Listing Program Gerbang Masuk Visual Studio

```
Option Strict On

Imports Emgu.CV
Imports Emgu.Util
Imports Emgu.CV.OCR
Imports Emgu.CV.Structure
Imports Emgu.CV.UI
Imports Emgu.CV.CvEnum
Imports MySql.Data.MySqlClient



Public Class FrmOcr

    Dim blnFirstTimeInResizeEvent As Boolean = True
    Dim intOrigFormWidth As Integer
    Dim intOrigFormHeight As Integer
    Dim intOrigTableLayoutPanelWidth As Integer
    Dim intOrigTableLayoutPanelHeight As Integer

    Dim imgImage As Image(Of Bgr, Byte) = Nothing
    Dim imgBlank As Image(Of Bgr, Byte) = Nothing

    Dim tess As Tesseract
    Dim ServerString As String = "Server=localhost;user
id=root;password=;database=file1"
    Dim SQLConnection As MySqlConnection = New MySqlConnection

    Dim database As String = "D:\stanley\tugas akhir\database.txt"
'Lokasi Penyimpanan database


    Private Sub frmOCR_Resize(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Resize

        If (blnFirstTimeInResizeEvent = True) Then
            blnFirstTimeInResizeEvent = False
        Else
            tlpTextBoxAndImageBox.Width = Me.Width - (intOrigFormWidth -
intOrigTableLayoutPanelWidth)
            tlpTextBoxAndImageBox.Height = Me.Height - (intOrigFormHeight -
intOrigTableLayoutPanelHeight)

        End If

    End Sub
```

```
    Sub New()
        InitializeComponent()
        intOrigFormWidth = Me.Width
        intOrigFormHeight = Me.Height
        intOrigTableLayoutPanelWidth = tlpTextBoxAndImageBox.Width
        intOrigTableLayoutPanelHeight = tlpTextBoxAndImageBox.Height

        Try
            tess = New Tesseract("tessdata", "eng",
Tesseract.OcrEngineMode.OEM_TESSERACT_CUBE_COMBINED)
        Catch ex As Exception
            Me.Text = "error dalam mengload opencv"
            txtOCR.Text = "error dalam mengload opencv"
            txtFile.Enabled = False
            btnFile.Enabled = False
        End Try

    End Sub


    Private Sub btnFile_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnFile.Click
        fswMonitor.Path = "C:\Documents and Settings\forsa1\My Documents\My
Pictures\LifeCam Files"            'Path Folder Scan

    End Sub

    Private Sub txtFile_TextChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles txtFile.TextChanged
        txtFile.SelectionStart = txtFile.Text.Length    'move caret to end of
text box so file name is visible


    End Sub

    Sub ProcessImageAndUpdateGUI()
        Try
            imgImage = New Image(Of Bgr, Byte)(txtFile.Text)
        Catch ex As Exception
            Me.Text = "File gagal dibuka"
            Return
        End Try

        If (imgImage Is Nothing) Then
            Return
        End If

        Me.Text = "Gambar Sedang diproses Harap Tungu ..."
        IbImage.Image = imgBlank
        Application.DoEvents()

        tess.Recognize(imgImage)
        txtOCR.Text = tess.GetText()
```

```
        While txtOCR.Text.Contains(" ")
        'Menghapus spasi pada data yang disimpan(mengurangi error)
            txtOCR.Text = txtOCR.Text.Replace(" ", "")
        End While
        While txtOCR.Text.Contains(".")
