

상단 생략;

```
import javax.swing.JPanel;
import javax.swing.JTextField;
```

```
public class fCustomer implements ActionListener{
```

```
    private JFrame frame;
    private JTextField tf1;
    private JTextField tf2;
    private JTextField tf4;
    private JTextField tf3;
```

```
JComboBox jcb1;
JPanel panel;
JButton btnMoveFirst, btnMovePrev, btnMoveNext, btnMoveLast;
JButton btnInsertItem, btnDeleteItem, btnSaveItem, btnPrintItem, btnCloseWindow;

String strCno, strCname, strCaddr, strCphone, strCdist;
static String customer_dist[] = { "개인고객", "기업고객" };
boolean bInsertFlag = false;

static Connection conn = null;
static ResultSet rs = null;
static Statement stmt = null;
static String strQuery = "Select c_no, c_name, c_addr, c_phone, c_dist from customer";

private String driver="oracle.jdbc.OracleDriver";
private String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
private String user="system";
private String pwd="123456";
```

```
/**
 * Launch the application.
 */
```

```
public static void main(String[] args) {
    EventQueue.invokeLater(new Runnable() {
        public void run() {
            try {
                fCustomer window = new fCustomer();
                window.frame.setVisible(true);
            } catch (Exception e) {
                e.printStackTrace();
            }
        }
    });
}
```

```
/**
 * Create the application.
 */
```

```
public fCustomer() {
    initialize();
    dbConnect();
    initResultSet(strQuery);
}
```

```
private void dbConnect(){
    try{
        Class.forName(driver);
        conn=DriverManager.getConnection(url, user, pwd);
    }catch(Exception e){
        e.printStackTrace();
    }
}
```

```
public void initResultSet(String strQuery)
{
    try {
        stmt = conn.createStatement(ResultSet.TYPE_SCROLL_SENSITIVE, ResultSet.CONCUR_UPDATABLE);
        rs = stmt.executeQuery(strQuery);
    }
}
```

```

    } catch (SQLException se) {
        JOptionPane.showMessageDialog(null, "SQLException");
    }
}

/**
 * Initialize the contents of the frame.
 */
private void initialize() {
    frame = new JFrame();
    frame.setBounds(100, 100, 346, 293);
    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    frame.getContentPane().setLayout(null);

    JLabel lblNewLabel = new JLabel("고객번호");
    lblNewLabel.setBounds(22, 49, 57, 15);
    frame.getContentPane().add(lblNewLabel);

    tf1 = new JTextField();
    tf1.setBounds(91, 46, 116, 21);
    frame.getContentPane().add(tf1);
    tf1.setColumns(10);

    JLabel lblNewLabel_1 = new JLabel("고객이름");
    lblNewLabel_1.setBounds(22, 85, 57, 15);
    frame.getContentPane().add(lblNewLabel_1);

    tf2 = new JTextField();
    tf2.setBounds(91, 82, 116, 21);
    frame.getContentPane().add(tf2);
    tf2.setColumns(10);

    JLabel lblNewLabel_2 = new JLabel("주소");
    lblNewLabel_2.setBounds(22, 123, 57, 15);
    frame.getContentPane().add(lblNewLabel_2);

    tf3 = new JTextField();
    tf3.setBounds(91, 120, 116, 21);
    frame.getContentPane().add(tf3);
    tf3.setColumns(10);

    JLabel lblNewLabel_3 = new JLabel("전화번호");
    lblNewLabel_3.setBounds(22, 159, 57, 15);
    frame.getContentPane().add(lblNewLabel_3);

    tf4 = new JTextField();
    tf4.setBounds(91, 156, 116, 21);
    frame.getContentPane().add(tf4);
    tf4.setColumns(10);

    JLabel lblNewLabel_4 = new JLabel("고객구분");
    lblNewLabel_4.setBounds(22, 196, 57, 15);
    frame.getContentPane().add(lblNewLabel_4);

    jcb1 = new JComboBox();
    for(int i=0; i<customer_dist.length; i++) {
        jcb1.addItem(customer_dist[i]);
    }

    jcb1.setBounds(91, 193, 30, 21);
    frame.getContentPane().add(jcb1);

    btnMoveFirst = new JButton("");
    btnMoveFirst.setIcon(new
ImageIcon("C:\\Github\\choimysil\\kmove2\\BankProject\\src\\TOOLBAR\\FIRST.GIF"));
    btnMoveFirst.setBounds(0, 0, 30, 23);
    frame.getContentPane().add(btnMoveFirst);

    btnMovePrev = new JButton("");
    btnMovePrev.setIcon(new
ImageIcon("C:\\Github\\choimysil\\kmove2\\BankProject\\src\\TOOLBAR\\PREV.GIF"));
