

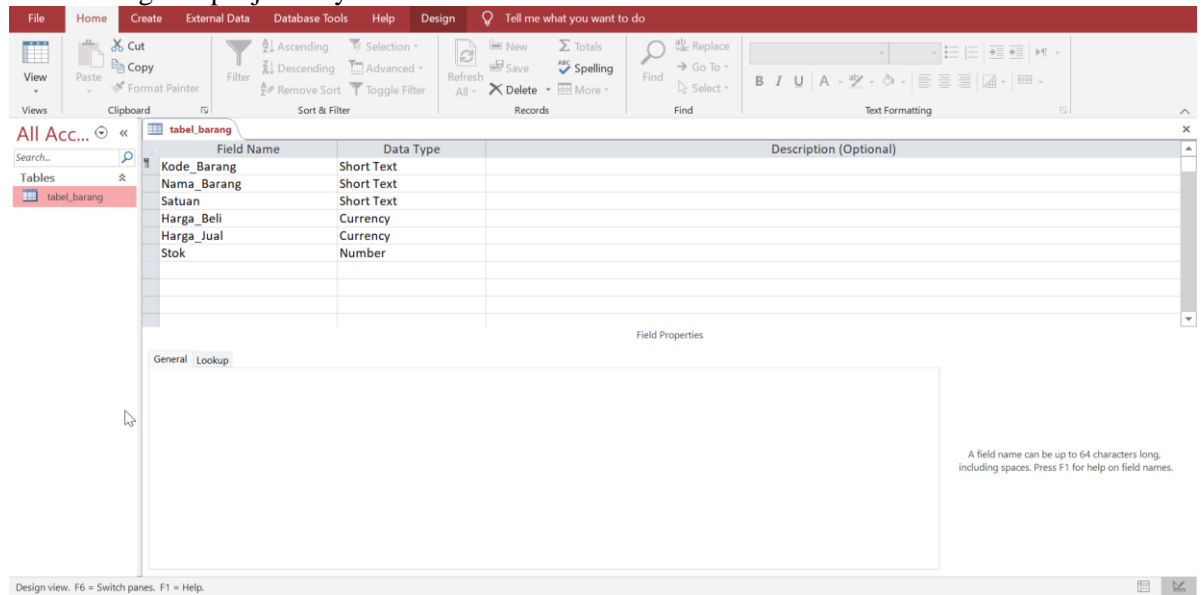
DATABASE (BASIS DATA)

Database atau yang dikenal juga dengan istilah basis data adalah sekumpulan data yang dikelola dengan sedemikian rupa berdasarkan ketentuan tertentu yang saling berkaitan sehingga memudahkan dalam pengelolannya. Lewat pengelolaan itulah pengguna bisa mendapatkan kemudahan dalam mencari sebuah informasi, membuang informasi, maupun menyimpan informasi.

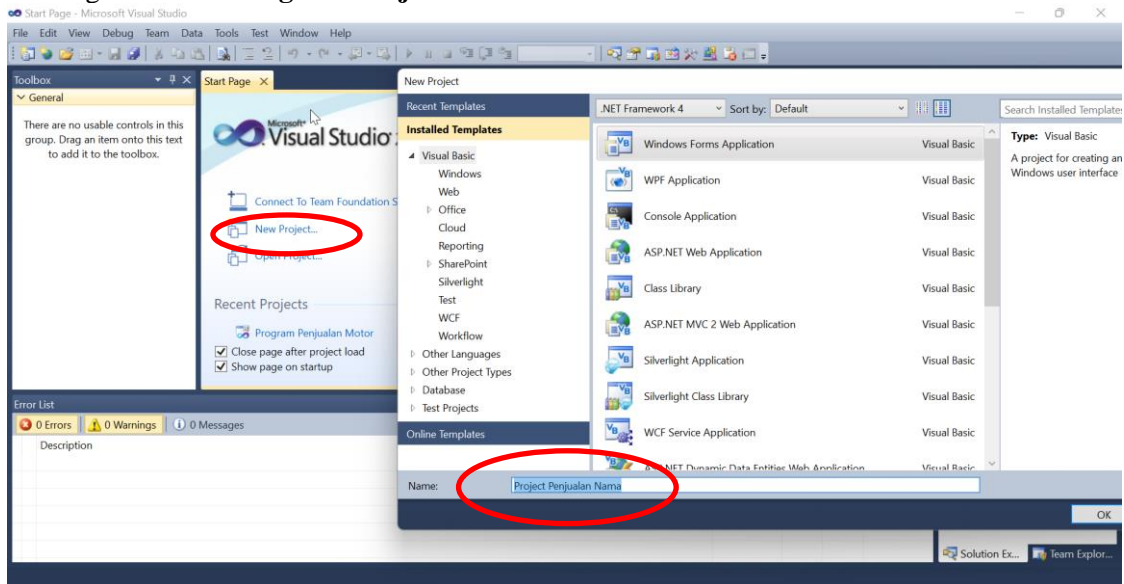
1. Perancangan Struktur Database (**dbpenjualan**)

a. Tabel Barang (**tabel_barang**)

Tabel barang adalah tabel yang digunakan sebagai penyimpanan data data barang. Berikut struktur tabel barang dan penjelasannya :



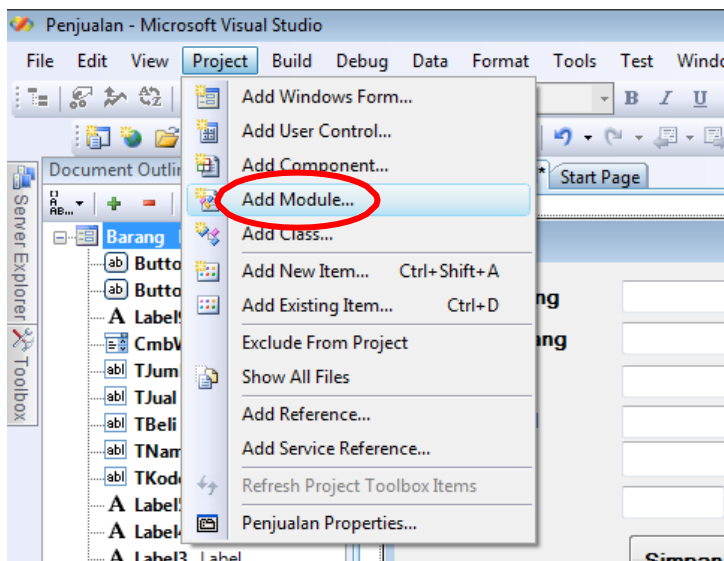
2. Setelah itu bukalah Visual Studio Net dan buat proyek baru seperti langkah di bawah ini dengan Name : **Program Penjualan Nama Sendiri**.



