Lampiran 1. Listing Program

FrmMenuUtama.VB

Option Strict Off
Option Explicit On
Friend Class FrmMenuUtama
    Inherits System.Windows.Forms.Form
    Private Sub Command1_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles Command1.Click
        nFile = ""
        Form1.xPlainText.ReadOnly = False
        Form1.ShowDialog()
    End Sub

    Private Sub Command2_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles Command2.Click
        nFile = ""
        Me.CommonDialog1Open.Filter = "Text Files|*.txt"
        Me.CommonDialog1Open.ShowDialog()
        nFile = Me.CommonDialog1Open.FileName
        If Len(Trim(nFile)) < 1 Then
            Else
                Form1.ShowDialog()
        End If
    End Sub

    Private Sub Command3_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles Command3.Click
        nFile = ""
        Me.CommonDialog1Open.Filter = "Enkripsi Text Files|*.enc"
        Me.CommonDialog1Open.ShowDialog()
        nFile = Me.CommonDialog1Open.FileName
        If Len(Trim(nFile)) < 1 Then
            Else
                Form2.Show()
        End If
    End Sub

    Private Sub Command4_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles Command4.Click
        Dim Q As Integer
        Q = MsgBox("Apakah Mau Keluar ? ", MsgBoxStyle.YesNo, "Keluar")
        If Q = MsgBoxResult.Yes Then
            End
        End If
    End Sub

    Private Sub Command5_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles Command5.Click
        FrmTeori.ShowDialog()
    End Sub

    Public Sub Enkripsi_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles Enkripsi.Click
nFile = ""
Me.CommonDialog1Open.Filter = "Text Files|*.txt"
Me.CommonDialog1Open.ShowDialog()
nFile = Me.CommonDialog1Open.FileName
If Len(Trim(nFile)) < 1 Then
Else
Form1.Show()
End If
End Sub

Public Sub exit_Renamed_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles exit_Renamed.Click
Dim Q As Integer
Q = MsgBox("Apakah Mau Keluar ? ", MsgBoxStyle.YesNo, "Keluar")
If Q = MsgBoxResult.Yes Then
End
End If
End Sub

Public Sub mbAru_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles mbAru.Click
nFile = ""
Form1.xPlainText.ReadOnly = False
Form1.Show()
End Sub

Private Sub FrmMenuUtama_Load(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles MyBase.Load
nKunci = "00000"
End Sub

Function getFile() As String
Dim cmdSave As Object
Dim RTB1 As Object
Dim Dir1 As Object
Dim i As Object
Dim File1 As Object
Dim PBar1 As Object
Dim RTB As Object

RTB.Text = ""
PBar1.Value = 0
PBar1.Max = File1.ListCount
For i = 0 To File1.ListCount - 1

RTB1.filename = Dir1.Path & "\" & File1.List(i)
'RTB.Text = RTB.Text & ", " & File1.List(i)

RTB.Text = RTB.Text & ", " & RTB1.Text

RTB1.Text = ""
PBar1.Value = PBar1.Value + 1
Next
If RTB.Text = "" Then
    cmdSave.Enabled = False
Else
    cmdSave.Enabled = True
End If
End Function

Public Sub mnAboutMe_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles mnAboutMe.Click
    MsgBox("Nama : PIPYD")
End Sub

Public Sub mnDekripsi_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles mnDekripsi.Click
    nFile = 
    Me.CommonDialog1Open.Filter = "Enkripsi Text Files|*.enc"
    Me.CommonDialog1Open.ShowDialog()
    nFile = Me.CommonDialog1Open.FileName
    If Len(Trim(nFile)) < 1 Then
        Else
        Form2.Show()
    End If
End Sub
End Class

FrmEnkripsi.vb

Option Strict Off
Option Explicit On
Friend Class Form1
    Inherits System.Windows.Forms.Form
    Dim sArr(1000, 8) As String
    Dim sArrVertical(8) As String
    Dim sEnkripsi(1000) As String
    Dim sRC4(1000) As String
    Dim sVernam(1000) As String
    Dim f1(1000) As String
    Dim f3(1000) As String