            txtOCR.Text = txtOCR.Text.Replace(".", "")
        End While
        While txtOCR.Text.Contains("'")
            txtOCR.Text = txtOCR.Text.Replace("'", "")
        End While
        While txtOCR.Text.Contains(",")
            txtOCR.Text = txtOCR.Text.Replace(",", "")
        End While
        While txtOCR.Text.Contains("]")
            txtOCR.Text = txtOCR.Text.Replace("]", "")
        End While

        IO.File.AppendAllText(database, txtOCR.Text)            'Simpan Hasil
string dalam .txt
        Label1.Text = "Sukses Tersimpan di Database"

        Dim SQLStatement As String = "insert into blabla values ('" &
txtOCR.Text & "')" 'Simpan hasil olahan string ke MYSQL
        SaveNames(SQLStatement)

        IbImage.Image = imgImage

        Me.Text = "Gambar Sukses diproses & tersimpan di database Harap Pilih
Gambar Lain"
    End Sub


    Private Sub fswMonitor_Changed(ByVal sender As Object, ByVal e As
System.IO.FileSystemEventArgs) Handles fswMonitor.Changed
        lbxLog.Items.Add("Changed : " + e.FullPath)
    End Sub

    Private Sub fswMonitor_Created(ByVal sender As Object, ByVal e As
System.IO.FileSystemEventArgs) Handles fswMonitor.Created
        lbxLog.Items.Add("Created : " + e.FullPath)
        Timer1.Interval = 2000 'ms
        Timer1.Start()
        txtFile.Text = e.FullPath
    End Sub

    Private Sub fswMonitor_Deleted(ByVal sender As Object, ByVal e As
System.IO.FileSystemEventArgs) Handles fswMonitor.Deleted
        lbxLog.Items.Add("Deleted : " + e.FullPath)
    End Sub

    Private Sub fswMonitor_Error(ByVal sender As Object, ByVal e As
System.IO.ErrorEventArgs) Handles fswMonitor.Error
        lbxLog.Items.Add("Error : " + e.GetException.Message)
```

```
        My.Computer.Audio.PlaySystemSound(Media.SystemSounds.Exclamation)
    End Sub

    Private Sub fswMonitor_Renamed(ByVal sender As Object, ByVal e As
System.IO.RenamedEventArgs) Handles fswMonitor.Renamed
        lbxLog.Items.Add("Renamed : " + e.OldFullPath + " -> " + e.FullPath)
    End Sub

    Private Sub FrmOcr_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
        SQLConnection.ConnectionString = ServerString

        Try
            If SQLConnection.State = ConnectionState.Closed Then
                SQLConnection.Open()
                MsgBox("Berhasil berkoneksi ke mysql")
            Else
                SQLConnection.Close()
                MsgBox("Gagal berkoneksi ke mysql")
            End If
        Catch ex As Exception
            MsgBox(ex.ToString)
        End Try

    End Sub

    Public Sub SaveNames(ByRef SQLStatement As String)
        Dim cmd As MySqlCommand = New MySqlCommand
        With cmd
            .CommandText = SQLStatement
            .CommandType = CommandType.Text
            .Connection = SQLConnection
            .ExecuteNonQuery()
        End With
        My.Computer.Audio.Play("D:\Stanley\TUGAS AKHIR\Call Sound\3-3.wav")


    End Sub

    Private Sub Timer1_Tick(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Timer1.Tick
        Timer1.Stop()
        'add delayed code here
        If (txtFile.Text <> String.Empty) Then
            ProcessImageAndUpdateGUI()
        End If

    End Sub
End Class
```

Listing Program Gerbang Keluar Visual Studio

```
Option Strict On
Imports Emgu.CV
Imports Emgu.Util
Imports Emgu.CV.OCR
Imports Emgu.CV.Structure
Imports Emgu.CV.UI
Imports Emgu.CV.CvEnum
Imports MySql.Data.MySqlClient

Public Class frmOCR
    Dim blnFirstTimeInResizeEvent As Boolean = True
    Dim intOrigFormWidth As Integer
    Dim intOrigFormHeight As Integer
