Lampiran 2: LISTING PROGRAM

**\*\*\*\* Login \*\*\*\***

Imports System.Data.Odbc

Public Class frmLogin

Private Sub frmLogin\_KeyPress(ByVal sender As Object, ByVal e As System.Windows.Forms.KeyPressEventArgs) Handles Me.KeyPress

If Asc(e.KeyChar) = Keys.Enter Then

SendKeys.Send("{tab}")

End If

End Sub

Private Sub frmLogin\_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load

Koneksi()

End Sub

Sub cekUser()

cmd = New OdbcCommand("Select \* from tbuser where user\_id='" & txtUser.Text & "'", Conn)

rd = cmd.ExecuteReader

rd.Read()

If Not rd.HasRows Then

MsgBox("Maaf..., User Id Salah", MsgBoxStyle.Critical, "Perhatian...!")

txtUser.Text = ""

txtUser.Focus()

End If

End Sub

Sub cekPassword()

On Error Resume Next

cmd = New OdbcCommand("Select \* from tbuser where user\_Id='" & txtUser.Text & "' and password=md5('" & txtPass.Text & "')", Conn)

rd = cmd.ExecuteReader

rd.Read()

If rd.HasRows Then

Me.Visible = False

frmMenuUtama.Show()

Else

MsgBox("Maaf..., Password Salah", MsgBoxStyle.Critical, "Perhatian...!")

txtPass.Text = ""

txtPass.Focus()

Exit Sub

End If

End Sub

Private Sub btnBatal\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnBatal.Click

Me.Close()

End Sub

Private Sub txtPass\_KeyPress(ByVal sender As Object, ByVal e As System.Windows.Forms.KeyPressEventArgs) Handles txtPass.KeyPress

If e.KeyChar = Chr(13) Then

Call cekPassword()

End If

End Sub

Private Sub txtUser\_KeyPress(ByVal sender As Object, ByVal e As System.Windows.Forms.KeyPressEventArgs) Handles txtUser.KeyPress

If e.KeyChar = Chr(13) Then

Call cekUser()

End If

If Char.IsLetterOrDigit(e.KeyChar) = False Then

If e.KeyChar = CChar(ChrW(Keys.Back)) Or \_

e.KeyChar = CChar(ChrW(Keys.Space)) Then

e.Handled = False

Else

e.Handled = True

End If

End If

End Sub

Private Sub txtUser\_MarginChanged(ByVal sender As Object, ByVal e As System.EventArgs) Handles txtUser.MarginChanged

End Sub

Private Sub txtUser\_TextChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles txtUser.TextChanged

txtUser.Text = StripNonAlphaNum(txtUser.Text)

End Sub

Private Sub btnOk\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnOk.Click

Call cekUser()

Call cekPassword()

End Sub

Private Sub txtPass\_TextChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles txtPass.TextChanged

End Sub

Private Sub PictureBox1\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles PictureBox1.Click

End Sub

End Class

**\*\*\*\* Entry Data Nilai Atribut \*\*\*\***

Imports System.Data.Odbc

Public Class frmNilaiAtribut

Dim cKode\_Atribut As String

Dim valid As Boolean

Sub databaru()

txtNilai.Text = ""

txtNilai.Focus()

End Sub

Sub kosongkan()

Call tidaksiapisi()

txtKode.Text = ""

txtNilai.Text = ""

cboAtribut.Enabled = True

txtKode.Enabled = True

txtKode.Focus()

Call Aturnomor()

End Sub

Sub siapisi()

txtNilai.Enabled = True

btnEdit.Enabled = False

btnHapus.Enabled = False

btnSimpan.Enabled = True

End Sub

Sub tidaksiapisi()

txtNilai.Enabled = False

btnSimpan.Enabled = False

btnHapus.Enabled = False

btnEdit.Enabled = False

End Sub

Sub Tampilkan()

da = New OdbcDataAdapter("Select kode\_na,nilai\_atribut " & \_

"from tbnilai\_atribut where kode\_atribut = '" & cKode\_Atribut & "' order by kode\_na", Conn)

ds = New DataSet

ds.Clear()

da.Fill(ds, "tbnilai\_atribut")

