



# Macro & VBA Programming

នៅក្នុងការបង្កើត Database ទៅជា Application មួយសំរាប់ឱ្យគេប្រើប្រាស់ វាមានលក្ខណៈពិសេសជាច្រើន ដែលអាច ប្រើដើម្បីជំនួយដល់អ្នកប្រើប្រាស់ក្នុងការប្រើ Database អោយតាមបំណងរបស់គេដែលភ្ជាប់មកជាមួយ Microsoft Access ដើម្បីងាយស្រួលក្នុងការប្រើប្រាស់ ។

ឧបមាថានៅលើ Form & Report អ្នកប្រើប្រាស់បង្កើត Action or Event អោយកើតមានឡើងនោះ Programming of Access បានបែងចែកទៅជា ២ ផ្នែក៖ Macro & Visual Basic for Application (VBA) សំរាប់ការ ឆ្លើយតបទៅនឹង Actions or Events ទាំងនោះ ។

## Events

Events គឺជា User Actions មានដូចជា ការចុច Mouse (**Mouse Click**), ការចុច Key (**Key Press**), ឬការបើក Form/Report... ។ ចំពោះ Events អាចកែបានផងដែរដោយ Visual Basic Statement ហើយ Events ច្រើនទាក់ទងទៅ នឹង Form & Report ដូចជា Section នៅលើ Form/Report ឬក៏ Controls នៅលើ Form ដោយប្រើ VBA Procedure ឬក៏ Macro ។

### របៀបធ្វើ

- 1- បើក Form/Report ក្នុងលក្ខណៈ Design View → Double-Click (or **Right-Click**) នៅលើ Form/Report Section, ដើម្បីបង្កើតផ្ទាំង Properties Sheet ។
- 2- ចុច Events Properties ( Event Tab ) រួចជ្រើសរើស Events ដែលចង់បង្កើត ហើយជ្រើសរើស Macro ពី List ឬក៏លើ Build Button (...) ដើម្បីជ្រើសរើសយកក្នុង Builder Dialog Box.
- 3- Double-Click លើ Macro Builder ដើម្បីបើក Macro ឬ Code Builder ដើម្បីសរសេរ VBA Procedure ។
- 4- ចុច Close ( X ) button (ប្រសិនបើជ្រើសរើស **Building a Macro** ត្រូវដាក់ឈ្មោះ **Macro** សិន ) រួចចុច OK button ។

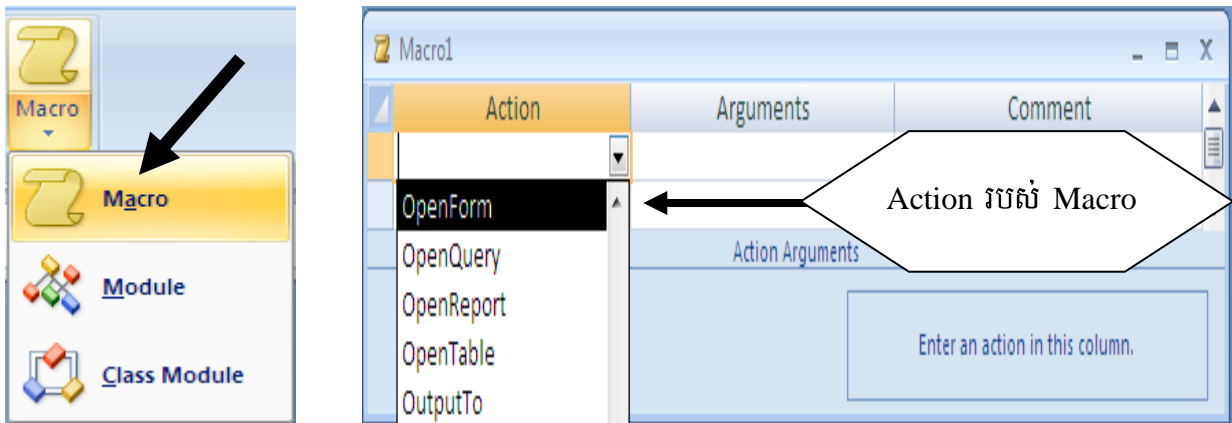
# Macro (Object)

Macro ជា Object មួយដែលមាននៅក្នុង Ms. Access វាជាភាសាបញ្ជា (Command Language) ហើយវាគឺជាចំណុចដាច់ដាច់នៃការរក្សាទុកនូវ Actions ដែលអាចប្រើប្រាស់វាសំរាប់ Procedure ។ Macro មានតួនាទីបង្កើនល្បឿនការងារនៅក្នុង Ms. Access របស់យើងអោយបានលឿនថែមមួយកំរិត ។ វាអាចជួយយើងក្នុងការបង្កើត Button, Menu, ចុង Object Application បញ្ចូលគ្នា សំរាប់ប្រើប្រាស់ផ្ទាល់ លើកិច្ចការរបស់យើងនៅក្នុង Forms/Reports ។

## ការបង្កើត និង អនុវត្តន៍លើ Macro

### ការបង្កើត Macro ក្នុងលក្ខណៈ Design View

-Click on Create >Macro → Macro



នៅក្នុង Action ជ្រើសរើសយកមួយក្នុងចំណោមនោះមានន័យថា យើងនឹងបញ្ជាថាអោយ ធ្វើអ្វី នៅពេលយើង Run Macro ដែលទើបនឹងបង្កើតនោះ ។

ឧ: ត្រង់ Action យក Open Form មានន័យថា បើក Form ណាមួយ ។

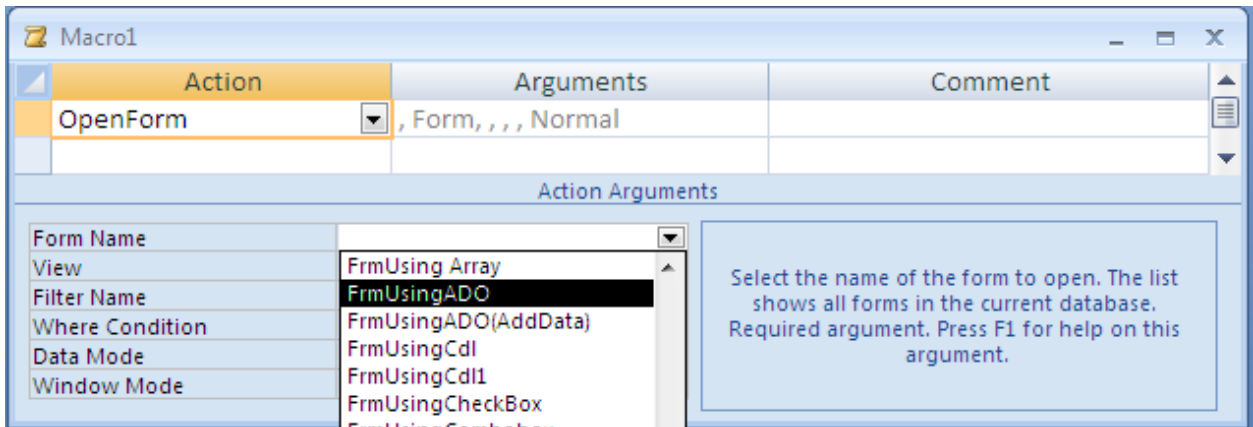
នៅត្រង់ Action Arguments គឺយើងចូលទៅកំណត់ ដើម្បីអោយបានច្បាស់ថា ត្រូវបើក Form ណាមួយ:

-Form Name: ឈ្មោះ Form ដែលត្រូវបើក ( Ex: Form1)

-View: សំរាប់ View Form របស់យើងជាទំរង់ Form ណាមួយ ។នៅក្នុង View មាន:

- +Form :បើក Form ជាពិសេស Form View
- +Design :បើក Form ជាពិសេស Design View
- +Print Preview :បើក Form ជាពិសេស Print Preview ដើម្បី Print ចេញលើក្រដាស

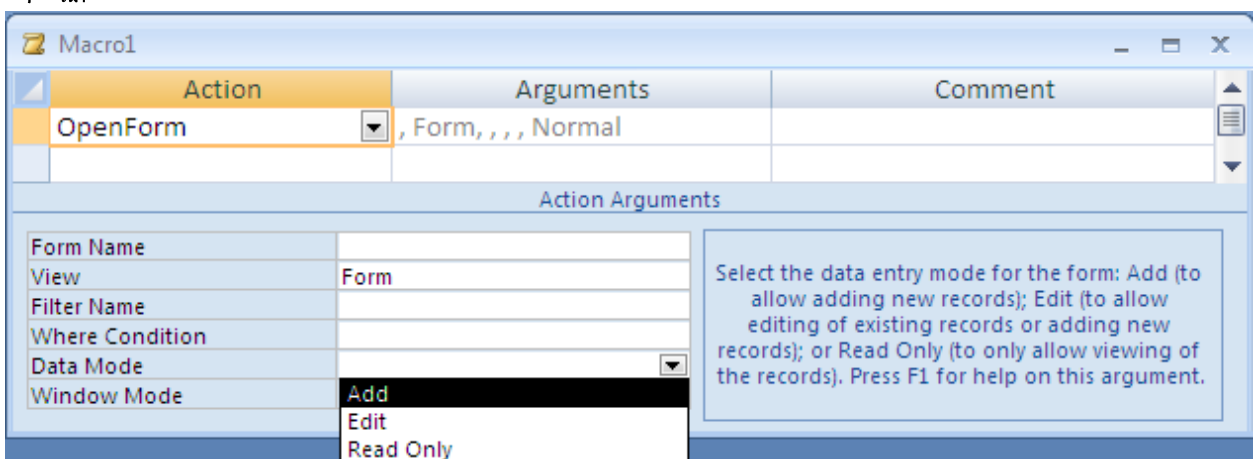
- +Datasheet : បើក Form ជារាង Datasheet View
- +PivotTable : បើក Form ជារាង PivotTable
- +PivotChart : បើក Form ជារាង PivotChart



- Filter Name: ទាក់ទងនឹងការប្រើប្រាស់ Query (ត្រូវមើលក្នុងលំហាត់) ។
- Where Condition: សំរាប់បើក Form ទៅតាមលក្ខខណ្ឌ (ត្រូវមើលក្នុងលំហាត់) ។
- Data Mode: មាន ៣ គឺ:

- +Add : សំរាប់បញ្ចូល Record បន្ថែមទៅក្នុង Form ប៉ុន្តែ Records ដែលមានរួចមកហើយ គឺមិនអាចកែប្រែបានឡើយ ។
- +Edit : នៅពេលដែលយើងបើក Form ដែលមាន Data Mode ជា Edit នោះ Form អាចបញ្ចូល Records និង Edit លើ Records ដែលមានរួចមកហើយបាន ។
- +Read only : យើងមិនអាចធ្វើអ្វីបានទាំងអស់នៅលើ Form ក្រៅអំពី View មើល Records តែ

ប៉ុណ្ណោះ ។



- Window Mode: មាន ៤ គឺ:
- +Normal : បើក Form ជាទំរង់ធម្មតា តាមដែលយើងបាន Design
- +Hidden : បើក Form តែមិនបង្ហាញអោយឃើញ ( ដូចជាមិនបើកដែរ )

