

Nama : La Ode Muhammad Gazali
NIM : 222212696
Kelas : 2KS2

TUGAS PRA PERTEMUAN 10

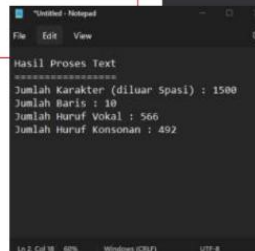
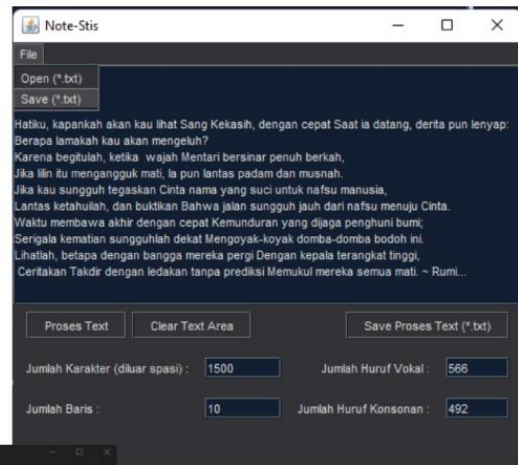
PRAKTIKUM PEMROGRAMAN BERORIENTASI OBJEK

Penugasan

Tugas Pertemuan 10

Buatlah aplikasi GUI pengolah kata dengan fitur sebagai Berikut :

1. Aplikasi memiliki menubar (JMenuBar) dengan menu item open dan save file dari dan ke penyimpanan lokal di computer. Keduanya bisa digunakan untuk file berekstensi *.txt. Konten Hasil file yang disave harus sama formatnya seperti yang dituliskan pada editor (spasi, baris, dsb).
2. Terdapat sebuah editor JTextArea untuk mengetikkan karakter text (dgn scroll vertical aktif tetapi tidak dengan scroll horizontal)
3. Terdapat tombol "Proses Text" untuk melakukan perhitungan jumlah karakter (diluar spasi), jumlah baris, jumlah huruf vocal, dan jumlah huruf konsonan dari teks yang dituliskan pada editor. Tombol "Clear Text Area" untuk menghapus semua teks pada editor, dan tombol "Save Proses Text (*.txt)" yang digunakan untuk menyimpan hasil proses text ke dalam sebuah file berekstensi *.txt.



Penyelesaian:

NoteStis.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to
change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GuiForms/JFrame.java to edit
this template
 */
package prapertemuan10;

/**
 *
 * @author U53R
 */
```

```

import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.io.BufferedReader;
import java.io.BufferedWriter;
import java.io.File;
import java.io.FileReader;
import java.io.FileWriter;
import java.io.IOException;
import javax.swing.JFileChooser;
import javax.swing.JOptionPane;
import javax.swing.filechooser.FileNameExtensionFilter;

public class NoteStis2 extends javax.swing.JFrame {

    /**
     * Creates new form NoteStis2
     */
    Integer charCount;
    Integer countConsonant;
    Integer countVocal;
    Integer jumlahBaris;
    private JFileChooser fileChooser = new JFileChooser();

    public NoteStis2() {
        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">//GEN-
BEGIN: initComponents
    private void initComponents() {

        jPanel1 = new javax.swing.JPanel();
        jScrollPane1 = new javax.swing.JScrollPane();
        textArea = new javax.swing.JTextArea();
        prosesButton = new javax.swing.JButton();
        clearButton = new javax.swing.JButton();
        saveProsesButton = new javax.swing.JButton();
        jLabel1 = new javax.swing.JLabel();

```