DGV.DataSource = (ds.Tables("tbnilai\_atribut"))

DGV.ReadOnly = True

DGV.AllowUserToAddRows = False

DGV.Columns(0).Width = 100

DGV.Columns(1).Width = 330

DGV.GridColor = Color.Black

DGV.DefaultCellStyle.ForeColor = Color.Black

DGV.RowHeadersDefaultCellStyle.BackColor = Color.DeepPink

DGV.AlternatingRowsDefaultCellStyle.BackColor = Color.Gray

DGV.SelectionMode = DataGridViewSelectionMode.FullRowSelect

DGV.ColumnHeadersDefaultCellStyle.Alignment = DataGridViewContentAlignment.MiddleCenter

DGV.Columns(0).DefaultCellStyle.Alignment = DataGridViewContentAlignment.MiddleCenter

'DGV.Columns(2).DefaultCellStyle.Alignment = DataGridViewContentAlignment.MiddleCenter

DGV.Columns(0).HeaderText = "Kode NA"

DGV.Columns(1).HeaderText = "Nilai Atribut"

End Sub

Sub TampilAtribut()

cboAtribut.Items.Clear()

cmd = New OdbcCommand("select distinct Nama\_Atribut,kode\_atribut from tbatribut " & \_

" order by Kode\_atribut", Conn)

rd = cmd.ExecuteReader

While rd.Read

cboAtribut.Items.Add(rd.Item(0))

End While

End Sub

Sub CekData()

cmd = New OdbcCommand("select \* from tbnilai\_atribut where kode\_na='" & txtKode.Text & "' " & \_

"and kode\_atribut = '" & cKode\_Atribut & "'", Conn)

rd = cmd.ExecuteReader

rd.Read()

If rd.HasRows = True Then

txtNilai.Text = rd.Item(2)

Call tidaksiapisi()

btnEdit.Enabled = True

btnHapus.Enabled = True

txtKode.Enabled = False

cboAtribut.Enabled = False

Else

Call databaru()

Call siapisi()

End If

End Sub

Private Sub cboTingkat\_SelectedIndexChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles cboAtribut.SelectedIndexChanged

cmd = New OdbcCommand("Select \* from tbatribut where nama\_atribut='" & cboAtribut.Text & "'", Conn)

rd = cmd.ExecuteReader

rd.Read()

If rd.HasRows Then

cKode\_Atribut = rd.Item(0)

End If

Call Tampilkan()

Call Aturnomor()

End Sub

Private Sub btnSimpan\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnSimpan.Click

Call Validasi()

If valid = True Then

cmd = New OdbcCommand("Select \* from tbnilai\_atribut where kode\_na='" & txtKode.Text & "' and kode\_atribut = '" & cKode\_Atribut & "'", Conn)

rd = cmd.ExecuteReader

rd.Read()

If Not rd.HasRows Then

Dim sqltambah As String = "Insert into tbnilai\_atribut (kode\_atribut,kode\_na,nilai\_atribut) values " & \_

"('" & cKode\_Atribut & "','" & txtKode.Text & "','" & Trim(txtNilai.Text) & "')"

cmd = New OdbcCommand(sqltambah, Conn)

Else

Dim sqledit As String = "Update tbnilai\_atribut set " & \_

"nilai\_atribut='" & Trim(txtNilai.Text) & "' " & \_

" where kode\_na='" & txtKode.Text & "' and kode\_atribut = '" & cKode\_Atribut & "'"

cmd = New OdbcCommand(sqledit, Conn)

End If

cmd.ExecuteNonQuery()

Call Tampilkan()

Call kosongkan()

End If

End Sub

Sub Validasi()

