Group: #19
Purpose: GUI Source Code
<made with Java Swing>

DropTable.Java file

```
import java.awt.EventQueue;
import java.awt.Font;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JRadioButton;
import javax.swing.border.EmptyBorder;
public class DropTable extends JFrame {
    private JPanel contentPane;
     * Launch the application.
    public static void main(String[] args) {
    EventQueue.invokeLater(new Runnable() {
        public void run() {
        try {
            DropTable frame = new DropTable();
            frame.setVisible(true);
        } catch (Exception e) {
            e.printStackTrace();
    });
    static void dropTable(String tablename) {
    Connection con = null;
    PreparedStatement ps = null;
    try {
```

```
con = DriverManager.getConnection("jdbc:mysql://localhost:3306/bank", "root",
"210349750");
       ps = con.prepareStatement(String.format("DROP TABLE IF EXISTS %s", tablename));
       boolean result = ps.execute();
   } catch (Exception e) {
       e.printStackTrace();
    * Create the frame.
   public DropTable() {
   setTitle("Drop Tables");
   setDefaultCloseOperation(JFrame.EXIT ON CLOSE);
   setBounds(100, 100, 517, 404);
   contentPane = new JPanel();
   contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
   setContentPane(contentPane);
   contentPane.setLayout(null);
   contentPane.setLayout(null);
   JLabel lblNewLabel = new JLabel("Please choose a table to drop:");
   lblNewLabel.setFont(new Font("Tahoma", Font.PLAIN, 13));
   lblNewLabel.setBounds(10, 23, 214, 41);
   contentPane.add(lblNewLabel);
   JRadioButton bblocation = new JRadioButton("Bank Branch Location");
   bblocation.setFont(new Font("Tahoma", Font.PLAIN, 13));
   bblocation.setBounds(10, 71, 185, 23);
   contentPane.add(bblocation);
   JRadioButton acc = new JRadioButton("Accounts");
   acc.setFont(new Font("Tahoma", Font.PLAIN, 13));
   acc.setBounds(10, 116, 185, 23);
   contentPane.add(acc);
   JRadioButton auth = new JRadioButton("Authentication");
   auth.setFont(new Font("Tahoma", Font.PLAIN, 13));
   auth.setBounds(10, 154, 185, 23);
   contentPane.add(auth);
   JRadioButton custassign = new JRadioButton("Customer Assignment");
   custassign.setFont(new Font("Tahoma", Font.PLAIN, 13));
   custassign.setBounds(262, 72, 185, 23);
   contentPane.add(custassign);
   JRadioButton custinfo = new JRadioButton("Customer Info");
   custinfo.setFont(new Font("Tahoma", Font.PLAIN, 13));
   custinfo.setBounds(262, 116, 185, 23);
```

```
contentPane.add(custinfo);
    JRadioButton employees = new JRadioButton("Employees");
    employees.setFont(new Font("Tahoma", Font.PLAIN, 13));
    employees.setBounds(262, 154, 185, 23);
    contentPane.add(employees);
    JRadioButton trans = new JRadioButton("Transactons");
    trans.setFont(new Font("Tahoma", Font.PLAIN, 13));
    trans.setBounds(10, 190, 185, 23);
    contentPane.add(trans);
    JRadioButton loan = new JRadioButton("Loan");
    loan.setFont(new Font("Tahoma", Font.PLAIN, 13));
    loan.setBounds(262, 191, 185, 23);
    contentPane.add(loan);
    JButton btnNewButton = new JButton("OK");
    btnNewButton.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
        if (bblocation.isSelected()) {
            dropTable("bankbranchlocation");
            JOptionPane.showMessageDialog(null, "Success! Bank Branch Location has been
dropped");
            dispose();
        if (acc.isSelected()) {
            dropTable("accounts");
            JOptionPane.showMessageDialog(null, "Success! Accounts Table has been dropped");
            dispose();
        if (auth.isSelected()) {
            dropTable("authentication");
            JOptionPane.showMessageDialog(null, "Success! Authorization Table has been
dropped");
            dispose();
        if (custassign.isSelected()) {
            dropTable("customerassignment");
            JOptionPane.showMessageDialog(null, "Success! Customer Assignment Table has been
dropped");
            dispose();
        }
```

```
if (custinfo.isSelected()) {
            dropTable("customerinfo");
            JOptionPane.showMessageDialog(null, "Success! Customer Info has been dropped");
            dispose();
        if (employees.isSelected()) {
            dropTable("employees");
            JOptionPane.showMessageDialog(null, "Success! Employee Table has been dropped");
            dispose();
        if (trans.isSelected()) {
            dropTable("transactions");
            JOptionPane.showMessageDialog(null, "Success! Transaction Table has been
dropped");
            dispose();
       if (loan.isSelected()) {
            dropTable("loan");
            JOptionPane.showMessageDialog(null, "Success! Loan Table has been dropped");
            dispose();
        }
   });
   btnNewButton.setFont(new Font("Tahoma", Font.PLAIN, 15));
   btnNewButton.setBounds(311, 259, 98, 41);
   contentPane.add(btnNewButton);
```

MainFrame.java file

```
import java.awt.Color;
import java.awt.EventQueue;
import java.awt.Font;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JPanel;
import javax.swing.JRadioButton;
import javax.swing.JRadioButton;
import javax.swing.border.EmptyBorder;
```

```
* Main Menu of the GUI, user selects which action they would like to take
public class MainFrame extends JFrame {
   private JPanel contentPane;
     * Launch the application.
