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Date: CREDIT CARD PROCESSING SYSTEM

AIM

To create a system to perform the credit card processing.

PROBLEM STATEMENT:

Credit card processing through offline involves the merchant collecting order information (including credit card numbers), storing this in a database on your site, and entering it using their on-site merchant credit card processing system. Takes time to manually enter credit card information for each order. This solution creates following cons: · Insecure – there is a possibility that a skilled hacker could break into the database and steal an entire list of credit card numbers, thereby damaging the merchant's reputation with current client. · There is a higher risk of customer charge backs with no signature · Higher risk of fraud for using stolen credit cards · Many discerning online shoppers will not give their credit card to an "untrusted" online merchant (you may want to consider being part of the Better Business Bureau or similar organization to add credibility). So there is a need of online and trusted credit card processing.

SCOPE

A credit card is a small plastic card issued to users as a system of payment. It allows its holder to buy goods and services based on the holder's promise to pay for these goods and services. The issuer of the card creates a revolving account and grants a line of credit to the consumer (or the user) from which the user can borrow money for payment to a merchant or as a cash advance to the user.

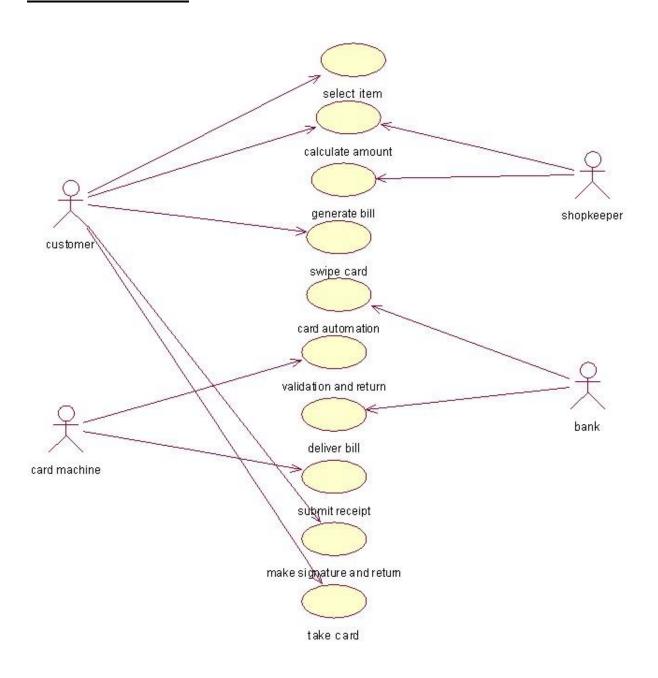
UML DIAGRAMS

The following UML diagrams describe the process involved in the ebook management system

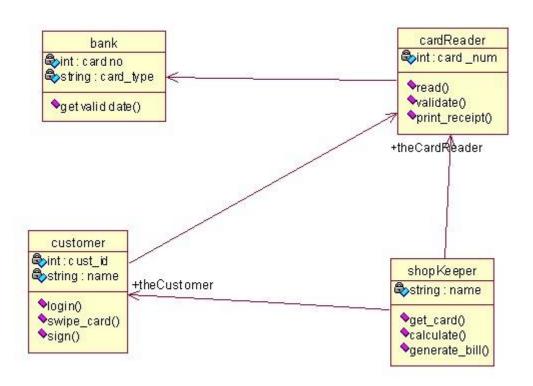
- **†** Use case diagram
- † Class diagram
- **♣** Sequence diagram
- **♦** Collaboration diagram
- ♣ State chart diagram
- ♣ Activity diagram
- [♣] Component diagram

