Instructions:

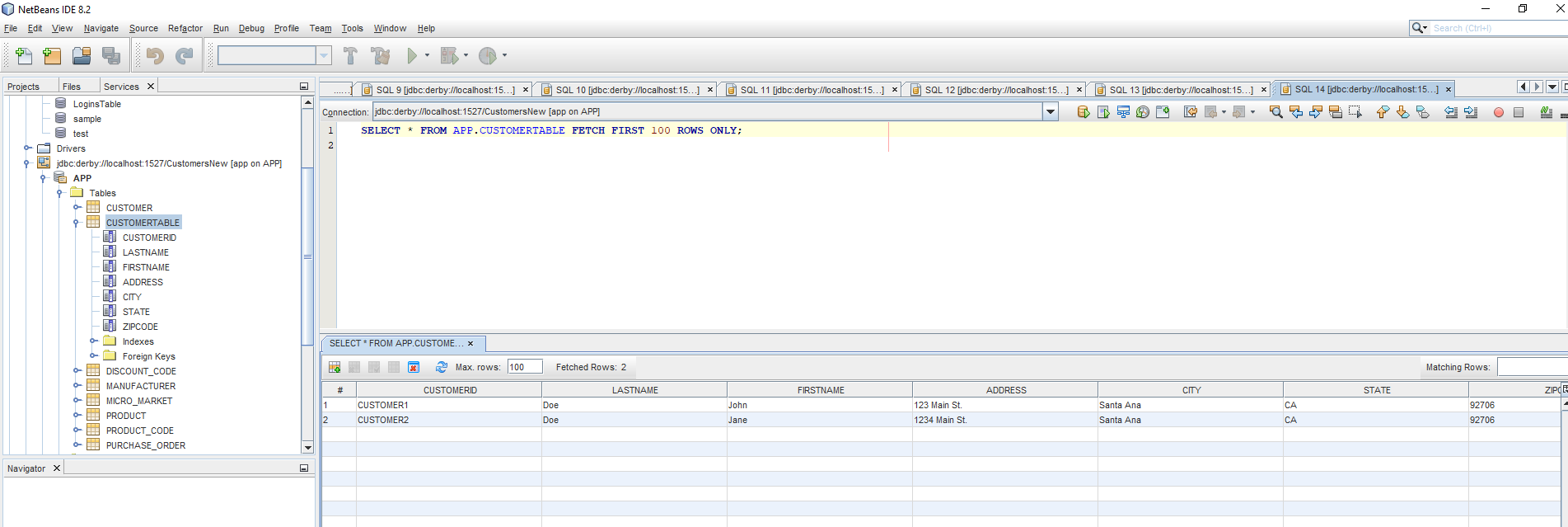
* No talking during the exam
* Instructor cannot assist in the exam
* The exam is open book
* If you complete the exam early, you may be dismissed

**Good luck! There are six print screens and one code copy each is worth 14.2%**

**Project: based on database and JFrames**

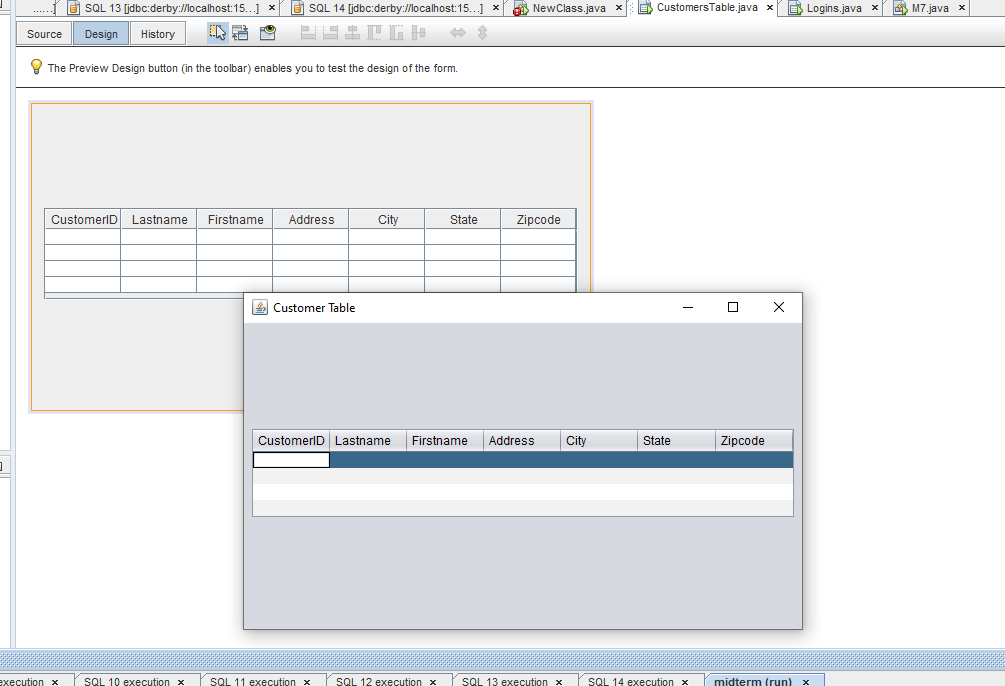
1. Create a new database and name or label the database as **Customers**
2. Create a table and label it as CustomerTable with the following columns:
   1. CustomerID the datatype should be text
   2. Lastname the datatype should be text
   3. Firstname the datatype should be text
   4. Address the datatype should be text
   5. City the datatype should be text
   6. State the datatype should be text
   7. Zipcode the datatype should be text
3. Populate the table with any two rows

