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LISTING PROGRAM

1. Login

Public Class FrmLogin

Private Sub btnLogin_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles BtnLogin.Click

dr = openDR("SELECT * FROM tb_user WHERE user='" & TxtUsername.Text & "' AND pass='" & TxtPassword.Text & "'")

If dr.Read Then

user = dr("user")

level = dr("level")

FrmUtama.Show()

Me.Close()

Else

msgError("Salah kombinasi username dan password")

TxtUsername.Focus()

End If

End Sub

Private Sub txtUsername_KeyPress(ByVal sender As System.Object, ByVal e As System.Windows.Forms.KeyPressEventArgs) Handles TxtUsername.KeyPress

TxtUsername.KeyPress

If e.KeyChar = Chr(13) Then

TxtPassword.Focus()

End If

End Sub

Private Sub txtPassword_KeyPress(ByVal sender As System.Object, ByVal e As System.Windows.Forms.KeyPressEventArgs) Handles TxtPassword.KeyPress

If e.KeyChar = Chr(13) Then

btnLogin_Click(Nothing, Nothing)

End If

End Sub

Private Sub btnKeluar_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles BtnKeluar.Click

Me.Close()

End Sub

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

End Sub

End Class

2. Menu Utama

Public Class FrmUtama

```
Private Sub BtnAlternatif_Click(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles BtnAlternatif.Click  
    FrmAlternatif.ShowAsChild(Me)  
End Sub
```

```
Private Sub FrmUtama_Activated(ByVal sender As Object, ByVal e As  
System.EventArgs) Handles Me.Activated  
    If level <> "lurah" Then  
        BtnAlternatif.Enabled = True  
        BtnKriteria.Enabled = True  
        BtnRelasi.Enabled = True  
        BtnCrips.Enabled = True  
    Else  
        BtnAlternatif.Enabled = False  
        BtnKriteria.Enabled = False  
        BtnRelasi.Enabled = False  
        BtnCrips.Enabled = False  
    End If  
End Sub
```

```
Private Sub FrmUtama_Load(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles MyBase.Load  
    sb1.Text = "User: " & user  
    sb2.Text = Format(Date.Now, "dd MMMM yyyy HH:mm:ss")  
End Sub
```

```
Private Sub Timer1_Tick(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles Timer1.Tick  
    sb2.Text = Format(Date.Now, "dd MMMM yyyy HH:mm:ss")  
End Sub
```

```
Private Sub BtnRelasi_Click(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles BtnRelasi.Click  
    FrmRelAlternatif.ShowAsChild(Me)  
End Sub
```

```
Private Sub BtnHitung_Click(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles BtnHitung.Click
```

```

        FrmHitung.ShowAsChild(Me)
    End Sub

    Private Sub BtnKriteria_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnKriteria.Click
        FrmKriteria.ShowAsChild(Me)
    End Sub

    Private Sub BtnLapAlternatif_Click(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles BtnLapAlternatif.Click
        LapAlternatif.ShowAsChild(Me)
    End Sub

    Private Sub BtnLapKriteria_Click(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles BtnLapKriteria.Click
        LapKriteria.ShowAsChild(Me)
    End Sub

    Private Sub MnPassword_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs)
        FrmPassword.ShowDialog()
    End Sub

    Private Sub BtnCrips_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnCrips.Click
        Dim f As New FrmCrips
        f.ShowDialog()
    End Sub

    Private Sub BtnLapRangking_Click(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles BtnLapRangking.Click
        LapRangking.ShowAsChild(Me)
    End Sub

    Private Sub BtnLogout_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnLogout.Click
        FrmLogin.Show()
        Me.Close()
    End Sub

    Private Sub BtnPassword_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnPassword.Click
        Dim f As New FrmPassword
        f.ShowDialog()
    End Sub
End Class