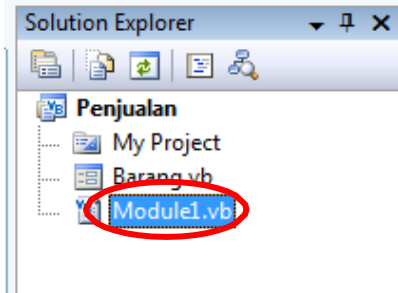
3. Buatlah Tampilan Form Seperti dibawah ini :



4. Kemudian Buatlah modul dengan langkah seperti gambar di bawah ini :



5. Lalu klik double module:

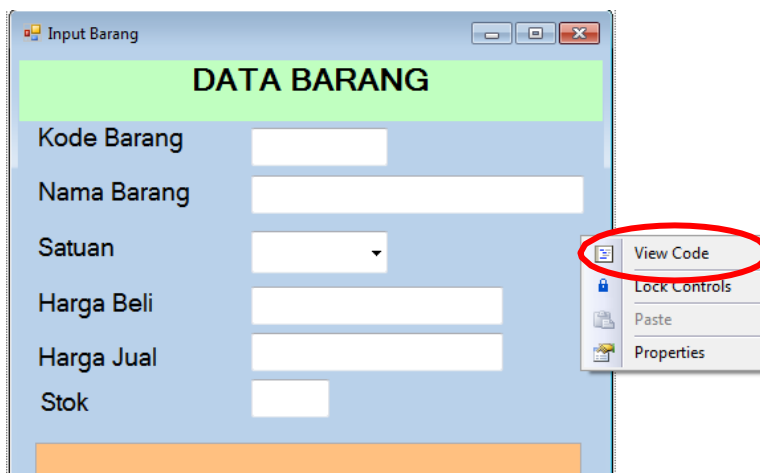


6. Dan isikan kode seperti dibawah ini :

```
Imports System.Data.OleDb
Module Module1
    Public CONN As OleDbConnection
    Public DA As OleDbDataAdapter
    Public DS As DataSet
    Public CMD As OleDbCommand
    Public RD As OleDbDataReader
    Public LokasiDB As String

    Public Sub Koneksi()
        LokasiDB = ("provider=microsoft.ACE.OLEDB.12.0;data
source=namadatabase.accdb")
        CONN = New OleDbConnection(LokasiDB)
        If CONN.State = ConnectionState.Closed Then
            CONN.Open()
            MsgBox "Koneksi Berhasil",vbinformation,"Sukses"
        End If
    End Sub
End Module
```

7. Setelah itu isikan kode untuk menampilkan data grid caranya **klik kanan** formpilih view code



```
Imports System.Data.OleDb
Public Class frmbarang
    Sub NonAktif()
```

```
txtkode.Enabled = False
txtbarang.Enabled = False
cbosatuan.Enabled = False
txtbeli.Enabled = False txtjual.Enabled
= False txtstok.Enabled = False
cmdsimpan.Enabled = False
End Sub
```

```
Sub Aktif()
    txtkode.Enabled = True
    txtbarang.Enabled = True
    cbosatuan.Enabled = True
    txtbeli.Enabled = True
    txtjual.Enabled = True
    txtstok.Enabled = True
    cmdsimpan.Enabled = True
End Sub
```

```
Sub TampilkanData()
    DA = New OleDbDataAdapter ("Select * from tabel_barang",CONN)
    DS = New DataSet
    DS.Clear() DA.Fill(DS, "Barang")
    DGVBarang.DataSource=(DS.Tables("Barang"))
    DGVBarang.ReadOnly = True
End Sub
```

8. Setelah itu klik double form 1 lalu ketik kode dibawah ini

```
Private Sub frmbarang_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
    Call NonAktif()
    Call Koneksi()
    Call TampilkanData()
End Sub
```

9. Lalu klik double tombol simpan dan kettikan kode dibawah ini :

```
Private Sub CmdSimpan_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles CmdSimpan.Click
    CMD = New OleDbCommand("Select * from tabel_barang where Kode_Barang='" & Txtkode.Text & "'",CONN)
    RD = CMD.ExecuteReader
    RD.Read()
    If Not RD.HasRows Then
        Dim sqltambah As String = "Insert into tabel_barang(Kode_Barang>Nama_Barang,Satuan,Harga_Beli,Harga_Jual,Stok) values " & _
            "(" & Txtkode.Text & "','" & Txtbarang.Text & "','" & cbosatuan.Text & "','" & Txtbeli.Text & "','" & Txtjual.Text & "','" & Txtstok.Text & "'"")
        CMD = New OleDbCommand(sqltambah, CONN)
        CMD.ExecuteNonQuery()
        MsgBox("Data Barang Berhasil disimpan", MsgBoxStyle.Information, "berhasil")
        Call TampilkanData()
        Call KosongkanText()
    Else
        MsgBox("Data Barang Sudah Ada", MsgBoxStyle.Exclamation, "eror")
    End If
End Sub
```

10. Lalu jalankan program dan klik tombol simpan
11. Setelah di klik simpan data akan secara otomatis masuk ke dalam database di awali dengan pesan data telah tersimpan lalu secara otomatis data akan Nampak pada Data GridView 1 (DGVBarang)



12. Untuk tombol **Tutup** ketiklah kode dibawah ini :

```
Private Sub cmdtutup_Click(ByVal sender As System.Object,  
ByVal e As System.EventArgs) Handlescmdtutup.Click  
    Close()  
End Sub
```