**#1 after entering the data print screen the two rows below here**



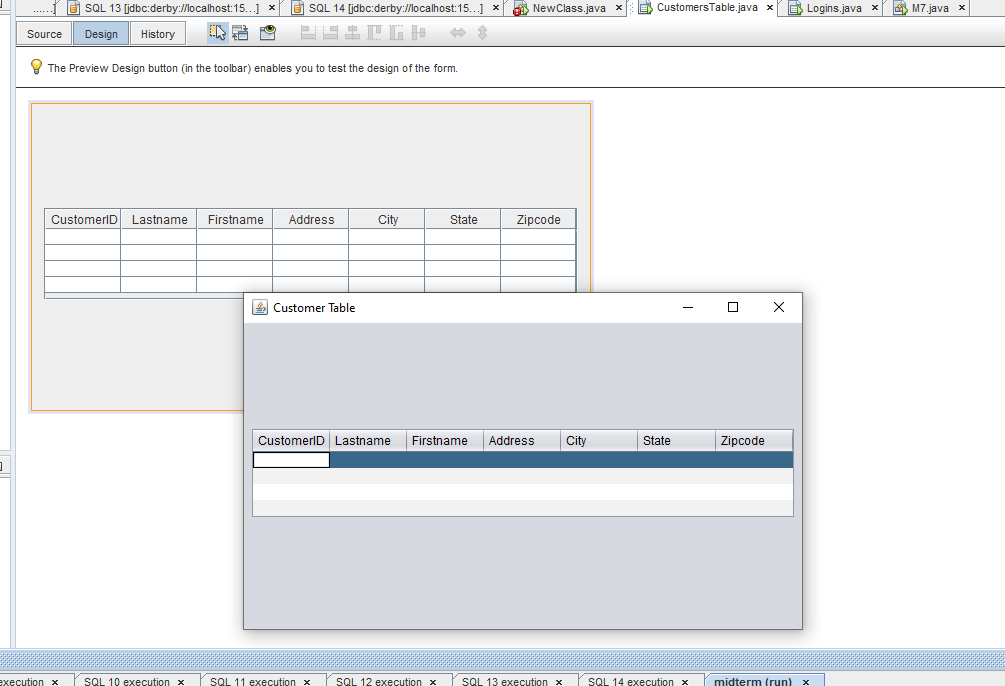
1. Create a JFrame that with labels and text fields that will match the table just created.