    Private Sub cmdSimpan_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles cmdSimpan.Click
        On Error GoTo FileError
        CD1Save.DefaultExt = "enc"
        CD1Save.Filter = "Enkripsi Text Files|*.enc"
        CD1Save.ShowDialog()
        SaveFileText(CD1Save.FileName, (Me.xEnkripsi.Text))
        MsgBox("File Sudah disimpan ..", MsgBoxStyle.Information)
        Exit Sub
    FileError:
If Err.Number = DialogResult.Cancel Then Exit Sub
MsgBox("File Tidak Bisa disimpan ...." & CD1Save.FileName)
'OpenFile = ""
End Sub
Private Sub IsiSBox(ByVal sKata() As String, ByVal sListBox As ListBox,
ByVal sFF As ListBox)
    Dim i As Integer
    Dim j As Integer
    Dim jum As Integer
    Dim angka As Integer
    Dim st As Boolean
    Dim kt As Boolean
    Dim k As Integer
    Dim arrIdx As Integer
    Dim f2(1000) As String

    For i = 0 To sKata.Length - 1
        If sKata(i) <> "" Then
            jum = jum + 1
        End If
    Next

    'sKunci2 = sKata
    arrIdx = 0
    For i = 0 To 256
        If i <= jum Then
            'angka = Mid(Trim(sKunci2), i + 1, 1)
            angka = sKata(i)
            st = False
            For k = 0 To jum - 1
                If Val(angka) = f2(k) Then
                    st = True
                    k = 100
                End If
            Next k
            If st = False Then
                arrIdx = arrIdx + 1
                f2(arrIdx) = Val(angka)
                sListBox.Items.Add(angka)
                sFF.Items.Add(arrIdx - 1 & "=>" & angka)
            End If
        End If
    Next i

    st = False
    Dim y As Integer
    For k = 0 To 255
        angka = angka + 1
        If angka > 255 Then
            angka = "0"
        End If
        kt = False
        For y = 0 To 255
            If Trim(angka) = Trim(f2(y)) Then
                kt = True
                If angka = "0" Then
                    'MsgBox("0, " & y & "===>" & f2(y) & " angka = " & angka)
                End If
                y = 257
            End If
        Next y
    Next k
End If
End If
Next
If kt = False Then
  arrIdx = arrIdx + 1
  sListBox.Items.Add(angka)
  sFF.Items.Add(arrIdx - 1 & "=>" & angka)
End If
Next k

Private Sub Sort(ByVal a() As String)
  On Error Resume Next
  Dim i As Integer
  Dim j As Integer
  Dim jum As Integer
  Dim temp As String
  jum = 0
  For i = 0 To a.Length - 1
    If a(i) <> "" Then
      jum = jum + 1
    End If
  Next
  For i = 0 To jum - 1
    For j = 0 To jum - 1
      If Val(a(i)) < Val(a(j)) Then
        temp = a(i)
        a(i) = a(j)
        a(j) = temp
      End If
    Next
  Next
  Dim yy As String
  yy = ""
  For i = 0 To jum - 1
    yy = yy & a(i)
  Next
End Sub

Private Sub Command4_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles Command4.Click
  Dim arrayS(100) As String
  Dim arrayK(100) As String
  Dim i As Integer
  Dim sKunci As String
  Dim sMaxTeks As Integer
  Dim syy As Integer
  sKunci = Me.xKunci.Text
  sMaxTeks = Len(sKunci)
  For i = 0 To Len(sKunci) - 1
    arrayS(i) = i
    syy = CStr(Asc(Mid(sKunci, i + 1, 1)))
    If syy >= 48 And syy <= 57 Then
      arrayK(i) = Mid(sKunci, i + 1, 1)
    Else
      arrayK(i) = CStr(Asc(Mid(sKunci, i + 1, 1)))
    End If
  Next
arrayK(i) = Mid(sKunci, i + 1, 1)