II. Membuat Tombol Edit

1. Tambahkan tombol Edit seperti dibawah ini



2. Sebelum Di Klik tombol edit lakukan pencarian data barang dahulu dengan caraklik double grid barang. Untuk menampilkan data berikut kodenya.

```
Private Sub DGVBarang_CellDoubleClick(ByVal sender As Object,  
ByVal e As System.Windows.Forms.DataGridViewCellEventArgs)  
HandlesDGVBarang.CellDoubleClick  
    On Error Resume NextDim  
    baris As Integer With  
    DGVBarang  
        baris = .CurrentRow.Index txtkode.Text =  
        .Item(0, baris).Value txtbarang.Text =  
        .Item(1, baris).Valuecbosatuan.Text =  
        .Item(2, baris).Value txtbeli.Text = .Item(3,  
        baris).Value txtjual.Text = .Item(4,  
        baris).Value txtstok.Text = .Item(5,  
        baris).Value Call Aktif()  
        cmdsimpan.Enabled = False  
        txtkode.Enabled = False  
    End With  
End Sub
```

3. Setelah tampil pada textbox lakukan ubah data, lalu klik tombol **Edit**. Berikutkode edit dibawah ini :

```
Private Sub cmdedit_Click(ByVal sender As System.Object,
ByVal e As System.EventArgs) Handles cmdedit.Click
    If Txtkode.Text = "" Then
        MsgBox("Data yang diedit belum ada",
MsgBoxStyle.Exclamation, "warning")
    Else
Dim sqledit As String = "Update tabel_barang set " & _
    "Nama_Barang='" & Txtbarang.Text & "', " & _
    "Satuan='" & cbosatuan.Text & "', " & _
    "Harga_beli='" & Txtbeli.Text & "', " & _
    "Harga_jual='" & Txtjual.Text & "', " & _
    "Stok='" & Txtstok.Text & "' " & _
    "where kode_barang='" & Txtkode.Text & "'" CMD =
        New OleDbCommand(sqledit, CONN)
        CMD.ExecuteNonQuery()
        MsgBox("Data Barang Berhasil DiEdit",
MsgBoxStyle.Information, "Sukses")
        Call TampilkanData()
        Call KosongkanText()
    End If
End Sub
```