**#2 run the jframe and print screen it below here.**

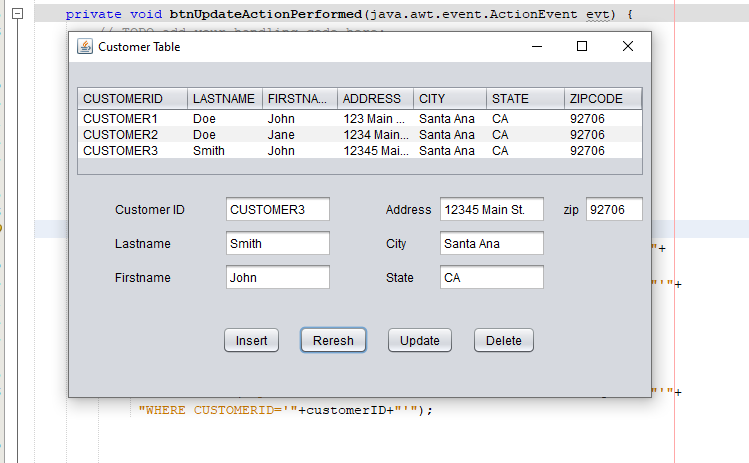


1. The program will have the ability to display the two rows in a jtable.

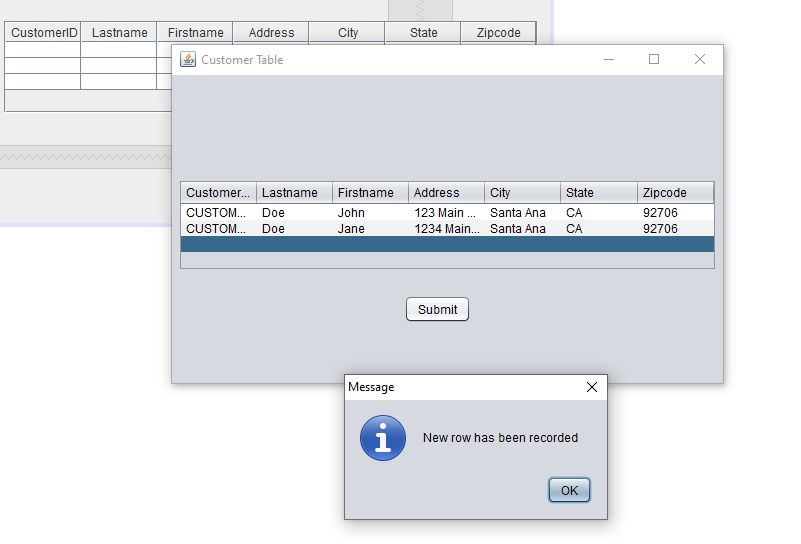
**#3 print screen the jtable below here that displays the two rows.**

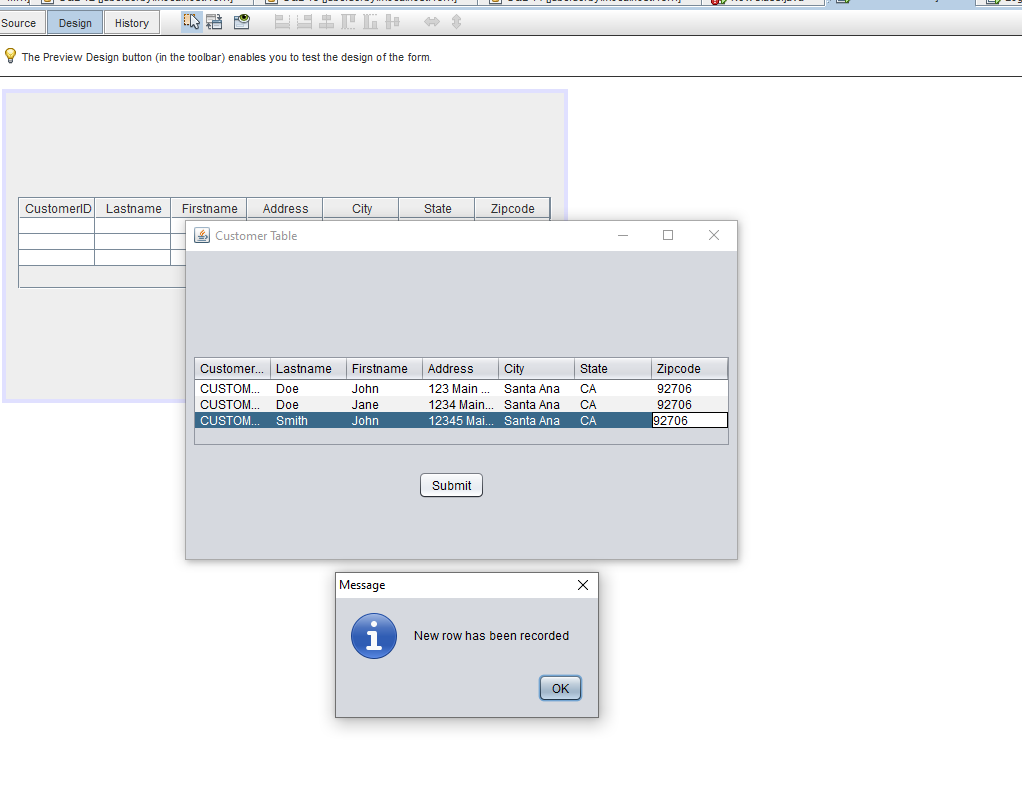


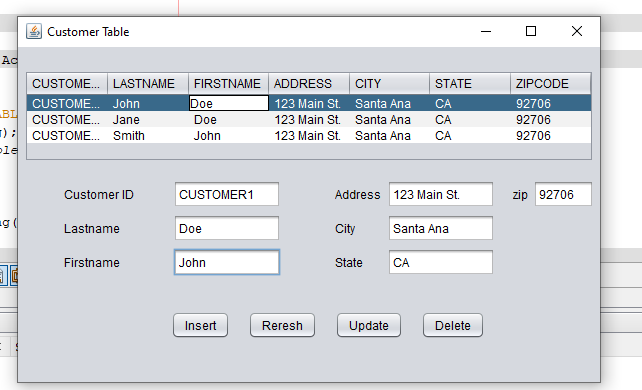
1. Write the insert statement and enter the 3rd row from the j frame. After the insert button is pressed have a confirmation that the new row has been recorded