```

4 Form Alternatif

Public Class FrmAlternatif

```
Private Sub FrmKaryawan_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
    Dgv.SetDefault()
    BtnCari_Click(Nothing, Nothing)
End Sub
```

```
Private Sub BtnTambah_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnTambah.Click
    FrmAlternatifTambah.editState = False
    If FrmAlternatifTambah.ShowDialog() = vbYes Then
        BtnCari_Click(Nothing, Nothing)
    End If
End Sub
```

```
Private Sub BtnBatal_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs)
    BtnCari_Click(Nothing, Nothing)
End Sub
```

```
Private Sub BtnKeluar_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnKeluar.Click
    Me.Close()
End Sub
```

```
Private Sub BtnCari_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnCari.Click
    Dgv.DataSource = openDT("SELECT kode_jalan, nama_jalan, tahun FROM
tb_alternatif WHERE kode_jalan LIKE '%" + TxtCari.Text + "%' OR nama_jalan
LIKE '%" + TxtCari.Text + "%' ORDER BY kode_jalan")
End Sub
```

```
Private Sub TxtCari_KeyPress(ByVal sender As System.Object, ByVal e As
System.Windows.Forms.KeyPressEventArgs) Handles TxtCari.KeyPress
    If e.IsEnter() Then BtnCari_Click(sender, e)
End Sub
```

```
Private Sub BtnUbah_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnUbah.Click
    If Not Dgv.CurrentCell Is Nothing Then
        FrmAlternatifTambah.editState = True
        FrmAlternatifTambah.TxtKode.Text = Dgv.GetSelAt("kode_jalan")
        If FrmAlternatifTambah.ShowDialog Then
            BtnCari_Click(Nothing, Nothing)
        End If
    End If
End Sub
```

```

End If
End If
End Sub

```

```

Private Sub BtnHapus_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnHapus.Click
    If Not Dgv.CurrentRow Is Nothing Then
        If msgAsk("Hapus Data?") = vbYes Then
            execute("DELETE FROM tb_alternatif WHERE kode_jalan=@0",
Dgv.getSelAt("kode_jalan"))
            execute("DELETE FROM tb_rel_alternatif WHERE kode_jalan=@0",
Dgv.getSelAt("kode_jalan"))
            msgInfo("Data terhapus")
            BtnCari_Click(Nothing, Nothing)
        End If
    End If
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

```

5 Form Crips

```

Public Class FrmCrips
    Dim editState As Boolean

```

```

    Private Sub isiGrid()
        Dgv.DataSource = openDT("SELECT k.Kode_Kriteria, k>Nama_Kriteria,
c.Kode_Crips, c>Nama_Crips, c.Nilai " &
            " FROM tb_crips c INNER JOIN tb_kriteria k ON
k.kode_kriteria=c.kode_kriteria " &
            " WHERE k.nama_kriteria LIKE '%" + TxtCari.Text + "%'
OR c.nama_crips LIKE '%" + TxtCari.Text + "%' " &
            " ORDER BY k.kode_kriteria, c.kode_crips")
        Dgv.Columns("kode_kriteria").Visible = False
        Dgv.Columns("kode_crips").Visible = False
    End Sub

```

```

Sub tampil()
    enbBtn(True, True, True, True, True, True, False, False, True)
    enbText(False)

```

If Dgv.CurrentCell Is Nothing Then Exit Sub

With Dgv.CurrentRow

 TxtKriteria.SelectedText = .Cells("kode_kriteria").Value

 TxtKode.Text = .Cells("kode_crips").Value

 TxtNama.Text = .Cells("nama_crips").Value

 TxtNilai.Text = .Cells("nilai").Value

End With

End Sub

Private Sub enbText(ByVal enb As Boolean)

 TxtKode.Enabled = enb

 TxtKriteria.Enabled = enb

 TxtNama.Enabled = enb

 TxtNilai.Enabled = enb

End Sub

Private Sub enbBtn(ByVal First As Boolean, ByVal Prev As Boolean, ByVal
Nxt As Boolean, ByVal Last As Boolean, ByVal add As Boolean, ByVal edit As
Boolean, ByVal save As Boolean, ByVal cancel As Boolean, ByVal del As
Boolean)

 BtnFirst.Enabled = First

 BtnPrev.Enabled = Prev

 BtnNext.Enabled = Nxt

 BtnLast.Enabled = Last

 BtnTambah.Enabled = add

 BtnUbah.Enabled = edit

 BtnSimpan.Enabled = save

 BtnBatal.Enabled = cancel

 BtnHapus.Enabled = del

End Sub

Private Sub awal()

 TxtKriteria.setDS(openDT("SELECT kode_kriteria, nama_kriteria AS
nama_kriteria FROM tb_kriteria ORDER BY kode_kriteria"))

 isiGrid()

 tampil()

 editState = False

End Sub

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

 Dgv.SetDefault()

 awal()