III.Membuat Tombol Hapus

1. Tambahkan tombol hapus seperti dibawah ini :

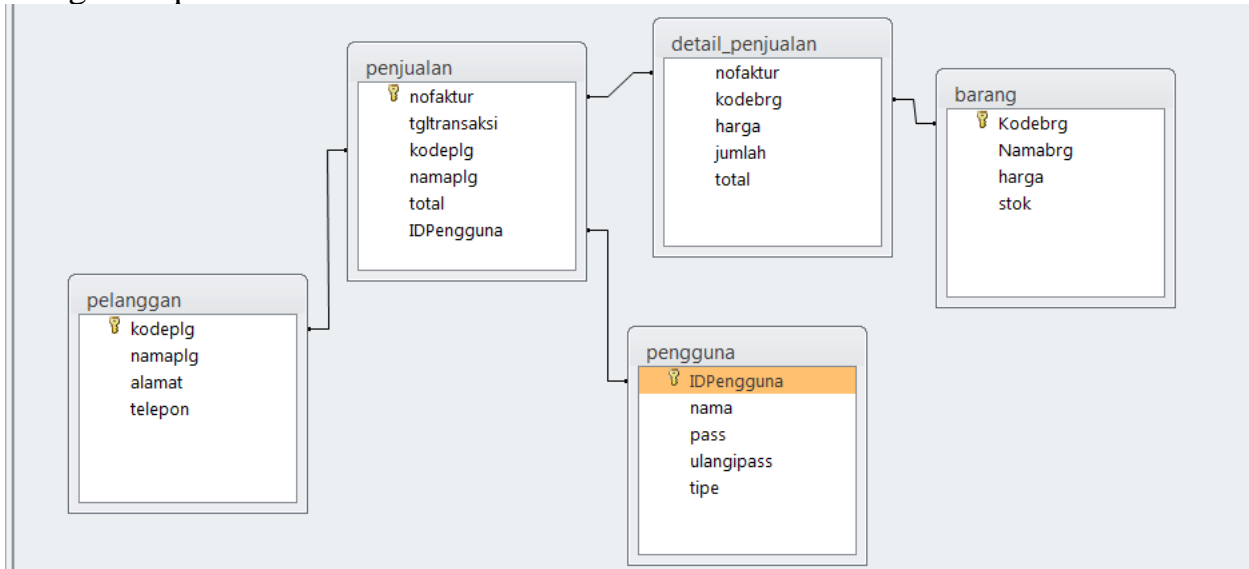


2. Klik double tombol hapus Lalu ketikkan kodenya dibawah ini :

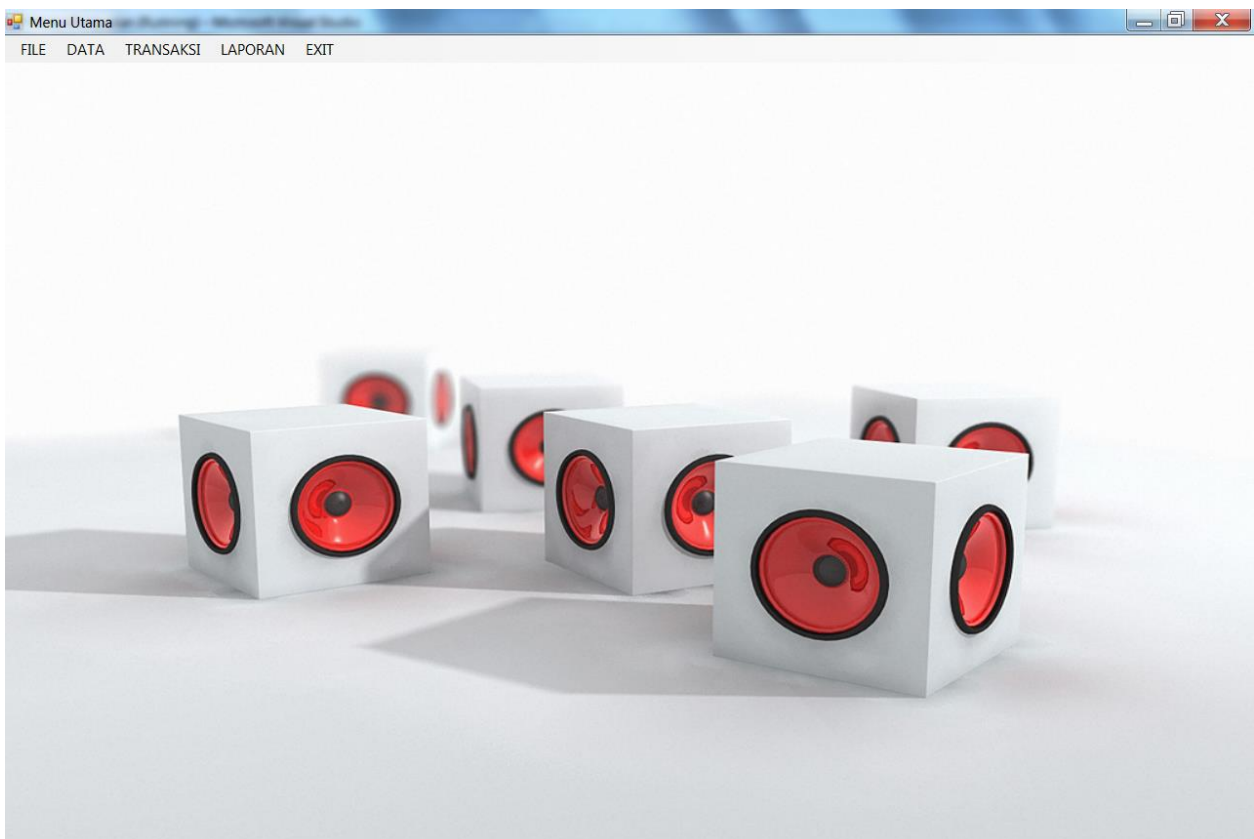
```
If Txtkode.Text = "" Then
    MsgBox("Cari Data barang terlebih dahulu",
    MsgBoxStyle.Exclamation, "Warning")
    Txtkode.Focus()
    Exit Sub
Else
    If MessageBox.Show("Yakin akan
    dihapus..?", "Hapus", MessageBoxButtons.YesNo,
    MessageBoxIcon.Exclamation) =
    Windows.Forms.DialogResult.Yes Then
        CMD = New OleDbCommand("Delete * from
        tabel_barang where kode_barang='" & Txtkode.Text & "'", CONN)
        CMD.ExecuteNonQuery()Call
        TampilkanData()
    Else
        Call KosongkanText()
    End If
End If
```


Relational Tabel (Hubungan Antar Tabel)

Adalah hubungan antara tabel yang mempresentasikan hubungan antar objek di dunia nyata. Relasi merupakan hubungan yang terjadi pada suatu tabel dengan lainnya yang mempresentasikan hubungan antar objek di dunia nyata dan berfungsi untuk mengatur mengatur operasi suatu database.



1. Menu Utama



Gunakan **menu strip** pada toolbox untuk membuat menu utama. Menu utama terdiri dari menu **File, Data, Transaksi, Laporan dan Exit.**

1. Buat database (dbpenjualan)

Nama table : Pengguna

➔ Rancanglah Form Pengguna

The screenshot shows a Windows-style window titled "Pengguna". The title bar has minimize, maximize, and close buttons. The main area has a yellow header with the text "INPUT DATA PENGGUNA". Below the header is a group box labeled "Input Data" containing five controls: a text box for "ID Pengguna", a text box for "Nama Lengkap", a text box for "Password", a text box for "Ulangi Password", and a dropdown menu for "Tipe Pengguna". Below these controls are four buttons: "Simpan", "Hapus", "Edit", and "Batal". At the bottom of the form is a large, empty rectangular area.

➔ Kode Input Pengguna

```
Imports System.Data.OleDb  
Public Class Pegguna
```

```
    Sub Tipe()  
        cbo tipe.Items.Add("Admin")  
        cbo tipe.Items.Add("Operator")  
    End Sub
```

```
    Private Sub Pegguna_Load(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles MyBase.Load  
        Call Koneksi()  
        Call Tipe()  
        'Buat sub tampilkan dahulu  
        Call Tampilkan()  
    End Sub
```

```
    Sub Tampilkan()  
        DA = New OleDbDataAdapter("Select * from Pegguna", CONN)  
        DS = New DataSet  
        DS.Clear()  
        DA.Fill(DS, "Pegguna")  
        DGVPegguna.DataSource = (DS.Tables("Pegguna"))  
        DGVPegguna.ReadOnly = True  
    End Sub
```

```
    Sub kosongkan()  
        txtidpegguna.Text = ""  
        txtnama.Text = ""  
        txtpassword.Text = ""  
        txtulangipassword.Text = ""  
        cbo tipe.Text = ""  
    End Sub
```

```
Private Sub cmdsimpan_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles cmdsimpan.Click
    If txtidpengguna.Text = "" Or txtnama.Text = "" Or txtpassword.Text = "" Or txtulangipassword.Text = "" Then
        MsgBox("Data Belum Lengkap", MsgBoxStyle.Exclamation, "Warning")
        Exit Sub
    Else
        CMD = New OleDbCommand("Select * from pengguna where IDPengguna='" & txtidpengguna.Text & "'", CONN)
        RD = CMD.ExecuteReader
        RD.Read()
        If Not RD.HasRows Then

            Dim sqlsimpan As String = "Insert into pengguna (IDpengguna,nama,pass,ulangipass,tipe) values " & _
                "(" & txtidpengguna.Text & "','" & txtnama.Text & "','" & txtpassword.Text & "','" & txtulangipassword.Text & "','" & cbotipe.Text & "')"

            CMD = New OleDbCommand(sqlsimpan, CONN)
            CMD.ExecuteNonQuery()
            MsgBox("Data Pengguna Telah Disimpan", MsgBoxStyle.Information, "Pesan")

            Call kosongkan()
            Call Tampilkan()
            cmdsimpan.Enabled = True
        Else
            MsgBox("ID Pengguna Sudah Ada", MsgBoxStyle.Exclamation, "Pesan")
            txtidpengguna.Text = ""
        End If
    End If
End Sub
```

```
Private Sub DGVPengguna_CellMouseDoubleClick(ByVal sender As Object, ByVal e As System.Windows.Forms.DataGridViewCellEventArgs) Handles DGVPengguna.CellMouseDoubleClick
    On Error Resume Next
    Dim baris As Integer
    With DGVPengguna
        baris = .CurrentRow.Index
        txtidpengguna.Text = .Item(0, baris).Value
        txtnama.Text = .Item(1, baris).Value
        txtpassword.Text = .Item(2, baris).Value
        txtulangipassword.Text = .Item(3, baris).Value
        cbotipe.Text = .Item(4, baris).Value
    End With
End Sub
```