+Icon :បើក Form ជាលក្ខណៈ Minimize → 

+Dialog :បើក Form ដោយគ្មាន Button Minimize, Maximize នៅលើផ្ទៃកខាងស្តាំទេ គឺ

មានលក្ខណៈជា Dialog មានន័យថាយើងមិនអាច Maximize ឬ Minimize បានឡើយ ។

**ចំណាំ:** នៅពេលដែលយើង Run នោះ Macro របស់យើងនឹងបើក Form ដែលមានឈ្មោះដូចខាងលើ

(Ex: Form1) ប្រសិនបើឈ្មោះនោះគ្មាននៅក្នុង Form ទេវានឹងចេញ Error ។

### របៀបភ្ជាប់ Macro នៅក្នុង Form

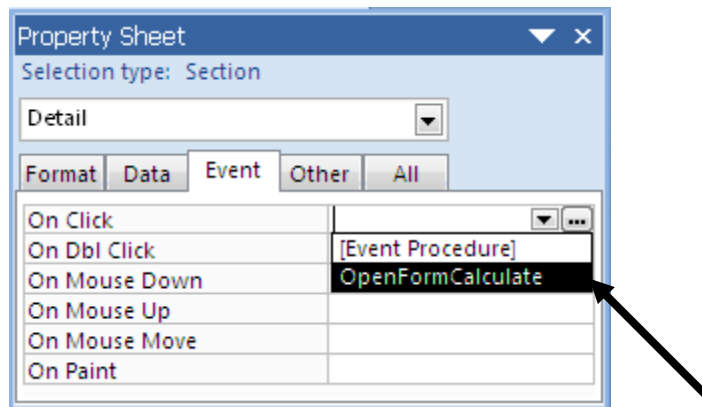
ដើម្បីភ្ជាប់ Macro ទៅកាន់ Form បានយើងត្រូវបើក Form របស់យើងជា រាង Design View សិនព្រោះ ការបើក Form របស់យើងជា **Form View** គឺប្រើប្រាស់នៅពេលដែលយើងចង់បញ្ចូល Record តែប៉ុណ្ណោះ ឯចំនែក **Design View** គឺសំរាប់រៀបចំ Form របស់យើងអោយមានទំរង់ទៅតាមអ្វីដែលយើងចង់បាន ។

#### **នៅក្នុង Design View:**

-យក Command Button មកគូសលើផ្ទៃ Form របស់យើង ដោយកុំភ្លេចបិទ Control Wizard ផង (ការ បិទ Control Wizard គឺការពារកុំអោយ Command Button ដែលយើងបង្កើតមានលក្ខណៈជា Button Wizard)

-ចូលទៅ Propertie របស់ Command Button

-ជ្រើសយក **Event Tab** → **Onclick** ហើយចុចសញ្ញា  យកឈ្មោះ Macro ដែលយើងបានបង្កើត ។



#### ការបង្កើត Close Button :ដើម្បីបិទ Form:Form1

-នៅក្នុង Menu Tab > ចុចលើ Create → Macro → Macro

-ក្នុង Macro Window

**Action**  
Close

**Action Arguments**  
Object Type:Form  
Object Name:Form1  
Save: Prompt

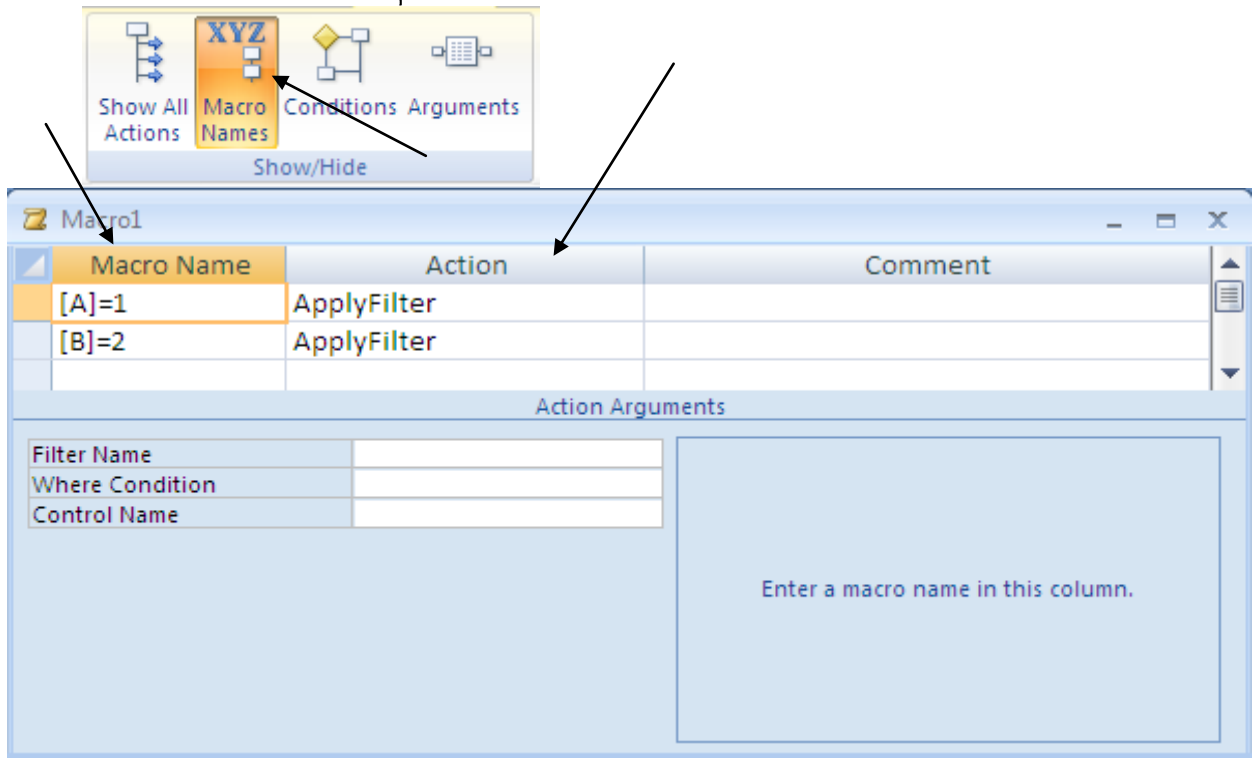
-Save Macro ដោយដាក់ឈ្មោះថា **MacCloseForm**

របៀបភ្ជាប់ទៅកាន់ Form គឺស្រដៀងគ្នាទៅនឹងការភ្ជាប់ OpenForm ដែរ ។

**ការបង្កើត Group of Macro**

ប្រសិនបើអ្នកប្រើ Macro ដោយឡែកៗពីគ្នាសំរាប់ Macro ទាំងអស់ដែលបានបង្កើត ពេលនោះ List វាមានលក្ខណៈវែងពេក ធ្វើអោយពិបាកនៅក្នុងការប្រើប្រាស់ ព្រមទាំងធ្វើអោយមានបញ្ហាក្នុងការស្វែងរក និងរបៀបចំ នូវ Macro ទាំងនោះឡើយ។ នៅក្នុងការបង្កើត Macro វាមានវិធីផ្សេងទៀតគឺ រក្សានៅការទំនាក់ទំនងរវាង Macro បញ្ចូលគ្នាដើម្បីបង្កើត Group of Macro ។

1-ចុចលើ Design Tab នៅក្នុង Macro Tool ហើយចុច Macro Names



3-សរសេរឈ្មោះនៃ Macro ក្នុង Macro Name Column នៅក្នុងជួរដំបូងនៃ Macro

4-ជ្រើសរើស Action ពី List ក្នុង Action button និង Argument របស់វា

5-ចុច Save button រួចដាក់ឈ្មោះអោយ Macro

**ការបង្កើត Macro Autoexec**

Macro Autoexec មាននាទី Run នូវ Action ទាំងឡាយដែលមាននៅក្នុង Macro នោះដោយស្វ័យប្រវត្តិ នៅពេលដែលយើងបើក Database របស់យើងឡើង។ (គេច្រើនប្រើវាដើម្បីបើក Form Startup ឬ Form ដែលជា Main board button ) ។

**របៀបបង្កើត:**

1-នៅក្នុង Create Tab → Macro → Macro

2-ឧទាហរណ៍យើងមាន Form មួយឈ្មោះ Starup

នៅក្នុង Macro window

**Actoin**

OpenForm

**Action Arguments**

Object Type :Startup

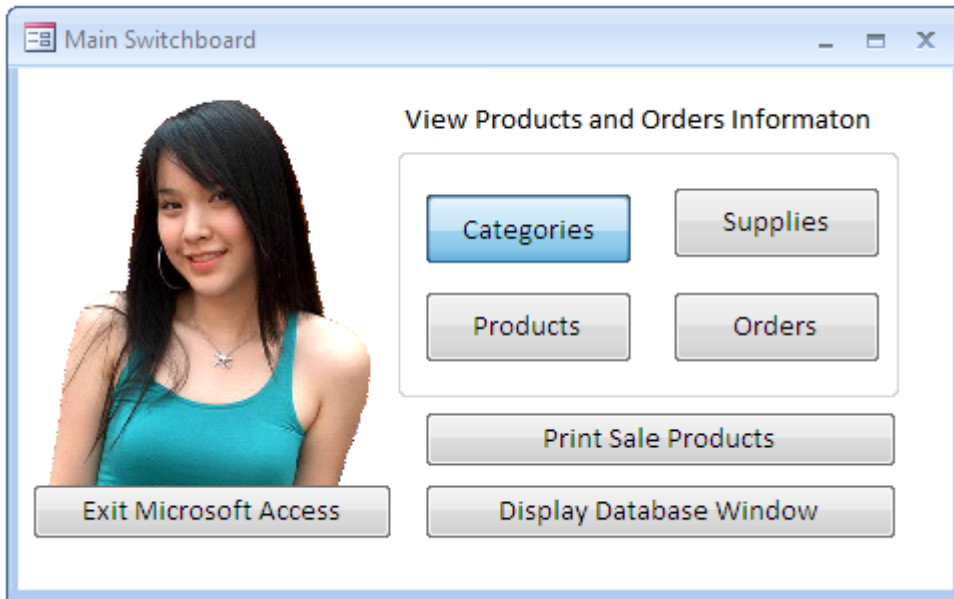
View :Form

Data Mode :Edit

Window Mode :Normal

3-Save ដាក់ឈ្មោះ Autoexec:ដើម្បី Access Run Macro នេះដោយស្វ័យប្រវត្តិ (មិនត្រូវ Save ដាក់ឈ្មោះខុសពីនេះឡើយ ព្រោះវាជាឈ្មោះ Standard របស់ Access) ។