End Sub

Private Sub btnTambah_Click(ByVal sender As System.Object, ByVal e As

System.EventArgs) Handles BtnTambah.Click

 TxtKode.Text = "Auto"

 TxtNama.Text = ""

 TxtNilai.Text = ""

 enbBtn(False, False, False, False, False, False, True, True, False)

 enbText(True)

End Sub

Private Sub btnBatal_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles BtnBatal.Click

 awal()

End Sub

Private Sub btnKeluar_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles BtnKeluar.Click

 Me.Close()

End Sub

Private Sub btnCari_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles BtnCari.Click

 isiGrid()

End Sub

Private Sub txtCari_KeyPress(ByVal sender As System.Object, ByVal e As System.Windows.Forms.KeyPressEventArgs) Handles TxtCari.KeyPress

 If e.KeyChar = CChar(ChrW(13)) Then

 isiGrid()

 End If

End Sub

Private Sub btnUbah_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles BtnUbah.Click

 editState = True

 enbText(True)

 enbBtn(False, False, False, False, False, False, True, True, False)

 TxtKriteria.Enabled = False

 TxtKode.Enabled = False

 TxtNama.Focus()

End Sub

Private Sub btnHapus_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles BtnHapus.Click

 If Not Dgv.CurrentCell Is Nothing Then

 If msgAsk("Hapus Data?") = vbYes Then

 execute("DELETE FROM tb_crips WHERE kode_crips=@0",

 TxtKode.Text)

 msgInfo("Data terhapus")

 awal()

```

        End If
    End If
End Sub

Private Sub BtnFirst_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnFirst.Click
    Dgv.SelectFirst()
    tampil()
End Sub

Private Sub BtnPrev_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnPrev.Click
    Dgv.SelectPrevious()
    tampil()
End Sub

Private Sub BtnNext_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnNext.Click
    Dgv.SelectNext()
    tampil()
End Sub

Private Sub BtnLast_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnLast.Click
    Dgv.SelectLast()
    tampil()
End Sub

Private Sub BtnSimpan_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnSimpan.Click
    Dim kode_exist As Boolean = openDT("SELECT * FROM tb_crips
WHERE kode_crips=@0", TxtKode.Text).Rows.Count > 0

    If Not editState And kode_exist Then
        msgError("Kode sudah ada")
    ElseIf TxtKriteria.Text = "" Or TxtNama.Text = "" Or TxtNilai.Text = ""
Then
        msgError("Field bertanda * tidak boleh kosong")
    Else

        Dim f0, f1, f2 As String
        f0 = TxtKode.Text
        f1 = TxtNama.Text
        f2 = TxtKriteria.SelectedValue
        Dim f3 As Single = Val(TxtNilai.Text)

        If editState Then

```

```

        execute("UPDATE tb_crips SET nama_crips=@0, kode_kriteria=@1,
nilai=@2 WHERE kode_crips=@3", f1, f2, f3, f0)
    Else
        execute("INSERT INTO tb_crips (kode_crips, nama_crips,
kode_kriteria, nilai) VALUES (@0, @1, @2, @3)", f0, f1, f2, f3)
    End If

    msgInfo("Data tersimpan")
    awal()
End If
End Sub

Private Sub dgv_SelectionChanged(ByVal sender As Object, ByVal e As
System.EventArgs) Handles Dgv.SelectionChanged
    tampil()
End Sub
End Class

```

6 Form Kriteria

```

Public Class FrmKriteria
    Dim pos As Integer
    Dim editState As Boolean

    Private Sub FrmKaryawan_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
        dgv.SetDefault()
        BtnCari_Click(Nothing, Nothing)
    End Sub

    Private Sub btnTambah_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnTambah.Click
        FrmKriteriaTambah.editState = False
        If FrmKriteriaTambah.ShowDialog() = vbYes Then
            BtnCari_Click(Nothing, Nothing)
        End If
    End Sub

    Private Sub btnKeluar_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnKeluar.Click
        Me.Close()
    End Sub

    Private Sub BtnCari_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnCari.Click

```

```

        dgv.DataSource = openDT("SELECT Kode_Kriteria, Nama_Kriteria,
Atribut, Bobot FROM tb_kriteria WHERE kode_kriteria LIKE '%' + txtCari.Text
+ '%' OR nama_kriteria LIKE '%' + txtCari.Text + '%' ORDER BY
kode_kriteria")
    End Sub