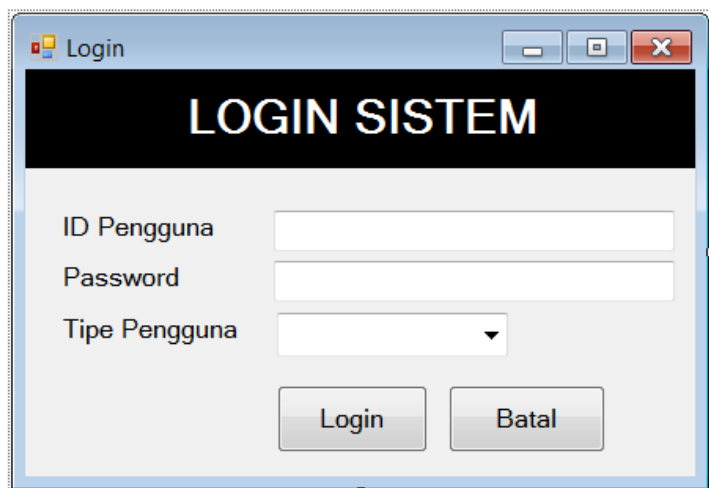
```
Private Sub cmdhapus_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles cmdhapus.Click
    If txtidpengguna.Text = "" Then
        MsgBox("Isi Kode Pengguna terlebih dahulu")
        txtidpengguna.Focus()
        Exit Sub
    Else
        If MessageBox.Show("Yakin ID Pengguna : " & txtidpengguna.Text & " akan dihapus..?", "", MessageBoxButtons.YesNo, MessageBoxIcon.Exclamation) = Windows.Forms.DialogResult.Yes Then
            CMD = New OleDbCommand("Delete * from Pengguna where IDPengguna='" & txtidpengguna.Text & "'", CONN)
            CMD.ExecuteNonQuery()
            Call kosongkan()
        End If
    End If
End Sub
```

```
        Call Tampilkan()  
    Else  
        Call kosongkan()  
    End If  
End If  
End Sub
```

```
Private Sub cmdedit_Click(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles cmdedit.Click  
    If txtidpengguna.Text = "" Then  
        MsgBox("Data yang diedit belum ada", MsgBoxStyle.Exclamation,  
"warning")  
    Else  
        Dim sqledit As String = "Update Pengguna set " & _  
            "nama='" & txtnama.Text & "', " & _  
            "Pass='" & txtpassword.Text & "', " & _  
            "ulangipass='" & txtulangipassword.Text & "', " & _  
            "tipe='" & cbotipe.Text & "' " & _  
            "where IDPengguna='" & txtidpengguna.Text & "'" & _  
        CMD = New OleDbCommand(sqledit, CONN)  
        CMD.ExecuteNonQuery()  
        MsgBox("Data Pengguna Berhasil DiEdit", MsgBoxStyle.Information,  
"Sukses")  
        Call kosongkan()  
        Call Tampilkan()  
    End If  
End Sub
```

```
Private Sub cmdKeluar_Click(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles cmdKeluar.Click  
    If cmdKeluar.Text = "Batal" Then  
        Call kosongkan()  
        cmdKeluar.Text = "Keluar"  
    ElseIf cmdKeluar.Text = "Keluar" Then  
        cmdKeluar.Text = "Keluar"  
        Close()  
    End If  
End Sub  
End Class
```

➔ Login sistem.



```
Imports System.Data.OleDb
Public Class Login
    Sub tipe()
        cbotipe.Items.Add("Admin")
        cbotipe.Items.Add("Operator")
    End Sub

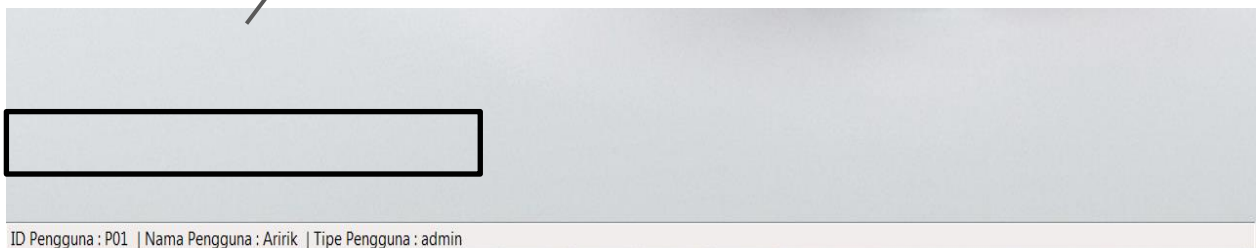
    Private Sub Login_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
        Call Koneksi()
        Call tipe()
    End Sub

    Private Sub txtIDPengguna_KeyPress(ByVal sender As Object, ByVal e As
System.Windows.Forms.KeyPressEventArgs) Handles txtIDPengguna.KeyPress
        If e.KeyChar = Chr(13) Then
            txtpassword.Focus()
        End If
    End Sub

    Private Sub cmdlogin_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles cmdlogin.Click
        CMD = New OleDbCommand("select * from Pengguna where IDPengguna='" &
txtIDPengguna.Text & "' and Pass='" & txtpassword.Text & "' and tipe='" &
cbotipe.Text & "'", CONN)
        RD = CMD.ExecuteReader
        RD.Read()
        If RD.HasRows Then
            Me.Visible = False
            MsgBox("IDPengguna dan Password Benar", MsgBoxStyle.Information,
"Login")
            MenuUtama.Show()
            MenuUtama.Panel1.Text = "ID Pengguna : " & RD.GetString(0)
            MenuUtama.Panel2.Text = "| Nama Pengguna : " & RD.GetString(1)
            MenuUtama.Panel3.Text = "| Tipe Pengguna : " & RD.GetString(3)
        Else
            MsgBox("IDPengguna dan Password Salah", MsgBoxStyle.Critical,
"Salah")
            txtIDPengguna.Clear()
            txtpassword.Clear()
            txtIDPengguna.Focus()
        End If
    End Sub
End Class
```