If txtNilai.Text = "" Then

MsgBox("Nilai Atribut Belum diisi", , "Perhatian...!")

txtNilai.Focus()

valid = False

Exit Sub

Else

valid = True

End If

End Sub

Private Sub btnEdit\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnEdit.Click

btnEdit.Enabled = False

btnHapus.Enabled = False

Call siapisi()

txtNilai.Focus()

End Sub

Private Sub btnHapus\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnHapus.Click

cmd = New OdbcCommand("Select \* from tbdata\_training where nilai\_atribut='" & txtNilai.Text & "' and kode\_atribut = '" & cKode\_Atribut & "'", Conn)

rd = cmd.ExecuteReader

rd.Read()

If rd.HasRows Then

MsgBox("Maaf, Nilai Atribut tersebut tidak dapat di Hapus...", , "Perhatian...!")

Else

If MessageBox.Show("Yakin akan dihapus..?", "Hapus Data", MessageBoxButtons.YesNo) = Windows.Forms.DialogResult.Yes Then

cmd = New OdbcCommand("Delete from tbnilai\_atribut where kode\_na='" & txtKode.Text & "' and kode\_atribut = '" & cKode\_Atribut & "'", Conn)

cmd.ExecuteNonQuery()

End If

End If

Call Tampilkan()

Call kosongkan()

End Sub

Private Sub btnBatal\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnBatal.Click

Call kosongkan()

End Sub

Private Sub btnTutup\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnTutup.Click

Me.Dispose()

End Sub

Private Sub frmtbnilai\_atribut\_KeyPress(ByVal sender As Object, ByVal e As System.Windows.Forms.KeyPressEventArgs) Handles Me.KeyPress

If Asc(e.KeyChar) = Keys.Enter Then

SendKeys.Send("{tab}")

End If

End Sub

Private Sub frmtbnilai\_atribut\_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load

Call Tampilkan()

Call databaru()

Call tidaksiapisi()

Call kosongkan()

Call TampilAtribut()

End Sub

Private Sub txtKode\_KeyPress(ByVal sender As Object, ByVal e As System.Windows.Forms.KeyPressEventArgs) Handles txtKode.KeyPress

If e.KeyChar = Chr(13) Then

Call CekData()

End If

End Sub

Private Sub DGV\_CellDoubleClick(ByVal sender As Object, ByVal e As System.Windows.Forms.DataGridViewCellEventArgs) Handles DGV.CellDoubleClick

txtKode.Text = DGV.Rows(e.RowIndex).Cells(0).Value

Call CekData()

End Sub

Sub Aturnomor()

Dim na As Integer

Dim cno, cekNomor As String

cno = ""

If cboAtribut.Text = "" Then Exit Sub

cmd = New OdbcCommand("Select \* from tbnilai\_atribut where kode\_atribut = '" & cKode\_Atribut & "' order by Kode\_na desc", Conn)

rd = cmd.ExecuteReader

rd.Read()

If Not rd.HasRows Then

na = 1

Else

cekNomor = rd.Item(1)

na = Val(Microsoft.VisualBasic.Right(cekNomor, 1)) + 1

End If

cno = Trim(Microsoft.VisualBasic.Str(na))

txtKode.Text = Trim(cKode\_Atribut) + cno

End Sub

Private Sub txtKode\_TextChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles txtKode.TextChanged

End Sub

Private Sub DGV\_CellContentClick(ByVal sender As System.Object, ByVal e As System.Windows.Forms.DataGridViewCellEventArgs) Handles DGV.CellContentClick

End Sub

End Class

**\*\*\*\* Proses Algoritma KNN ALL (Keseluruhan)\*\*\*\***

Imports System.Data.Odbc

Public Class frmProsesKNNAll

Dim StopWatch As New Diagnostics.Stopwatch

Dim cNama\_Atribut(5000), cKode\_Atribut(5000), cNilai\_Training(5000), cNilai\_Testing(5000) As String

