APPENDIX

SOURCE CODE

Home.java

```
package creditcard;
public class home extends javax. swing. Frame {
  public home() {
initComponents ();
private void initComponents ()
¡Panel1 = new javax. swing. JPanel ();
 iPanel2 = new javax. swing.JPanel();
 jLabel1 = new javax. swing. JLabel();
 ¡Panel3 = new javax. swing. JPanel ();
 jLabel2 = new javax.swing. JLabel();
 jButton1 = new javax.swing.JButton();
 jButton2 = new javax. Swing.JButton();
 jLabel4 = new javax.swing.JLabel();
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
    setMinimumSize(new
                                    java.awt.Dimension(617,
                                                                       489));
¡Panel1.setLayout(null);
 ¡Panel2.setBackground(new
                                  java.awt.Color(204,
                                                            204,
                                                                       204));
¡Panel2.setBorder(javax.swing.BorderFactory.createEtchedBorder());
                      java.awt.Font("Times
iLabel1.setFont(new
                                               New
                                                       Roman",
                                                                        18));
jLabel1.setForeground(new java.awt.Color(0, 51, 204)); jLabel1.setText("Credit
```

```
¡Panel2Layout = new javax.swing.GroupLayout(jPanel2);
 ¡Panel2.setLayout(¡Panel2Layout);
   jPanel2Layout.setHorizontalGroup(
jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
DING)
      .addGroup(jPanel2Layout.createSequentialGroup()
         .addGap(73, 73, 73)
         .addComponent(jLabel1,
javax.swing.GroupLayout.PREFERRED_SIZE,
                                                                    497,
javax.swing.GroupLayout.PREFERRED_SIZE)
         .addContainerGap(18, Short.MAX_VALUE))
    );
    jPanel2Layout.setVerticalGroup(
jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
DING)
      .addGroup(jPanel2Layout.createSequentialGroup()
         .addContainerGap()
         .addComponent(jLabel1,
javax.swing.GroupLayout.DEFAULT_SIZE, 38, Short.MAX_VALUE)
         .addContainerGap())
    );
```

Card Fraud Detection Using Hidden Markov Model"); javax.swing.GroupLayout

```
jPanel1.add(jPanel2);
    ¡Panel2.setBounds(10, 11, 592, 64);
    jPanel3.setBorder(new javax.swing.border.SoftBevelBorder(0));
    jLabel2.setIcon(new
javax.swing.ImageIcon("C:\\Users\\ETPL21\\Documents\\NetBeansProjects\\cr
ditcard\\src\\crditcard\\index.jpg"));
    jButton1.setFont(new java.awt.Font("Times New Roman", 1, 18));
    jButton1.setForeground(new java.awt.Color(153, 0, 0));
    jButton1.setText("SIGN IN");
    jButton1.addActionListener(new java.awt.event.ActionListener() {
       public void actionPerformed(java.awt.event.ActionEvent evt) {
         ¡Button1ActionPerformed(evt);
       }
     });
    jButton2.setFont(new java.awt.Font("Times New Roman", 1, 18));
    jButton2.setForeground(new java.awt.Color(153, 0, 0));
    ¡Button2.setText("SIGN UP");
    jButton2.addActionListener(new java.awt.event.ActionListener() {
```

```
public void actionPerformed(java.awt.event.ActionEvent evt) {
         ¡Button2ActionPerformed(evt);
       }
    });
    javax.swing.GroupLayout
                                    jPanel3Layout
                                                          =
                                                                    new
javax.swing.GroupLayout(jPanel3);
    ¡Panel3.setLayout(¡Panel3Layout);
    jPanel3Layout.setHorizontalGroup(
jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
DING)
       . add Group (jPanel 3 Layout.create Sequential Group ()\\
         .addGap(54, 54, 54)
         .addComponent(jLabel2)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
71, Short.MAX_VALUE)
.addGroup(jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Align
ment.LEADING, false)
           .addComponent(jButton1,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
           .addComponent(jButton2,
javax.swing.GroupLayout.DEFAULT_SIZE, 158, Short.MAX_VALUE))
```

```
.addGap(60, 60, 60))
                );
                jPanel3Layout.setVerticalGroup(
jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
 DING)
                        .addGroup(jPanel3Layout.createSequentialGroup()
                               .addContainerGap(72, Short.MAX_VALUE)
 . add Group (jPanel 3 Layout.create Parallel Group (javax.swing. Group Layout. A lignum and Group (javax.swing. Group Layout.) A lignum and Group (javax.swing. Group Layout. A lignum and Group (javax.swing. Group Layout.) A lignum and Group (javax.swing. Group Layout. A lignum and Group (javax.swing. Group Layout.) A lignum and Group (javax.swing. Group Layout. A lignum and Group (javax.swing. Group Layout.) A lignum and Group (javax.swing. Group Layout. A lignum and Group (javax.swing. Group Layout.) A lignum and Group (javax.swing.group (javax.swing.group) A lignum and Group (javax.swing.group) A lignum an
 ment.LEADING)
                                       .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
iPanel3Layout.createSequentialGroup()
                                               .addComponent(jLabel2)
                                               .addGap(67, 67, 67))
                                       .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
¡Panel3Layout.createSequentialGroup()
                                               .addComponent(jButton1,
javax.swing.GroupLayout.PREFERRED_SIZE,
                                                                                                                                                                                                                                               44.
javax.swing.GroupLayout.PREFERRED_SIZE)
                                               .addGap(55, 55, 55)
                                               .addComponent(jButton2,
javax.swing.GroupLayout.PREFERRED_SIZE,
                                                                                                                                                                                                                                               45,
javax.swing.GroupLayout.PREFERRED_SIZE)
                                               .addGap(110, 110, 110))))
                );
```

```
jPanel1.add(jPanel3);
    jPanel3.setBounds(10, 103, 592, 353);
    jLabel4.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/crditcard/bk.jpg")));
    ¡Panel1.add(¡Label4);
    jLabel4.setBounds(0, 0, 620, 480);
                                       layout
    javax.swing.GroupLayout
                                                        =
                                                                     new
javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
       .addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT_SIZE,
617, Short.MAX VALUE)
    );
    layout.setVerticalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
       .addGroup(layout.createSequentialGroup()
         .addComponent(jPanel1,
javax.swing.GroupLayout.PREFERRED_SIZE,
                                                                     476,
javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addGap(0, 2, Short.MAX_VALUE))
     );
     pack();
   }
  private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
     second st=new second();
     st.setVisible(true);
   }
  private void jButton2ActionPerformed(java.awt.event.ActionEvent evt)
     first fst=new first();
     fst.setVisible(true);
   }
  Public static void main(String args[]) {
     try {
                 (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(home.class.getName()).log(java.util.logging
.Level.SEVERE, null, ex);
     } catch (InstantiationException ex) {
java.util.logging.Logger.getLogger(home.class.getName()).log(java.util.logging
.Level.SEVERE, null, ex);
     } catch (IllegalAccessException ex) {
java.util.logging.Logger.getLogger(home.class.getName()).log(java.util.logging
.Level.SEVERE, null, ex);
     } catch (javax.swing.UnsupportedLookAndFeelException ex) {
java.util.logging.Logger.getLogger(home.class.getName()).log(java.util.logging
.Level.SEVERE, null, ex);
     }
    java.awt.EventQueue.invokeLater(new Runnable() {
       public void run() {
         new home().setVisible(true);
```

```
}
  });
}
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel4;
private javax.swing.JPanel jPanel1;
private javax.swing.JPanel jPanel2;
private javax.swing.JPanel jPanel3;
```

}