Tambahkan **statusstrip** dan beri nama **panel1**, **Panel2**, dan **panel3**



⇒ Kerjakan Untuk input data Supplier

⇒ Buat form baru dengan nama **supplier.vb**

The screenshot shows a window titled "Supplier" with a black header bar containing the text "INPUT DATA SUPPLIER" in white. Below the header, there are five input fields: "Kode Suplier" (a small text box), "Nama Suplier" (a larger text box), "Alamat" (a text box with a vertical scrollbar), "Kota" (a text box), and "Telpon" (a text box). Below these fields is a large, empty grey rectangular area. At the bottom of the form, there are four buttons: "Simpan", "Hapus", "Edit", and "Batal".

⇒ Buatlah nama table : **supplier** dan serta rancanglah field sesuai dengan rancangan input form.

⇒ Data dapat disimpan, dihapus, dan diedit serta dapat ditampilkan pada **DGVSupplier**

⇒ **Transaksi Penjualan**

The screenshot shows a window titled "Penjualan" with a black header bar containing the text "FORM TRANSAKSI PENJUALAN" in white. Below the header, there are two columns of input fields. The left column contains: "No. Faktur" (text box), "Tanggal Penjualan" (calendar icon, showing "04 April 2021"), "Kode Pelanggan" (dropdown menu), and "Nama Pelanggan" (text box). The right column contains: "Kode Barang" (text box with a "Cari" button), "Nama Barang" (text box), "Harga" (text box), and "Jumlah" (text box) followed by "Stok" (text box) and an "Entry" button. Below these fields is a large, empty grey rectangular area. At the bottom left, there are three buttons: "Tambah", "Simpan", and "Batal". At the bottom right, there is a "Total" label followed by an input field.

Tabel Temp_penjualan

Field Name	Data Type
kode_barang	Text
nama_barang	Text
harga	Number
jumlah	Number
total	Number

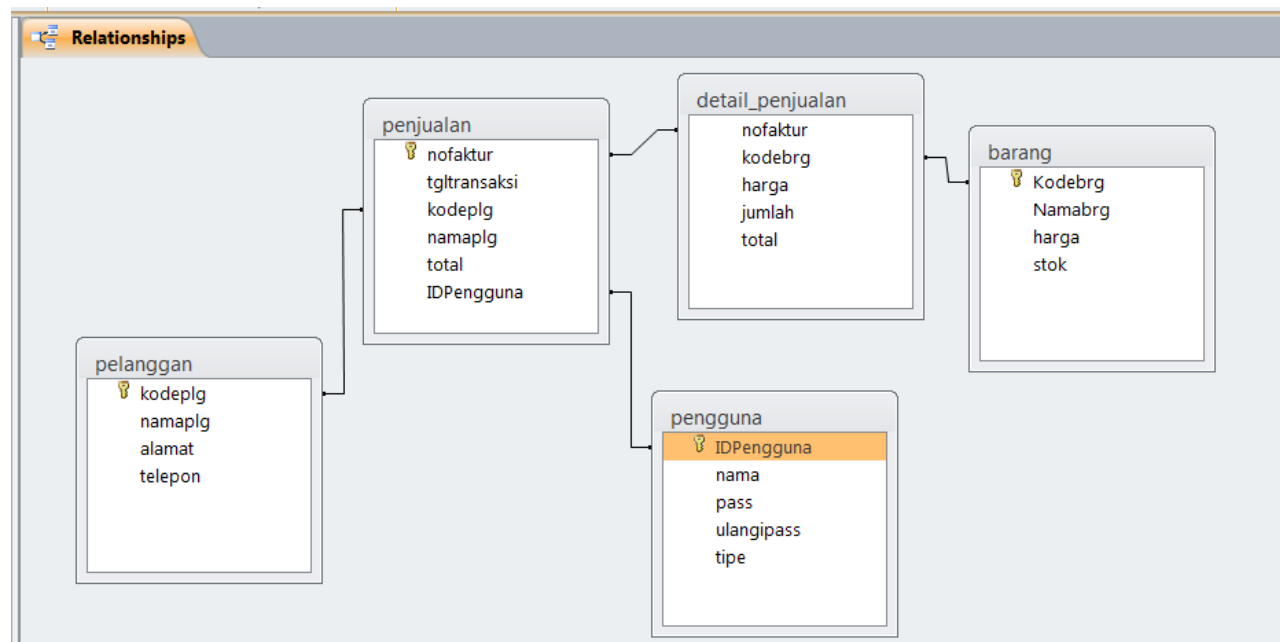
Tabel Pejualan

Field Name	Data Type
nofaktur	Text
tgltransaksi	Date/Time
kodeplg	Text
namaplg	Text
total	Currency
IDPengguna	Text

Tabel Detail_penjualan

Field Name	Data Type
nofaktur	Text
kodebrg	Text
harga	Currency
jumlah	Number
total	Currency

→ Relasi Antar Tabel



```
Imports System.Data.OleDb
```

```
Public Class Penjualan
```