Dim x As Integer
Dim j As Integer
i = 0
j = 0
Dim m As Integer
Dim temp As Integer
m = 0
Dim x1 As Integer
Dim yy As String
For x = 0 To Len(sKunci) - 1
  i = x
  m = 0
  m = ((j + arrayS(i)) + arrayK(i Mod sMaxTeks)) Mod sMaxTeks
  j = m
  'Lakukan Pertukaran Nilai S[i] dengan S[j]
  temp = arrayS(i)
  arrayS(i) = arrayS(j)
  arrayS(j) = temp
  yy = ""
Next
i = 0
j = 0
Dim cc As String
Dim cc1 As Integer
'Lakukan Perulangan mulai 0 sampai Pangjang Kunci - 1
For x = 0 To Len(sKunci) - 1
  i = (i + 1) Mod Len(sKunci)
  j = (j + arrayS(i)) Mod Len(sKunci)
  temp = arrayS(i)
  arrayS(i) = arrayS(j)
  arrayS(j) = temp
  cc1 = Val(arrayS(i)) + Val(arrayS(j))
  cc = arrayS(cc1 Mod Len(sKunci))
  sRC4(x) = cc
  yy = yy & "S[" & arrayS(i) & "+" & arrayS(j) & "] MOD 4"
  yy = yy & "+" & cc & "===> " & cc1
Next
Sort(sRC4)
For x = 0 To Len(sKunci) - 1
  yy = yy & sRC4(x) & ","
Next
Me.xRC4.Text = yy
yy = ""
IsiSBox(sRC4, Me.ListBox2, xF2)
For i = 1 To Len(sKunci)
  sVernam(i) = Cstr(Asc(Mid(sKunci, i, 1)))
  yy = yy & sVernam(i) & ","
Next
Me.xVernam.Text = yy
IsiSBox(sVernam, Me.ListBox1, xf1)
Dim posisi As Integer
posisi = 1
Dim arrPlaintext(1000) As String
Dim jCount As Integer
jCount = 0
For i = 0 To Len(Me.xPlainText.Text) - 1
    arrPlaintext(i) = CStr(Asc(Mid(Me.xPlainText.Text, i + 1, 1)))
    If Posisi = 1 Then
        For j = 0 To 255
            If arrPlaintext(i) = j Then
                jCount = jCount + 1
                sEnkripsi(jCount) = Me.ListBox1.Items(j)
                'MsgBox(1 & " - " & Me.ListBox1.Items(j))
                j = 257
                posisi = 2
            End If
        Next
    Else
        For j = 0 To 255
            If arrPlaintext(i) = j Then
                jCount = jCount + 1
                sEnkripsi(jCount) = Me.ListBox2.Items(j)
                'MsgBox(1 & " - " & Me.ListBox2.Items(j))
                j = 257
                posisi = 1
            End If
        Next
    End If
Next
End If
Next
Dim yy1 As String
Dim yy2 As String
yy1 = ""
yy2 = ""
For i = 1 To jCount
    yy1 = yy1 & Chr(sEnkripsi(i))
    yy2 = yy2 & sEnkripsi(i) & " ," Next
Me.xEnkripsi.Text = Trim(yy1)
Me.xDes.Text = yy2
End Sub

Private Sub Command5_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles Command5.Click
    Me.Close()
End Sub

Private Sub FrmEnkripsi_Load(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles MyBase.Load
    Tengah(Me)
    Dim i As Integer
    Me.xPlainText.Text = "HELO"
    Me.xEnkripsi.Text = ""
    If Len(Trim(nFile)) > 0 Then
        Me.xPlainText.Text = UCase(ReadFileText(nFile))
    End If
End Sub

Function setPanjangKunci(ByRef sText As String, ByRef sKunci As String) As String
    Dim i As Short
Dim k As String
Dim sKey As String
Dim Posisi As Short
Posisi = 0
sKey = ""
For i = 1 To Len(sText)
     Posisi = Posisi + 1
     If Posisi > Len(sKunci) Then
          Posisi = 1
     End If
     sKey = sKey & Mid(sKunci, Posisi, 1)
Next i
setPanjangKunci = sKey
End Function
Private Sub xClose_Click()
    Me.Close()
End Sub