**#4 print screen the confirmation with j frame below here, the jframe should have three rows displayed on it.**

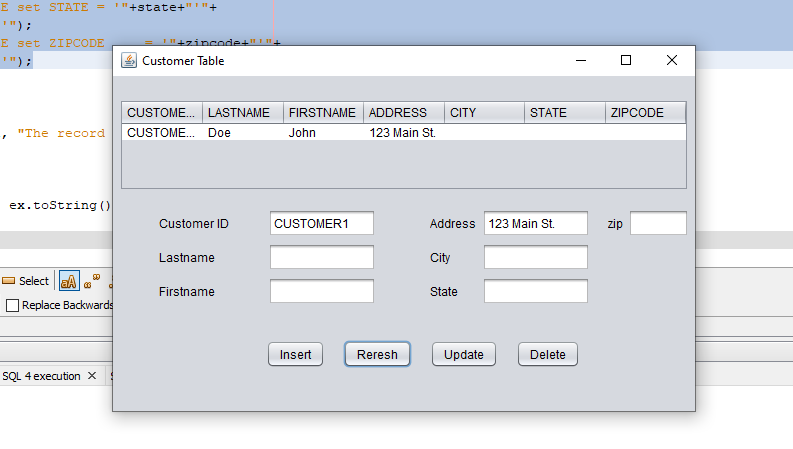


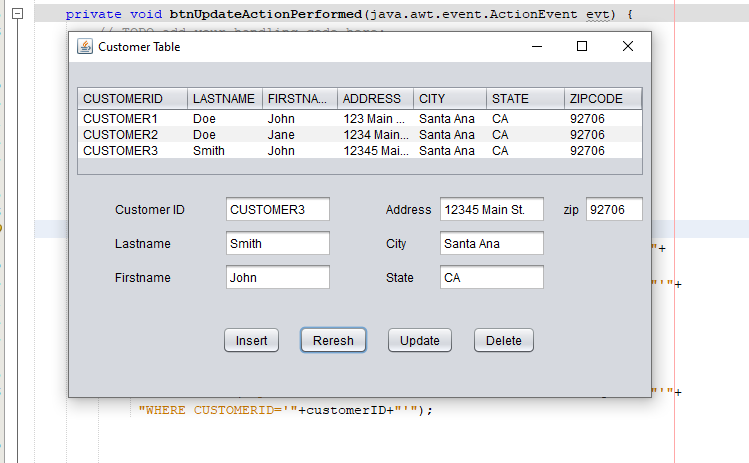




5. Write the update statement that will allow the user to update only the address, city, state and zipcode. After the update button is pressed have a confirmation that the record has been updated.

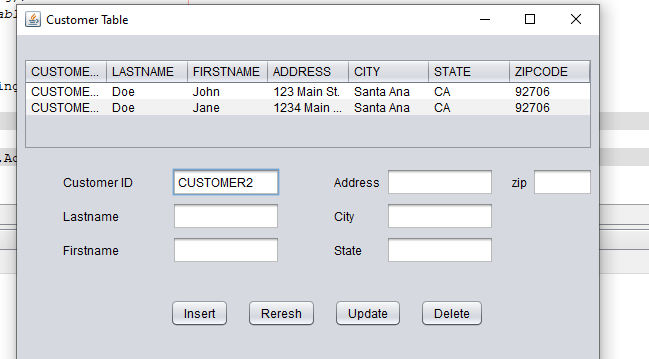
**#5 print screen the confirmation below here with the updated j table.**

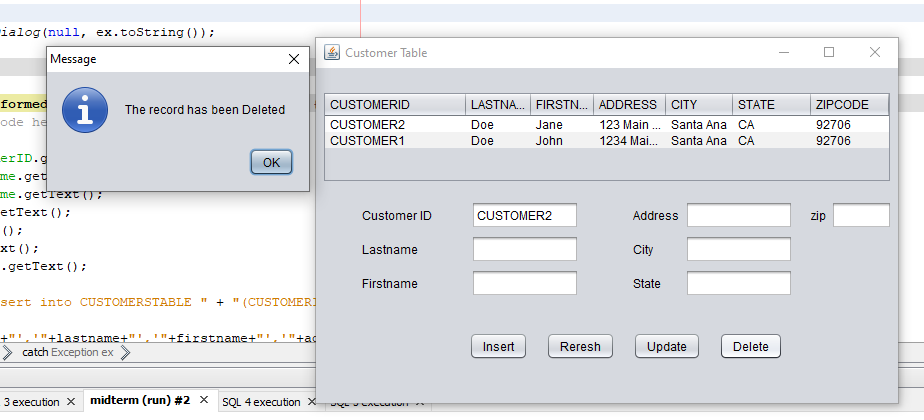
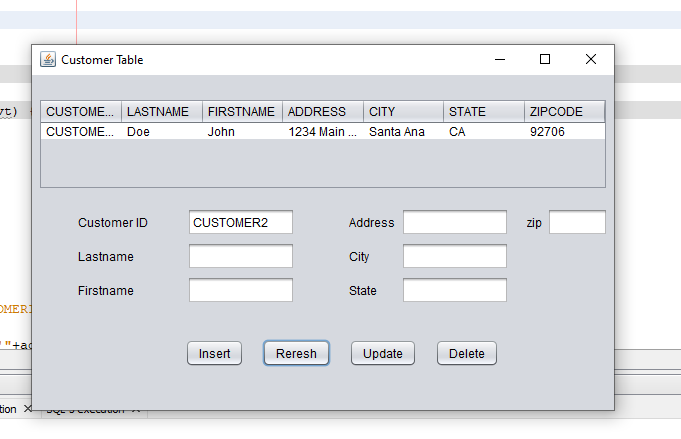