- ₱ Deployment diagram
- ♣ Package diagram

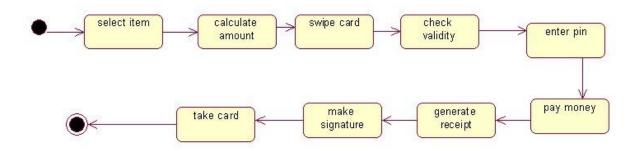
USE CASE DIAGRAM



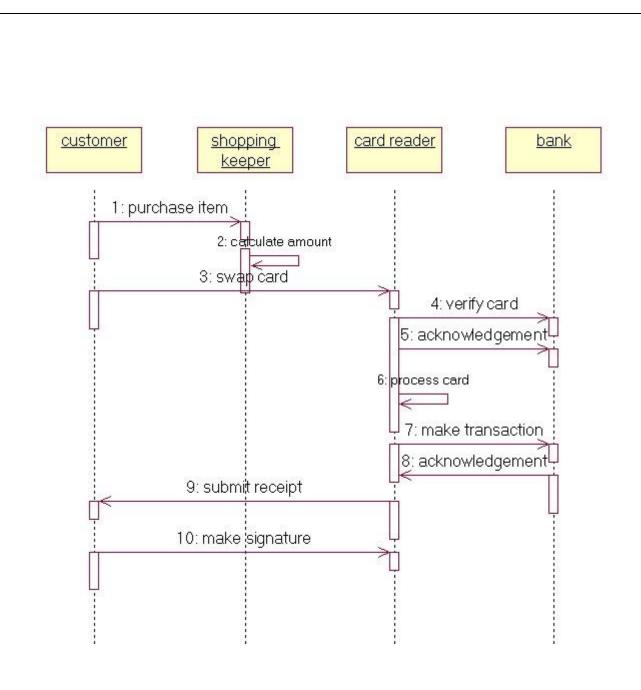
CLASS DIAGRAM



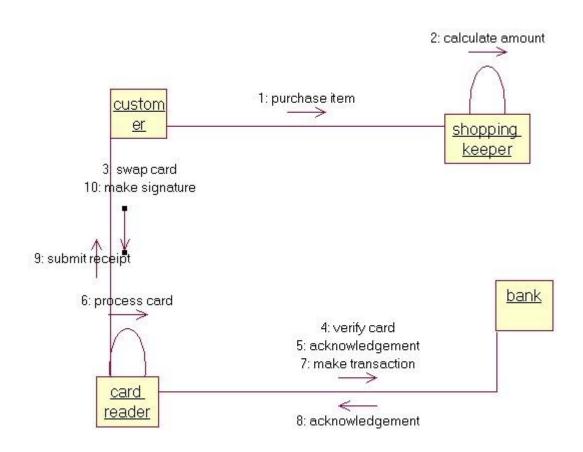
STATE CHART DIAGRAM



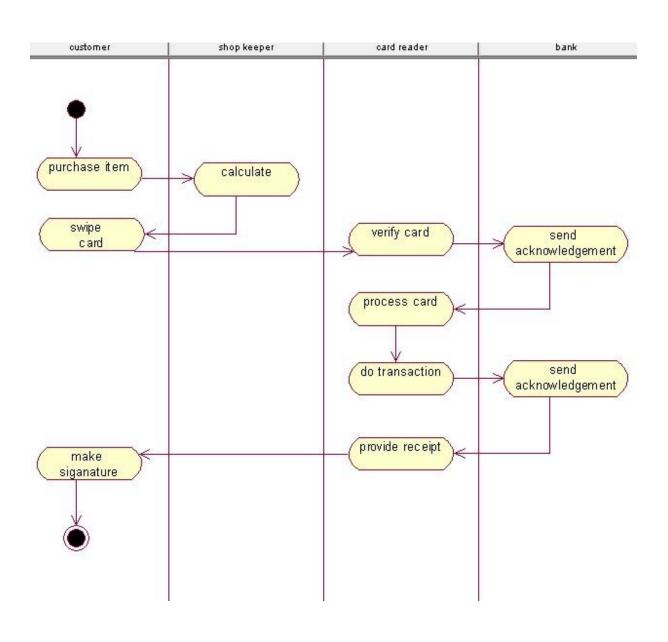
SEQUENCE DIAGRAM



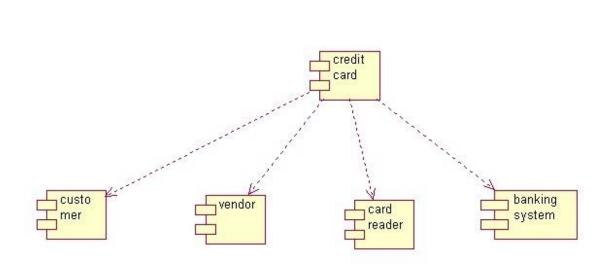
COLLABORATION DIAGRAM



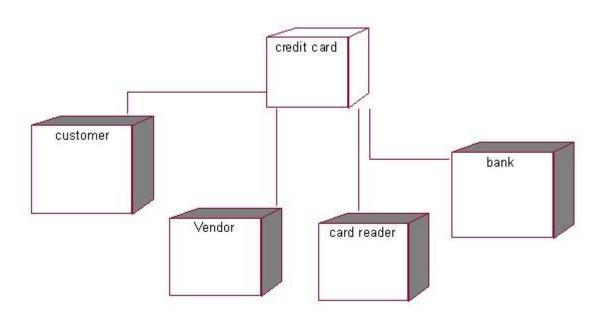
ACTIVITY DIAGRAM



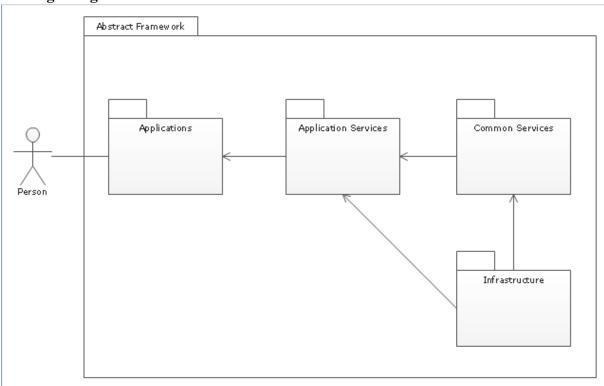
COMPONENT DIAGRAM