End Class

FrmDekripsi.vb

Option Strict Off
Option Explicit On
Friend Class Form2
    Inherits System.Windows.Forms.Form
    Dim sArr(1000, 8) As String
    Dim sArrVertical(8) As String
    Dim sEnkripsi(1000) As String
    Dim sRC4(1000) As String
    Dim sVernam(1000) As String
    Dim f1(1000) As String
    Dim f3(1000) As String

    Private Sub cmdSimpan_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles cmdSimpan.Click
        On Error GoTo FileError
        CD1Save.DefaultExt = "enc"
        CD1Save.Filter = "Text Files|*.txt"
        CD1Save.ShowDialog()
        SaveFileText(CD1Save.FileName, (Me.xEnkripsi.Text))
        MsgBox("File Sudah disimpan ..", MsgBoxStyle.Information)
        Exit Sub
    FileError:
        If Err.Number = DialogResult.Cancel Then Exit Sub
        MsgBox("File Tidak Bisa disimpan ...") & CD1Save.FileName
        'OpenFile = ""
    End Sub
    Private Sub IsiSBox(ByVal sKata() As String, ByVal sListBox As ListBox)

Dim i As Integer
Dim j As Integer
Dim jum As Integer
Dim angka As Integer
Dim st As Boolean
Dim kt As Boolean
Dim k As Integer
Dim arrIdx As Integer
Dim f2(1000) As String

For i = 0 To sKata.Length - 1
    If sKata(i) <> "" Then
        jum = jum + 1
    End If
Next
'sKunci2 = sKata

For i = 0 To 256
    If i <= jum Then
        'angka = Mid(Trim(sKunci2), i + 1, 1)
        angka = sKata(i)
        st = False
        For k = 0 To jum - 1
            If Val(angka) = f2(k) Then
                st = True
                k = 100
            End If
        Next k
        If st = False Then
            arrIdx = arrIdx + 1
            f2(arrIdx) = Val(angka)
            sListBox.Items.Add(angka)
        End If
    End If
Next i

st = False
Dim y As Integer
For k = 0 To 255
    angka = angka + 1
    If angka > 255 Then
        angka = "0"
    End If
    kt = False
    For y = 0 To 255
        If Trim(angka) = Trim(f2(y)) Then
            kt = True
            If angka = "0" Then
                'MsgBox("0, " & y & "===>" & f2(y) & " angka = " & angka)
            End If
            y = 257
        End If
    Next y
    If kt = False Then
        sListbox.Items.Add(angka)
    End If
Next k
Private Sub Sort(ByVal a() As String)
    On Error Resume Next
    Dim i As Integer
    Dim j As Integer
    Dim jum As Integer
    Dim temp As String
    jum = 0
    For i = 0 To a.Length - 1
        If a(i) <> "" Then
            jum = jum + 1
        End If
    Next
    For i = 0 To jum - 1
        For j = 0 To jum - 1
            If Val(a(i)) < Val(a(j)) Then
                temp = a(i)
                a(i) = a(j)
                a(j) = temp
            End If
        Next
    Next
    Dim yy As String
    yy = ""
    For i = 0 To jum - 1
        yy = yy & a(i)
    Next
End Sub