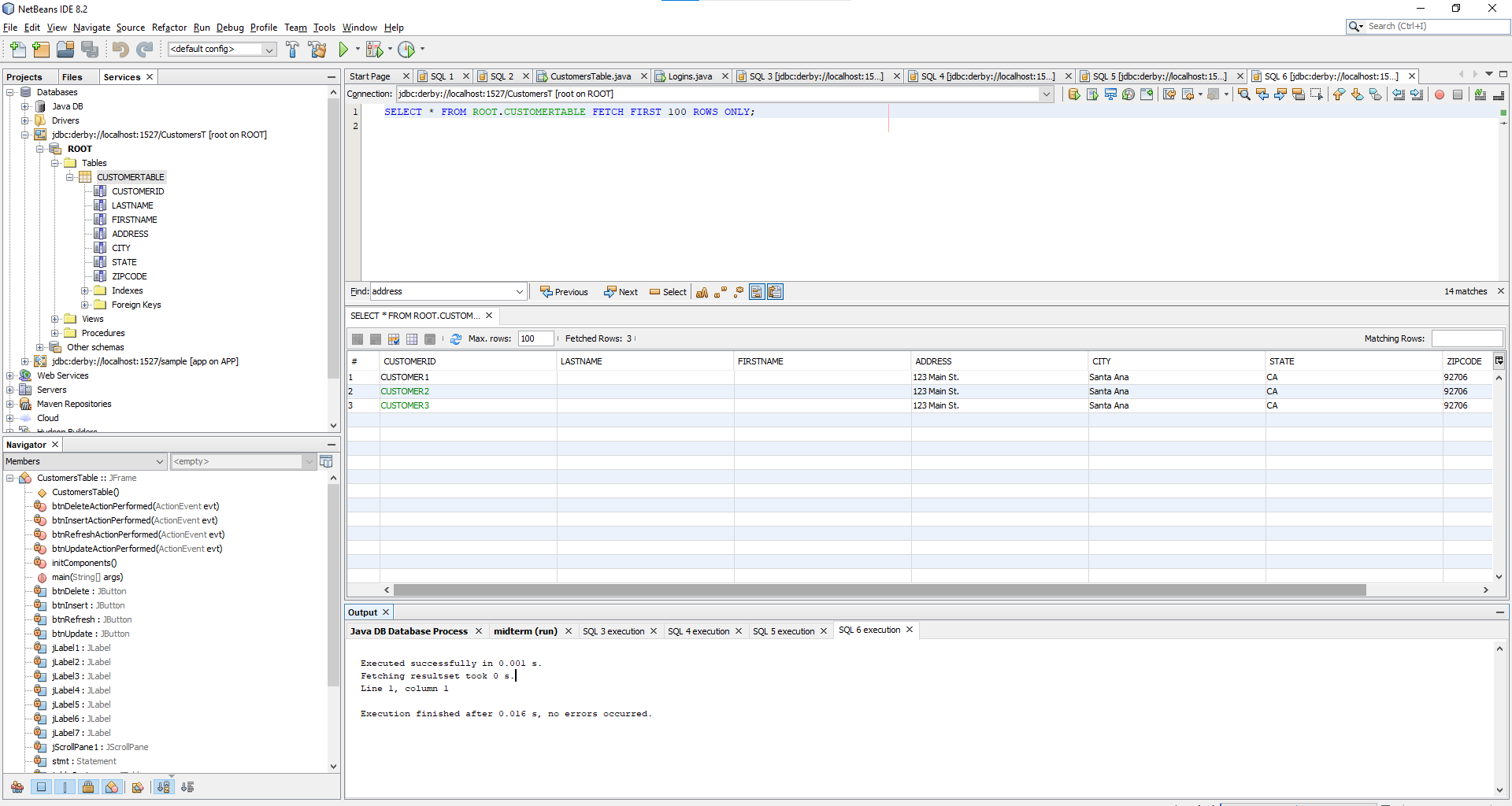
1. Write the delete statement that will allow the user to delete by the customer id only. After the delete button is pressed have a confirmation indicating the row or customer has been deleted.