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

```
        Call Koneksi()
```

```
        Call Nonaktif()
```

```
        Call tampilkodeplg()
```

```
    End Sub
```

```
    Sub Nonaktif()
```

```
        GJual.Enabled = False
```

```
        txttotal.Enabled = False
```

```
        txtdibayar.Enabled = False
```

```
        txtkembali.Enabled = False
```

```
    End Sub
```

```
    Sub Aktif()
```

```
        GJual.Enabled = True
```

```
        txttotal.Enabled = True
```

```
        txtdibayar.Enabled = True
```

```
        txtkembali.Enabled = True
```

```
    End Sub
```

```
    Sub No_Otomatis()
```

```
        CMD = New OleDbCommand("Select * from penjualan where nofaktur in (select max(nofaktur) from penjualan) order by nofaktur desc", CONN)
```

```
        Dim urutan As String
```

```
        Dim hitung As Long
```

```
        RD = CMD.ExecuteReader
```

```
        RD.Read()
```

```
        If Not RD.HasRows Then
```

```
            urutan = "PJL-" + "0001"
```

```
        Else
```

```
            If Microsoft.VisualBasic.Mid(RD.GetString(0), 4, 2) Then
```

```
                urutan = "PJL-" + "0001"
```

```
            Else
```

```
                hitung = Microsoft.VisualBasic.Right(RD.GetString(0), 2) + 1
```

```
                urutan = "PJL-" + Microsoft.VisualBasic.Right("0000" & hitung, 4)
```



```
        End If
    End If
    txtnofaktur.Text = urutan
End Sub
Sub tampilkodeplg()
    cbokodeplg.Items.Clear()
    CMD = New OleDbCommand("select distinct kodeplg from pelanggan", CONN)
    RD = CMD.ExecuteReader
    While RD.Read
        cbokodeplg.Items.Add(RD.GetString(0))
    End While
End Sub

Private Sub cmdtambah_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles cmdtambah.Click
    Call Aktif()
    Call No_Otomatis()
End Sub

Private Sub cbokodeplg_SelectedIndexChanged(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles cbokodeplg.SelectedIndexChanged
    CMD = New OleDbCommand("select * from pelanggan where kodeplg='" &
cbokodeplg.Text & "'", CONN)
    RD = CMD.ExecuteReader
    RD.Read()
    If RD.HasRows = True Then
        txtnama.Text = RD.GetString(1)
    Else
        MsgBox("Data Pelanggan Tidak Ditemukan", MsgBoxStyle.Exclamation,
"Warning")
        txtnama.Focus()
    End If
End Sub

Private Sub cmdcari_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles cmdcari.Click
    DataBarang.Show()
End Sub

Sub CariTotal()
    On Error Resume Next
    CMD = New OleDbCommand("select sum(total) as ketemu from temp_penjualan", CONN)
    RD = CMD.ExecuteReader
    RD.Read()
    If RD.HasRows Then
        txttotal.Text = RD.GetValue(0)
    Else
        txttotal.Text = 0
    End If
End Sub

Sub Tampil_tempjual()
    DA = New OleDbDataAdapter("Select * from temp_penjualan", CONN)
    DS = New DataSet
    DS.Clear()
    DA.Fill(DS, "temp_penjualan")
    DGVPenjualan.DataSource = (DS.Tables("temp_penjualan"))
    DGVPenjualan.ReadOnly = True
    'Call AturKolom()
End Sub

Sub Bersih()
```

```
txtkodebrg.Text = ""  
txtnamabrg.Text = ""  
txtjumlah.Text = ""  
txtharga.Text = ""  
txtstok.Text = ""
```

End Sub

```
Private Sub cmdentry_Click(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles cmdentry.Click  
    CMD = New OleDbCommand("select * from temp_penjualan where kode_barang='" &  
txtkodebrg.Text & "'", CONN)  
    RD = CMD.ExecuteReader  
    RD.Read()  
    If Not RD.HasRows Then  
        Dim total As Integer  
        total = Val(txtharga.Text) * Val(txtjumlah.Text)  
        Dim sqlsimpan As String = "Insert into temp_penjualan  
(kode_barang,nama_barang,harga,jumlah,total) values " & _  
        "(" & txtkodebrg.Text & "','" & txtnamabrg.Text & "','" & txtharga.Text &  
        "','" & txtjumlah.Text & "','" & total & "'"")"  
        CMD = New OleDbCommand(sqlsimpan, CONN)  
        CMD.ExecuteNonQuery()  
  
        Call Tampil_tempjual()  
        Call CariTotal()  
        Call Bersih()  
    Else  
        MsgBox("Data Tidak Valid", MsgBoxStyle.Critical, "Error")  
    End If  
End Sub
```

```
Private Sub cmdsimpan_Click(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles cmdsimpan.Click  
    'simpan ke tabel penjualan  
    Dim simpanmaster As String = "Insert into  
Penjualan(nofaktur,tgltransaksi,kodeplg,namaplg,total,idpengguna) values " & _  
    "(" & txtnofaktur.Text & "','" & Tanggal.Text & "','" & cbokodeplg.Text &  
    "','" & txtnama.Text & "','" & txttotal.Text & "','" & MenuUtama.Panel1.Text & "'"")"  
    CMD = New OleDbCommand(simpanmaster, CONN)  
    CMD.ExecuteNonQuery()  
  
    'baca tabel temporer  
    DA = New OleDbDataAdapter("select * from temp_penjualan", CONN)  
    DS = New DataSet  
    DA.Fill(DS)  
    DGVPenjualan.DataSource = DS.Tables  
    Dim TBL As DataTable = DS.Tables(0)  
    For baris As Integer = 0 To TBL.Rows.Count - 1  
  
        Dim sqlsimpan As String = "Insert into  
detail_penjualan(nofaktur,Kodebrg,harga,jumlah,total) values " & _  
        "(" & txtnofaktur.Text & "','" & TBL.Rows(baris)(0) & "','" &  
TBL.Rows(baris)(2) & "','" & TBL.Rows(baris)(3) & "','" & TBL.Rows(baris)(4) & "'"")"  
        CMD = New OleDbCommand(sqlsimpan, CONN)  
        CMD.ExecuteNonQuery()  
  
        'mengurangi stok data penjualan  
        CMD = New OleDbCommand("select * from barang where kodebrg='" &  
TBL.Rows(baris)(0) & "'", CONN)  
        RD = CMD.ExecuteReader  
        RD.Read()  
        If RD.HasRows Then
```

```
                Dim kurangistok As String = "update barang set stok= '" & RD.Item(3) -
TBL.Rows(baris)(3) & "' where kodebrg='" & TBL.Rows(baris)(0) & "'"
                CMD = New OleDbCommand(kurangistok, CONN)
                CMD.ExecuteNonQuery()
            End If
        Next baris
        MsgBox("Data Penjualan Berhasil Disimpan", MsgBoxStyle.Information, "Sukses")
        DGVPenjualan.Columns.Clear()
        HapusGrid()
        Call Tampil_tempjual()
        Call aturkolm()
        Call Kosongkandata()
    End Sub

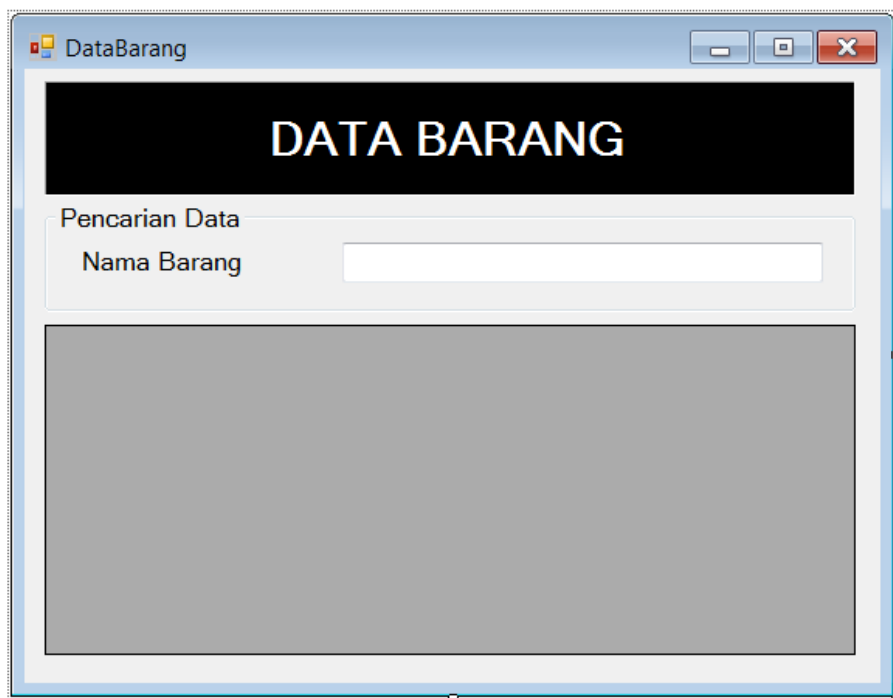
Sub HapusGrid()
    DA = New OleDbDataAdapter("Delete * from Temp_penjualan", CONN)
    DS = New DataSet
    DS.Clear()
    DA.Fill(DS, "Temp_penjualan")
    DGVPenjualan.DataSource = (DS.Tables("Temp_penjualan"))
End Sub

    Sub Kosongkandata()
        'buatlah kode untuk mengkosongkan semua data.
    End Sub

    Private Sub txttotal_TextChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles txttotal.TextChanged
        Dim totaldes As Integer
        totaldes = txttotal.Text
        txttotal.Text = Format(Val(totaldes), "###,###")
        txttotal.SelectionStart = Len(txttotal.Text)
    End Sub

Private Sub cmdbatal_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles cmdbatal.Click
    Call HapusGrid()
End Sub
End Class
```

