import java.awt.Frame;

import java.awt.Toolkit;

import java.awt.datatransfer.StringSelection;

import java.io.UnsupportedEncodingException;

import java.security.MessageDigest;

import java.security.NoSuchAlgorithmException;

import java.util.Arrays;

import java.util.Base64;

import javax.crypto.Cipher;

import javax.crypto.spec.SecretKeySpec;

/\*\*

\*

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\*/

public class EDcrypt extends javax.swing.JFrame {

/\*\*

\* Creates new form EDcrypt

\*/

private static SecretKeySpec secretKey; private static byte[] key;

public static void setKey(String myKey)

{

MessageDigest sha = null; try {

key = myKey.getBytes("UTF-8");

sha = MessageDigest.getInstance("SHA-1");

key = sha.digest(key);

key = Arrays.copyOf(key, 16);

secretKey = new SecretKeySpec(key, "AES");

}

catch (NoSuchAlgorithmException e)

{ e.printStackTrace();

}

catch (UnsupportedEncodingException e)

{ e.printStackTrace();

}

}

public EDcrypt()

{ 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() {

jScrollPane1 = new javax.swing.JScrollPane();

text1 = new javax.swing.JTextArea();

jScrollPane2 = new javax.swing.JScrollPane();

text2 = new javax.swing.JTextArea();

jScrollPane3 = new javax.swing.JScrollPane();

text3 = new javax.swing.JTextArea();

jScrollPane4 = new javax.swing.JScrollPane();

text4 = new javax.swing.JTextArea();

msg1 = new javax.swing.JTextField();

msg2 = new javax.swing.JTextField();

encrypt = new javax.swing.JButton();

decrypt = new javax.swing.JButton();

copyencrypt = new javax.swing.JButton();

copydecrypt = new javax.swing.JButton();

jLabel2 = new javax.swing.JLabel();

jLabel3 = new javax.swing.JLabel();

jLabel1 = new javax.swing.JLabel();

jLabel4 = new javax.swing.JLabel();

jLabel5 = new javax.swing.JLabel();

jLabel6 = new javax.swing.JLabel();

message1 = new javax.swing.JLabel();

message2 = new javax.swing.JLabel(); mainsection = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE); setTitle("Encryption and Decryption ");

setAlwaysOnTop(true);

setUndecorated(true);

setResizable(false);

getContentPane().setLayout(null);

text1.setColumns(20);

text1.setFont(new java.awt.Font("Dialog", 0, 14)); // NOI18N text1.setRows(5);

text1.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(102, 102, 102), 2)); jScrollPane1.setViewportView(text1);

getContentPane().add(jScrollPane1);

jScrollPane1.setBounds(80, 80, 300, 120);

text2.setColumns(20);

text2.setFont(new java.awt.Font("Dialog", 0, 14)); // NOI18N text2.setRows(5);

text2.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(102, 102, 102), 2)); jScrollPane2.setViewportView(text2);

getContentPane().add(jScrollPane2);

jScrollPane2.setBounds(80, 322, 300, 120);

text3.setColumns(20);

text3.setFont(new java.awt.Font("Dialog", 0, 14)); // NOI18N text3.setRows(5);

text3.setToolTipText("");

text3.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(102, 102, 102), 2)); jScrollPane3.setViewportView(text3);

getContentPane().add(jScrollPane3); jScrollPane3.setBounds(470, 80, 320, 120);

text4.setColumns(20);

text4.setFont(new java.awt.Font("Dialog", 0, 14));

// NOI18N text4.setRows(5);

text4.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(102, 102, 102), 2)); jScrollPane4.setViewportView(text4);

getContentPane().add(jScrollPane4); jScrollPane4.setBounds(470, 320, 320, 120);

msg1.setHorizontalAlignment(javax.swing.JTextField.CENTER);

msg1.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) { msg1ActionPerformed(evt);

}

});

getContentPane().add(msg1);

msg1.setBounds(200, 220, 180, 30);

msg2.setHorizontalAlignment(javax.swing.JTextField.CENTER);

getContentPane().add(msg2);

msg2.setBounds(595, 220, 190, 30);

encrypt.setBackground(new java.awt.Color(0, 51, 51));

encrypt.setFont(new java.awt.Font("Dialog", 1, 14)); // NOI18N

encrypt.setForeground(new java.awt.Color(255, 255, 255));

encrypt.setText("Encrypt");

encrypt.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) {

encryptActionPerformed(evt);

}

});

getContentPane().add(encrypt); encrypt.setBounds(80, 275, 90, 30);

decrypt.setBackground(new java.awt.Color(0, 51, 51));

decrypt.setFont(new java.awt.Font("Dialog", 1, 14)); // NOI18N

decrypt.setForeground(new java.awt.Color(255, 255, 255));

decrypt.setText("Decrypt");

decrypt.addActionListener(new java.awt.event.ActionListener() { public void actionPerformed(java.awt.event.ActionEvent evt) {

decryptActionPerformed(evt);

}

});

getContentPane().add(decrypt); decrypt.setBounds(470, 275, 90, 30);

copyencrypt.setBackground(new java.awt.Color(102, 0, 0));

copyencrypt.setFont(new java.awt.Font("Dialog", 1, 12)); // NOI18N

copyencrypt.setForeground(new java.awt.Color(255, 255, 255));

copyencrypt.setText("Copy Encryption");

copyencrypt.addActionListener(new java.awt.event.ActionListener() {

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

{ copyencryptActionPerformed(evt);