**#6 print screen the confirmation below here with the updated j table.**



**#7 copy and paste the entire code below here.**



**/\***

**\* To change this license header, choose License Headers in Project Properties.**

**\* To change this template file, choose Tools | Templates**

**\* and open the template in the editor.**

**\*/**

**package m7;**

**import java.sql.Connection;**

**import java.sql.DriverManager;**

**import java.sql.ResultSet;**

**import java.sql.Statement;**

**import javax.swing.JOptionPane;**

**import net.proteanit.sql.DbUtils;**

**/\*\***

**\***

**\* @author ACC**

**\*/**

**public class CustomersTable extends javax.swing.JFrame {**

**private Statement stmt;**

**/\*\***

**\* Creates new form CustomersTable**

**\*/**

**public CustomersTable() {**

**initComponents();**

**//create the connection here**

**try{**

**//driver for the connection to the database**

**Class.forName("org.apache.derby.jdbc.ClientDriver").newInstance();**

**//JOptionPane.showMessageDialog(null,"Driver Connected");**

**//point to the database**

**String url ="jdbc:derby://localhost:1527/CustomersT;create=true;user=root;password=sac123";**

**// JOptionPane.showMessageDialog(null,"Database Connected");**

**//Connection Class to connect to the database**

**Connection connection = DriverManager.getConnection(url);**

**stmt = connection.createStatement();**

**}catch(Exception ex)**

**{**

**JOptionPane.showMessageDialog(null,ex.toString());**

**}**

**}**

**/\*\***

**\* This method is called from within the constructor to initialize the form.**

**\* WARNING: Do NOT modify this code. The content of this method is always**

**\* regenerated by the Form Editor.**

**\*/**

**@SuppressWarnings("unchecked")**

**// <editor-fold defaultstate="collapsed" desc="Generated Code">**

**private void initComponents() {**

**jScrollPane1 = new javax.swing.JScrollPane();**

**tableCustomers = new javax.swing.JTable();**

**btnInsert = new javax.swing.JButton();**

**btnRefresh = new javax.swing.JButton();**

**btnUpdate = new javax.swing.JButton();**

**btnDelete = new javax.swing.JButton();**

**txtCustomerID = new javax.swing.JTextField();**

**txtLastname = new javax.swing.JTextField();**

**txtFirstname = new javax.swing.JTextField();**

**txtAddress = new javax.swing.JTextField();**

**txtCity = new javax.swing.JTextField();**

**txtState = new javax.swing.JTextField();**

**txtZipcode = new javax.swing.JTextField();**

**jLabel1 = new javax.swing.JLabel();**

**jLabel2 = new javax.swing.JLabel();**

**jLabel3 = new javax.swing.JLabel();**

**jLabel4 = new javax.swing.JLabel();**

**jLabel5 = new javax.swing.JLabel();**

**jLabel6 = new javax.swing.JLabel();**

**jLabel7 = new javax.swing.JLabel();**

**setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE);**

**setTitle("Customer Table");**

**tableCustomers.setModel(new javax.swing.table.DefaultTableModel(**

**new Object [][] {**

**{null, null, null, null, null, null, null},**

**{null, null, null, null, null, null, null}**

**},**

**new String [] {**

**"CustomerID", "Lastname", "Firstname", "Address", "City", "State", "Zipcode"**

**}**

**) {**

**Class[] types = new Class [] {**

**java.lang.String.class, java.lang.String.class, java.lang.String.class, java.lang.String.class, java.lang.String.class, java.lang.String.class, java.lang.String.class**