**ការបង្កើត Main board button**



**Find Record ដោយប្រើ Macro:**

នៅពេលដែលរៀនអំពី Table យើងបានធ្វើការអនុវត្តទៅលើការស្វែងរក Record ដោយប្រើប្រាស់ Filter សំរាប់ Form ក៏មាន Record Filter ផងដែរតែដោយសារយើងអាចបង្កើត Macro បានយើងគួរតែរៀនស្វែងរកវា តាមរយៈ Macro វិញម្តង។ វាអាចធ្វើអោយ Database របស់យើងមានលក្ខណៈល្អប្រសើរងាយស្រួលក្នុងការប្រើប្រាស់។

- 1-ដំបូងយើងត្រូវមានទិន្នន័យនៅក្នុង Table (Ex. tblStudentList)
- 2-បង្កើត Form ដោយប្រើ Table TblEmployee ។យើងនឹងបាន Form ដូចខាងក្រោម:

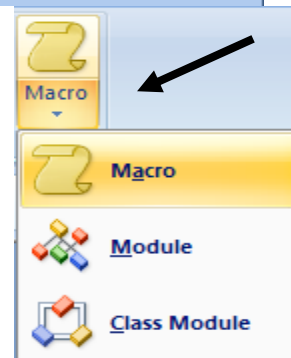
EmployeeID	EmployeeName	Sex	Address	DateOfBirth	Phone
Emp0001	Li Ngim	F	K.Chhnang	May Sat 1984	012 888 012
Emp0002	Li Chu	F	K.Chhnang	Jun Sun 1982	012 777 012
Emp0003	Sam Kim	M	K.Chhnang	Jun Sat 1979	012 444 012
Emp0004	Sim SelaPhean	F	K.Chhnang	Apr Tue 1982	012 857 595
Emp0005	Lina	F	PP	Oct Thu 1985	016 755959
Emp0006	Tang Lisoung	F	K.Chhnang	May Tue 1981	011 568 999
Emp0007	Van Heng	M	Ban TeyMeanCl	Mar Sun 1983	011 666 011
Emp0008	Bouy Sipha	F	PP	Jul Fri 1982	016 666 333
Emp0009	Srey Rath	F	PP	May Mon 1985	012 888 011
Emp0010	Kim SaoRin	F	K.Chhnang	May Sun 1983	012 444 111
Emp0012	Yat Chavasna	F	Pursat	Jun Tue 1981	012 555 553

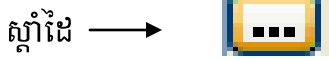


3-បង្កើត Form មួយទៀតដូចខាងក្រោម: (Save ដាក់ឈ្មោះ FrmFindRecord)

4-បង្កើត Macro FindRecord និងClose

- +Macro FindRecord:
- Create Tab → Macro > New
- ត្រង់ Action: *OpenForm*
- ត្រង់ Form Name: *FrmStudentList*
- Where Condition: ម៉ូឌុលីស្តូបី នៅខាង

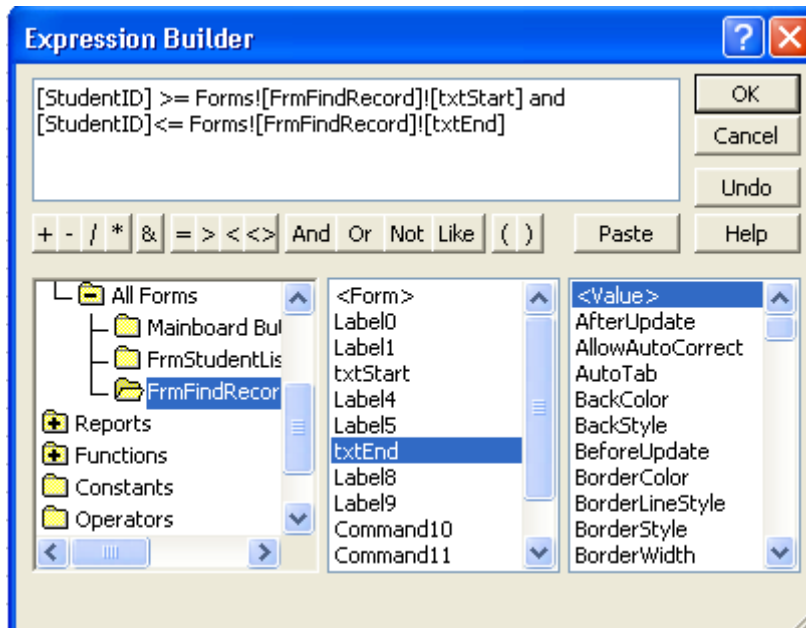




-សរសេរនៅក្នុង Expression Builderដូច



ខាងក្រោមនេះ:



**Action ទី២: Close**

**Action**  
Close

**Action Arguments**  
Object Type: Form  
Object Name: FrmFindRecord

-Save ដាក់ឈ្មោះថា MacFindRecord

**ភ្ជាប់ Macro ទៅកាន់ Form: បើក Form Find Record ជា Design View**

- យក Command Button មកត្រួវលើ Form
- ប្តូរ Font ជាខ្មែរ វាយបញ្ចូល **ស្វែងរក**
- ចុច **View Menu → Properties → Event → Onclick →** យក **MacFindRecord**
- យក Command Button មកត្រួស
- វាយបញ្ចូល Close
- View → Properties →Event → Onclick →** យក **MacClose**

បើក Form Find Record ហើយសាកល្បងចុចមើល ។

**Condition របស់ Macro:**

-ឧទាហរណ៍: ក្នុង Form Customer Phone List (រូបខាងក្រោម) មានផ្ទុកនូវឈ្មោះ និងលេខទូរស័ព្ទរបស់អតិថិជន ១០០០ នាក់ដូចនេះប្រសិនបើយើងបើក Form តែម្តងនឹងឃើញ ឈ្មោះអតិថិជននឹងលេខ ១០០០ ប្រសិនបើយើងចង់មើលតែឈ្មោះដែលផ្តើមឡើយដោយអក្សរ A or B វានឹងមានការលំបាកក្នុងការស្វែងរក តែប្រសិនបើ



យើងប្រើ Condition របស់ Macro នោះយើងអាចបង្កើត Option Group សំរាប់ស្វែងរកឈ្មោះអតិថិជនទៅតាមអក្សរដែលនៅដើមឃ្លា ។



**វិធីធ្វើ:**

- ដំបូងត្រូវបង្កើត Form ខាងលើសិនដាក់ឈ្មោះថា Customer Phone List
- បន្ទាប់មកយក Option Group ចេញពី Tool Box មកតូសលើ Form ហើយដាក់ឈ្មោះអោយវា (Ex.Option)
- យក Toggle Button មកតូសក្នុង Option Group ហើយដាក់ Caption : A,B,C,... ហើយចង់ប្រើ Key (Ex. Atl+A, Atl+B,...) ត្រូវដាក់សញ្ញា (&A, &B,...) នៅពីមុខ ។ មើល Option Value ក្នុង Data ត្រូវមានលេខ (A=1,B=2,C=3,...) ។

-Click on Macro Object → New

Macro Name	Condition	Action	Command
Alpha Button	[Option]=1	Apply Filter	A
	[Option]=2	Apply Filter	B
	⋮	⋮	⋮
	[Option]=27	ShowAllRecord	All

-Where Condition: [Name] Like "A\*","B\*","C\*",...

-Save ដាក់ឈ្មោះ **MacAlphaButton**

## វិធីសាស្ត្រ Macro ទៅ Form

-បើក Form → Design View

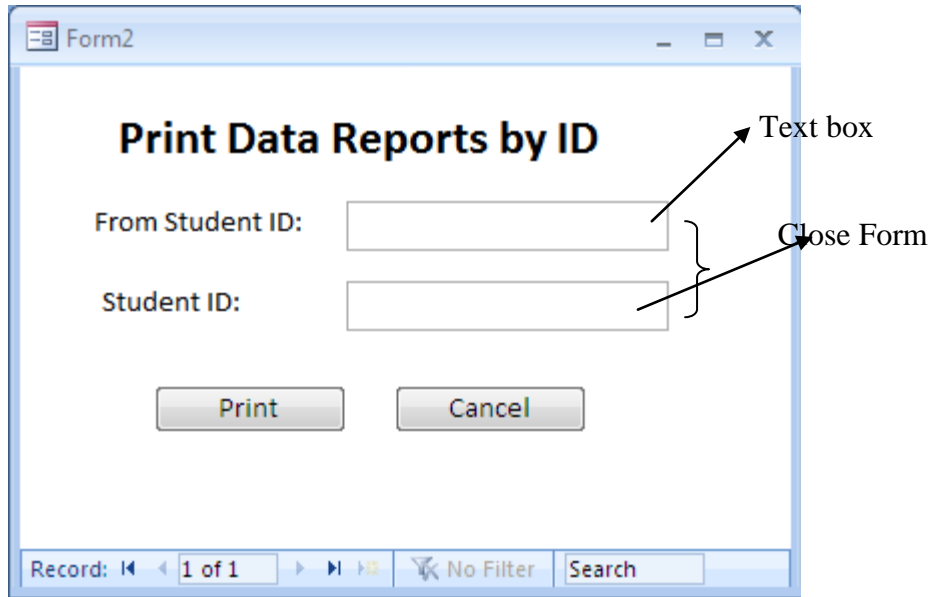
-Click mouse ឆ្លុំលើ Option Group → Properties → Event

-After Update: **MacAlphaButton**

### 2-6 Printing Report By Criteria

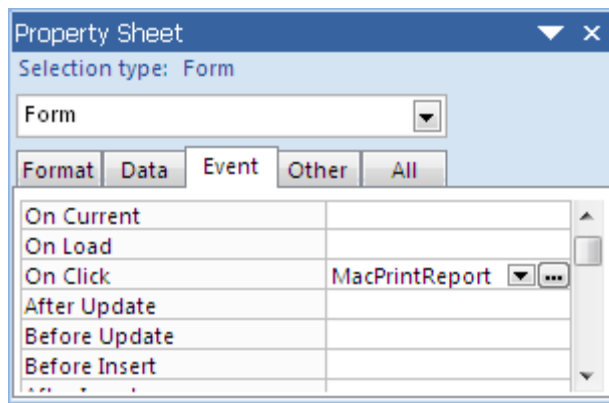
1- Create a student report by taking record source from table student

2-Create a Customer form that name:"FrmprintStudentReport" to enter "From StudentID" to "StudentID"