Dim nBobot\_Atribut(5000), nKedekatan(5000) As Single

Dim A As Byte

Dim nRec, cNorec As Integer

Dim nhasil As Single

Dim nJarak, nSimilarity, nJumBobot As Single

Dim cDataTesting, cDataTraning, cNomorTesting, cNomorTraining, cKode\_Class As String

Sub AturGird\_DataTraining()

dgDT.Columns(0).Width = 75

dgDT.ReadOnly = True

dgDT.AllowUserToAddRows = False

dgDT.GridColor = Color.Black

dgDT.DefaultCellStyle.ForeColor = Color.Black

dgDT.RowHeadersDefaultCellStyle.BackColor = Color.DeepPink

dgDT.AlternatingRowsDefaultCellStyle.BackColor = Color.Gray

dgDT.SelectionMode = DataGridViewSelectionMode.FullRowSelect

dgDT.ColumnHeadersDefaultCellStyle.Alignment = DataGridViewContentAlignment.MiddleCenter

dgDT.Columns(0).DefaultCellStyle.Alignment = DataGridViewContentAlignment.MiddleCenter

For k As Integer = 1 To nJmlAtribut

' dgDT.Columns(k).DefaultCellStyle.Alignment = DataGridViewContentAlignment.MiddleCenter

dgDT.Columns(k).Width = 75

Next

End Sub

Sub Tampil\_DataTraining()

dgDT.Columns.Clear()

dgDT.Columns.Add("kode", "Nomor")

Dim sql As String = "Select \* from `tbatribut` order by kode\_atribut asc"

Dim cmd As New OdbcCommand(sql, Conn)

Dim rd As OdbcDataReader = cmd.ExecuteReader

While rd.Read

dgDT.Columns.Add(rd(1), rd(1))

End While

rd.Close()

sql = "select \* from `tbdata\_training` group by nomor order by `nomor` asc"

cmd = New OdbcCommand(sql, Conn)

rd = cmd.ExecuteReader

Dim i As Integer = 0

While rd.Read

dgDT.Rows.Add()

dgDT.Item(0, i).Value = rd(0)

i += 1

End While

rd.Close()

sql = "select \* from `tbdata\_training`"

cmd = New OdbcCommand(sql, Conn)

rd = cmd.ExecuteReader

If rd.HasRows Then

rd.Close()

For j As Integer = 0 To dgDT.RowCount - 1

sql = "select `nilai\_atribut` from `tbdata\_training` where `nomor`='" & dgDT.Item(0, j).Value & "'"

cmd = New OdbcCommand(sql, Conn)

rd = cmd.ExecuteReader

i = 0

While rd.Read

dgDT.Item(i + 1, j).Value = rd(0)

i += 1

End While

rd.Close()

Next

Else

rd.Close()

End If

Call AturGird\_DataTraining()

txtJumlah.Text = FormatNumber(dgDT.RowCount, 0)

nParamater.Maximum = txtJumlah.Text

End Sub

Private Sub frmProsesKNNAll\_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load

Call Koneksi()

Call CekJmlAtribut()

Call Tampil\_DataTraining()

Call TampilDataTesting()

Call CekJmlDataTesting()

End Sub

Sub TampilDataTesting()

dgDS.Columns.Clear()

dgDS.Columns.Add("kode", "Nomor")

dgDS.Columns.Add("kode", "Nama")

Dim sql As String = "Select \* from `tbatribut` order by kode\_atribut asc"

Dim cmd As New OdbcCommand(sql, Conn)

Dim rd As OdbcDataReader = cmd.ExecuteReader

While rd.Read

dgDS.Columns.Add(rd(1), rd(1))