}

});

getContentPane().add(copyencrypt); copyencrypt.setBounds(240, 275, 140, 30)

copydecrypt.setBackground(new java.awt.Color(102, 0, 0));

copydecrypt.setFont(new java.awt.Font("Dialog", 1, 12)); // NOI18N

copydecrypt.setForeground(new java.awt.Color(255, 255, 255)); copydecrypt.setText("Copy Decryption"); copydecrypt.addActionListener(new java.awt.event.ActionListener()

{

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

{ copydecryptActionPerformed(evt);

}

});

getContentPane().add(copydecrypt);

copydecrypt.setBounds(633, 275, 150, 30);

jLabel2.setCursor(new java.awt.Cursor(java.awt.Cursor.HAND\_CURSOR)); jLabel2.addMouseListener(new java.awt.event.MouseAdapter() {

public void mousePressed(java.awt.event.MouseEvent evt)

{ jLabel2MousePressed(evt);

}

});

getContentPane().add(jLabel2);

jLabel2.setBounds(810, 5, 30, 20);

jLabel3.setCursor(new java.awt.Cursor(java.awt.Cursor.HAND\_CURSOR)); jLabel3.addMouseListener(new java.awt.event.MouseAdapter() {

public void mousePressed(java.awt.event.MouseEvent evt) { jLabel3MousePressed(evt);

}

});

getContentPane().add(jLabel3);

jLabel3.setBounds(780, 5, 30, 20);

jLabel1.setFont(new java.awt.Font("Dialog", 1, 14)); // NOI18N

jLabel1.setForeground(new java.awt.Color(204, 51, 0)); jLabel1.setText("Encryption Key");

jLabel1.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(102, 102, 102))); getContentPane().add(jLabel1);

jLabel1.setBounds(80, 220, 110, 30);

jLabel4.setFont(new java.awt.Font("Dialog", 1, 14)); // NOI18N

jLabel4.setForeground(new java.awt.Color(204, 51, 0));

jLabel4.setText("Decryption Key");

jLabel4.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(102, 102, 102))); getContentPane().add(jLabel4);

jLabel4.setBounds(470, 220, 110, 30);

jLabel5.setFont(new java.awt.Font("Dialog", 1, 18)); // NOI18N

jLabel5.setForeground(new java.awt.Color(0, 0, 51)); jLabel5.setHorizontalAlignment(javax.swing.SwingConstants.CENTER); jLabel5.setText("Message to Decrypt"); getContentPane().add(jLabel5);

jLabel5.setBounds(470, 50, 300, 30);

jLabel6.setFont(new java.awt.Font("Dialog", 1, 18)); // NOI18N

jLabel6.setForeground(new java.awt.Color(0, 0, 51)); jLabel6.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);

jLabel6.setText("Message to Encrypt ");

getContentPane().add(jLabel6);

jLabel6.setBounds(80, 50, 300, 30);

message1.setForeground(new java.awt.Color(204, 0, 0));

message1.setHorizontalAlignment(javax.swing.SwingConstants.CENTER); getContentPane().add(message1);

message1.setBounds(80, 450, 300, 20);

message2.setForeground(new java.awt.Color(204, 0, 0)); message2.setHorizontalAlignment(javax.swing.SwingConstants.CENTER); getContentPane().add(message2);

message2.setBounds(470, 450, 320, 20);

mainsection.setForeground(new java.awt.Color(153, 0, 0)); mainsection.setText("AES");

mainsection.setCursor(new java.awt.Cursor(java.awt.Cursor.DEFAULT\_CURSOR)); getContentPane().add(mainsection);

mainsection.setBounds(10, -220, 850, 500);

setSize(new java.awt.Dimension(850, 499));

setLocationRelativeTo(null);

}// </editor-fold>

private void jLabel2MousePressed(java.awt.event.MouseEvent evt) {

// TODO add your handling code here:

System.exit(0);

}

private void jLabel3MousePressed(java.awt.event.MouseEvent evt) {

// TODO add your handling code here: this.setState(Frame.ICONIFIED);

}

private void encryptActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

try

{

strToEncrypt=text1.getText(); secret=msg1.getText();

setKey(secret);

Cipher cipher = Cipher.getInstance("AES/ECB/PKCS5Padding");

cipher.init(Cipher.ENCRYPT\_MODE, secretKey);

text2.setText(Base64.getEncoder().encodeToString(cipher.doFinal(strToEncrypt.getBytes("UTF-8"))));

}

catch (Exception e)

{

text2.setText("Please fill up the right secret key");

}

}

private void copyencryptActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here: Toolkit.getDefaultToolkit().getSystemClipboard().setContents(new StringSelection(text2.getText()),null); message1.setText("Your encryption result is copied!");

message2.setText("");

}

private void decryptActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here: String secret;

String strToDecrypt;

try

{

secret=msg2.getText(); strToDecrypt=text3.getText(); setKey(secret);

Cipher cipher = Cipher.getInstance("AES/ECB/PKCS5PADDING"); cipher.init(Cipher.DECRYPT\_MODE, secretKey);

text4.setText(new String(cipher.doFinal(Base64.getDecoder().decode(strToDecrypt))));

//return new String(cipher.doFinal(Base64.getDecoder().decode(strToDecrypt)));

}

catch (Exception e)

{

text4.setText("Please fill up the right secret key");

}

}

private void copydecryptActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here: Toolkit.getDefaultToolkit().getSystemClipboard().setContents(new StringSelection(text4.getText()),null); message2.setText("Your decryption result is copied!");

message1.setText("");

}