```

jLabel2 = new javax.swing.JLabel();
jumKarakterTextField = new javax.swing.JTextField();
jumBarisTextField = new javax.swing.JTextField();
jLabel3 = new javax.swing.JLabel();
jLabel4 = new javax.swing.JLabel();
vokalTextField = new javax.swing.JTextField();
konsonanTextField = new javax.swing.JTextField();
jMenuBar1 = new javax.swing.JMenuBar();
filejMenu = new javax.swing.JMenu();
openMenuItem = new javax.swing.JMenuItem();
saveMenuItem = new javax.swing.JMenuItem();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
setBackground(new java.awt.Color(255, 153, 153));

jPanel1.setBackground(new java.awt.Color(51, 51, 51));

textArea.setBackground(new java.awt.Color(0, 0, 51));
textArea.setColumns(20);
textArea.setForeground(new java.awt.Color(255, 255, 255));
textArea.setRows(5);
jScrollPane1.setViewportView(textArea);

prosesButton.setBackground(new java.awt.Color(51, 51, 51));
prosesButton.setForeground(new java.awt.Color(255, 255, 255));
prosesButton.setText("Proses Text");
prosesButton.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        prosesButtonActionPerformed(evt);
    }
});

clearButton.setBackground(new java.awt.Color(51, 51, 51));
clearButton.setForeground(new java.awt.Color(255, 255, 255));
clearButton.setText("Clear Text Area");
clearButton.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        clearButtonActionPerformed(evt);
    }
});

saveProsesButton.setBackground(new java.awt.Color(51, 51, 51));
saveProsesButton.setForeground(new java.awt.Color(255, 255, 255));
saveProsesButton.setText(" Save Proses Text (*.txt)");
saveProsesButton.addActionListener(new java.awt.event.ActionListener() {

```

```

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

    jLabel1.setForeground(new java.awt.Color(255, 255, 255));
    jLabel1.setText("Jumlah Karakter (diluar spasi) :");

    jLabel2.setForeground(new java.awt.Color(255, 255, 255));
    jLabel2.setText("Jumlah Baris :");

    jumKarakterTextField.setBackground(new java.awt.Color(0, 0, 51));
    jumKarakterTextField.setForeground(new java.awt.Color(255, 255, 255));
    jumKarakterTextField.addActionListener(new
java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jumKarakterTextFieldActionPerformed(evt);
    }
});

    jumBarisTextField.setBackground(new java.awt.Color(0, 0, 51));
    jumBarisTextField.setForeground(new java.awt.Color(255, 255, 255));
    jumBarisTextField.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jumBarisTextFieldActionPerformed(evt);
    }
});

    jLabel3.setForeground(new java.awt.Color(255, 255, 255));
    jLabel3.setText("Jumlah Huruf Konsonan :");

    jLabel4.setForeground(new java.awt.Color(255, 255, 255));
    jLabel4.setText("Jumlah Huruf Vokal :");

    vokalTextField.setBackground(new java.awt.Color(0, 0, 51));
    vokalTextField.setForeground(new java.awt.Color(255, 255, 255));
    vokalTextField.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        vokalTextFieldActionPerformed(evt);
    }
});

    konsonanTextField.setBackground(new java.awt.Color(0, 0, 51));
    konsonanTextField.setForeground(new java.awt.Color(255, 255, 255));
    konsonanTextField.addActionListener(new java.awt.event.ActionListener() {

```

```

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

    javax.swing.GroupLayout jPanel1Layout = new
javax.swing.GroupLayout(jPanel1);
    jPanel1.setLayout(jPanel1Layout);
    jPanel1Layout.setHorizontalGroup(
        jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jScrollPane1, javax.swing.GroupLayout.DEFAULT_SIZE,
530, Short.MAX_VALUE)
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup()
                .addGap(34, 34, 34)
                .addComponent(saveProsesButton)
                .addGap(34, 34, 34)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(11, 11, 11)
                        .addComponent(prosesButton)
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                        .addComponent(clearButton,
javax.swing.GroupLayout.PREFERRED_SIZE, 119,
javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(11, 11, 11)
                        .addComponent(jLabel1)
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                        .addComponent(jumKarakterTextField,
javax.swing.GroupLayout.PREFERRED_SIZE, 71,
javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(11, 11, 11)
                        .addComponent(jLabel2)

```