DEPLOYMENT DIAGRAM



Package Diagram:



SNAPSHOTS:

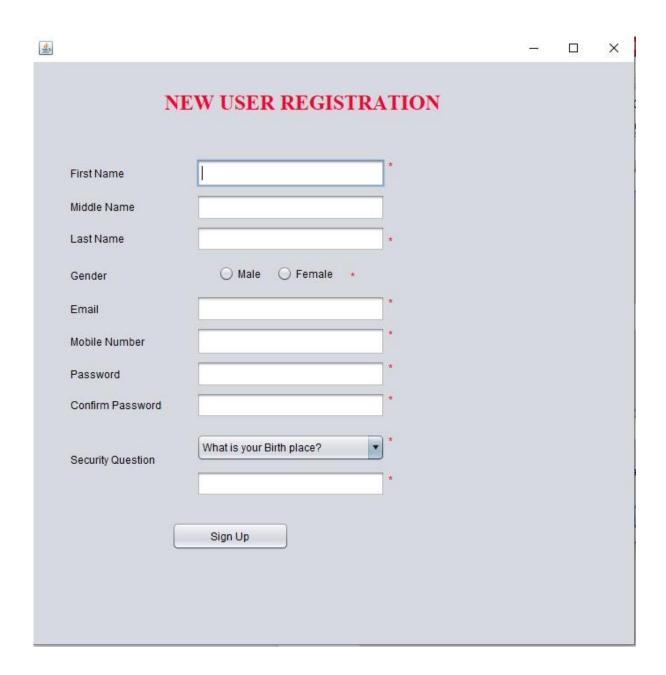
LOGIN:



TEST CASE:

TEST SCENARIO	TEST DATA	EXPECTED RESULTS	ACTUAL RESULTS	PASS/FAIL
Check user	Emailid=	User should	As	Pass
login with valid	Rahul1708@gmail.com	login to the	expected	
data	Password= Rahul	application		
Check user	Emailid=	User should	As	Pass
login with	Shiva1708@gmail.com	not login to	expected	
invalid data	Password= vikraman	the		
		application		

