;

private JTextField txtemp;

private JTextField txtname;

private JTextField txtsalary;

private JTextField txtloc;

PreparedStatement ps;

String query;

ResultSet rs;

Statement st;

Connection con;

/\*\*

\* Launch the application.

\*/

public static void main(String[] args) {

EventQueue.invokeLater(new Runnable() {

public void run() {

try {

cat3 frame = new cat3();

frame.setVisible(true);

} catch (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

public cat3() {

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

setBounds(100, 100, 450, 300);

contentPane = new JPanel();

contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

contentPane.setLayout(null);

JLabel lblNewLabel = new JLabel("Emp no");

lblNewLabel.setBounds(40, 25, 45, 13);

contentPane.add(lblNewLabel);

JLabel lblNewLabel\_1 = new JLabel("Name");

lblNewLabel\_1.setBounds(40, 71, 45, 13);

contentPane.add(lblNewLabel\_1);

JLabel lblNewLabel\_2 = new JLabel("Salary");

lblNewLabel\_2.setBounds(40, 120, 45, 13);

contentPane.add(lblNewLabel\_2);

JLabel lblNewLabel\_3 = new JLabel("Location");

lblNewLabel\_3.setBounds(40, 196, 45, 13);

contentPane.add(lblNewLabel\_3);

txtemp = new JTextField();

txtemp.setBounds(113, 22, 96, 19);

contentPane.add(txtemp);

txtemp.setColumns(10);

txtname = new JTextField();

txtname.setBounds(113, 68, 96, 19);

contentPane.add(txtname);

txtname.setColumns(10);

txtsalary = new JTextField();

txtsalary.setBounds(113, 117, 96, 19);

contentPane.add(txtsalary);

txtsalary.setColumns(10);

txtloc = new JTextField();

txtloc.setBounds(113, 193, 96, 19);

contentPane.add(txtloc);

txtloc.setColumns(10);

try {

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

con = DriverManager.getConnection("jdbc:mysql://localhost/news","root","12345678");

System.out.println("Connection created");

st = con.createStatement(ResultSet.TYPE\_SCROLL\_INSENSITIVE,ResultSet.CONCUR\_UPDATABLE);

rs=st.executeQuery("select \* from emp");

//st.execute(query);

//rs.next

//show(rs);

}

catch(Exception e) {

System.out.println(e);

}

JButton btnfirst = new JButton("First");

btnfirst.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

try {

rs.first();

show(rs);

}

catch (Exception e2)

{

System.out.println(e2);

}

}

});

btnfirst.setBounds(264, 21, 85, 21);

contentPane.add(btnfirst);

JButton btnnext = new JButton("Next");

btnnext.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

try

{

if(rs.next()==true)

show(rs);

else

{

JOptionPane.showMessageDialog(btnnext,"U are at Last");

rs.first();

show(rs);

}

}

catch(Exception e1 )

{

System.out.println(e1);

}

}

});

btnnext.setBounds(264, 67, 85, 21);

contentPane.add(btnnext);

JButton btnprevious = new JButton("Previous");

btnprevious.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

try

{

if(rs.previous())

show(rs);

else

{

JOptionPane.showMessageDialog(btnprevious,"U are at First record");

rs.last();

show(rs);

}

}

catch(SQLException ex )

{

System.out.println(ex);

}

}

});

btnprevious.setBounds(264, 116, 85, 21);

contentPane.add(btnprevious);

JButton btnlast = new JButton("Last");

btnlast.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

try {

rs.last();

show(rs);

}

catch(Exception e3) {

System.out.println(e3);

}

}

});

btnlast.setBounds(264, 192, 85, 21);

contentPane.add(btnlast);

JButton btnupdate = new JButton("Update");

btnupdate.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

int num = Integer.parseInt(txtemp.getText());

String n = txtname.getText();

int s = Integer.parseInt(txtsalary.getText());

String l = txtloc.getText();

try {

ps = con.prepareStatement("insert into emp values(?,?,?,?)");

BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

ps.setInt(1, num);

ps.setString(2, n);

ps.setInt(3, s);

ps.setString(4, l);

int i = ps.executeUpdate();

JOptionPane.showMessageDialog(btnupdate , i+"Record Updated ");

query = "select \* from emp";

rs = st.executeQuery(query);

String sql = "select \* from emp";

rs = st.executeQuery(sql);

while(rs.next()) {

System.out.print(rs.getInt(1)+" ");

System.out.print(rs.getString(2)+" ");

System.out.print(rs.getInt(3)+" ");

System.out.println(rs.getString(4));

}

//con.close();

//rs.last();

//show(rs);

}

catch(Exception e1) {

System.out.println(e1);

}

}

});

btnupdate.setBounds(67, 232, 85, 21);

contentPane.add(btnupdate);

JButton btnreset = new JButton("Reset");

btnreset.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

txtemp.setText("");

txtname.setText("");

txtsalary.setText("");

txtloc.setText("");

}

});

btnreset.setBounds(236, 232, 85, 21);

contentPane.add(btnreset);

}

public void show(ResultSet rs){

try

{

txtemp.setText(rs.getString(1));

txtname.setText(rs.getString(2));

txtsalary.setText(rs.getString(3));

txtloc.setText(rs.getString(4));

}

catch(Exception e)

{

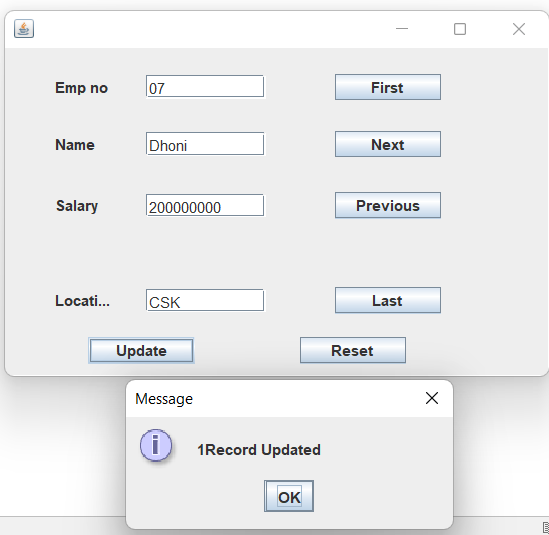
System.out.println("");

}

}

}

**Output:-**

****