```

```

    Private Sub TxtCari_KeyPress(ByVal sender As System.Object, ByVal e As
System.Windows.Forms.KeyPressEventArgs) Handles txtCari.KeyPress
        If e.IsEnter() Then BtnCari_Click(sender, e)
    End Sub

```

```

    Private Sub BtnUbah_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnUbah.Click
        If Not dgv.CurrentCell Is Nothing Then
            FrmKriteriaTambah.EditState = True
            FrmKriteriaTambah.TxtKode.Text = dgv.GetSelAt("kode_kriteria")
            If FrmKriteriaTambah.ShowDialog Then
                BtnCari_Click(Nothing, Nothing)
            End If
        End If
    End Sub

```

```

    Private Sub BtnHapus_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnHapus.Click
        If Not dgv.CurrentCell Is Nothing Then
            If MsgBox("Hapus Data?") = vbYes Then
                execute("DELETE FROM tb_kriteria WHERE kode_kriteria=@0",
dgv.GetSelAt("kode_kriteria"))
                execute("DELETE FROM tb_rel_alternatif WHERE
kode_kriteria=@0", dgv.GetSelAt("kode_kriteria"))
                MsgBox("Data terhapus")
                BtnCari_Click(Nothing, Nothing)
            End If
        End If
    End Sub

```

```

End Class

```

7 Form Hitung

```

Public Class FrmHitung

```

```

    Private Sub FrmHitung_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
        TxtKelas.setDS(openDT("SELECT tahun FROM tb_alternatif GROUP BY
tahun"))
        Dgv1.SetDefault()
    End Sub

```

```

        BtnCetak.Enabled = False
    End Sub

    Private Sub btnKeluar_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnKeluar.Click
        Me.Close()
    End Sub

    Function get_col_max(ByVal dgv As DataGridView, ByVal col_name As
String) As Double
        Dim max As Double = 0
        If dgv.Rows.Count > 0 Then max =
Val(dgv.Rows(0).Cells(col_name).Value)
        For Each row As DataGridViewRow In dgv.Rows
            If Val(row.Cells(col_name).Value) > max Then
                max = Val(row.Cells(col_name).Value)
            End If
        Next
        get_col_max = max
    End Function

    Function get_col_min(ByVal dgv As DataGridView, ByVal col_name As
String) As Double
        Dim min As Double = 0
        If dgv.Rows.Count > 0 Then min =
Val(dgv.Rows(0).Cells(col_name).Value)
        For Each row As DataGridViewRow In dgv.Rows
            If Val(row.Cells(col_name).Value) < min Then
                min = Val(row.Cells(col_name).Value)
            End If
        Next
        get_col_min = min
    End Function

    Private Sub btnCetak_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnCetak.Click
        LapRangking.ShowAsChild(Me.MdiParent)
    End Sub

    Private Sub BtnHitung_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnHitung.Click
        Dim a, b As Integer

        Dgv1.Columns.Clear()
        Dgv1.Rows.Clear()

        Dgv1.Columns.Add("kode_jalan", "Kode")
        Dgv1.Columns("kode_jalan").ReadOnly = True
    End Sub

```

```

Dgv1.Columns.Add("nama_jalan", "Nama")
Dgv1.Columns("nama_jalan").ReadOnly = True

dr = openDR("SELECT * FROM tb_alternatif WHERE tahun=@0 ORDER
BY kode_jalan", TxtKelas.Text)
While dr.Read()
    Dgv1.Rows.Add(dr(0), dr(1))
End While

dr = openDR("SELECT kode_kriteria, atribut FROM tb_kriteria ORDER
BY kode_kriteria")
While dr.Read()
    Dgv1.Columns.Add(dr(0), dr(0))
    Dgv1.Columns(dr(0).ToString()).ToolTipText = dr(1).ToString()
End While

For a = 0 To Dgv1.Rows.Count - 1
    dr = openDR("SELECT c.nama_crips, r.kode_crips FROM
tb_rel_alternatif r " &
        " LEFT JOIN tb_crips c ON c.kode_crips = r.kode_crips " &
        " WHERE kode_jalan=" & Dgv1.Rows(a).Cells(0).Value & ""
ORDER BY r.kode_kriteria")
    b = 2
    While dr.Read
        Dgv1.Rows(a).Cells(b).Value = dr(0)
        If IsDBNull(dr(0)) Then
            Dgv1.Rows(a).Cells(b).Value = dr(1)
        Else
            Dgv1.Rows(a).Cells(b).Value = dr(0)
        End If
        b = b + 1
    End While
Next

Dgv1.CopyTo(Dgv2)
For a = 0 To Dgv2.Rows.Count - 1
    dr = openDR("SELECT c.nilai,r.kode_crips FROM tb_rel_alternatif r " &
        " LEFT JOIN tb_crips c ON c.kode_crips = r.kode_crips " &
        " WHERE kode_jalan=" & Dgv2.Rows(a).Cells(0).Value & ""
ORDER BY r.kode_kriteria")
    b = 2
    While dr.Read
        If IsDBNull(dr(0)) Then
            Dgv2.Rows(a).Cells(b).Value = dr(1)
        Else
            Dgv2.Rows(a).Cells(b).Value = dr(0)
        End If
    End While
Next