    Dim intOrigTableLayoutPanelWidth As Integer
    Dim intOrigTableLayoutPanelHeight As Integer

    Dim imgImage As Image(Of Bgr, Byte) = Nothing
    Dim imgBlank As Image(Of Bgr, Byte) = Nothing

    Dim tess As Tesseract
    Dim database As String = "D:\stanley\tugas akhir\database stnk.txt"
    Dim KoneksiDB As MySqlConnection
    Dim Perintah As MySqlCommand

    Sub New()
        InitializeComponent()
        intOrigFormWidth = Me.Width
        intOrigFormHeight = Me.Height
        intOrigTableLayoutPanelWidth = tlpTextBoxAndImageBox.Width
        intOrigTableLayoutPanelHeight = tlpTextBoxAndImageBox.Height

        Try
            tess = New Tesseract("tessdata", "eng",
Tesseract.OcrEngineMode.OEM_DEFAULT) 'dicoba2 nanti'
        Catch ex As Exception
            Me.Text = "error instantiating Tesseract object"
            txtOcr.Text = "error instantiating Tesseract object"
            txtFile.Enabled = False
            btnFile.Enabled = False
        End Try
    End Sub

    Private Sub frmOCR_Resize(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Resize
        If (blnFirstTimeInResizeEvent = True) Then
            blnFirstTimeInResizeEvent = False
        Else
            tlpTextBoxAndImageBox.Width = Me.Width - (intOrigFormWidth -
intOrigTableLayoutPanelWidth)
```

```
            tlpTextBoxAndImageBox.Height = Me.Height - (intOrigFormHeight -
intOrigTableLayoutPanelHeight)

        End If
    End Sub

'''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''
    Private Sub btnFile_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnFile.Click

        fswMonitor.Path = "D:\Files STNK"

    End Sub

    Private Sub txtFile_TextChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles txtFile.TextChanged
        txtFile.SelectionStart = txtFile.Text.Length

    End Sub
    Sub ProcessImageAndUpdateGUI()
        Try
            imgImage = New Image(Of Bgr, Byte)(txtFile.Text)
        Catch ex As Exception
            Me.Text = "error opening file"
            Return
        End Try

        If (imgImage Is Nothing) Then
            Return
        End If

        Me.Text = "processing please wait . . ."
        ibImage.Image = imgBlank
        Application.DoEvents()

        tess.Recognize(imgImage)
        txtOcr.Text = tess.GetText()

        'Mencegah Error dalam pembacaan progam, dan input database
        While txtOcr.Text.Contains(" ")
            txtOcr.Text = txtOcr.Text.Replace(" ", "")
        End While
        While txtOcr.Text.Contains("~")
            txtOcr.Text = txtOcr.Text.Replace("~", "")
        End While
        While txtOcr.Text.Contains("\")
            txtOcr.Text = txtOcr.Text.Replace("\", "")
        End While
        While txtOcr.Text.Contains("-")
            txtOcr.Text = txtOcr.Text.Replace("-", "")
        End While
        While txtOcr.Text.Contains("'")
            txtOcr.Text = txtOcr.Text.Replace("'", "")
```

```
        End While
        While txtOcr.Text.Contains("_")
            txtOcr.Text = txtOcr.Text.Replace("_", "")
        End While
        While txtOcr.Text.Contains("-")
            txtOcr.Text = txtOcr.Text.Replace("-", "")
        End While

        IO.File.AppendAllText(database, txtOcr.Text) 'Menyimpan data string
dalam .txt
        KoneksiDB = New MySqlConnection
        KoneksiDB.ConnectionString = "Server=localhost;user
id=root;password=;database=file1"
        If KoneksiDB.State = ConnectionState.Closed Then
            KoneksiDB.Open()
        End If
        Dim Baca As MySqlDataReader
        Try
            Dim Query As String
            Dim Hapus As String