    public static void main(String[] args) {
    EventQueue.invokeLater(new Runnable() {
        public void run() {
        try {
            MainFrame frame = new MainFrame();
            frame.setVisible(true);
        } catch (Exception e) {
            e.printStackTrace();
    });
     * Create the frame.
    public MainFrame() {
    setFont(new Font("Bahnschrift", Font.PLAIN, 40));
    setTitle("BANKING SYSTEM");
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setBounds(100, 100, 506, 317);
    contentPane = new JPanel();
    contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
    setContentPane(contentPane);
    contentPane.setLayout(null);
   // add in buttons
    JRadioButton Drop_rb = new JRadioButton("Drop Tables");
   Drop_rb.setFont(new Font("Bahnschrift", Font.PLAIN, 13));
   Drop_rb.setBounds(76, 139, 111, 23);
    contentPane.add(Drop_rb);
    JRadioButton pop rb = new JRadioButton("Populate Tables");
    pop_rb.setFont(new Font("Bahnschrift", Font.PLAIN, 13));
    pop_rb.setBounds(76, 184, 194, 23);
    contentPane.add(pop_rb);
```

```
JRadioButton create rb = new JRadioButton("Create Tables");
create rb.setFont(new Font("Bahnschrift", Font.PLAIN, 13));
create_rb.setBounds(288, 139, 111, 23);
contentPane.add(create_rb);
JRadioButton query rb = new JRadioButton("Query Tables");
query rb.setFont(new Font("Bahnschrift", Font.PLAIN, 13));
query_rb.setBounds(288, 184, 111, 23);
contentPane.add(query_rb);
JButton ok bt = new JButton("OK");
ok_bt.setFont(new Font("Tahoma", Font.PLAIN, 17));
// Set Action for value selected
ok bt.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
    if (Drop rb.isSelected()) {
        new DropTable().setVisible(true);
       dispose();
   if (pop_rb.isSelected()) {
        new PopulateTables().setVisible(true);
        dispose();
   if (create_rb.isSelected()) {
        new CreateTable().setVisible(true);
        dispose();
    if (Drop_rb.isSelected()) {
        new DropTable().setVisible(true);
        dispose();
   if (query_rb.isSelected()) {
        new QueryTables().setVisible(true);
        dispose();
});
ok_bt.setBounds(341, 234, 101, 29);
contentPane.add(ok_bt);
JLabel lblNewLabel 2 = new JLabel("Welcome!");
lblNewLabel_2.setBackground(Color.BLACK);
lblNewLabel_2.setFont(new Font("Bahnschrift", Font.BOLD, 20));
lblNewLabel 2.setBounds(203, 29, 111, 34);
```

```
contentPane.add(lblNewLabel_2);

JLabel lblNewLabel_3 = new JLabel("Please select one of the following options and press
\"ok\" when finished");
 lblNewLabel_3.setFont(new Font("Bahnschrift", Font.PLAIN, 14));
 lblNewLabel_3.setBounds(17, 94, 475, 28);
 contentPane.add(lblNewLabel_3);

JLabel lblNewLabel_1 = new JLabel("Bank of Group 19");
 lblNewLabel_1.setFont(new Font("Bahnschrift", Font.PLAIN, 15));
 lblNewLabel_1.setBounds(194, 60, 140, 23);
 contentPane.add(lblNewLabel_1);
 }
}
```

PopulateTables.java file

```
import java.awt.EventQueue;
import java.awt.Font;
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.JRadioButton;
import javax.swing.JTextField;
import javax.swing.border.EmptyBorder;
public class PopulateTables extends JFrame {
    private JPanel contentPane;
    private JTextField data1;
    private JTextField data2;
    private JTextField data3;
     * Launch the application.