```

        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addComponent(jumBarisTextField,
javax.swing.GroupLayout.PREFERRED_SIZE, 71,
javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addGap(38, 38, 38)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
            .addComponent(jLabel4)
            .addComponent(jLabel3))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(vokalTextField,
javax.swing.GroupLayout.PREFERRED_SIZE, 71,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(konsonanTextField,
javax.swing.GroupLayout.PREFERRED_SIZE, 71,
javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addContainerGap(28, Short.MAX_VALUE)))
    );
    jPanel1Layout.setVerticalGroup(
        jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup())
                .addComponent(jScrollPane1,
javax.swing.GroupLayout.PREFERRED_SIZE, 205,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(saveProsesButton)
                .addContainerGap(138, Short.MAX_VALUE))
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(jPanel1Layout.createSequentialGroup()
                    .addGap(216, 216, 216)
                    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                        .addComponent(prosesButton)
                        .addComponent(clearButton))
                    .addGap(18, 18, 18)
                    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

```

```

        .addComponent(jLabel1)
        .addComponent(jumKarakterTextField,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel14)
        .addComponent(vokalTextField,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(22, 22, 22)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.Group
Layout.Alignment.BASELINE)
        .addComponent(jLabel12)
        .addComponent(jumBarisTextField,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel13)
        .addComponent(konsonanTextField,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addContainerGap(32, Short.MAX_VALUE)))
    );

    jMenuBar1.setBackground(new java.awt.Color(153, 255, 153));
    jMenuBar1.setForeground(new java.awt.Color(51, 51, 51));

    filejMenu.setBackground(new java.awt.Color(51, 51, 51));
    filejMenu.setForeground(new java.awt.Color(255, 255, 255));
    filejMenu.setText("File");

    openMenuItem.setBackground(new java.awt.Color(51, 51, 51));
    openMenuItem.setText("Open (*.txt)");
    openMenuItem.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            openMenuItemActionPerformed(evt);
        }
    });
    filejMenu.add(openMenuItem);

    saveMenuItem.setText("Save (*.txt)");
    saveMenuItem.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            saveMenuItemActionPerformed(evt);
        }
    });
    filejMenu.add(saveMenuItem);

```

```

jMenuBar1.add(fileJMenu);

setJMenuBar(jMenuBar1);

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.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
);
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
);

pack();
} // </editor-fold> // GEN-END: initComponents

private void openFile() {
    int returnVal = fileChooser.showOpenDialog(this);
    if (returnVal == JFileChooser.APPROVE_OPTION) {
        File file = fileChooser.getSelectedFile();
        try (BufferedReader reader = new BufferedReader(new
FileReader(file))) {
            String line;
            StringBuilder text = new StringBuilder();
            while ((line = reader.readLine()) != null) {
                text.append(line).append("\n");
            }
            textArea.setText(text.toString());
        } catch (IOException e) {
            e.printStackTrace();
        }
    }
}

private void saveFile() {
    int returnValue = fileChooser.showOpenDialog(this);
    if (returnValue == JFileChooser.APPROVE_OPTION) {

```



```

        File file = fileChooser.getSelectedFile();
        String filePath = file.getAbsolutePath();
        if (!filePath.endsWith(".txt")) {
            filePath += ".txt";
        }
        try {
            BufferedWriter writer = new BufferedWriter(new
FileWriter(filePath));
            writer.write(textArea.getText());
            JOptionPane.showMessageDialog(null, "Save File Succes");
            writer.close();
        } catch (IOException e) {
            JOptionPane.showMessageDialog(null, "Save File Failed");
            e.printStackTrace();
        }
    }

    private void saveTextProcess() {
        int returnValue = fileChooser.showOpenDialog(this);
        if (returnValue == JFileChooser.APPROVE_OPTION) {
            File file = fileChooser.getSelectedFile();
            String filePath = file.getAbsolutePath();
            if (!filePath.endsWith(".txt")) {
                filePath += ".txt";
            }
            try (BufferedWriter writer = new BufferedWriter(new
FileWriter(filePath))) {
                writer.write("Hasil proses text: ");
                writer.newLine();
                writer.write("Jumlah Karakter (diluakr spasi): " +
jumKarakterTextField.getText());
                writer.newLine();
                writer.write("Jumlah baris: " + jumBarisTextField.getText());
                writer.newLine();
                writer.write("Jumlah Huruf Vokal: " + vokalTextField.getText());
                writer.newLine();
                writer.write("Jumlah Huruf Konsonan: " +
konsonanTextField.getText());
                JOptionPane.showMessageDialog(null, "Save Process File Succes");
            } catch (IOException e) {
                JOptionPane.showMessageDialog(null, "Save Process File Failed");
                e.printStackTrace();
            }
        }
    }
}

```