End While

rd.Close()

sql = "select \* from `tbdata\_testing` group by nomor order by `nomor` asc"

cmd = New OdbcCommand(sql, Conn)

rd = cmd.ExecuteReader

Dim i As Integer = 0

While rd.Read

dgDS.Rows.Add()

dgDS.Item(0, i).Value = rd(0)

dgDS.Item(1, i).Value = rd(1)

i += 1

End While

rd.Close()

sql = "select \* from `tbdata\_testing`"

cmd = New OdbcCommand(sql, Conn)

rd = cmd.ExecuteReader

If rd.HasRows Then

rd.Close()

For j As Integer = 0 To dgDS.RowCount - 1

sql = "select `nilai\_atribut` from `tbdata\_testing` where `nomor`='" & dgDS.Item(0, j).Value & "'"

cmd = New OdbcCommand(sql, Conn)

rd = cmd.ExecuteReader

i = 0

While rd.Read

dgDS.Item(i + 2, j).Value = rd(0)

i += 1

End While

rd.Close()

Next

Else

rd.Close()

End If

Call AturGirdDS()

txtJmlDS.Text = FormatNumber(dgDS.RowCount, 0)

'Tampilkan hasil prediksi

sql = "select \* from `tbprediksi` order by `nomor` asc"

cmd = New OdbcCommand(sql, Conn)

rd = cmd.ExecuteReader

i = 0

While rd.Read

dgDS.Item(nJmlAtribut + 2, i).Value = rd(1)

i += 1

End While

rd.Close()

End Sub

Sub AturGirdDS()

dgDS.Columns(0).Width = 60

dgDS.ReadOnly = True

dgDS.AllowUserToAddRows = False

dgDS.GridColor = Color.Black

dgDS.DefaultCellStyle.ForeColor = Color.Black

dgDS.RowHeadersDefaultCellStyle.BackColor = Color.DeepPink

dgDS.AlternatingRowsDefaultCellStyle.BackColor = Color.Gray

dgDS.SelectionMode = DataGridViewSelectionMode.FullRowSelect

dgDS.ColumnHeadersDefaultCellStyle.Alignment = DataGridViewContentAlignment.MiddleCenter

dgDS.Columns(0).DefaultCellStyle.Alignment = DataGridViewContentAlignment.MiddleCenter

dgDS.Columns(nJmlAtribut + 2).Width = 150

For k As Integer = 2 To nJmlAtribut

'dgDS.Columns(k).DefaultCellStyle.Alignment = DataGridViewContentAlignment.MiddleCenter

dgDS.Columns(k).Width = 75

Next

End Sub

Sub CekAtribut()

cmd = New OdbcCommand("select distinct \* from tbatribut " & \_

"where jenis\_atribut='Atribut' order by Kode\_atribut", Conn)

rd = cmd.ExecuteReader

A = 0

While rd.Read

cKode\_Atribut(A) = rd.Item(0)

cNama\_Atribut(A) = rd.Item(1)

nBobot\_Atribut(A) = rd.Item(2)

nJumBobot = nJumBobot + nBobot\_Atribut(A)

A = A + 1

End While

cmd = New OdbcCommand("select \* from tbatribut " & \_

"where jenis\_atribut='Class' order by Kode\_atribut", Conn)

rd = cmd.ExecuteReader

If rd.HasRows Then cKode\_Class = rd.Item(0)

End Sub

Sub CekData\_Testing()

Dim i As Integer = 0

Dim sql As String = "select \* from `tbdata\_testing` where `nomor`='" & cNomorTesting & "'"

cmd = New OdbcCommand(sql, Conn)

rd = cmd.ExecuteReader

If rd.HasRows Then

rd.Close()

For j As Integer = 0 To nJmlDataTesting - 1

sql = "select `nilai\_atribut` from `tbdata\_testing` where `nomor`='" & cNomorTesting & "' " & \_

"and kode\_atribut ='" & cKode\_Atribut(j) & "'"

cmd = New OdbcCommand(sql, Conn)

rd = cmd.ExecuteReader

i = 0

While rd.Read

cNilai\_Testing(j) = rd(0)

i += 1

End While

rd.Close()

Next

Else

rd.Close()

End If

End Sub

Sub Hitung\_Jarak()