    public static void main(String[] args) {
    EventQueue.invokeLater(new Runnable() {
        public void run() {
        try {
```

```
PopulateTables frame = new PopulateTables();
        frame.setVisible(true);
    } catch (Exception e) {
        e.printStackTrace();
});
* Create the frame.
public PopulateTables() {
setTitle("Populate Tables");
setDefaultCloseOperation(JFrame.EXIT ON CLOSE);
setBounds(100, 100, 630, 429);
contentPane = new JPanel();
contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
setContentPane(contentPane);
contentPane.setLayout(null);
JLabel lblNewLabel = new JLabel("Please choose a table to populate:");
lblNewLabel.setFont(new Font("Tahoma", Font.PLAIN, 13));
lblNewLabel.setBounds(10, 23, 214, 41);
contentPane.add(lblNewLabel);
JRadioButton bblocation = new JRadioButton("Bank Branch Location");
bblocation.setFont(new Font("Tahoma", Font.PLAIN, 13));
bblocation.setBounds(10, 71, 185, 23);
contentPane.add(bblocation);
JRadioButton acc = new JRadioButton("Accounts");
acc.setFont(new Font("Tahoma", Font.PLAIN, 13));
acc.setBounds(10, 116, 185, 23);
contentPane.add(acc);
JRadioButton auth = new JRadioButton("Authentication");
auth.setFont(new Font("Tahoma", Font.PLAIN, 13));
auth.setBounds(10, 154, 185, 23);
contentPane.add(auth);
JRadioButton custassign = new JRadioButton("Customer Assignment");
custassign.setFont(new Font("Tahoma", Font.PLAIN, 13));
custassign.setBounds(262, 72, 185, 23);
contentPane.add(custassign);
JRadioButton custinfo = new JRadioButton("Customer Info");
custinfo.setFont(new Font("Tahoma", Font.PLAIN, 13));
custinfo.setBounds(262, 116, 185, 23);
contentPane.add(custinfo);
```

```
JRadioButton employees = new JRadioButton("Employees");
    employees.setFont(new Font("Tahoma", Font.PLAIN, 13));
    employees.setBounds(262, 154, 185, 23);
    contentPane.add(employees);
    JRadioButton trans = new JRadioButton("Transactons");
    trans.setFont(new Font("Tahoma", Font.PLAIN, 13));
    trans.setBounds(10, 190, 185, 23);
    contentPane.add(trans);
    JLabel lblNewLabel_1 = new JLabel("Insert Data Values Here:");
    lblNewLabel 1.setFont(new Font("Tahoma", Font.PLAIN, 13));
    lblNewLabel_1.setBounds(10, 231, 185, 19);
    contentPane.add(lblNewLabel 1);
    JRadioButton loan = new JRadioButton("Loan");
    loan.setFont(new Font("Tahoma", Font.PLAIN, 13));
    loan.setBounds(262, 191, 185, 23);
    contentPane.add(loan);
    data1 = new JTextField();
    data1.setBounds(61, 261, 150, 41);
    contentPane.add(data1);
    data1.setColumns(10);
   data2 = new JTextField();
   data2.setColumns(10);
    data2.setBounds(243, 261, 150, 41);
    contentPane.add(data2);
    data3 = new JTextField();
   data3.setColumns(10);
    data3.setBounds(429, 261, 150, 41);
    contentPane.add(data3);
    JButton btnNewButton = new JButton("OK");
    btnNewButton.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
        if (bblocation.isSelected()) {
            populateTable("data1", "data2", "data3", "tablename");
            JOptionPane.showMessageDialog(null,
                "Success! Bank Branch Location has been populated with new data");
            dispose();
        if (acc.isSelected()) {
            JOptionPane.showMessageDialog(null, "Success! Accounts Table has been populated
with new data");
            dispose();
```

```
if (auth.isSelected()) {
            JOptionPane.showMessageDialog(null,
                "Success! Authorization Table has been populated with new data");
            dispose();
        if (custassign.isSelected()) {
            JOptionPane.showMessageDialog(null,
                "Success! Customer Assignment Table has been populated with new data");
            dispose();
        if (custinfo.isSelected()) {
            JOptionPane.showMessageDialog(null, "Success! Customer Info has been populated
with new data");
            dispose();
        if (employees.isSelected()) {
            JOptionPane.showMessageDialog(null, "Success! Employee Table has been populated
with new data");
            dispose();
        if (trans.isSelected()) {
            JOptionPane.showMessageDialog(null, "Success! Transaction Table has been
populated with new data");