          Query = "select * from file1.blabla where Plat='" & txtOcr.Text & "'"
            Perintah = New MySqlCommand(Query, KoneksiDB)
            Baca = Perintah.ExecuteReader
            If Baca.HasRows Then
                MsgBox("Nomor Cocok")
                KoneksiDB = New MySqlConnection
                KoneksiDB.ConnectionString = "Server=localhost;user
    id=root;password=;database=file1"
                If KoneksiDB.State = ConnectionState.Closed Then
                    KoneksiDB.Open()
                End If
            Hapus = "Delete from file1.blabla where Plat='" & txtOcr.Text & "'"
            Perintah = New MySqlCommand(Hapus, KoneksiDB)
            Perintah.ExecuteNonQuery()
            My.Computer.Audio.Play("D:\Stanley\TUGAS AKHIR\Call Sound\3-3.wav")
            Else
                MsgBox("Nomor Tidak Cocok")
            End If
            KoneksiDB.Close()
        Catch ex As MySqlException
            MessageBox.Show(ex.Message)
        Finally
            KoneksiDB.Dispose()
        End Try

        ibImage.Image = imgImage
        Me.Text = "done processing, choose another image if desired"
    End Sub
    Private Sub fswMonitor_Changed(ByVal sender As Object, ByVal e As
System.IO.FileSystemEventArgs) Handles fswMonitor.Changed
        lbxLog.Items.Add("Changed : " + e.FullPath)
    End Sub
```

```
    Private Sub fswMonitor_Created(ByVal sender As Object, ByVal e As
System.IO.FileSystemEventArgs) Handles fswMonitor.Created
        lbxLog.Items.Add("Created : " + e.FullPath)
        Timer1.Interval = 2000 'ms
        Timer1.Start()
        txtFile.Text = e.FullPath
    End Sub

    Private Sub fswMonitor_Deleted(ByVal sender As Object, ByVal e As
System.IO.FileSystemEventArgs) Handles fswMonitor.Deleted
        lbxLog.Items.Add("Deleted : " + e.FullPath)
    End Sub

    Private Sub fswMonitor_Error(ByVal sender As Object, ByVal e As
System.IO.ErrorEventArgs) Handles fswMonitor.Error
        lbxLog.Items.Add("Error : " + e.GetException.Message)
        My.Computer.Audio.PlaySystemSound(Media.SystemSounds.Exclamation)
    End Sub

    Private Sub fswMonitor_Renamed(ByVal sender As Object, ByVal e As
System.IO.RenamedEventArgs) Handles fswMonitor.Renamed
        lbxLog.Items.Add("Renamed : " + e.OldFullPath + " -> " + e.FullPath)
    End Sub

    Private Sub frmOCR_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
        KoneksiDB = New MySqlConnection
        KoneksiDB.ConnectionString = "Server=localhost;user
id=root;password=;database=file1"

        Try
            KoneksiDB.Open()
            MsgBox("Sukses Terkoneksi")
            KoneksiDB.Close()
        Catch ex As MySqlException
            MessageBox.Show(ex.Message)
        Finally
            KoneksiDB.Dispose()
        End Try
    End Sub

Private Sub btndelete_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btndelete.Click
    End Sub

    Private Sub Timer1_Tick(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Timer1.Tick
        Timer1.Stop()
        If (txtFile.Text <> String.Empty) Then
            ProcessImageAndUpdateGUI()
        End If
    End Sub
End Class
```

Listing Program CVAVR Mikro

```
Chip type               : ATmega8535
Program type            : Application
AVR Core Clock frequency: 11.059200 MHz
Memory model            : Small
External RAM size       : 0
Data Stack size         : 128
*****************************************************/

#include <mega8535.h>
#include <delay.h>
#define ADC_VREF_TYPE 0x60
unsigned char x,y;
void gate()
{
    #asm ("cli")
    for (x=0;x<100;x++)   //Pengulangan baris program sebanyak 100x