```

```

        b = b + 1
    End While
Next
Dgv2.CopyTo(Dgv3)
For Each row As DataGridViewRow In Dgv2.Rows
    For b = 2 To Dgv2.Columns.Count - 1
        Dim v = row.Cells(b).Value
        If Dgv2.Columns(b).ToolTipText = "benefit" Then
            Dgv3.Rows(row.Index).Cells(b).Value = v / get_col_max(Dgv2,
Dgv2.Columns(b).Name)
        Else
            Dgv3.Rows(row.Index).Cells(b).Value = get_col_min(Dgv2,
Dgv2.Columns(b).Name) / v
        End If
    Next
Next
Next

dr = openDR("SELECT kode_kriteria, bobot FROM tb_kriteria ORDER BY
kode_kriteria")
While dr.Read()
    Dgv3.Columns(dr(0).ToString()).ToolTipText = dr(1).ToString()
End While

Dgv3.CopyTo(Dgv4)
For Each row As DataGridViewRow In Dgv3.Rows
    For b = 2 To Dgv3.Columns.Count - 1
        Dim v = row.Cells(b).Value
        Dgv4.Rows(row.Index).Cells(b).Value = v *
Val(Dgv3.Columns(b).ToolTipText)
    Next
Next
Dgv4.Columns.Add("total", "Total")
For Each row As DataGridViewRow In Dgv4.Rows
    For b = 2 To Dgv2.Columns.Count - 1
        row.Cells("total").Value = row.Cells("total").Value +
row.Cells(b).Value
    Next
Next
Next

Dgv4.CopyTo(Dgv5)
Dgv5.Sort(Dgv5.Columns("total"),
System.ComponentModel.ListSortDirection.Descending)
execute("UPDATE tb_alternatif SET total=-1, rank=-1")
For Each row As DataGridViewRow In Dgv5.Rows
    execute("UPDATE tb_alternatif SET total=@0, rank=@1 WHERE
kode_jalan=@2", row.Cells("total").Value, row.Index + 1,
row.Cells("kode_jalan").Value)
Next

```

```

        TabControl1.SelectedTab = TabRangking
        BtnCetak.Enabled = True
    End Sub
End Class

```

8 Form Password

```
Public Class FrmPassword
```

```

    Private Sub btnKeluar_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnKeluar.Click
        Me.Close()
    End Sub

```

```

    Private Sub BtnUbah_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BtnUbah.Click
        dr = openDR("SELECT * FROM tb_admin WHERE user='" & user & "'
AND pass='" & TxtPass1.Text & "'")
        If Not dr.Read Then
            msgError("Password lama salah!")
        ElseIf TxtPass2.Text <> TxtPass3.Text Then
            msgError("Password baru dan konfirmasi passwrod baru tidak sama")
        ElseIf TxtPass2.Text.Length < 4 Then
            msgError("Password minimal 4 karakter")
        Else
            execute("UPDATE tb_admin SET pass='" & TxtPass2.Text & "' WHERE
user='" & user & "'")
            msgInfo("Password berhasil diubah!")
            Me.Close()
        End If
    End Sub