**};**

**public Class getColumnClass(int columnIndex) {**

**return types [columnIndex];**

**}**

**});**

**jScrollPane1.setViewportView(tableCustomers);**

**btnInsert.setText("Insert");**

**btnInsert.addActionListener(new java.awt.event.ActionListener() {**

**public void actionPerformed(java.awt.event.ActionEvent evt) {**

**btnInsertActionPerformed(evt);**

**}**

**});**

**btnRefresh.setText("Reresh");**

**btnRefresh.addActionListener(new java.awt.event.ActionListener() {**

**public void actionPerformed(java.awt.event.ActionEvent evt) {**

**btnRefreshActionPerformed(evt);**

**}**

**});**

**btnUpdate.setText("Update");**

**btnUpdate.addActionListener(new java.awt.event.ActionListener() {**

**public void actionPerformed(java.awt.event.ActionEvent evt) {**

**btnUpdateActionPerformed(evt);**

**}**

**});**

**btnDelete.setText("Delete");**

**btnDelete.addActionListener(new java.awt.event.ActionListener() {**

**public void actionPerformed(java.awt.event.ActionEvent evt) {**

**btnDeleteActionPerformed(evt);**

**}**

**});**

**jLabel1.setText("Customer ID");**

**jLabel2.setText("Lastname");**

**jLabel3.setText("Firstname");**

**jLabel4.setText("Address");**

**jLabel5.setText("City");**

**jLabel6.setText("State");**

**jLabel7.setText("zip");**

**javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());**

**getContentPane().setLayout(layout);**

**layout.setHorizontalGroup(**

**layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)**

**.addGroup(layout.createSequentialGroup()**

**.addContainerGap()**

**.addComponent(jScrollPane1)**

**.addContainerGap())**

**.addGroup(layout.createSequentialGroup()**

**.addGap(46, 46, 46)**

**.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)**

**.addComponent(jLabel1)**

**.addComponent(jLabel2)**

**.addComponent(jLabel3))**

**.addGap(37, 37, 37)**

**.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)**

**.addGroup(layout.createSequentialGroup()**

**.addComponent(btnInsert)**

**.addGap(18, 18, 18)**

**.addComponent(btnRefresh)**

**.addGap(18, 18, 18))**

**.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()**

**.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)**

**.addComponent(txtLastname, javax.swing.GroupLayout.PREFERRED\_SIZE, 108, javax.swing.GroupLayout.PREFERRED\_SIZE)**

**.addComponent(txtCustomerID, javax.swing.GroupLayout.PREFERRED\_SIZE, 108, javax.swing.GroupLayout.PREFERRED\_SIZE)**

**.addComponent(txtFirstname, javax.swing.GroupLayout.PREFERRED\_SIZE, 108, javax.swing.GroupLayout.PREFERRED\_SIZE))**

**.addGap(54, 54, 54)))**

**.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)**

**.addGroup(layout.createSequentialGroup()**

**.addComponent(btnUpdate)**

**.addGap(18, 18, 18)**

**.addComponent(btnDelete))**

**.addGroup(layout.createSequentialGroup()**

**.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)**

**.addComponent(jLabel4)**

**.addComponent(jLabel5)**

**.addComponent(jLabel6))**

**.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)**

**.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)**

**.addComponent(txtCity, javax.swing.GroupLayout.PREFERRED\_SIZE, 108, javax.swing.GroupLayout.PREFERRED\_SIZE)**

**.addGroup(layout.createSequentialGroup()**

**.addComponent(txtAddress, javax.swing.GroupLayout.PREFERRED\_SIZE, 108, javax.swing.GroupLayout.PREFERRED\_SIZE)**

**.addGap(18, 18, 18)**

**.addComponent(jLabel7)**

**.addGap(5, 5, 5)**

**.addComponent(txtZipcode, javax.swing.GroupLayout.PREFERRED\_SIZE, 61, javax.swing.GroupLayout.PREFERRED\_SIZE))**

**.addComponent(txtState, javax.swing.GroupLayout.PREFERRED\_SIZE, 108, javax.swing.GroupLayout.PREFERRED\_SIZE))))**

**.addContainerGap(javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE))**

**);**

**layout.setVerticalGroup(**

**layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)**

**.addGroup(layout.createSequentialGroup()**

**.addGap(23, 23, 23)**

**.addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED\_SIZE, 92, javax.swing.GroupLayout.PREFERRED\_SIZE)**

**.addGap(18, 18, 18)**

**.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)**

**.addComponent(txtCustomerID, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)**

**.addComponent(txtAddress, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)**

**.addComponent(txtZipcode, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)**

**.addComponent(jLabel1)**

**.addComponent(jLabel4)**

**.addComponent(jLabel7))**

**.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)**

**.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)**

**.addComponent(txtLastname, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)**

**.addComponent(txtCity, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)**

**.addComponent(jLabel2)**

**.addComponent(jLabel5))**

**.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)**

**.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)**

**.addComponent(txtFirstname, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)**

**.addComponent(txtState, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)**

**.addComponent(jLabel3)**

**.addComponent(jLabel6))**

**.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 35, Short.MAX\_VALUE)**

**.