```

    }
    private void saveMenuItemActionPerformed(java.awt.event.ActionEvent evt)
{
//GEN-FIRST:event_saveMenuItemActionPerformed
    saveFile();
}
//GEN-LAST:event_saveMenuItemActionPerformed

    private void prosesButtonActionPerformed(java.awt.event.ActionEvent evt)
{
//GEN-FIRST:event_prosesButtonActionPerformed
    // TODO add your handling code here:
    String fullText = textArea.getText().replace(" ", "");

    // Split the text into lines and initialize counters
    String[] lineText = fullText.split("\n");
    jumlahBaris = 0; charCount = 0;
    jumlahBaris = lineText.length;

    // Loop through each line and count characters
    for (String textLine : lineText) {
        charCount += textLine.length();
    }

    // Update the text fields with the number of lines and characters
    jumlahBarisTextField.setText(jumlahBaris.toString());
    jumlahKarakterTextField.setText(charCount.toString());

    // Initialize consonant and vowel counters and convert the text to
lowercase
    countConsonant = 0; countVocal = 0;
    String lowercaseText = fullText.toLowerCase();

    // Loop through each character in the lowercase text
    for (int i = 0; i < lowercaseText.length(); i++) {
        char letter = lowercaseText.charAt(i);

        // If the character is a letter, check if it's a consonant or vowel
        if (letter >= 'a' && letter <= 'z') {
            if (letter != 'a' && letter != 'i' && letter != 'u' && letter !=
'e' && letter != 'o') {
                countConsonant++;
            } else {
                countVocal++;
            }
        }
    }
}

```

```

        // Update the text fields with the number of consonants and vowels
        konsonanTextField.setText(countConsonant.toString());
        vokalTextField.setText(countVocal.toString());
    } //GEN-LAST:event_prosesButtonActionPerformed

    private void saveProsesButtonActionPerformed(java.awt.event.ActionEvent evt)
    { //GEN-FIRST:event_saveProsesButtonActionPerformed
        // TODO add your handling code here:
        saveTextProcess();
    } //GEN-LAST:event_saveProsesButtonActionPerformed

    private void jumKarakterTextFieldActionPerformed(java.awt.event.ActionEvent
    evt) { //GEN-FIRST:event_jumKarakterTextFieldActionPerformed
        // TODO add your handling code here:
    } //GEN-LAST:event_jumKarakterTextFieldActionPerformed

    private void vokalTextFieldActionPerformed(java.awt.event.ActionEvent evt)
    { //GEN-FIRST:event_vokalTextFieldActionPerformed
        // TODO add your handling code here:
    } //GEN-LAST:event_vokalTextFieldActionPerformed

    private void clearButtonActionPerformed(java.awt.event.ActionEvent evt)
    { //GEN-FIRST:event_clearButtonActionPerformed
        // TODO add your handling code here:
        // Clear the text area and reset all counters
        textArea.setText("");
        countConsonant = 0;
        countVocal = 0;
        jumlahBaris = 0;
        charCount = 0;
        jumBarisTextField.setText("0");
        konsonanTextField.setText("0");
        vokalTextField.setText("0");
        jumKarakterTextField.setText("0");
    } //GEN-LAST:event_clearButtonActionPerformed

    private void konsonanTextFieldActionPerformed(java.awt.event.ActionEvent evt)
    { //GEN-FIRST:event_konsonanTextFieldActionPerformed
        // TODO add your handling code here:
    } //GEN-LAST:event_konsonanTextFieldActionPerformed

    private void jumBarisTextFieldActionPerformed(java.awt.event.ActionEvent evt)
    { //GEN-FIRST:event_jumBarisTextFieldActionPerformed
        // TODO add your handling code here:
    } //GEN-LAST:event_jumBarisTextFieldActionPerformed

```

```

        private void openMenuItemActionPerformed(java.awt.event.ActionEvent evt)
{
//GEN-FIRST:event_openMenuItemActionPerformed
    // TODO add your handling code here:
    openFile();
}
//GEN-LAST:event_openMenuItemActionPerformed