NEW USER REGISTRATION:



TEST CASE:

TEST SCENARIO	TEST DATA	EXPECTED RESULTS	ACTUAL RESULTS	PASS/FAIL
Check user has entered the first name	First Name =Rahul	User should login to the application		Pass
Check user has entered the middle name	Middle Name =Vikarman	User should login to the application		Pass
Check user has entered the last name	Last Name = Empire	User should login to the application	As expected	Pass

FORGET PASSWORD:



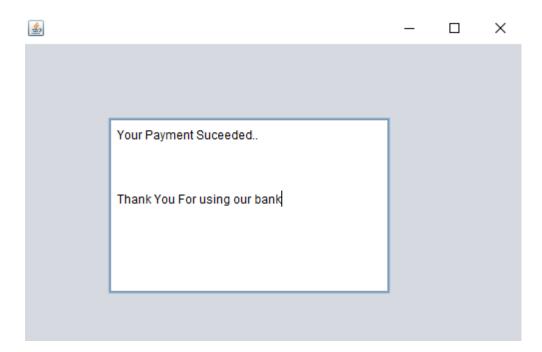
CREDIT CARD PROCESSING SYSTEM



TEST CASE:

TEST SCENARIO	TEST DATA	EXPECTED RESULTS		PASS/FAIL
Check user has chosen any field	Data filled	User should view the Borrow Book page	expected	Pass

Acknowledgement:



SAMPLE CODE:

Login.java

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet; import
java.sql.Statement;
import javax.swing.JOptionPane;
/*
* 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.
*/
/**
* @author Admin
public class Login extends javax.swing.JFrame {
  /**
* Creates new form Login
  public Login() {
     initComponents();
  }
* 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() {
     ¡Panel1 = new javax.swing.JPanel();
jLabel1 = new javax.swing.JLabel();
¡Label2 = new javax.swing.JLabel();
t1 = new javax.swing.JTextField();
b2 = new javax.swing.JButton();
jLabel3 = new javax.swing.JLabel();
jLabel4 = new javax.swing.JLabel();
b3 = new javax.swing.JButton();
                                     b1
= new javax.swing.JButton();
```

```
p1 = new javax.swing.JPasswordField();
    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
¡Panel1.setPreferredSize(new java.awt.Dimension(800, 650));
    jLabel1.setText("Email_Id ");
    ¡Label2.setText("Password");
    b2.setText("Forgot Password");
                                       b2.addActionListener(new
java.awt.event.ActionListener() {
                                      public void
actionPerformed(java.awt.event.ActionEvent evt) {
b2ActionPerformed(evt);
       }
    });
    jLabel3.setFont(new java.awt.Font("Times New Roman", 1, 24)); // NOI18N
jLabel3.setForeground(new java.awt.Color(255, 0, 0));
                                                       ¡Label3.setText("LOGIN");
    ¡Label4.setForeground(new java.awt.Color(0, 51, 255));
¡Label4.setText("New User ?");
    b3.setText("Sign Up");
                               b3.addActionListener(new
java.awt.event.ActionListener() {
                                      public void
actionPerformed(java.awt.event.ActionEvent evt) {
b3ActionPerformed(evt);
    });
    b1.setText("Login");
                             b1.addActionListener(new
                                      public void
java.awt.event.ActionListener() {
actionPerformed(java.awt.event.ActionEvent evt) {
b1ActionPerformed(evt);
       }
    });
    javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
¡Panel1.setLayout(¡Panel1Layout);
                                    iPanel1Layout.setHorizontalGroup(
      jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
       .addGroup(jPanel1Layout.createSequentialGroup()
         .addGap(179, 179, 179)
         .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 167,
javax.swing.GroupLayout.PREFERRED_SIZE))
       .addGroup(jPanel1Layout.createSequentialGroup()
         .addGap(71, 71, 71)
         .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 98,
javax.swing.GroupLayout.PREFERRED SIZE)
```