Dim rdDT, rdDS As OdbcDataReader

'Cek Data Testing

cmd = New OdbcCommand("select \* from tbdata\_testing group by Nomor order by nomor ", Conn)

rdDS = cmd.ExecuteReader

Timer1.Enabled = True

nData = 0

pBar.Maximum = 100

Timer1.Start()

Me.StopWatch.Start()

While rdDS.Read

cNomorTesting = rdDS.Item("nomor")

cDataTesting = "d" & cNomorTesting

Call CekData\_Testing()

'Cek Data Training

cmd = New OdbcCommand("select \* from tbdata\_training group by Nomor order by nomor ", Conn)

rdDT = cmd.ExecuteReader

While rdDT.Read

cDataTraning = "d" & rdDT.Item("nomor")

cNomorTraining = rdDT.Item("nomor")

cmd = New OdbcCommand("Select \* from tbhasil where Nomor='" & cNomorTraining & "' and no\_testing ='" & cNomorTesting & "' ", Conn)

rd3 = cmd.ExecuteReader

rd3.Read()

If Not rd3.HasRows Then

'Ambil Nilai Data Training

For j As Integer = 0 To nJmlAtribut - 1

cmd = New OdbcCommand("Select \* from tbdata\_training where nomor=" & cNomorTraining & " and kode\_atribut ='" & cKode\_Atribut(j) & "'", Conn)

rd2 = cmd.ExecuteReader

rd2.Read()

If rd2.HasRows Then

cNilai\_Training(j) = rd2.Item(2)

End If

Next

'Ambil Nilai Kedekatan Antar Atribut

For j As Integer = 0 To nJmlAtribut - 1

cmd = New OdbcCommand("Select nilai from tbbobot\_kedekatan where kode\_atribut ='" & cKode\_Atribut(j) & "' " & \_

"and kolom ='" & cNilai\_Training(j) & "' and baris ='" & cNilai\_Testing(j) & "'", Conn)

rd2 = cmd.ExecuteReader

rd2.Read()

If rd2.HasRows Then

nKedekatan(j) = rd2.Item(0)

End If

Next

'Hitung Nilai Kedekatan

nJarak = 0

For j As Integer = 0 To nJmlAtribut - 1

nJarak = nJarak + (nKedekatan(j) \* nBobot\_Atribut(j))

Next

nSimilarity = nJarak / nJumBobot

Call simpan\_NilaiKedekatan()

Call simpan\_hasil()

End If

nData = nData + 1

pBar.PerformStep()

'Hitung persentase kinerja pemrosesan data dan tampilkan dalam status bar

labelPersen.Text = ((nData / (Val(txtJmlDS.Text) \* Val(txtJumlah.Text))) \* 100).ToString("N2") & "% Completing..."

pBar.Value = Math.Round(nData / (Val(txtJmlDS.Text) \* Val(txtJumlah.Text)) \* 100)

Application.DoEvents()

End While

Call AturPeringkat()

Call HasilPrediksi()

End While

End Sub

Sub AturPeringkat()

Dim nPeringkat As Integer

Dim cPrediksi As String

cPrediksi = ""

cmd = New OdbcCommand("select \* from tbhasil where no\_testing ='" & cNomorTesting & "' order by jarak ", Conn)

rd = cmd.ExecuteReader

While rd.Read

cNomorTraining = rd.Item("nomor")

nPeringkat = nPeringkat + 1

cmd = New OdbcCommand("select \* from tbdata\_training where Nomor='" & cNomorTraining & "' and kode\_atribut ='" & cKode\_Class & "'", Conn)

rd2 = cmd.ExecuteReader

rd2.Read()

If rd2.HasRows = True Then

cPrediksi = rd2.Item(2)

End If

cmd = New OdbcCommand("Select \* from tbhasil where Nomor='" & cNomorTraining & "' and no\_testing ='" & cNomorTesting & "' ", Conn)

rd2 = cmd.ExecuteReader

rd2.Read()