    btnMovePrev.setBounds(31, 0, 30, 23);

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        frame.getContentPane().add(btnMovePrev);

        btnMoveNext = new JButton("");
        btnMoveNext.setIcon(new
ImageIcon("C:\\Github\\choimysil\\kmove2\\BankProject\\src\\TOOLBAR\\NEXT.GIF"));
        btnMoveNext.setBounds(58, 0, 30, 23);
        frame.getContentPane().add(btnMoveNext);

        btnMoveLast = new JButton("");
        btnMoveLast.setIcon(new
ImageIcon("C:\\Github\\choimysil\\kmove2\\BankProject\\src\\TOOLBAR\\LAST.GIF"));
        btnMoveLast.setBounds(91, 0, 30, 23);
        frame.getContentPane().add(btnMoveLast);

        btnInsertItem = new JButton("");
        btnInsertItem.setIcon(new
ImageIcon("C:\\Github\\choimysil\\kmove2\\BankProject\\src\\TOOLBAR\\INSERT.GIF"));
        btnInsertItem.setBounds(121, 0, 30, 23);
        frame.getContentPane().add(btnInsertItem);

        btnDeleteItem = new JButton("");
        btnDeleteItem.setIcon(new
ImageIcon("C:\\Github\\choimysil\\kmove2\\BankProject\\src\\TOOLBAR\\DELETE.GIF"));
        btnDeleteItem.setBounds(153, 0, 30, 23);
        frame.getContentPane().add(btnDeleteItem);

        btnSaveItem = new JButton("");
        btnSaveItem.setIcon(new
ImageIcon("C:\\Github\\choimysil\\kmove2\\BankProject\\src\\TOOLBAR\\SAVE.GIF"));
        btnSaveItem.setBounds(185, 0, 30, 23);
        frame.getContentPane().add(btnSaveItem);

        btnPrintItem = new JButton("");
        btnPrintItem.setIcon(new
ImageIcon("C:\\Github\\choimysil\\kmove2\\BankProject\\src\\TOOLBAR\\PRINT.GIF"));
        btnPrintItem.setBounds(221, 0, 21, 23);
        frame.getContentPane().add(btnPrintItem);

        btnCloseWindow = new JButton("");
        btnCloseWindow.setIcon(new
ImageIcon("C:\\Github\\choimysil\\kmove2\\BankProject\\src\\TOOLBAR\\EXIT.GIF"));
        btnCloseWindow.setBounds(254, 0, 21, 23);
        frame.getContentPane().add(btnCloseWindow);

//----- 액션추가

        btnMoveFirst.addActionListener(this);
        btnMovePrev.addActionListener(this);
        btnMoveNext.addActionListener(this);
        btnMoveLast.addActionListener(this);

        btnInsertItem.addActionListener(this);
        btnDeleteItem.addActionListener(this);
        btnSaveItem.addActionListener(this);
        btnPrintItem.addActionListener(this);
        btnCloseWindow.addActionListener(this);

    }

//-----디자이너 마지막부분

@Override
public void actionPerformed(ActionEvent e) {
    if(e.getSource() == btnSaveItem) {
        subSaveItem();
    } else if(e.getSource() == btnInsertItem) {
        subInsertItem();
    } else if(e.getSource() == btnDeleteItem) {
        subDeleteItem();
    } else if(e.getSource() == btnMoveFirst) {
        subMoveFirst();
    } else if(e.getSource() == btnMovePrev) {
        subMovePrev();
    } else if(e.getSource() == btnMoveNext) {

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        subMoveNext();
    } else if(e.getSource() == btnMoveLast) {
        subMoveLast();
    } else if(e.getSource() == btnPrintItem) {
        subPrintItem();
    } else if(e.getSource() == btnCloseWindow) {
        subCloseWindow();
    }
}

public void clearItems() {
    tf1.setText("");
    tf2.setText("");
    tf3.setText("");
    tf4.setText("");
}

public void setItems() {
    try {
        strCno = rs.getString(1).trim(); // c_no
        strCname = rs.getString(2).trim(); // c_name
        strCaddr = rs.getString(3); // c_addr
        strCphone = rs.getString(4); // c_phone
        strDist = rs.getString(5).trim(); // c_dist
        System.out.println(strCno+","+strCname+","+strCaddr+","+strCphone+","+strDist);
        tf1.setText(strCno);
        tf2.setText(strCname);
        tf3.setText(strCaddr);
        tf4.setText(strCphone);
        /* 고객구분코드의 값에 따라 setting
        00 : 개인고객 , 11 : 기업고객
        */
        if (strDist.equals("00")) {
            jcb1.setSelectedIndex(0);
        } else if (strDist.equals("11")) {
            jcb1.setSelectedIndex(1);
        }
    } catch (SQLException e) {
        e.printStackTrace();