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)**

**.addComponent(btnRefresh)**

**.addComponent(btnInsert)**

**.addComponent(btnUpdate)**

**.addComponent(btnDelete))**

**.addGap(43, 43, 43))**

**);**

**pack();**

**}// </editor-fold>**

**private void btnRefreshActionPerformed(java.awt.event.ActionEvent evt) {**

**// TODO add your handling code here:**

**try{**

**String queryString = "Select \* from CUSTOMERTABLE";**

**ResultSet rset = stmt.executeQuery(queryString);**

**tableCustomers.setModel(DbUtils.resultSetToTableModel(rset));**

**JOptionPane.showMessageDialog(null, "The record has been refreshed");**

**}catch(Exception ex)**

**{**

**JOptionPane.showMessageDialog(null, ex.toString());**

**}**

**}**

**private void btnUpdateActionPerformed(java.awt.event.ActionEvent evt) {**

**// TODO add your handling code here:**

**try{**

**String customerID=txtCustomerID.getText();**

**String lastname = txtLastname.getText();**

**String firstname=txtFirstname.getText();**

**String address=txtAddress.getText();**

**String city=txtCity.getText();**

**String state=txtState.getText();**

**String zipcode = txtZipcode.getText();**

**stmt.execute("Update CUSTOMERTABLE set ADDRESS = '"+address+"'"+**

**"WHERE CUSTOMERID='"+customerID+"'");**

**stmt.execute("Update CUSTOMERTABLE set LASTNAME = '"+lastname+"'"+**

**"WHERE CUSTOMERID='"+customerID+"'");**

**stmt.execute("Update CUSTOMERTABLE set FIRSTNAME = '"+firstname+"'"+**

**"WHERE CUSTOMERID='"+customerID+"'");**

**stmt.execute("Update CUSTOMERTABLE set CITY = '"+city+"'"+**

**"WHERE CUSTOMERID='"+customerID+"'");**

**stmt.execute("Update CUSTOMERTABLE set STATE = '"+state+"'"+**

**"WHERE CUSTOMERID='"+customerID+"'");**

**stmt.execute("Update CUSTOMERTABLE set ZIPCODE = '"+zipcode+"'"+**

**"WHERE CUSTOMERID='"+customerID+"'");**

**JOptionPane.showMessageDialog(null, "The record has been updated");**

**}catch(Exception ex)**

**{**

**JOptionPane.showMessageDialog(null, ex.toString());**

**}**

**}**

**private void btnDeleteActionPerformed(java.awt.event.ActionEvent evt) {**

**// TODO add your handling code here:**

**try{**

**String customerID=txtCustomerID.getText();**

**stmt.execute("Delete from CUSTOMERTABLE WHERE CUSTOMERID = '"+customerID+"'");**

**JOptionPane.showMessageDialog(null, "The record has been Deleted");**

**}catch(Exception ex)**

**{**

**JOptionPane.showMessageDialog(null, ex.toString());**

**}**

**}**

**private void btnInsertActionPerformed(java.awt.event.ActionEvent evt) {**

**// TODO add your handling code here:**

**try{**

**String customerID=txtCustomerID.getText();**

**String lastname = txtLastname.getText();**

**String firstname=txtFirstname.getText();**

**String address=txtAddress.getText();**

**String city=txtCity.getText();**

**String state=txtState.getText();**

**String zipcode = txtZipcode.getText();**

**String queryString= "Insert into CUSTOMERTABLE " + "(CUSTOMERID,LASTNAME,FIRSTNAME,ADDRESS,CITY,STATE,ZIPCODE)"**

**+ "Values"+**

**"('"+customerID+"','"+lastname+"','"+firstname+"','"+address+"','"+city+"', '"+state+"','"+zipcode+"')";**

**stmt.execute(queryString);**

**JOptionPane.showMessageDialog(null, "New Customer Added");**

**}catch(Exception ex)**

**{**

**JOptionPane.showMessageDialog(null, ex.toString());**

**}**

**}**

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

**/\* Set the Nimbus look and feel \*/**

**//<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">**

**/\* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.**

**\* For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html**

**\*/**

**try {**

**for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {**

**if ("Nimbus".equals(info.getName())) {**

**javax.swing.UIManager.setLookAndFeel(info.getClassName());**

**break;**

**}**

**}**

**} catch (ClassNotFoundException ex) {**

**java.util.logging.Logger.getLogger(Logins.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);**

**} catch (InstantiationException ex) {**

**java.util.logging.Logger.getLogger(Logins.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);**

**} catch (IllegalAccessException ex) {**

**java.util.logging.Logger.getLogger(Logins.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);**

**} catch (javax.swing.UnsupportedLookAndFeelException ex) {**

**java.util.logging.Logger.getLogger(Logins.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);**

**}**

**//</editor-fold>**

**/\* Create and display the form \*/**

**java.awt.EventQueue.invokeLater(new Runnable() {**

**public void run() {**

**new CustomersTable().setVisible(true);**

**}**

**});**

**}**

**// Variables declaration - do not modify**

**private javax.swing.JButton btnDelete;**

**private javax.swing.JButton btnInsert;**

**private javax.swing.JButton btnRefresh;**

**private javax.swing.JButton btnUpdate;**

**private javax.swing.JLabel jLabel1;**

**private javax.swing.JLabel jLabel2;**

**private javax.swing.JLabel jLabel3;**

**private javax.swing.JLabel jLabel4;**

**private javax.swing.JLabel jLabel5;**

**private javax.swing.JLabel jLabel6;**

**private javax.swing.JLabel jLabel7;**

**private javax.swing.JScrollPane jScrollPane1;**

**private javax.swing.JTable tableCustomers;**

**private javax.swing.JTextField txtAddress;**

**private javax.swing.JTextField txtCity;**

**private javax.swing.JTextField txtCustomerID;**

**private javax.swing.JTextField txtFirstname;**

**private javax.swing.JTextField txtLastname;**

**private javax.swing.JTextField txtState;**

**private javax.swing.JTextField txtZipcode;**

**// End of variables declaration**

**}**

**Submit this document to Module 8 midterm.**