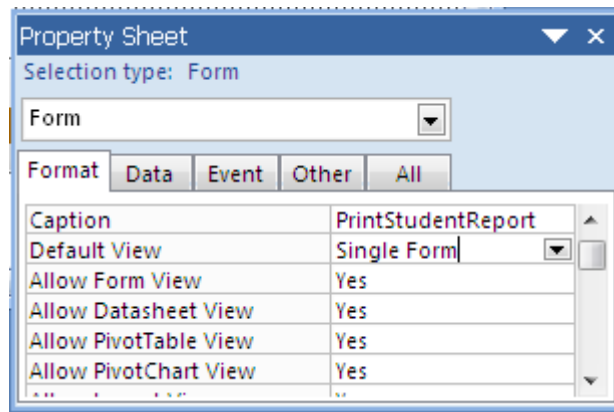


-ត្រង់ Button Print យក Properties របស់វា

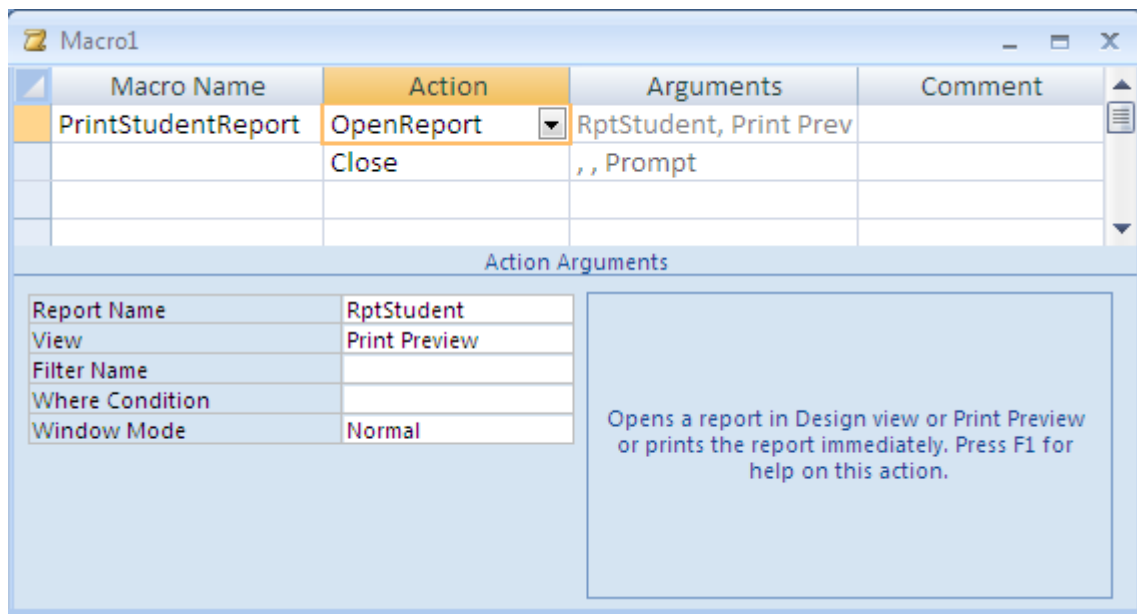
-ចុច Event Tab ត្រង់ Onclick យកឈ្មោះ Macro: MacPrintReport



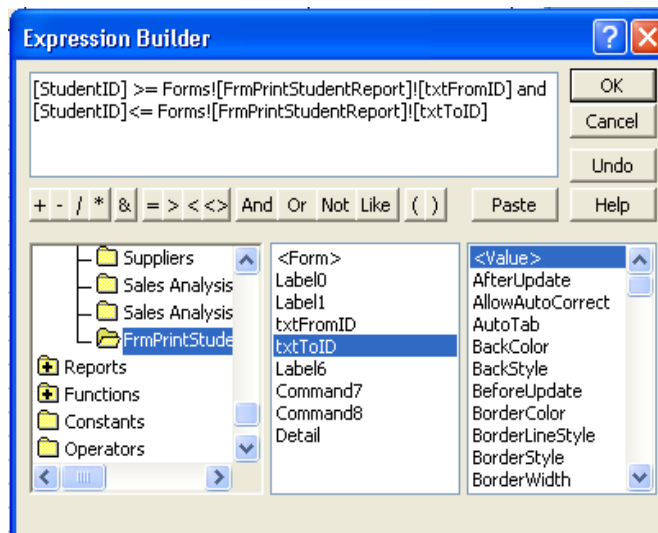
-Form "FrmPrintStudentReport" Properties ចុច Format ត្រង់ Caption:PrintStudentReport



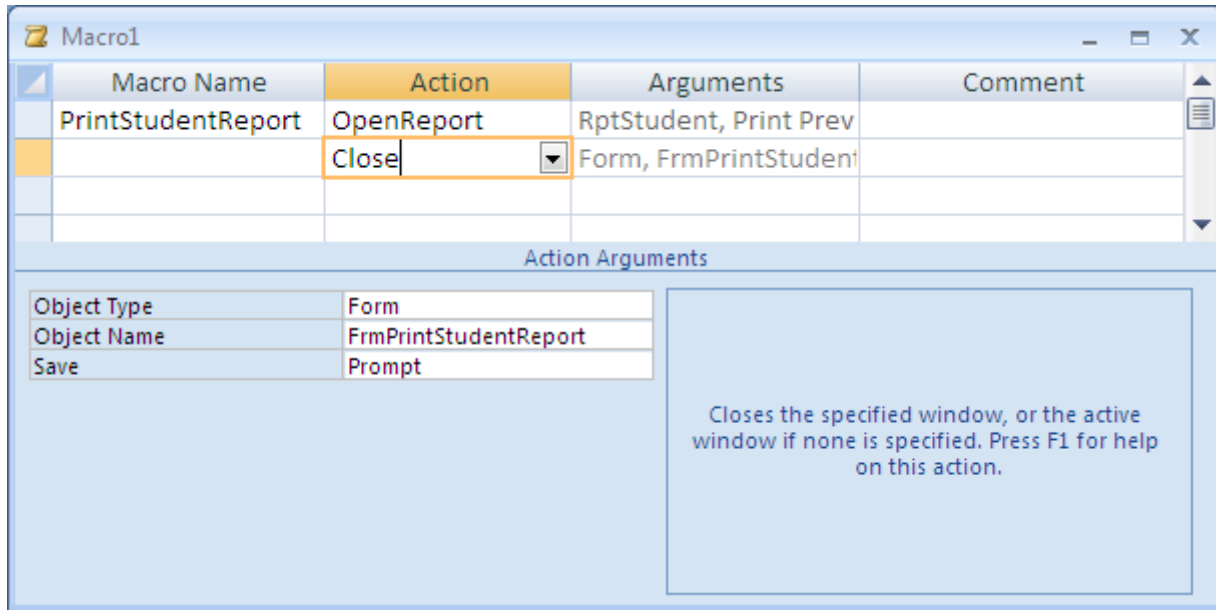
**3-Create a Macro that name "MacPrintReport"**



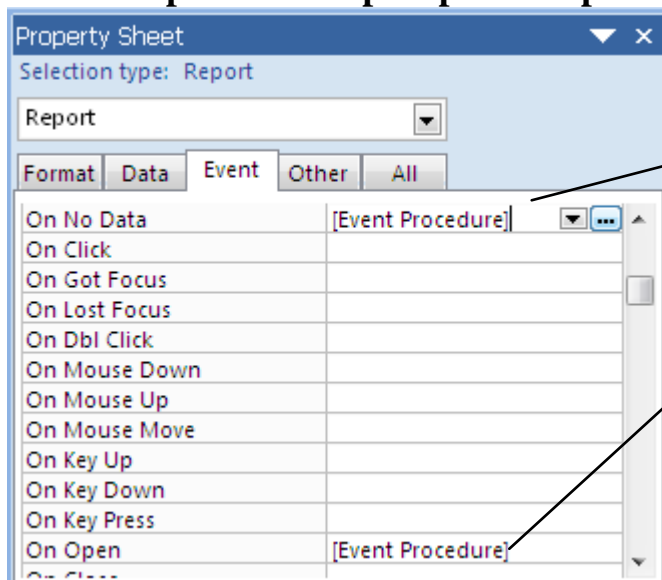
-Form OpenReport Action, In Where Condition



Form Close Action:



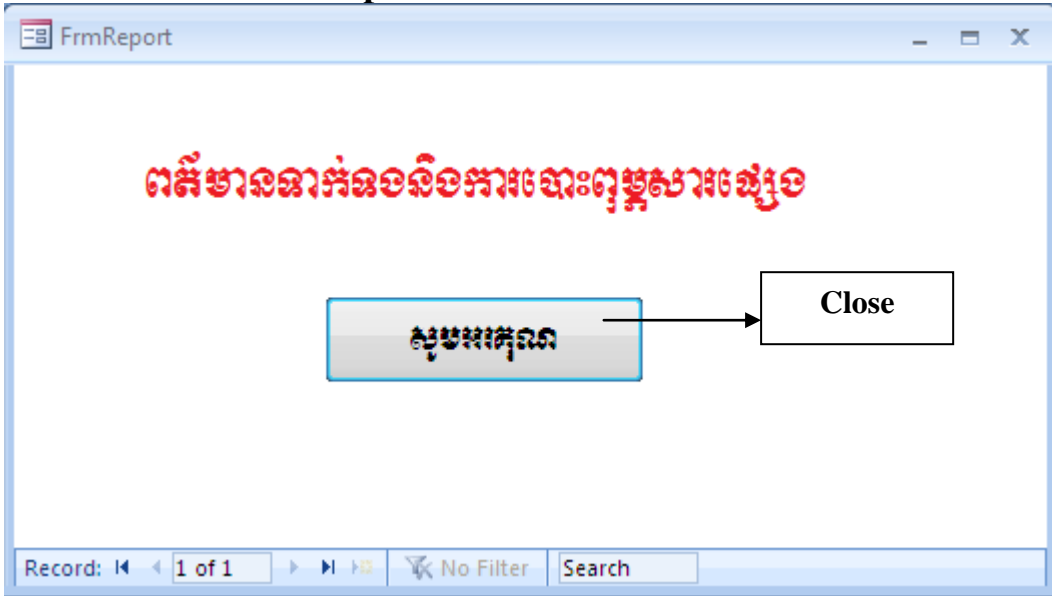
**4-Properties of "RptReport" Report:**



**Docmd.OpenForm  
"FrmPrint StudentReport"**

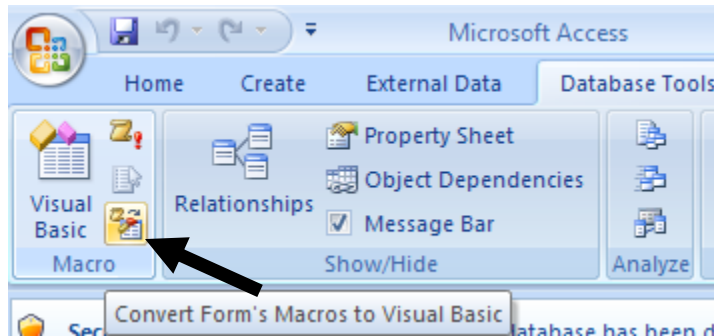
**Docmd.OpenForm  
"FrmNoDatainReport"  
Cancel=True**

### 5-Form "FrmNoDatainReport"

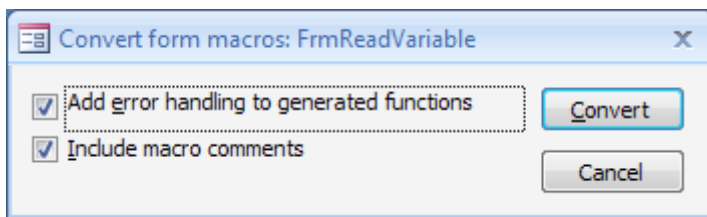


### 2-8 របៀបបំប្លែង Macro (Convert Macro) ទៅជា Code Visual Basic (VBA)

- 1-Open Form ដែលមាន Macro → Properties ដើម្បីងាយស្រួលមើល
- 2-ចុច Database Tool → Visual Basic (Alt+F11)