/**
 * @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(NoteStis2.class.getName()).log(jav
a.util.logging.Level.SEVERE, null, ex);
    } catch (InstantiationException ex) {
        java.util.logging.Logger.getLogger(NoteStis2.class.getName()).log(jav
a.util.logging.Level.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {
        java.util.logging.Logger.getLogger(NoteStis2.class.getName()).log(jav
a.util.logging.Level.SEVERE, null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
        java.util.logging.Logger.getLogger(NoteStis2.class.getName()).log(jav
a.util.logging.Level.SEVERE, null, ex);
    }
    //</editor-fold>

    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {

```

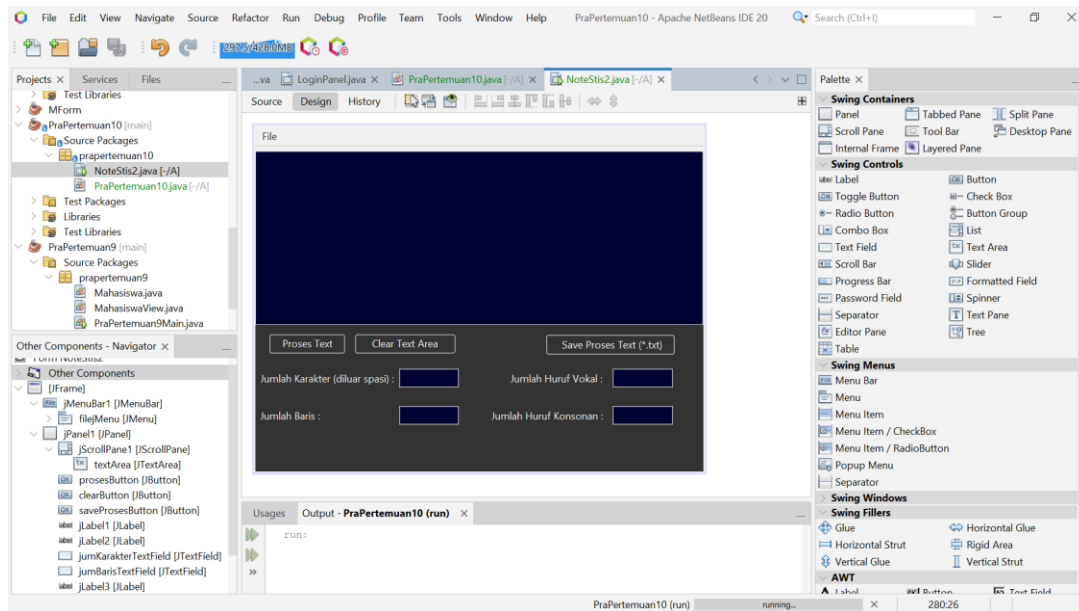
```