Private Sub Command4_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles Command4.Click
    Dim arrayS(100) As String
    Dim arrayK(100) As String
    Dim i As Integer
    Dim sKunci As String
    Dim sMaxTeks As Integer
    Dim syy As Integer
    sKunci = Me.xKunci.Text
    sMaxTeks = Len(sKunci)
    For i = 0 To Len(sKunci) - 1
        syy = CStr(Asc(Mid(sKunci, i + 1, 1)))
        If syy >= 48 And syy <= 57 Then
            arrayK(i) = Mid(sKunci, i + 1, 1)
        Else
            arrayK(i) = CStr(Asc(Mid(sKunci, i + 1, 1)))
        End If
    Next
    Dim x As Integer
    Dim j As Integer
    i = 0
    j = 0
    Dim m As Integer
    Dim temp As Integer
    m = 0
    Dim xl As Integer
    Dim yy As String
    For x = 0 To Len(sKunci) - 1
        i = x
        m = 0
        m = ((j + arrayS(i)) + arrayK(i Mod sMaxTeks)) Mod sMaxTeks
        j = m
' Lakukan Pertukaran Nilai S[i] dengan S[j]
temp = arrayS(i)
arrayS(i) = arrayS(j)
arrayS(j) = temp
yy = ""
For x1 = 0 To Len(sKunci) - 1
   yy = yy & arrayS(x1)
Next
' MsgBox(yy)
Next
For x = 0 To Len(sKunci) - 1
   MsgBox(sRC4(x))
Next
i = 0
j = 0
Dim cc As String
Dim cc1 As Integer
' Lakukan Perulangan mulai 0 sampai Pangjang Kunci - 1
For x = 0 To Len(sKunci) - 1
   i = (i + 1) Mod sMaxTeks
   j = (j + arrayS(i)) Mod sMaxTeks
   temp = arrayS(i)
   arrayS(i) = arrayS(j)
   arrayS(j) = temp
   cc1 = Val(arrayS(i)) + Val(arrayS(j))
   cc = arrayS(cc1 Mod sMaxTeks)
   sRC4(x) = cc
   For x1 = 0 To Len(sKunci) - 1
      yy = yy & arrayS(x1)
   Next
   ' MsgBox(yy & "===>S[" & arrayS(i) & "+" & arrayS(j) & "] MOD 4"
   & "+" & cc & "===> " & cc1)
   yy = ""
   ' MsgBox(yy & "+" & sRC4(x))
Next
Sort(sRC4)
For x = 0 To Len(sKunci) - 1
   yy = yy & sRC4(x)
Next
yy = ""
IsiSBox(sRC4, Me.ListBox2)
For i = 1 To Len(sKunci)
   sVernam(i) = CStr(Asc(Mid(sKunci, i, 1)))
   yy = yy & sVernam(i) & ","
Next
IsiSBox(sVernam, Me.ListBox1)
Dim posisi As Integer
posisi = 1
Dim arrPlaintext(1000) As String
Dim jCount As Integer
jCount = 0
For i = 0 To Len(Me.xPlainText.Text) - 1
   arrPlaintext(i) = Asc(Mid(Me.xPlainText.Text, i + 1, 1))
   If posisi = 1 Then
      For j = 0 To 255
         If Me.ListBox1.Items(j) = arrPlaintext(i) Then
            jCount = jCount + 1
            sEnkripsi(jCount) = j
            ' MsgBox(Me.ListBox1.Items(j) & "+" & j)
            If jCount = j Then
               MessageBox(MessageBoxButtons.OK, "Plaintext: " & Me.xPlainText.Text)
            End If
         End If
      Next j
   End If
   posisi = posisi + 1
Next i
MessageBox(MessageBoxButtons.OK, "Plaintext: " & Me.xPlainText.Text)
Private Sub Command5_Click(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles Command5.Click
Me.Close()
End Sub

Private Sub FrmEnkripsi_Load(ByVal eventSender As System.Object, ByVal eventArgs As System.EventArgs) Handles MyBase.Load
Tengah(Me)
Me.xPlainText.Text = ""
Me.xEnkripsi.Text = ""

If Len(Trim(nFile)) > 0 Then
Me.xPlainText.Text = ReadFileText(nFile)
End If
End Sub

Function setPanjangKunci(ByRef sText As String, ByRef sKunci As String) As String
Dim i As Short
Dim k As String
Dim sKey As String
Dim Posisi As Short
Posisi = 0
sKey = ""
For i = 1 To Len(sText)
Posisi = Posisi + 1
If Posisi > Len(sKunci) Then
Posisi = 1
End If
sKey = sKey & Mid(sKunci, Posisi, 1)
Next i
setPanjangKunci = sKey
End Function
Private Sub xClose_Click()
    Me.Close()
End Sub
End Class