3-បន្ទាប់មកវានឹងចេញ Dialog មួយដូចខាងក្រោមនេះ: ចុច Convert Button

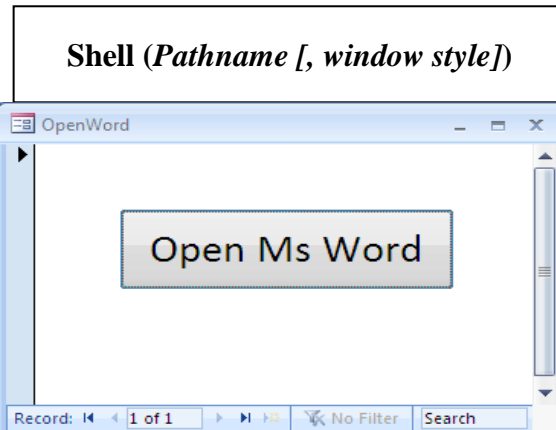


-Add error handling to generated functions: មានន័យថា អោយវាបង្ហាញពាក្យ Error មកខាងក្រោម Program

-Include macro comments: អោយវាបង្ហាញ Code ដែលបំប្លែងពី Macro ។



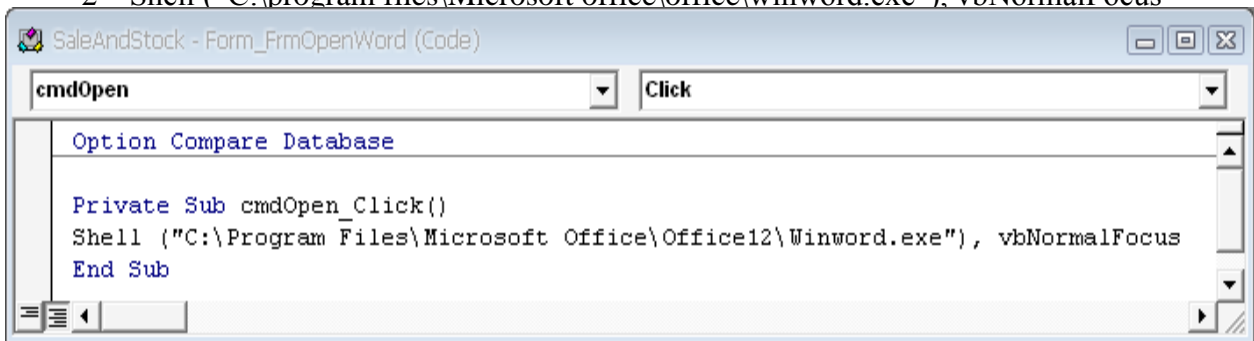
**1-Shell Function:** ប្រើសំរាប់បញ្ជាអោយបើកកម្មវិធីណាមួយទៅតាម Pathname របស់វា ។



- ចុច Mouse ខាងស្តាំលើ Button Ms-Word → យក Build Event
- បន្ទាប់មកវាយ Code តាមឧទាហរណ៍ខាងក្រោមតាមបញ្ជានីមួយៗ

**Ex:**

- 1- Shell (“Calc.exe”)
- 2- Shell (“C:\program files\Microsoft office\office\winword.exe”), vbNormalFocus

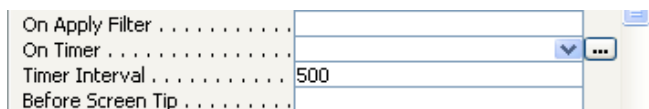


**2-Time & Time Interval**

**Ex:** ចូរសរសេរ Sub មួយដើម្បីធ្វើអោយអក្សរលោតផ្លាស់គ្នា :

យើងមាន Label ចំនួន 2 គឺ: Label 2 } ជាឈ្មោះ Label  
 Label 3 }

- ចូល Properties របស់ From:
- កំនត់ពេលវេលាសំរាប់លោតនៅ Time Interval (Ex: 500) ← កាន់តែតិចកាន់តែលឿន ។



- កន្លែង OnTimer ជ្រើសរើស [Event Procedure] ហើយសរសេរ :

```

SaleAndStock - Form_FrmTimer (Code)
Form
Timer
Option Compare Database

Private Sub Form_Timer()
If Me.Label10.Visible = True Then
Me.Label10.Visible = False
Me.Label11.Visible = True
ElseIf Me.Label11.Visible = True Then
Me.Label10.Visible = False
Me.Label11.Visible = True
End If
End Sub
    
```



```

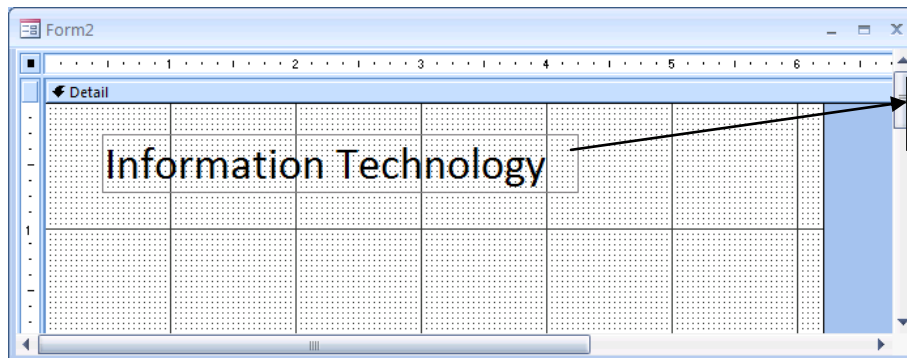
Private Sub Form _ Timer ()
    If Label2.Visible = True Then
        Label2.Visible = False
        Label3.Visible = True
    ElseIf Label3.Visible = True Then
        Label3.Visible = False
        Label2.Visible = True
    End If
End Sub
    
```



Name:Label2

Name:Label3

Ex2:



Name:Label1

- ចូរសរសេរ Sub មួយដើម្បីធ្វើអោយអក្សរ (Label) រត់លើ Form ពីឆ្វេង ទៅ ស្តាំ (ឧទាហរណ៍: យើងមាន Label ចំនួន 1 គឺ: Label2)

- ចូល Properties របស់ Form:
- កំណត់ពេលវេលាសំរាប់លោតនៅ Time Interval
- កន្លែង On Timer ជ្រើសរើស [Event Procedure] ហើយសរសេរ :Private Sub Form\_Timer ()
 

```

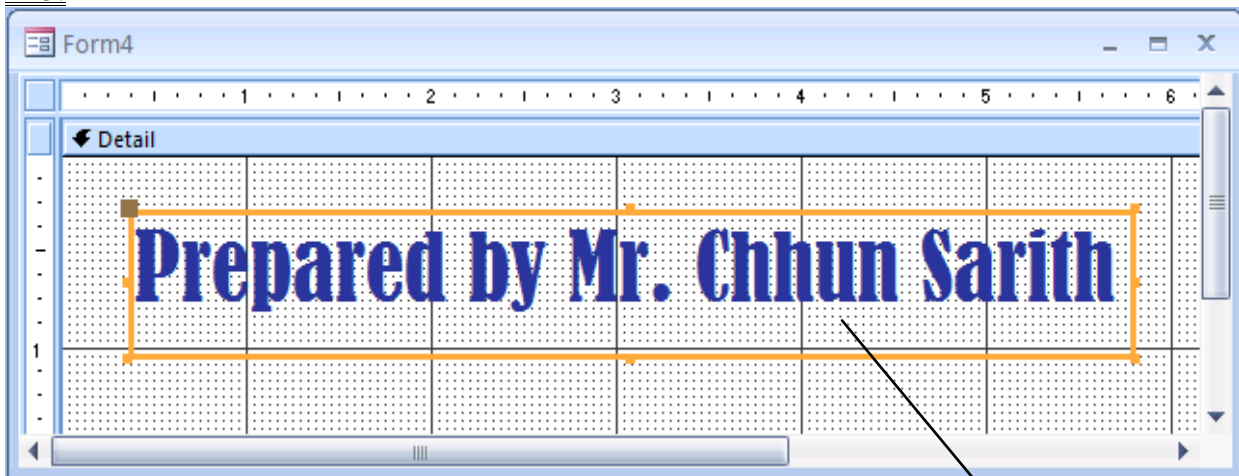
                Label5.ForeColor = QBColor (Rnd*15)
                If Label5.Left<= 10000 Then
                    Label5.Left = Label5.Left + 200
                Else
                    Label5.Left = 0
                End If
            End Sub
            
```

```

Northwind - Form_FrmTimerRun (Code)
Form
Option Compare Database

Private Sub Form_Timer()
Me.Labe5.ForeColor = QBColor(Rnd * 15)
'For charactor run long
If Me.Labe5.Left <= 10000 Then
'Use run 200 Lenght charator once
Me.Labe5.Left = Me.Labe5.Left + 200
Else
'To start 0 Lenght
Me.Labe5.Left = 0
End If
End Sub
    
```

Ex3:



```

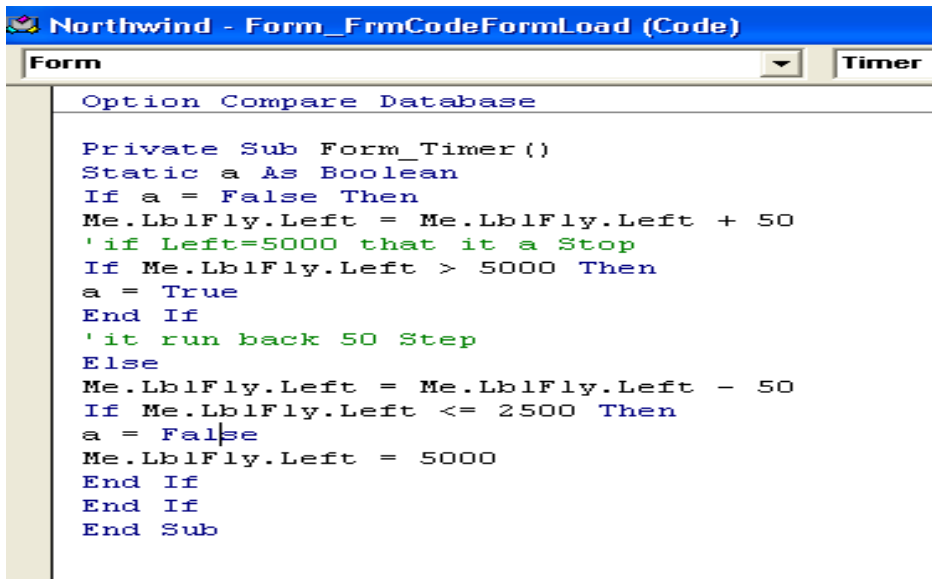
Private Sub Form_Timer()
    Static a As Boolean
    If a = False Then
        lblFly.Left = lblFly.Left + 50
        If lblFly.Left > 5000 Then
            a = True
        End If
    Else
        lblFly.Left = lblFly.Left - 100
        If lblFly.Left <= 2500 Then
            a = False
            lblFly.Left = 2500
        End If
    End If
End Sub
    
```