    }
}

public boolean getItems() {
    int intIndex;
    strCno = tf1.getText().trim();
    strCname = tf2.getText().trim();
    strCaddr = tf3.getText().trim();
    strCphone = tf4.getText().trim();
    intIndex = jcb1.getSelectedIndex();
    if (strCno == null) {
        JOptionPane.showMessageDialog(null, "고객번호가 누락되었습니다.");
        return false;
    }
    if (strCno.length() < 12 ) {
        JOptionPane.showMessageDialog(null, "잘못된 고객번호입니다.");
        return false;
    }
    if (strCname == null) {
        JOptionPane.showMessageDialog(null, "고객성명이 누락되었습니다.");
        return false;
    }
    switch(intIndex) {
        case 0 : strDist = "00";
        case 1 : strDist = "11";
    }
    return true;
}

public void subMoveFirst() { // cursor의 위치를 처음으로 이동
    try {
        if(!rs.isFirst()) {
            rs.first();
            setItems();
        }
    }
}

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    } catch(SQLException se) {
        JOptionPane.showMessageDialog(null, se);
    }
}

public void subMovePrev() { // cursor의 위치를 현재에서 이전으로 이동
    try {
        if(!rs.isFirst()) {
            rs.previous();
            setItems();
        }
    } catch(SQLException se) {
        JOptionPane.showMessageDialog(null, se);
    }
}

public void subMoveNext() { // cursor의 위치를 현재에서 다음으로 이동
    try {
        if(!rs.isLast()) {
            rs.next();
            setItems();
        }
    } catch(SQLException se) {
        JOptionPane.showMessageDialog(null, se);
    }
}

public void subMoveLast() { // cursor의 위치를 마지막으로 이동
    try {
        if(!rs.isLast()) {
            rs.last();
            setItems();
        }
    } catch(SQLException se) {
        JOptionPane.showMessageDialog(null, se);
    }
}

public void subSaveItem() { //새로운 데이터인지, 현재 데이터의 수정인지
    if (bInsertFlag == true) { // Insert버튼이 눌렀다면..
        if (getItems()) {
            try {
                rs.moveToInsertRow(); // cursor의 위치를 insert buffer로 이동
                rs.updateString(1, strCno.trim()); // cursor의 내용을 클래스 변수로 setting
                rs.updateString(2, strCname.trim());
                rs.updateString(3, strCaddr.trim());
                rs.updateString(4, strCphone.trim());
                rs.updateString(5, strCdist.trim());
                rs.insertRow(); // setting된 insert buffer내용을 데이터베이스에 반영
                bInsertFlag = false;
                conn.commit();
                rs.moveToCurrentRow();
            } catch (SQLException se) {
                JOptionPane.showMessageDialog(null, se);
            }
        }
    } else { // insert 버튼이 눌리지 않았다면
        if(getItems()) {
            try {
                rs.updateString(1, strCno.trim()); // 클래스 변수의 내용을 cursor에 반영
                rs.updateString(2, strCname.trim());
                rs.updateString(3, strCaddr.trim());
                rs.updateString(4, strCphone.trim());
                rs.updateString(5, strCdist.trim());
                rs.updateRow(); // cursor의 변경사항을 데이터베이스에 반영
                conn.commit();
            } catch(SQLException se) {
                JOptionPane.showMessageDialog(null, se);
                se.printStackTrace();
            }
        }
    }
}

```

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}
public void subInsertItem() { // Insert버튼이 눌렀을 경우 처리
    clearItems();
    bInsertFlag = true;
}
public void subDeleteItem() { // Delete버튼이 눌렀을 경우 처리
    int rtnValue;
    rtnValue = JOptionPane.showConfirmDialog(null, "현재 데이터를 삭제 합니다.", "확인",
        JOptionPane.OK_CANCEL_OPTION, JOptionPane.QUESTION_MESSAGE);
    try {
        if (rtnValue == 0) {
            rs.deleteRow();
            subMoveNext(); // 다음행으로 이동
            conn.commit();
        }
    } catch (SQLException se) {
        JOptionPane.showMessageDialog(null, se);
    }
}
public void subPrintItem() // 인쇄버튼이 눌렀을 경우 처리
{
    // 인쇄모듈 구성
}

public void subCloseWindow() { // 닫기버튼이 눌렀을 경우 처리
    try {
        stmt.close();
    } catch (SQLException e) {
        e.printStackTrace();
    }
    frame.dispose();
}
}

```