```

```

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

```

```

    End Sub
End Class

```

9 Koneksi MySQL

```

Imports MySql.Data.MySqlClient
Imports vb = Microsoft.VisualBasic
Imports System.Globalization

```

```

Module ModMySQL
    Private conn As New MySqlConnection
    Private cmd As MySqlCommand
    Private da As MySqlDataAdapter
    Private ds As New DataSet
    Public dr As MySqlDataReader
    Public user, level As String

    Private Sub connect()
        Try
            If conn.State = ConnectionState.Open Then Exit Sub
            conn = New
MySqlConnection("SERVER=localhost;UID=root;PASSWORD=;DATABASE=
saw_vb")
            conn.Open()
            Application.CurrentCulture = New CultureInfo("en-US")
            Catch ex As Exception
                msgError("ERROR: " & ex.Message)
            End Try
        End Sub

        Public Function getConnection() As MySqlConnection
            connect()
            Return conn
        End Function

        Public Function openDT(ByVal sql As String, ByVal ParamArray parameters()
As Object) As DataTable
            Try
                closeDR()
                ds.Tables.Clear()

                cmd = New MySqlCommand(sql, getConnection())
                SetParameter(cmd, parameters)
                da = New MySqlDataAdapter(cmd)
                da.Fill(ds)

                Return ds.Tables(0)
            Catch ex As Exception
                msgError("ERROR: " & ex.Message & vbCrLf & sql)
                Return Nothing
            End Try
        End Function

        Public Function openDR(ByVal sql As String, ByVal ParamArray parameters()
As Object) As MySqlDataReader
            Try
                closeDR()

```

```

        cmd = New MySqlCommand(sql, getConnection())
        SetParameter(cmd, parameters)
        Return cmd.ExecuteReader()
    Catch ex As Exception
        msgError("ERROR: " & ex.Message & vbCrLf & sql)
        Return Nothing
    End Try
End Function

Private Sub closeDR()
    Try
        dr.Close()
    Catch ex As Exception

    End Try
End Sub

Public Sub execute(ByVal sql As String, ByVal ParamArray parameters() As
Object)
    Try
        closeDR()
        cmd = New MySqlCommand(sql, getConnection())
        SetParameter(cmd, parameters)
        cmd.ExecuteNonQuery()
    Catch ex As Exception
        msgError("ERROR: " & ex.Message & vbCrLf & sql)
    End Try
End Sub

Private Sub SetParameter(ByVal cmd As MySqlCommand, ByVal ParamArray
parameters() As Object)
    For a As Integer = 0 To parameters.Count - 1
        Dim parameterName As String = "@" & Trim(Str(a))
        Dim value As Object = parameters(a)
        cmd.Parameters.AddWithValue(parameterName, value)
    Next
End Sub

Public Function sRight(ByVal str As String, ByVal Length As Integer) As
String
    Return vb.Right(str, Length)
End Function

Public Sub msgError(ByVal msg As String)
    MsgBox(msg, vbExclamation + MsgBoxStyle.OkOnly, "Error")
End Sub

Public Sub msgInfo(ByVal msg As String)

```

```

        MsgBox(msg, vbInformation + MsgBoxStyle.OkOnly, "Informasi")
    End Sub

    Public Function msgAsk(ByVal msg As String) As MsgBoxResult
        Return MsgBox(msg, vbYesNo + vbQuestion, "Konfirmasi")
    End Function

    Public Function KodeOtomatis(field As String, table As String, prefix As
String, length As Integer) As String
        dr = openDR("SELECT " & field & " FROM " & table & " WHERE " &
field & " REGEXP '" & prefix & "[0-9]{" & length & "}' ORDER BY " & field &
" DESC")
        If dr.Read Then
            Return prefix & Right(StrDup(length, "0") & Val(Right(dr(0), length)) +
1, length)
        Else
            Return prefix & Right(StrDup(length, "0") & 1, length)
        End If
    End Function
End Module

```

Kisaran, 20 November 2024

Nomor : 199-048/PP-00.10/UR/XI/2024

Hal : Permohonan Riset

Kepada Yth,

Bapak/Ibu Lurah Kelurahan Sidodadi

di _

Tempat

Dengan Hormat,

Semoga Tuhan Yang Maha Esa senantiasa memberikan kemudahan bagi kita semua dalam menjalankan aktivitas sehari-hari.