            dispose();
        if (loan.isSelected()) {
            JOptionPane.showMessageDialog(null, "Success! Loan Table has been populated with
new data");
            dispose();
        }
    });
    btnNewButton.setFont(new Font("Tahoma", Font.PLAIN, 15));
    btnNewButton.setBounds(490, 351, 89, 23);
    contentPane.add(btnNewButton);
    static void populateTable(String data1, String data2, String data3, String tablename) {
    Connection con = null;
```

```
con = DriverManager.getConnection("jdbc:mysql://localhost:3306/bank", "root",
"210349750");
    Statement stmt = con.createStatement();

    String q1 = "insert into values ('" + data1 + "', '" + data2 + "', '" + data3 + "')";
    int x = stmt.executeUpdate(q1);
    } catch (Exception e) {
        e.printStackTrace();
    }
}
```

QueryTables.java file

```
import java.awt.EventQueue;
import java.awt.Font;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
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.JTextField;
import javax.swing.border.EmptyBorder;
public class QueryTables extends JFrame {
    private JPanel contentPane;
    private JTextField select val;
    private JTextField from val;
    private JTextField where_val;
     * Launch the application.
    public static void main(String[] args) {
    EventQueue.invokeLater(new Runnable() {
        public void run() {
        try {
            QueryTables frame = new QueryTables();
            frame.setVisible(true);
        } catch (Exception e) {
```

```
e.printStackTrace();
});
 * Create the frame.
public QueryTables() {
setTitle("Query Tables");
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setBounds(100, 100, 314, 334);
contentPane = new JPanel();
contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
setContentPane(contentPane);
contentPane.setLayout(null);
JLabel lblNewLabel = new JLabel("Fill in the following to create query statement:");
lblNewLabel.setFont(new Font("Tahoma", Font.PLAIN, 13));
lblNewLabel.setBounds(10, 27, 314, 41);
contentPane.add(lblNewLabel);
JLabel lblNewLabel 1 = new JLabel("SELECT");
lblNewLabel_1.setFont(new Font("Tahoma", Font.PLAIN, 13));
lblNewLabel_1.setBounds(20, 79, 49, 14);
contentPane.add(lblNewLabel_1);
JLabel lblNewLabel 2 = new JLabel("FROM");
lblNewLabel 2.setFont(new Font("Tahoma", Font.PLAIN, 13));
lblNewLabel_2.setBounds(20, 124, 49, 14);
contentPane.add(lblNewLabel_2);
JLabel lblNewLabel 3 = new JLabel("WHERE:");
lblNewLabel 3.setBounds(20, 169, 49, 14);
contentPane.add(lblNewLabel_3);
select_val = new JTextField();
select_val.setBounds(76, 77, 188, 20);
contentPane.add(select val);
select_val.setColumns(10);
from_val = new JTextField();
from val.setColumns(10);
from_val.setBounds(79, 122, 188, 20);
contentPane.add(from_val);
where_val = new JTextField();
where_val.setColumns(10);
where_val.setBounds(79, 166, 188, 20);
```

```
contentPane.add(where_val);
   JButton btnNewButton = new JButton("OK");
   btnNewButton.addActionListener(new ActionListener() {
       public void actionPerformed(ActionEvent e) {
       queryTable();
       JOptionPane.showMessageDialog(null, "result: ");
       dispose();
   });
   btnNewButton.setFont(new Font("Tahoma", Font.PLAIN, 15));
   btnNewButton.setBounds(175, 244, 89, 23);
   contentPane.add(btnNewButton);
   static void queryTable() {
   try {
       Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/bank",
"root", "210349750");
       String query = "SELECT select val FROM from val WHERE where val";
       Statement st = conn.createStatement();
       ResultSet rs = st.executeQuery(query);
   } catch (Exception e) {
       System.err.println("error");
   }
```

CreateTable.java file

```
import java.awt.EventQueue;
import java.awt.Font;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
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.JTextField;
import javax.swing.border.EmptyBorder;
public class CreateTable extends JFrame {
   private JPanel contentPane;
    private JTextField tbname;
    private JTextField primary_key;
   private JTextField column1;
   private JTextField column2;
   private JTextField column3;
    private JTextField column4;
   private JButton btnNewButton;
    * Launch the application.