If rd2.HasRows Then

Dim sqledit As String = "Update tbhasil set " & \_

"rangking='" & nPeringkat & "', " & \_

"prediksi='" & cPrediksi & "' " & \_

" where nomor='" & cNomorTraining & "' and no\_testing ='" & cNomorTesting & "' "

cmd = New OdbcCommand(sqledit, Conn)

cmd.ExecuteNonQuery()

End If

End While

End Sub

Sub simpan\_hasil()

Dim cHasil, cData

cmd = New OdbcCommand("Select \* from tbhasil where Nomor='" & cNomorTraining & "' and no\_testing ='" & cNomorTesting & "' ", Conn)

rd2 = cmd.ExecuteReader

rd2.Read()

cHasil = Replace(nSimilarity, ",", ".")

cData = cDataTraning & ", " & cDataTesting

If Not rd2.HasRows Then

Dim sqltambah As String = "Insert into tbhasil (nomor,data,jarak,no\_testing) values " & \_

"('" & cNomorTraining & "','" & cData & "'," & cHasil & ",'" & cNomorTesting & "')"

cmd = New OdbcCommand(sqltambah, Conn)

Else

Dim sqledit As String = "Update tbhasil set " & \_

"data='" & cData & "', " & \_

"jarak=" & cHasil & " " & \_

" where nomor='" & cNomorTraining & "' and no\_testing ='" & cNomorTesting & "' "

cmd = New OdbcCommand(sqledit, Conn)

End If

cmd.ExecuteNonQuery()

End Sub

Sub simpan\_NilaiKedekatan()

Dim cHasil, cBobot

For j As Integer = 0 To nJmlAtribut - 1

cmd = New OdbcCommand("Select \* from tbkedekatan where Nomor='" & cNomorTraining & "' " & \_

"and no\_testing ='" & cNomorTesting & "' and kode\_atribut ='" & cKode\_Atribut(j) & "'", Conn)

rd2 = cmd.ExecuteReader

rd2.Read()

cHasil = Replace(nKedekatan(j), ",", ".")

cBobot = Replace(nBobot\_Atribut(j), ",", ".")

If Not rd2.HasRows Then

Dim sqltambah As String = "Insert into tbkedekatan (nomor,no\_testing,kode\_atribut,nilai\_dt,nilai\_ds,kedekatan,bobot) values " & \_

"('" & cNomorTraining & "','" & cNomorTesting & "','" & cKode\_Atribut(j) & "'," & \_

"'" & cNilai\_Training(j) & "' ,'" & cNilai\_Testing(j) & "'," & cHasil & "," & cBobot & ")"

cmd = New OdbcCommand(sqltambah, Conn)

Else

Dim sqledit As String = "Update tbkedekatan set " & \_

"nilai\_dt='" & cNilai\_Training(j) & "', " & \_

"nilai\_ds='" & cNilai\_Testing(j) & "', " & \_

"kedekatan=" & cHasil & ", " & \_

"bobot=" & cBobot & " " & \_

" where nomor='" & cNomorTraining & "' and no\_testing ='" & cNomorTesting & "' and kode\_atribut ='" & cKode\_Atribut(j) & "' "

cmd = New OdbcCommand(sqledit, Conn)

End If

cmd.ExecuteNonQuery()

Next

End Sub

Private Sub btnTutup\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnTutup.Click

Me.Dispose()

End Sub

Private Sub btnProses\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnProses.Click

stsBar.Visible = True

pBar.Value = 0

labelPersen.Text = ""

lblLama.Text = ""

Me.StopWatch.Reset()

Call CekAtribut()

Call Hitung\_Jarak()

Call TampilDataTesting()

End Sub

Sub HasilPrediksi()