Name: LblFy



```
End If
End If
```

```
End Sub
```



```
Option Compare Database

Private Sub Form_Timer()
Static a As Boolean
If a = False Then
Me.LblFly.Left = Me.LblFly.Left + 50
'if Left=5000 that it a Stop
If Me.LblFly.Left > 5000 Then
a = True
End If
'it run back 50 Step
Else
Me.LblFly.Left = Me.LblFly.Left - 50
If Me.LblFly.Left <= 2500 Then
a = False
Me.LblFly.Left = 5000
End If
End If
End Sub
```

Ex4:

Mr/24/2009 9:16:04 AM

```
Private Sub Form_Load ()
Me. Caption = "Form Time"&" "& Now ()
Me. Timer Interval = 1000
End Sub
```

```
Private Sub Form Timer ()
Me. Caption ="Form Time"&" "& Now ()
End Sub
```

### 3-Logon Password

Ex5: ចូរសរសេរ Event Procedure ត្រង់ On Load ដើម្បីដាក់ Password លើ Form

```
Private Sub Form_Load ()
Dim Password As String
Password = Input Box ("Please Enter Password")
If Password <>"sarith"Then
MsgBox ("Incorrect Password")
DoCmd.Close acForm,"Form1"
End If
End Sub
```

Ex6:

18

Write Code as below :

```
Option Compare Database
Dim str As String
```

```
Private Sub CmdClose_Click()
    DoCmd.Close
End Sub
```

```
Private Sub CmdOK_Click()
    Dim sarith As String
    Dim Y As Byte
    If (Me.txtUser = "sarith" And txtpwd = "sarith") Then
        DoCmd.OpenForm "Employees", acNormal
        DoCmd.Close acForm, "FrmLogIn"
    Else
        Y = MsgBox("Sorry,Invalid password", 52, "Password Invalid")
    End If
End Sub
```

```
Private Sub Form_Load()
    str = "Please Input your UserName and Password"
    Me.Caption = str
    Me.TimerInterval = 100
End Sub
```

```
Private Sub Form_Timer()
    Me.Caption = Right(Me.Caption, Len(Me.Caption) - 1)
    If Len(Me.Caption) = 0 Then
        Me.Caption = str
    End If
End Sub
```

Ex7:A-Require

1- នៅពេលអ្នកបើក Database របស់អ្នក គឺត្រូវបង្ហាញ Form Password

2- នៅពេលដែលអ្នកវាយ Password ចូល:

2-1 បើវាយ Password ត្រូវ អោយបង្ហាញ Message មកប្រាប់ថា Form Switchboard

2-2 បើវាយ Password ខុស អោយបង្ហាញ Message មកប្រាប់ថា "Incorrect Password Please try again"

2-3 ហើយនៅពេលដែលអ្នកវាយ Password ខុសចំនួន ៣ ដងគឺកំណត់អោយបិទ Form Password តែម្តង។

B-Code



Option Compare Database

Dim Ok As Boolean

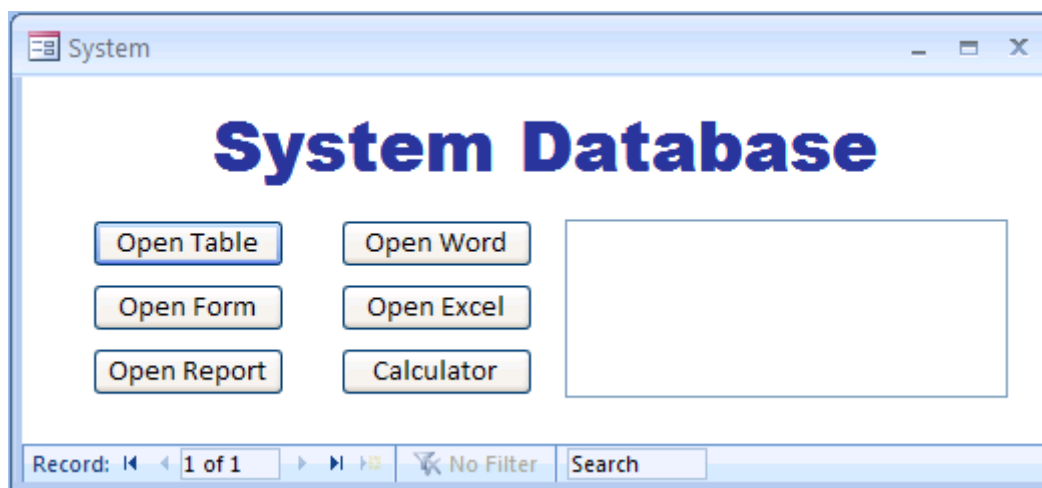
Dim Counter As Integer

```

Private Sub txtpassword_AfterUpdate()
    If Me.txtpassword = "chhunsarith" Then
        Ok = True
        DoCmd.OpenForm "Main Switchboard"
    Else
        Counter = Counter + 1
    End If
    If Counter = 1 Then
        MsgBox "Your wrong 1"
    ElseIf Counter = 2 Then
        MsgBox "Your wrong 2"
    ElseIf Counter = 3 Then
        MsgBox "Bye Bye Please Try again!"
        DoCmd.Close
    End If
End Sub

```

#### 4-Switchboard Selection



Control Name	Type
• cmdtable	Command button
• cmdform	Command button
• cmdrpt	Command button
• txtshow	Text box

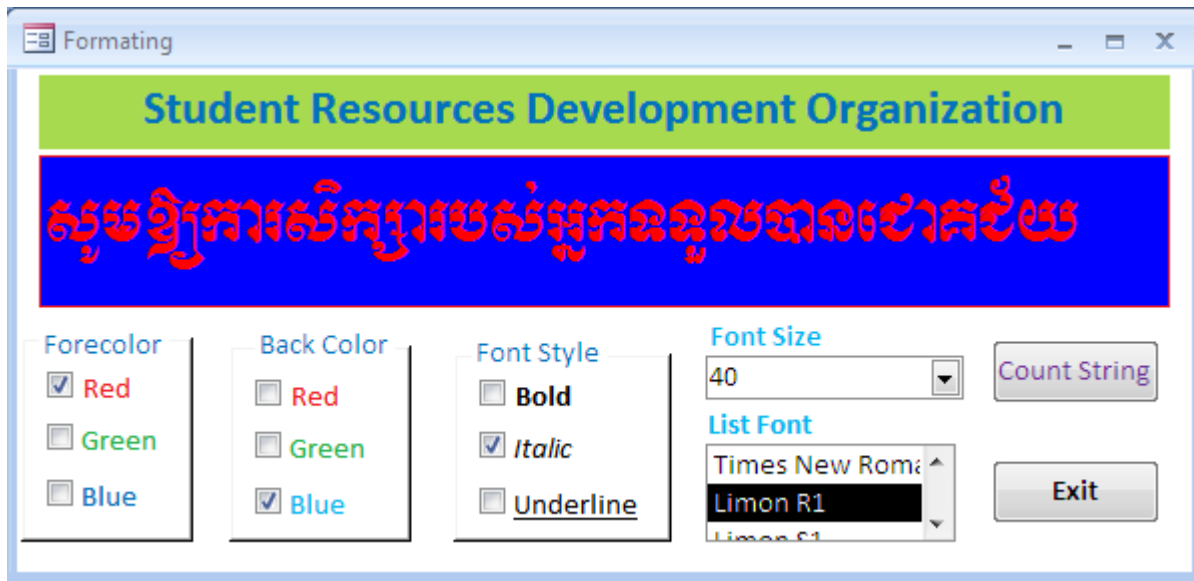
- Note: Please make email by using hyperlink into your form.

```
Private Sub cmdform_Click ()
Dim i As String
On Error Resume Next
i = InputBox ("Please input form name:", " Asking For input")
txtshow = i
DoCmd.Open Form i, acPreview
End Sub
```

```
Private Sub cmdrpt_Click ()
Dim i As String
On Error Resume Next
i = InputBox ("Please input table name:", " Asking For input")
txtshow = i
DoCmd.OpenReport i, asViewPreview
End Sub
```

```
Private Sub cmdtable_Click ()
Dim i As String
On Error Resume Next
i = InputBox ("Please input table name:", " Asking For input")
txtshow = i
DoCmd.OpenTable i, acViewNormal
End Sub
```

4-1. Formattion Text



```
Private Sub ForeRed_GotFocus ()
    txtLesson.ForeColor = vbRed
end sub
.....
Private Sub ForeBlue_GotFovus ()
    texLesson.ForeColor = vbBlue
End Sub
.....
Private Sub ForeGreen_GotFocus ()
    txtLesson.ForeColor = vbGreen
End Sub
.....
Private Sub BackRed_GotFocus ()
    txtLesson.BackColor = vbBlue
End Sub
.....
Private Sub BackGreen_GotFocus ()
    txtLesson.BackColor = vbGreen
End Sub
.....
Private Sub chkbold_Click ()
    If chkBold.Value = True Then
        txtLesson.FontBold = True
    Else
        txtLesson.FontBold = False
    End If
End Sub
.....
Private Sub Form_Load ()
    txtLesson.SetFocus
    optForeColor = ""
    optBackColor = ""
```

```
chkBold = ""
chkItalic = ""
chkUnderline = ""
'List
ListFont.AddItem "Limon R1"
ListFont.AddItem "Limon S1"
ListFont.AddItem "Limon F1"
ListFont.AddItem "Arial"
ListFont.AddItem "Times New Roman"
'Combo box
cmbFont.Value = 8
With cmbFont
    .AddItem 8
    .AddItem 9
    .AddItem 10
    .AddItem 11
    .AddItem 12
    .AddItem 14
    .AddItem 16
    .AddItem 18
    .AddItem 20
    .AddItem 22
    .AddItem 24
    .AddItem 26
    .AddItem 28
    .AddItem 36
    .AddItem 48
    .AddItem 72
End With
EndSub
.....
Private Sub chkitalic_Click ()
```

```

If chkItalic.Value = True Then
    txtLesson.FontItalic = True
Else
    txtLesson.FontItalic = False
End If
End Sub
.....
Private Sub chkunderline_Click ()
    If chkUnderline.Value = True Then
        txtLesson.FontUnderline = True
    Else
        txtLesson.FontUnderline = False
    End If
End Sub
.....
Private Sub cmdCount_Click ()
    Dim Temp As String
    On Error Resume Next
    Temp = txtLesson
    If Temp = "" Then
        MsgBox "Please Input Your Text

```

```

Now!"
txtInput.SetFocus
Else
    Temp = Len (txtLesson)
End If
End Sub
.....
Private Sub cmdExit_Click ()
    DoCmd.Close
End Sub
.....
Private Sub cmdfont_AfterUpdate ()
    txtLesson.FontSize = cmbFont.Text
End Sub
.....
Private Sub ListFont_Click ()
    txtLesson.FontName = ListFont.Value
End Sub
.....