```
.addGap(10, 10, 10)
         .addComponent(t1, javax.swing.GroupLayout.PREFERRED SIZE, 167,
javax.swing.GroupLayout.PREFERRED SIZE))
.addGroup(jPanel1Layout.createSequentialGroup()
         .addGap(71, 71, 71)
         .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 98,
javax.swing.GroupLayout.PREFERRED_SIZE)
         .addGap(10, 10, 10)
         .addComponent(p1, javax.swing.GroupLayout.PREFERRED_SIZE, 167,
javax.swing.GroupLayout.PREFERRED_SIZE))
      .addGroup(jPanel1Layout.createSequentialGroup()
         .addGap(100, 100, 100)
         .addComponent(b1, javax.swing.GroupLayout.PREFERRED_SIZE, 69,
javax.swing.GroupLayout.PREFERRED SIZE)
         .addGap(37, 37, 37)
         .addComponent(b2, javax.swing.GroupLayout.PREFERRED_SIZE, 125,
javax.swing.GroupLayout.PREFERRED_SIZE))
      .addGroup(jPanel1Layout.createSequentialGroup()
         .addGap(139, 139, 139)
         .addComponent(jLabel4)
         .addGap(17, 17, 17)
         .addComponent(b3))
    );
    jPanel1Layout.setVerticalGroup(
      iPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(jPanel1Layout.createSequentialGroup()
         .addGap(23, 23, 23)
         .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
         .addGap(28, 28, 28)
         .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignme)
nt.LEADING)
           .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 28,
javax.swing.GroupLayout.PREFERRED SIZE)
           .addComponent(t1, javax.swing.GroupLayout.PREFERRED_SIZE, 28,
javax.swing.GroupLayout.PREFERRED SIZE))
         .addGap(18, 18, 18)
         .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignme
nt.LEADING)
           .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 26,
javax.swing.GroupLayout.PREFERRED_SIZE)
           .addComponent(p1, javax.swing.GroupLayout.PREFERRED_SIZE, 26,
javax.swing.GroupLayout.PREFERRED_SIZE))
         .addGap(45, 45, 45)
         .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignme
nt.LEADING)
           .addComponent(b1)
```

```
.addComponent(b2))
         .addGap(52, 52, 52)
         . add Group (jPanel 1 Layout.create Parallel Group (javax.swing. Group Layout. A lignme) \\
nt.LEADING)
           .addGroup(jPanel1Layout.createSequentialGroup()
        addGap(4, 4, 4)
             .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE))
           .addComponent(b3, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)))
    );
    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
                                       layout.setHorizontalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addComponent(jPanel1, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED SIZE, 500,
javax.swing.GroupLayout.PREFERRED_SIZE)
    );
    layout.setVerticalGroup(
       layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
       .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
         .addGap(0, 0, Short.MAX_VALUE)
         .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE, 400,
javax.swing.GroupLayout.PREFERRED SIZE))
    );
    pack();
  }// </editor-fold>
  private void b3ActionPerformed(java.awt.event.ActionEvent evt) {
    Signup su = new Signup();
su.setVisible(true);
  private void b2ActionPerformed(java.awt.event.ActionEvent evt) {
                            f.setVisible(true);
Forgot f = new Forgot();
  }
  private void b1ActionPerformed(java.awt.event.ActionEvent evt) {
String email = t1.getText();
                              String pass = p1.getText();
    if(email.equals("") || pass.equals(""))
       JOptionPane.showMessageDialog(this,"Please fill username and password");
else
         Connection con =
```

```
DriverManager.getConnection("jdbc:derby://localhost:1527/ebook", "root", "root");
          String sql = "select pass from users where email="" + email + "";
          Statement st=con.createStatement();
          ResultSet rs = st.executeQuery(sql);
         if(rs.next())
            if(rs.getString(1).equals(pass))
              String sql1 = "update users set active=1 where email="" + email +""";
int n = st.executeUpdate(sql1);
              JOptionPane.showMessageDialog(this, "Login Successful");
Index i = new Index();
                                     i.setVisible(true);
dispose();
            }
else
              JOptionPane.showMessageDialog(this, "Invalid Password");
}
else
            JOptionPane.showMessageDialog(this, "Invalid Login Credentials");
rs.close();
st.close();
          con.close();
         catch(Exception e)
           JOptionPane.showMessageDialog(this, "Error Occured: " + e);
     }
  }
* @param args the command line arguments
  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
                         for
(javax.swing.UIManager.LookAndFeelInfo info:
```