        new NoteStis2().setVisible(true);
    }
});
}

// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JButton clearButton;
private javax.swing.JMenu fileJMenu;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel4;
private javax.swing.JMenuBar jMenuBar1;
private javax.swing.JPanel jPanel1;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JTextField jumBarisTextField;
private javax.swing.JTextField jumKarakterTextField;
private javax.swing.JTextField konsonanTextField;
private javax.swing.JMenuItem openMenuItem;
private javax.swing.JButton prosesButton;
private javax.swing.JMenuItem saveMenuItem;
private javax.swing.JButton saveProsesButton;
private javax.swing.JTextArea textArea;
private javax.swing.JTextField vokalTextField;
// End of variables declaration//GEN-END:variables
}

```

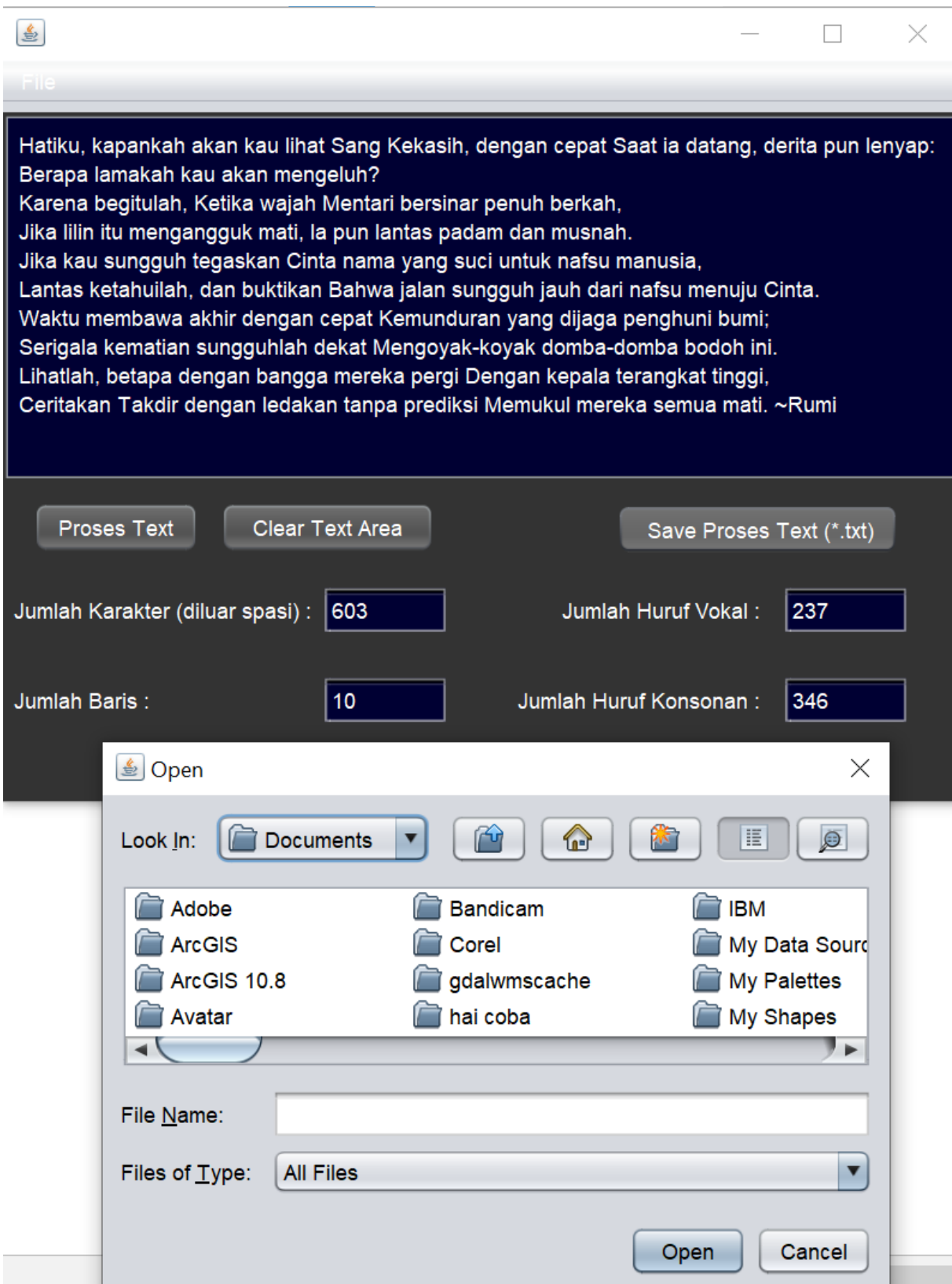
Design JFrame

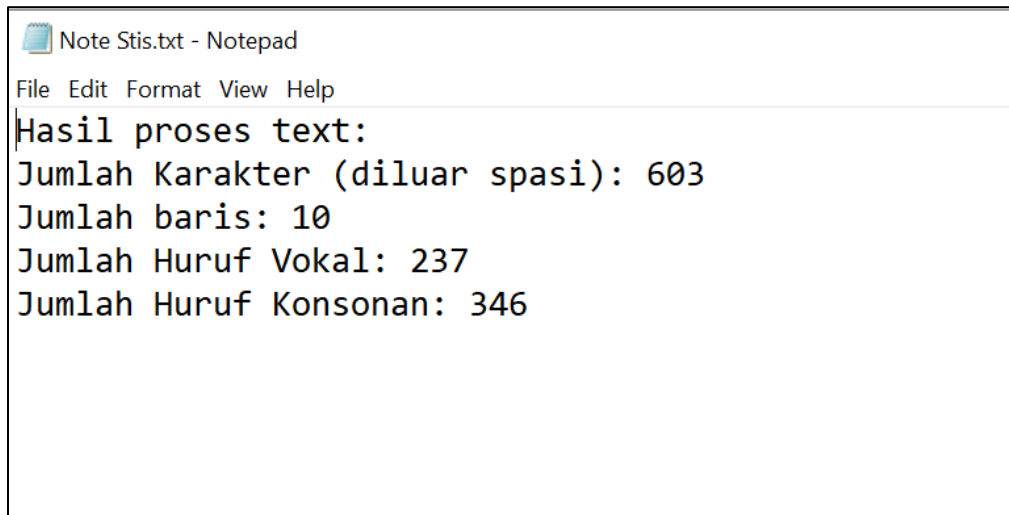
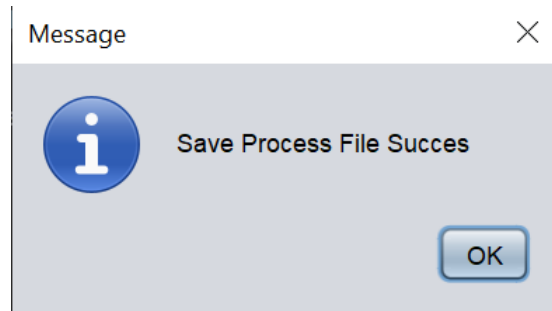


Menjalankan tombol Proses Text