➔ Data Cari Barang



```
Imports System.Data.OleDb
Public Class DataBarang

    Private Sub DataBarang_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
        Call Koneksi()
        Call Tampilkan()
    End Sub

    Sub Tampilkan()
        DA = New OleDbDataAdapter("Select * from Barang", CONN)
        DS = New DataSet
        DS.Clear()
        DA.Fill(DS, "Barang")
        DGVBarang.DataSource = (DS.Tables("Barang"))
        DGVBarang.ReadOnly = True
    End Sub

    Private Sub txtcari_TextChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles txtcari.TextChanged
        CMD = New OleDbCommand("select * from barang where Namabrg like '%" &
txtcari.Text & "%'", CONN)
        RD = CMD.ExecuteReader
        RD.Read()
        If RD.HasRows Then
            DA = New OleDbDataAdapter("select * from barang where Namabrg like
'" & txtcari.Text & "%'", CONN)
            DS = New DataSet
            DA.Fill(DS, "ketemu")
            DGVBarang.DataSource = DS.Tables("ketemu")
            DGVBarang.ReadOnly = True
        End If
    End Sub

    Private Sub DGVBarang_CellMouseDoubleClick(ByVal sender As Object, ByVal e
As System.Windows.Forms.DataGridViewCellMouseEventArgs) Handles
DGVBarang.CellMouseDoubleClick
        Dim baris As Integer
        With DGVBarang
```

```
        baris = .CurrentRow.Index
        With Penjualan
            .txtkodebrg.Text = DGVBarang(0, baris).Value
            .txtnamabrg.Text = DGVBarang(1, baris).Value
            .txtharga.Text = DGVBarang(2, baris).Value
            .txtstok.Text = DGVBarang(3, baris).Value
            .txtstok.Enabled = False
            .txtjumlah.Focus()
        End With
    End With
    Close()
End Sub
End Class
```

Membuat laporan dengan Crystal Report.

Crystal Report adalah salah satu software yang di kembangkan oleh SAP AG untuk membuat berbagai jenis laporan yang menterjemahkan informasi dari dalam database untuk sebuah pemrograman. Crystal Report dapat digunakan beberapa bahasa pemrograman berbasis desktop seperti: Visual basic, Visual C/C++, Delphi, DLL.

Kelebihan Dari Crystal Report :

Pembuatan laporan dengan Crystal Report tidak terlalu rumit karena tidak banyak melibatkan kode program.

- Crystal Report mudah terintegrasi dengan bahasa pemrograman berbasis desktop
- Fasilitas impor hasil laporan yang mendukung format - format paket program lain seperti : Microsoft Office, Adobe Acrobat Reader, HTML, Dsb.

→ Laporan Barang

LAPORAN DATA BARANG			
Kode Barang	Nama Barang	Harga	Stok
B001	Sabun Life Boy	Rp4.500	6
B002	Pepsodent	Rp11.500	14
B003	Sikat Gigi Formula	Rp6.500	9
B004	Sampo Pentin	Rp12.500	25

Jambi, 18-Apr-2021
Mengetahui

BAG. Gudang

```
Private Sub LaporanBarangToolStripMenuItem_Click(ByVal sender As System.Object,  
ByVal e As System.EventArgs) Handles LaporanBarangToolStripMenuItem.Click  
    With CR  
        .ReportFileName = Application.StartupPath & "\\laporan_barang.rpt"  
        .DiscardSavedData = True  
        .WindowState = Crystal.WindowStateConstants.crptMaximized  
        .Action = 1  
    End With  
End Sub
```