```
javax.swing.UIManager.getInstalledLookAndFeels()) {
                                                               if
("Nimbus".equals(info.getName())) {
javax.swing.UIManager.setLookAndFeel(info.getClassName());
          }
     } catch (ClassNotFoundException ex) {
java.util.logging.Logger.getLogger(Login.class.getName()).log(java.util.logging.Leve
1.SEVERE, null, ex);
     } catch (InstantiationException ex) {
       java.util.logging.Logger.getLogger(Login.class.getName()).log(java.util.logging.Leve
1.SEVERE, null, ex);
     } catch (IllegalAccessException ex) {
       java.util.logging.Logger.getLogger(Login.class.getName()).log(java.util.logging.Leve
1.SEVERE, null, ex);
     } catch (javax.swing.UnsupportedLookAndFeelException ex) {
       java.util.logging.Logger.getLogger(Login.class.getName()).log(java.util.logging.Leve
1.SEVERE, null, ex);
    //</editor-fold>
    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
public void run() {
         new Login().setVisible(true);
    });
  }
  // Variables declaration - do not modify
  private javax.swing.JButton b1;
private javax.swing.JButton b2; private
javax.swing.JButton b3; private
javax.swing.JLabel jLabel1;
                              private
javax.swing.JLabel jLabel2;
                              private
javax.swing.JLabel jLabel3;
                              private
javax.swing.JLabel jLabel4;
                              private
javax.swing.JPanel jPanel1;
                              private
javax.swing.JPasswordField p1;
                                  private
javax.swing.JTextField t1;
  // End of variables declaration
```

display.java

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet; import
java.sql.Statement; import
javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;
* 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.
*/
/**
* @author Admin
public class Display extends javax.swing.JFrame {
* Creates new form Display
  public Display() {
    initComponents();
* 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() {
    ¡Panel1 = new javax.swing.JPanel();
jLabel9 = new javax.swing.JLabel();
jScrollPane1 = new javax.swing.JScrollPane();
table1 = new javax.swing.JTable();
                                       iButton1 =
```

```
new javax.swing.JButton();
                                jButton2 = new
javax.swing.JButton();
    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
    jLabel9.setFont(new java.awt.Font("Times New Roman", 1, 24)); // NOI18N
jLabel9.setForeground(new java.awt.Color(255, 0, 51)); jLabel9.setText("Borrowed
Book Details");
jScrollPane1.setBorder(javax.swing.BorderFactory.createEmptyBorder(1, 1, 1, 1));
jScrollPane1.setForeground(new java.awt.Color(240, 240, 240));
    table1.setBackground(new java.awt.Color(240, 240, 240));
    table1.setModel(new javax.swing.table.DefaultTableModel(
new Object [][] {
         {null, null, null, null, null, null},
         {null, null, null, null, null, null}
       new String [] {
         "Bood Id", "Book Name", "Author Name", "Publication", "Borrow Date", "Return
Date"
       }
    ));
    table1.setGridColor(new java.awt.Color(240, 240, 240));
jScrollPane1.setViewportView(table1);
    jButton1.setText("Back");
                                   jButton1.addActionListener(new
java.awt.event.ActionListener() {
                                        public void
actionPerformed(java.awt.event.ActionEvent evt) {
¡Button1ActionPerformed(evt);
     });
    ¡Button2.setText("Display");
jButton2.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
¡Button2ActionPerformed(evt);
     });
    javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
¡Panel1.setLayout(¡Panel1Layout);
                                      ¡Panel1Layout.setHorizontalGroup(
iPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```
.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
iPanel1Layout.createSequentialGroup()
         .addGap(27, 27, 27)
         .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 480,
javax.swing.GroupLayout.PREFERRED_SIZE)
         .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 18,