Universitas Royal sebagai salah satu perguruan tinggi penyelenggaraan program pendidikan Strata 1 (S1) dengan ini mengajukan permohonan kepada Bapak/Ibu agar kiranya dapat menerima Mahasiswa/I kami melaksanakan kegiatan Riset yang dilaksanakan pada tanggal **21 November 2024 - 21 Desember 2024**. Berikut ini data mahasiswa yang akan melaksanakan Riset :

No	Nama Mahasiswa	Program Studi	L/P	NIM
1	Widya Amalia	Sistem Informasi-S1	P	21.22.0344

Adapun Tujuan dilaksanakannya Riset ini untuk Menyelesaikan Penulisan Skripsi Program Strata 1 (S1) Universitas Royal. Judul Skripsi : "*Analisis Sistem Penentuan Usulan Prioritas Pembangunan Infrastruktur dengan SAW pada Kantor Lurah Sidodadi*".

Demikian permohonan ini kami sampaikan. Atas perhatian, kesediaan, dan kerjasama yang baik kami ucapkan terima kasih.

Hormat Kami
Rektor,

UNIVERSITAS ROYAL
Wati Mariatul Kifti, M.M.
NIDN. 0114057302

Tembusan :
- Arsip



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Judul Penelitian : **ANALISIS SISTEM PENENTUAN USULAN PRIORITAS
PEMBANGUNAN INFRASTRUKTUR DENGAN SAW PADA
KANTOR LURAH SIDODADI**

Selanjutnya kami sampaikan, bahwa kami tidak keberatan yang bersangkutan untuk melaksanakan Riset ditempat kami dengan ketentuan mengikuti peraturan yang ada.

Demikian surat balasan Riset ini kami perbuat untuk dapat digunakan seperlunya, atas kerja sama yang baik kami ucapkan terima kasih.





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2. Andrew Ramadhani, M.Kom.
Lembar Konsultasi : Pembimbing 1
Tanggal Pertemuan Pertama : 26 November 2024

PERTEMUAN/ TANGGAL	MATERI BAHASAN	PARAF DOSEN	KETERANGAN
26-11-2024	Perbaiki isi bab I		BAB I (Revisi)
27-11-2024	Acc Bab I		BAB I (ACC)
03-12-2024	Perbaiki isi bab 2 tambahkan tugas dan wewenang setiap jabatan pada struktur organisasi		BAB II (Revisi)
05-12-2024	Acc Bab II		BAB II (ACC)
11-12-2024	Tambahkan narasumber yang diwawancarai		BAB III (Revisi)
13-12-2024	Acc Bab III		BAB III (ACC)
17-12-2024	Acc Seminar Proposal		Seminar Proposal (ACC)
21-02-2025	Perbaiki isi bab 4		BAB IV (Revisi)
04-03-2025	Acc Bab 4		BAB IV (ACC)
05-03-2025	Sesuaikan isi bab 5 dengan tampilan program		BAB V (Revisi)
05-03-2025	Acc Bab 5		BAB V (ACC)
10-03-2025	Perbaiki kesimpulan		BAB VI (Revisi)
11-03-2025	Acc Bab 6		BAB VI (ACC)
11-03-2025	Sesuaikan Program dengan isi		Pengujian Alat/Aplikasi (Revisi)
12-03-2025	ACC program		Pengujian Alat/Aplikasi (ACC)
20-03-2025	ACC Seminar Hasil		Seminar Hasil (ACC)

Kisaran, 20 Maret 2025

Ka. Prodi Sistem Informasi



Nurwati, M.Kom.
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Pertama

PERTEMUAN/ TANGGAL	MATERI BAHASAN	PARAF DOSEN	KETERANGAN
29-11-2024	1. jelaskan sistem konvensional sebelumnya 2. berapa % pengrajin batu bata di kelurahan sidodadi yang menjadi penyebab rusaknya jalan		BAB I (Revisi)
05-12-2024			BAB I (ACC)
05-12-2024	Perhatikan penulisan kosa kata asing		BAB II (Revisi)
19-12-2024	Lanjut bba berikutnya		BAB II (ACC)
19-12-2024	Persiapkan berkas2 simpro		BAB III (ACC)
19-12-2024	Persiapkan diri dan pemahaman		Seminar Proposal (ACC)
06-03-2025	Acc Bab IV lanjut bab 5		BAB IV (ACC)
07-03-2025	ACC Bab V Lanjutan bab 6		BAB V (ACC)
12-03-2025	Persiapkan demo sistemnya		BAB VI (ACC)
12-03-2025			Pengujian Alat/Aplikasi (ACC)
20-03-2025			Seminar Hasil (ACC)

Kisaran, 20 Maret 2025

Ka. Prodi Sistem Informasi



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S1 (2021-2025) : Universitas Royal

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