    public static void main(String[] args) {
    EventQueue.invokeLater(new Runnable() {
        public void run() {
       try {
            CreateTable frame = new CreateTable();
            frame.setVisible(true);
        } catch (Exception e) {
   });
    static void createTable(String tbname, String column1, String column2, String column3,
String column4,
       String primary key) {
    try (Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/bank",
"root", "210349750");
        Statement stmt = conn.createStatement();) {
        String sql = "CREATE TABLE" + tbname + " " + "(" + column1 + "INTEGER not NULL, " + "
" + column2
            + "not NULL, " + " " + column3 + "INTEGER not NULL, " + " " + column4 + "INTEGER
not NULL, "
            + " PRIMARY KEY ( " + primary_key + "))";
        stmt.executeUpdate(sql);
    } catch (SQLException e) {
        e.printStackTrace();
```

```
* Create the frame.
public CreateTable() {
setTitle("Create Tables");
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setBounds(100, 100, 545, 341);
contentPane = new JPanel();
contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
setContentPane(contentPane);
contentPane.setLayout(null);
JLabel lblNewLabel = new JLabel("Enter Table Name:");
lblNewLabel.setFont(new Font("Tahoma", Font.PLAIN, 13));
lblNewLabel.setBounds(20, 25, 115, 39);
contentPane.add(lblNewLabel);
JLabel lblEnterPrimaryKey = new JLabel("Enter Primary Key:");
lblEnterPrimaryKey.setFont(new Font("Tahoma", Font.PLAIN, 13));
lblEnterPrimaryKey.setBounds(20, 62, 127, 50);
contentPane.add(lblEnterPrimaryKey);
JLabel lblNewLabel_1 = new JLabel("Insert up to four columns:");
lblNewLabel_1.setFont(new Font("Tahoma", Font.PLAIN, 13));
lblNewLabel 1.setBounds(20, 117, 188, 27);
contentPane.add(lblNewLabel_1);
JLabel lblNewLabel 2 = new JLabel("1.");
lblNewLabel 2.setBounds(30, 161, 49, 14);
contentPane.add(lblNewLabel 2);
JLabel lblNewLabel 3 = new JLabel("2.");
lblNewLabel_3.setBounds(30, 208, 49, 14);
contentPane.add(lblNewLabel 3);
JLabel lblNewLabel 4 = new JLabel("3.");
lblNewLabel_4.setBounds(243, 161, 49, 14);
contentPane.add(lblNewLabel_4);
JLabel lblNewLabel 5 = new JLabel("4.");
lblNewLabel 5.setBounds(243, 208, 49, 14);
contentPane.add(lblNewLabel_5);
tbname = new JTextField();
tbname.setBounds(139, 35, 270, 20);
contentPane.add(tbname);
tbname.setColumns(10);
primary key = new JTextField();
primary_key.setBounds(139, 78, 270, 20);
```

```
contentPane.add(primary_key);
primary_key.setColumns(10);
column1 = new JTextField();
column1.setBounds(50, 158, 158, 20);
contentPane.add(column1);
column1.setColumns(10);
column2 = new JTextField();
column2.setBounds(50, 205, 158, 20);
contentPane.add(column2);
column2.setColumns(10);
column3 = new JTextField();
column3.setBounds(276, 158, 158, 20);
contentPane.add(column3);
column3.setColumns(10);
column4 = new JTextField();
column4.setBounds(276, 205, 158, 20);
contentPane.add(column4);
column4.setColumns(10);
btnNewButton = new JButton("OK");
btnNewButton.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
    createTable("tbname", "column1", "column2", "column3", "column4", "primary_key");
    String text = tbname.getText();
    JOptionPane.showMessageDialog(null, "Success! " + text + " table has been created");
    dispose();
});
btnNewButton.setFont(new Font("Tahoma", Font.PLAIN, 15));
btnNewButton.setBounds(373, 253, 85, 40);
contentPane.add(btnNewButton);
```

DbConnect.java file

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;

/**
 * This class is to check if the database is connected properly to eclipse
 *
```