Short.MAX_VALUE)
         .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignme
nt.LEADING, false)
           .addComponent(jButton2, javax.swing.GroupLayout.DEFAULT_SIZE, 73,
Short.MAX_VALUE)
           .addComponent(jButton1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addGap(52, 52, 52))
      .addGroup(jPanel1Layout.createSequentialGroup()
        .addGap(182, 182, 182)
         .addComponent(jLabel9, javax.swing.GroupLayout.PREFERRED SIZE, 270,
javax.swing.GroupLayout.PREFERRED_SIZE)
         .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
    jPanel1Layout.setVerticalGroup(
      iPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)\\
      .addGroup(jPanel1Layout.createSequentialGroup()
         .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignme
nt.LEADING)
           .addGroup(jPanel1Layout.createSequentialGroup()
             .addGap(119, 119, 119)
             .addComponent(jButton2)
             .addGap(45, 45, 45)
             .addComponent(jButton1))
           .addGroup(jPanel1Layout.createSequentialGroup()
             .addGap(27, 27, 27)
             .addComponent(jLabel9)
             .addGap(56, 56, 56)
             .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE,
110, javax.swing.GroupLayout.PREFERRED SIZE)))
         .addContainerGap(100, Short.MAX_VALUE))
    );
    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLavout(lavout):
                                     layout.setHorizontalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT SIZE,
javax.swing.GroupLayout.PREFERRED SIZE)
    );
```

```
layout.setVerticalGroup(
       layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
     );
     pack();
  }// </editor-fold>
  private void jButton1ActionPerformed(java.awt.event.ActionEvent evt)
     Index i = new Index();
    i.setVisible(true); dispose();
  private void jButton2ActionPerformed(java.awt.event.ActionEvent evt)
     try
       Connection con =
DriverManager.getConnection("jdbc:derby://localhost:1527/ebook", "root", "root");
       String sql = "select email from users where active=1";
       Statement st=con.createStatement();
       ResultSet rs=st.executeQuery(sql);
       String email = null;
       if(rs.next())
         email=rs.getString(1);
       String sql1 = "select * from book_rec where email="" + email + """;
       ResultSet rs1=st.executeQuery(sql1);
       DefaultTableModel tm = (DefaultTableModel) table1.getModel();
tm.setRowCount(0);
       while(rs1.next())
         Object o[] = {rs1.getInt(2), rs1.getString(3), rs1.getString(4), rs1.getString(5),
rs1.getDate(6), rs1.getDate(7)};
         tm.addRow(o);
       }
     catch(Exception e)
```

```
JOptionPane.showMessageDialog(this, e);
     }
  }
* @param args the command line arguments
  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(Display.class.getName()).log(java.util.logging.Le
vel.SEVERE, null, ex);
     } catch (InstantiationException ex) {
       java.util.logging.Logger.getLogger(Display.class.getName()).log(java.util.logging.Le
vel.SEVERE, null, ex);
     } catch (IllegalAccessException ex) {
       java.util.logging.Logger.getLogger(Display.class.getName()).log(java.util.logging.Le
vel.SEVERE, null, ex);
     } catch (javax.swing.UnsupportedLookAndFeelException ex) {
       java.util.logging.Logger.getLogger(Display.class.getName()).log(java.util.logging.Le
vel.SEVERE, null, ex);
     }
    //</editor-fold>
    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
public void run() {
         new Display().setVisible(true);
    });
  }
  // Variables declaration - do not modify
  private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
```

```
javax.swing.JLabel jLabel9; private
javax.swing.JPanel jPanel1; private
javax.swing.JScrollPane jScrollPane1; private
javax.swing.JTable table1;
// End of variables declaration
}
```

PERFORMANCE	

VIVA	
RECORD	
TOTAL	
STAFF SIGNATURE	

RESULT:

Thus the UML diagrams and the application for Credit card Processing System was successfully created and hence the output is obtained and verified.