Dim nJmlSB, nJmlBaik, nJmlCukup As Integer

Dim cPrediksi

cPrediksi = ""

nJmlSB = 0

nJmlBaik = 0

nJmlCukup = 0

cmd = New OdbcCommand("Select count(\*) from tbhasil " & \_

"where no\_testing ='" & cNomorTesting & "' and prediksi ='Sangat Baik' and rangking<= " & nParamater.Value & "", Conn)

rd = cmd.ExecuteReader

rd.Read()

nJmlSB = rd.Item(0)

cmd = New OdbcCommand("Select count(\*) from tbhasil " & \_

"where no\_testing ='" & cNomorTesting & "' and prediksi ='Baik' and rangking<= " & nParamater.Value & "", Conn)

rd = cmd.ExecuteReader

rd.Read()

nJmlBaik = rd.Item(0)

cmd = New OdbcCommand("Select count(\*) from tbhasil " & \_

"where no\_testing ='" & cNomorTesting & "' and prediksi ='Cukup' and rangking<= " & nParamater.Value & "", Conn)

rd = cmd.ExecuteReader

rd.Read()

nJmlCukup = rd.Item(0)

If nJmlSB > nJmlBaik And nJmlSB > nJmlCukup Then

cPrediksi = "Sangat Baik"

ElseIf nJmlBaik > nJmlCukup And nJmlBaik > nJmlSB Then

cPrediksi = "Baik"

ElseIf nJmlCukup > nJmlSB And nJmlCukup > nJmlBaik Then

cPrediksi = "Cukup"

End If

If nJmlSB > 0 And (nJmlSB = nJmlBaik Or nJmlSB = nJmlCukup) Then

cPrediksi = "KEMUNGKINAN Sangat Baik"

ElseIf nJmlBaik > 0 And (nJmlBaik = nJmlCukup) Then

cPrediksi = "KEMUNGKINAN Baik"

End If

cmd = New OdbcCommand("Select \* from tbprediksi where Nomor='" & cNomorTesting & "' ", Conn)

rd = cmd.ExecuteReader

rd.Read()

If Not rd.HasRows Then

Dim sqltambah As String = "Insert into tbprediksi (nomor,prediksi) values " & \_

"('" & cNomorTesting & "','" & cPrediksi & "')"

cmd = New OdbcCommand(sqltambah, Conn)

Else

Dim sqledit As String = "Update tbprediksi set " & \_

"prediksi='" & cPrediksi & "' " & \_

" where nomor='" & cNomorTesting & "' "

cmd = New OdbcCommand(sqledit, Conn)

End If

cmd.ExecuteNonQuery()

End Sub

Private Sub nParamater\_ValueChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles nParamater.ValueChanged

stsBar.Visible = False

Dim rdDS As OdbcDataReader

cmd = New OdbcCommand("select \* from tbdata\_testing group by Nomor order by nomor ", Conn)

rdDS = cmd.ExecuteReader

While rdDS.Read

cNomorTesting = rdDS.Item("nomor")

Call HasilPrediksi()

End While

Call TampilDataTesting()

End Sub

Private Sub Timer1\_Tick(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Timer1.Tick

Dim elapsed As TimeSpan = Me.StopWatch.Elapsed

If pBar.Value >= pBar.Maximum Then

labelPersen.Text = "100% Completed..."

lblLama.Text = String.Format("{0:00}:{1:00}:{2:00}:{3:00}", Math.Floor(elapsed.TotalHours), elapsed.Minutes, elapsed.Seconds, elapsed.Milliseconds)

Timer1.Enabled = False

Else

' pBar.Value = Math.Round(nData / Val(txtJumlah.Text) \* 100)

lblLama.Text = String.Format("{0:00}:{1:00}:{2:00}:{3:00}", Math.Floor(elapsed.TotalHours), elapsed.Minutes, elapsed.Seconds, elapsed.Milliseconds)

End If

End Sub

Private Sub TabControl1\_Click(ByVal sender As Object, ByVal e As System.EventArgs) Handles TabControl1.Click

stsBar.Visible = False

End Sub

End Class