```

### 5-Using string function in VBA

#### ! Tips:

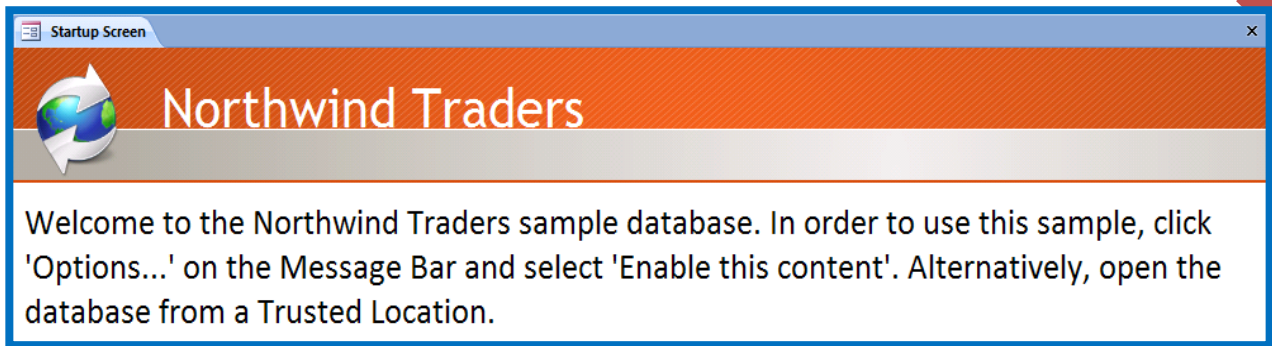
- **Left (string, length):** Returns a **Variant (String)** containing a specified number of characters from the left side of a string
- **Right (string, length):** Returns a **Variant (String)** containing a specified number and by the length of limited string.
- **Mid (string, length):** Used to cut string from the left by the start number and by the length of limited string.
- **On error go to label:** used to catch error and then go to the label when it meets.



<pre>Private Sub txtname_LostFocus ()     Form_Current End Sub  Private Sub Form_Current ()     On Error Go To message:     '.....Left Function     txtLeft3 = Left (txtName, 3)     txtLeft5 = Left (txtName, 5)     txtLeft10 = Left (txtName, 10)     '.....Right Function     txtRight3 = Right (txtName, 3)     txtRight5 = Right (txtName, 5)     txtRight10 = Right (txtName, 10)     '.....Mid Function     txtMid3 = Mid (txtName, 1, 3)</pre>	<pre>    txtMid5 = Mid (txtName, 3, 5)     txtMid10 = Mid (txtName, 2, 10)     '.....Set Label caption     lblLeft.Caption = txtLeft3 + " " + txtLeft5 + " "     + txtLeft 10     lblRight.Caption = txtRight3 + " " + txtRight5 +     " " + txtRight 10     lblMid.Caption = txtMid3 + " " + txtMid5 + " "     + txtMid10  End Sub message:     MsgBox "You Cannot go to more record", vbInformation + vbOKOnly, "Info."     DoCmd.Go To Record , , acLast End Sub</pre>
---	---



## Startup Form



Option Compare Database

Option Explicit

' Functions in this module are used in the Startup form.

Function OpenStartup() As Boolean

' Used in *OnOpen* property of Startup form.

If (CurrentDb().Properties("StartupForm") = "Startup" Or \_

CurrentDb().Properties("StartupForm") = "Form.Startup") Then

' StartupForm property is set to Startup, so clear HideStartupForm

' check box.

Forms!Startup!HideStartupForm = False

Else

' StartupForm property is not set to Startup, so check *HideStartupForm*

' checkbox.

Forms!Startup!HideStartupForm = True

End If

End Function

Function HideStartupForm()

' Used in *OnClose* property of Startup form.

If Forms!Startup!HideStartupForm Then

' HideStartupForm check box is checked, so set StartupForm property to Main SwitchBoard.

CurrentDb().Properties("StartupForm") = "Main SwitchBoard"

Else

' HideStartupForm check box is cleared, so set StartupForm property to Startup.

CurrentDb().Properties("StartupForm") = "Startup"

End If



End Function

Function CloseForm()

' Closes Startup form.

' Used in *OnClick* property of OK command button on Startup form.

DoCmd.Close

DoCmd.OpenForm ("Main Switchboard")

End Function

## Add, Change, Remove Photo

Option Explicit

Private Sub AddPicture\_Click()

Dim fileName As String

Dim result As Integer

With Application.FileDialog(msoFileDialogFilePicker)

.Title = "Select Employee Picture"

.Filters.Add "All Files", "\*.\*"

.Filters.Add "JPEGs", "\*.jpg"

.Filters.Add "Bitmaps", "\*.bmp"

.FilterIndex = 3

.AllowMultiSelect = False

.InitialFileName = CurrentProject.path

```
result = .Show
If (result <> 0) Then
    fileName = Trim(.SelectedItems.Item(1))
    Me![ImagePath].Visible = True
    Me![ImagePath].SetFocus
    Me![ImagePath].Text = fileName
    Me.AddPicture.SetFocus
    Me![ImagePath].Visible = False
End If
End With
End Sub
```

---

```
Private Sub RemovePicture_Click()

    Me![ImagePath] = ""
    Me![ImageFrame].Visible = False
    errorMsg.Visible = True

End Sub
```

---

```
Private Sub Form_AfterUpdate()

    On Error Resume Next

    showErrorMessage
    Me![ImageFrame].Visible = True
    Me![ImageFrame].Picture = Me![ImagePath]

End Sub
```

---

```
Private Sub ImagePath_AfterUpdate()

    On Error Resume Next

    showErrorMessage
    Me![ImageFrame].Visible = True
    Me![ImageFrame].Picture = Me![ImagePath]

End Sub
```

---

```
Private Sub Form_Current()

    Dim fName As String
```



```
On Error Resume Next
```

```
errmsg.Visible = False
```

```
If Not IsNull(Me!Photo) Then
```

```
    fName = Me![ImagePath]
```

```
    Me![ImageFrame].Picture = fName
```

```
    Me![ImageFrame].Visible = True
```

```
If (Me![ImageFrame].Picture <> fName) Then
```

```
    Me![ImageFrame].Visible = False
```

```
    errmsg.Caption = "Picture not found"
```

```
    errmsg.Visible = True
```

```
End If
```

```
Else
```

```
    Me![ImageFrame].Visible = False
```

```
    errmsg.Caption = "Click Add/Change to add picture"
```

```
    errmsg.Visible = True
```

```
End If
```

```
End Sub
```

---

```
Sub showErrorMessage()
```

```
    If Not IsNull(Me!Photo) Then
```

```
        errmsg.Visible = False
```

```
    Else
```

```
        errmsg.Visible = True
```

```
    End If
```

```
End Sub
```

The screenshot shows a VBA form window titled 'PointList'. At the top, there is a black header with the text 'Display information student point' in white. Below the header is a table with 8 columns and 7 rows. The data in the table is as follows:

1	5	4	15	5	8	27	7
2	7	5	10	5	5	20	5
3	3	6	8	9	10	33	8
4	1	10	10	10	10	40	10
5	6	3	4	7	9	23	6
6	1	10	10	10	10	40	10
7	3	6	8	9	10	33	8

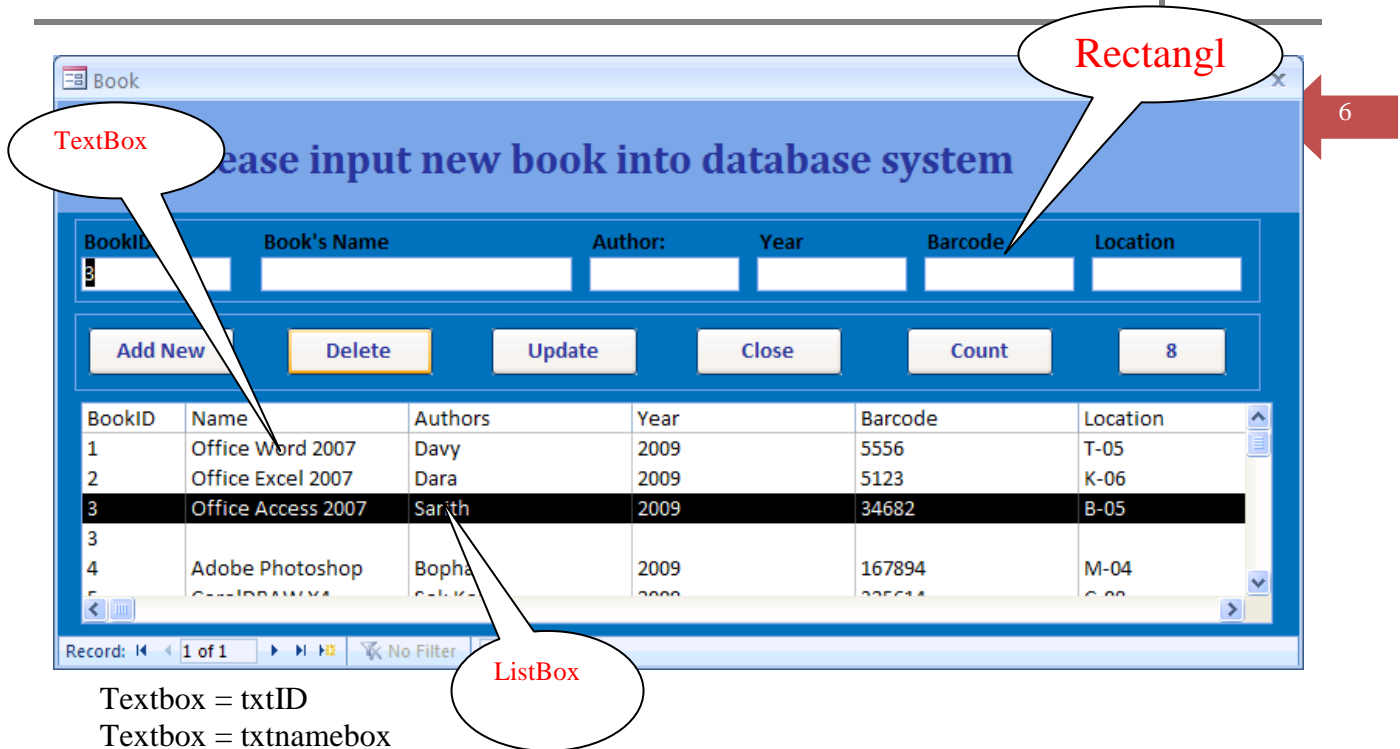
Below the table is a button labeled 'Rank'. At the bottom of the form, there is a status bar with the text 'Record: 1 of 7', 'No Filter', and a search box.

```
Option Explicit
Dim dbs As DAO.Database
Dim rst As DAO.Recordset
Dim CountAvg As Integer
```

```
Private Sub cmdRank_Click()
    Dim Aveg As Integer
    dbs.Execute "update PointList set
total_score=vb+java+network+asp,Average=Total_Score/4"
    Set rst = dbs.OpenRecordset("Select average,count(average)from PointList group by
average order by average desc")
    Do While Not rst.EOF
        Aveg = rst.Fields(0)
        dbs.Execute "update Pointlist set Rank=" & CountAvg + 1 & " where average=" &
Aveg
        CountAvg = CountAvg + rst.Fields(1)
        rst.MoveNext
    Loop
    Me.Refresh
    CountAvg = 0
End Sub
```

```
Private Sub Form_Load()
    Set dbs = CurrentDb
End Sub
```

```
Private Sub Form_Unload(Cancel As Integer)
    Set rst = Nothing
    Set dbs = Nothing
End Sub
```