    {
    PORTB.7=1;            //Port Aktif / kondisi 1
    delay_us(680);        //Sudut 90 derajat servo
    PORTB.7=0;            //Port Tidak aktif / kondisi 0
    delay_ms(50);
```

```
    }
    for (x=0;x<100;x++)   //Pengulangan baris program sebanyak 100x
    {
    PORTB.7=1;
    delay_us(1350);       //Sudut 0 derajat servo
    PORTB.7=0;
    delay_ms(20);
    }
    #asm ("sei")
    }

// Read the 8 most significant bits
// of the AD conversion result
unsigned char read_adc(unsigned char adc_input)
{
ADMUX=adc_input | (ADC_VREF_TYPE & 0xff);
// Delay needed for the stabilization of the ADC input voltage
delay_us(10);
// Start the AD conversion
ADCSRA|=0x40;
// Wait for the AD conversion to complete
while ((ADCSRA & 0x10)==0);
ADCSRA|=0x10;
```

```
return ADCH;
}

// Declare your global variables here

void main(void)
{
// Declare your local variables here

// Input/Output Ports initialization
// Port A initialization
// Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In Func0=In
// State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T
PORTA=0x00;
DDRA=0x00;

// Port B initialization
// Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In Func0=In
// State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T
PORTB=0x00;
DDRB=0xFF;

// Port C initialization
```

```
// Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In Func0=In
// State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T
PORTC=0x00;
DDRC=0x00;

// Port D initialization
// Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In Func0=In
// State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T
PORTD=0x00;
DDRD=0x00;

// Timer/Counter 0 initialization
// Clock source: System Clock
// Clock value: Timer 0 Stopped
// Mode: Normal top=0xFF
// OC0 output: Disconnected
TCCR0=0x00;
TCNT0=0x00;
OCR0=0x00;

// Timer/Counter 1 initialization
// Clock source: System Clock
// Clock value: Timer1 Stopped
```

```
// Mode: Normal top=0xFFFF
// OC1A output: Discon.
// OC1B output: Discon.
// Noise Canceler: Off
// Input Capture on Falling Edge
// Timer1 Overflow Interrupt: Off
// Input Capture Interrupt: Off
// Compare A Match Interrupt: Off
// Compare B Match Interrupt: Off
TCCR1A=0x00;
TCCR1B=0x00;
TCNT1H=0x00;
TCNT1L=0x00;
ICR1H=0x00;
ICR1L=0x00;
OCR1AH=0x00;
OCR1AL=0x00;
OCR1BH=0x00;
OCR1BL=0x00;

// Timer/Counter 2 initialization
// Clock source: System Clock
// Clock value: Timer2 Stopped
```

```
// Mode: Normal top=0xFF
// OC2 output: Disconnected
ASSR=0x00;
TCCR2=0x00;
TCNT2=0x00;
OCR2=0x00;

// External Interrupt(s) initialization
// INT0: Off
// INT1: Off
// INT2: Off
MCUCR=0x00;
MCUCSR=0x00;

// Timer(s)/Counter(s) Interrupt(s) initialization
TIMSK=0x00;

// USART initialization
// USART disabled
UCSRB=0x00;

// Analog Comparator initialization
// Analog Comparator: Off
```

```
// Analog Comparator Input Capture by Timer/Counter 1: Off
ACSR=0x80;
SFIOR=0x00;

// ADC initialization
// ADC Clock frequency: 691.200 kHz
// ADC Voltage Reference: Int., cap. on AREF
// ADC High Speed Mode: On
// ADC Auto Trigger Source: Free Running
// Only the 8 most significant bits of
// the AD conversion result are used
ADMUX=ADC_VREF_TYPE & 0xff;
ADCSRA=0xA4;
SFIOR&=0x0F;
SFIOR|=0x10;

// SPI initialization
// SPI disabled
SPCR=0x00;

// TWI initialization
// TWI disabled
TWCR=0x00;
```

```
while (1)               //Loop Program saat Mikro Hidup
    {
    y=read_adc(0);    //Mengaktifkan Port ADCD Pada A0
    if(y>=128)        //Set Point ADC
    {
    gate();           //Memanggil Line program dalam gate()
    }
    }
}
```