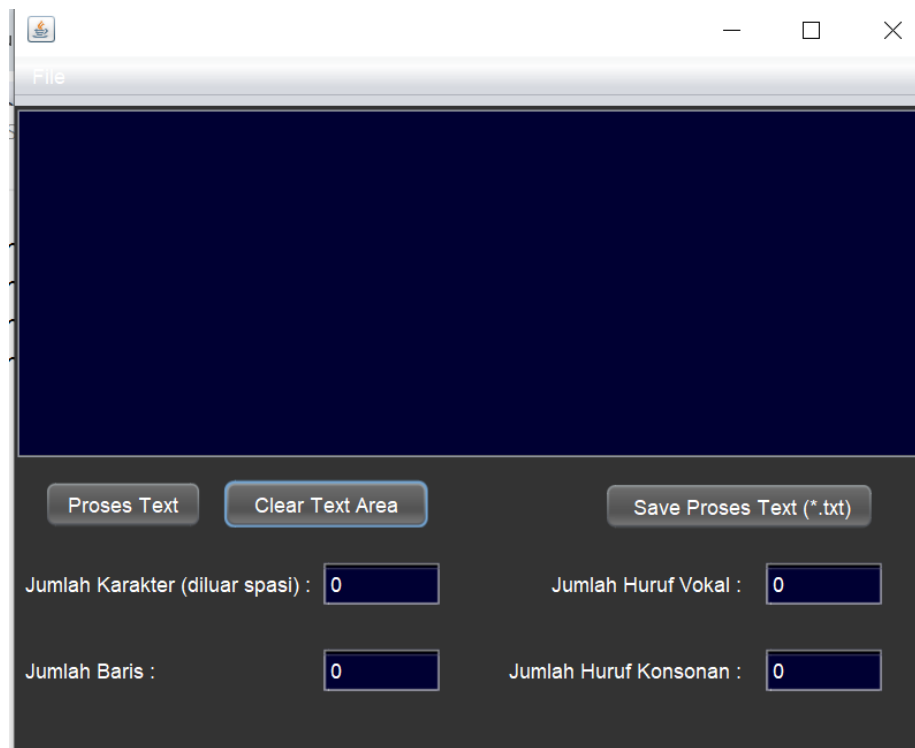


Menjalankan tombol Save Proses Text

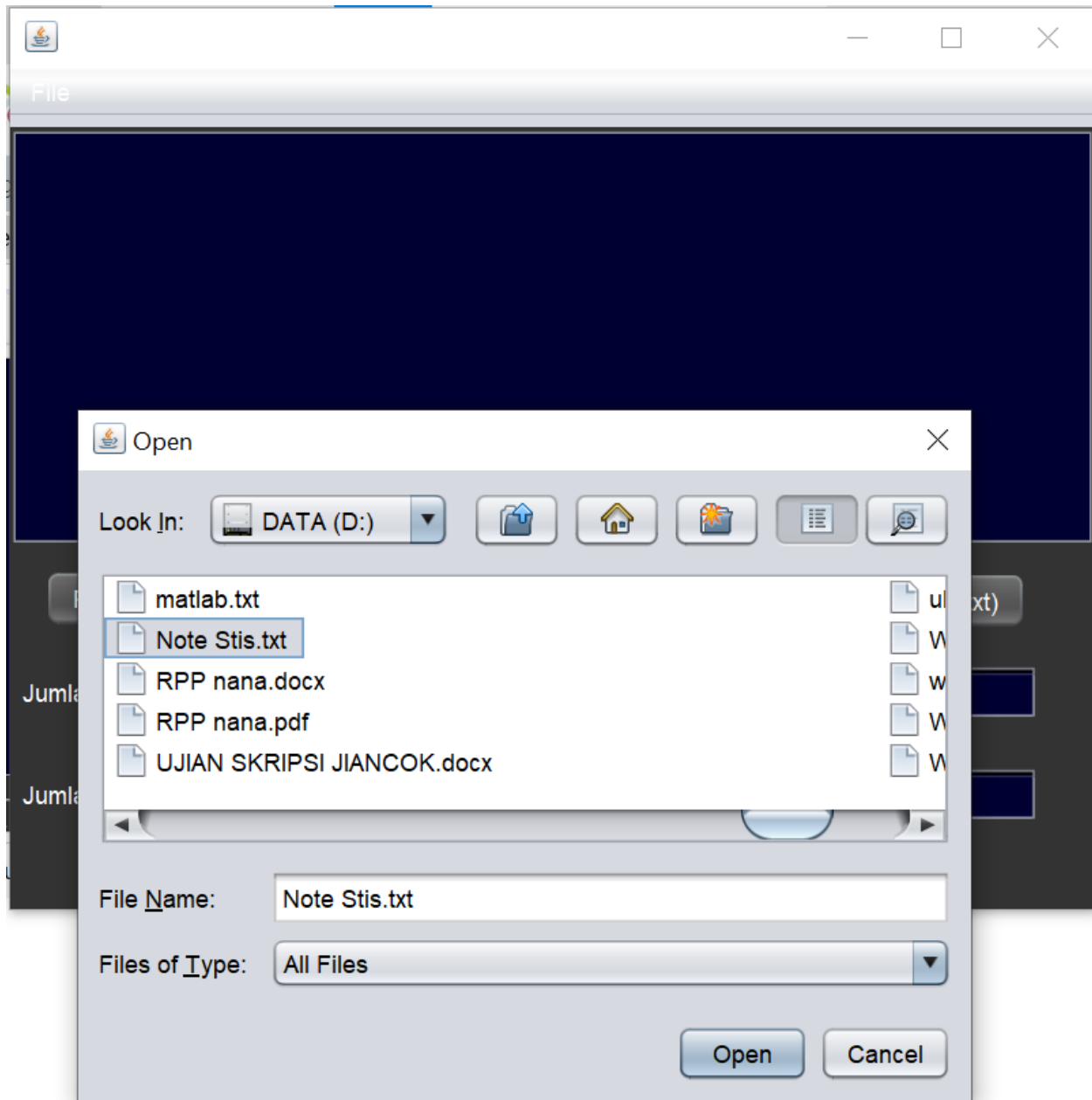




Menjalankan tombol Clear Text Area



Melakukan Open File Note STIS kembali





File

Hasil proses text:

Jumlah Karakter (diluar spasi): 603

Jumlah baris: 10

Jumlah Huruf Vokal: 237

Jumlah Huruf Konsonan: 346

Proses Text

Clear Text Area

Save Proses Text (*.txt)

Jumlah Karakter (diluar spasi) :

0

Jumlah Huruf Vokal :

0

Jumlah Baris :

0

Jumlah Huruf Konsonan :

0