Textbox = txtID  
 Textbox = txtnamebox  
 Textbox = txtAuthor  
 .....  
 .....

```

** Option Compare Database
    Dim db As DAO.Database
    Dim rst As DAO.Recordset
    Dim i As Integer
    Dim Srt As String
    Dim an As Integer
    
```

```

Sub ClearText()
    txtID = ""
    txtNameBook = ""
    txtAuthor = ""
    txtYear = ""
    txtBarCode = ""
    txtLocation = ""
End Sub
    
```

```

**Private Sub Form_Close()
    DoCmd.OpenForm "Recording", acNormal
End Sub
    
```

## Writing Code

```
**Private Sub CmdAdd_Click()

    On Error GoTo bb
    If IsNull(txtID) Then
        i = MsgBox("Please complete all of the BOX...", vbQuestion, "")
        ElseIf (txtNameBook) = "" Then
    i = MsgBox("Please complete all of the BOX...", vbQuestion, "")
        ElseIf (txtAuthor) = "" Then
        i = MsgBox("Please complete all of the BOX...", vbQuestion, "")
        ElseIf (txtYear) = "" Then
        i = MsgBox("Please complete all of the BOX...", vbQuestion, "")
        ElseIf (txtBarCode) = "" Then
        i = MsgBox("Please complete all of the BOX...", vbQuestion, "")
        ElseIf (txtLocation) = "" Then
        i = MsgBox("Please complete all of the BOX...", vbQuestion, "")
    Else

        Set db = CurrentDb()
        Set rst = db.OpenRecordset("NameBook")
        With rst
            .AddNew
            .Fields(0) = txtID
            .Fields(1) = txtNameBook
            .Fields(2) = txtAuthor
            .Fields(3) = txtYear
            .Fields(4) = txtBarCode
            .Fields(5) = txtLocation
            .Update
            .Close
        End With
        ListBox.Requery
        Call ClearText
    Exit Sub
    bb:
        i = MsgBox("Please input ID other", vbInformation, "")
    End If

End Sub
```

---

```
** Private Sub CmdDeleted_Click()
```

```
    On Error GoTo DD
    Set db = CurrentDb()
```

```
Set rst = db.OpenRecordset("Select * From NameBook Where ID=" & ListBox)
Srt = MsgBox("Are you sure to delete this record ?", vbYesNo + vbCritical,
"DELETED...!")
```

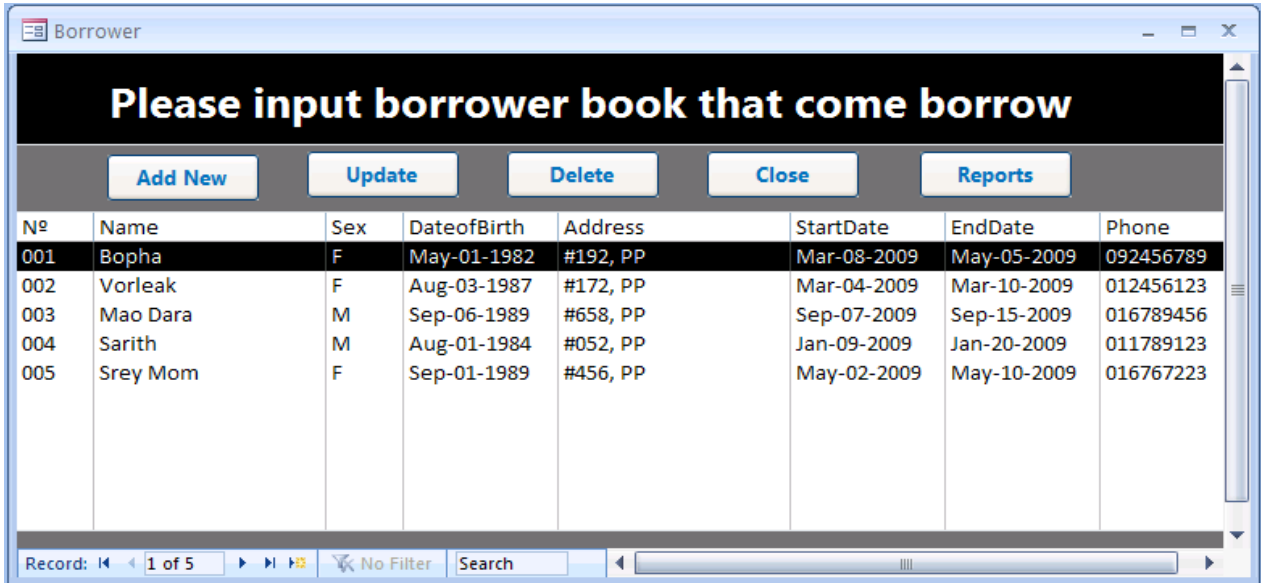


```
    If Srt = vbNo Then Exit Sub
    With rst
        .Delete
        .Close
    End With
    ListBox.Requery
    Exit Sub
DD:
    i = MsgBox("Please Select in the Listbox before you delete", vbInformation, "")
End Sub
```

```
-----
** Private Sub CmdEdit_Click()
```

```
    On Error GoTo EE
    Set db = CurrentDb()
    Set rst = db.OpenRecordset("select * From NameBook where ID=" & ListBox)
    DoCmd.OpenForm ("ListViewEdit")
    With rst
        Form_ListViewEdit.txtBook_ID = .Fields(0)
        Form_ListViewEdit.txtName_s_Book = .Fields(1)
        Form_ListViewEdit.txtAuthor = .Fields(2)
        Form_ListViewEdit.txtYear = .Fields(3)
        Form_ListViewEdit.txtBarCode = .Fields(4)
        Form_ListViewEdit.txtLocation = .Fields(5)
    End With
    ListBox.Requery
    Exit Sub
    EE:
    i = MsgBox("Please Select in the Listbox before you Press Edit", vbInformation, "")
End Sub
```

```
-----
**Private Sub CmdExit_Click()
    DoCmd.Close
End Sub
-----
```



The screenshot shows a VBA form window titled "Borrower". At the top, there is a black header with the text "Please input borrower book that come borrow" in white. Below the header are five buttons: "Add New", "Update", "Delete", "Close", and "Reports". The main area contains a table with the following data:

Nº	Name	Sex	DateofBirth	Address	StartDate	EndDate	Phone
001	Bopha	F	May-01-1982	#192, PP	Mar-08-2009	May-05-2009	092456789
002	Vorleak	F	Aug-03-1987	#172, PP	Mar-04-2009	Mar-10-2009	012456123
003	Mao Dara	M	Sep-06-1989	#658, PP	Sep-07-2009	Sep-15-2009	016789456
004	Sarith	M	Aug-01-1984	#052, PP	Jan-09-2009	Jan-20-2009	011789123
005	Srey Mom	F	Sep-01-1989	#456, PP	May-02-2009	May-10-2009	016767223

At the bottom of the form, there is a status bar showing "Record: 1 of 5", a search field, and a "No Filter" button.

```

** Option Compare Database
Option Compare Database
Dim db As DAO.Database, rst As DAO.Recordset
Dim ans As String
Dim i As Integer

```

```

.....
**Private Sub CmdAdd_Click()
DoCmd.OpenForm ("BorrowListView")
Set db = CurrentDb()
Set rst = db.OpenRecordset("Borrow")
With rst
.AddNew
.Fields(0) = Form_BorrowListView.txtstuid
.Fields(1) = Form_BorrowListView.txtname
.Fields(2) = Form_BorrowListView.txtsex
.Fields(3) = Form_BorrowListView.txtDOB
.Fields(4) = Form_BorrowListView.txtAddress
.Fields(5) = Form_BorrowListView.txtStart_Date
.Fields(6) = Form_BorrowListView.txtEnd_Date
.Fields(7) = Form_BorrowListView.txtPhoneNumber
.Fields(8) = Form_BorrowListView.FreeBack
.Fields(9) = Form_BorrowListView.txtOther
.Update
.Close
End With
LstName.Requery
End Sub
.....

```



```
**Private Sub CmdDeleteD_Click()  
    On Error GoTo bb  
    Set db = CurrentDb()  
    Set rst = db.OpenRecordset("Select * From Borrow where N°=" &  
Me.LstName)  
    ans = MsgBox("Are you sure you want to delete this record?", vbYesNo +  
vbCritical, "Deleting...")  
    If ans = vbNo Then Exit Sub  
  
    With rst  
        .Delete  
        .Close  
    End With  
    LstName.Requery  
    Exit Sub  
bb:  
i = MsgBox("Please Select in the listbox before you delete", vbInformation, "")  
End Sub
```

```
.....  
** Private Sub CmdEdit_Click()  
    On Error GoTo cc  
    Set db = CurrentDb()  
    Set rst = db.OpenRecordset("Select * From borrow where N°=" & LstName)  
    DoCmd.OpenForm ("ViewAdd")  
    With rst  
        Form_ViewAdd.txtstuid = .Fields(0)  
        Form_ViewAdd.txtname = .Fields(1)  
        Form_ViewAdd.txtsex = .Fields(2)  
        Form_ViewAdd.txtDOB = .Fields(3)  
        Form_ViewAdd.txtAddress = .Fields(4)  
        Form_ViewAdd.txtStart_Date = .Fields(5)  
        Form_ViewAdd.txtEnd_Date = .Fields(6)  
        Form_ViewAdd.txtPhoneNumber = .Fields(7)  
        Form_ViewAdd.FreeBack = .Fields(8)  
        Form_ViewAdd.txtOther = .Fields(9)  
    End With  
    LstName.Requery  
    Exit Sub  
cc:  
i = MsgBox("Please Select in the Listbox before you Press Edit", vbInformation, "")  
End Sub
```

```
.....  
**Private Sub CmdClose_Click()  
    DoCmd.Close  
End Sub  
.....
```

```

** Private Sub Form_Close()
    DoCmd.OpenForm "Recording", acNormal
End Sub

```

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BookID	Name	Authors	Year	Barcode	Location
1	Office Word 2007	Davy	2009	5556	T-05
2	Office Excel 2007	Dara	2009	5123	K-06
3	Office Access 2007	Sarith	2009	34682	B-05
4	Adobe Photoshop	Bopha	2009	167894	M-04

```

Option Compare Database
Dim Found As Boolean
Dim Lvw As ListItem
Dim i As Integer
Dim db As DAO.Database
Dim rst As DAO.Recordset

```

```

.....
**Private Sub CmdSearch_Click()
    ListFound.Visible = True
    LblListFound.Visible = True
    ListFound.ListItems.clear
    Found = False
    ListFound.Visible = False
    LblListFound.Visible = False
    '=====
    Select Case FrameOption.Value
        Case 1
            For i = 1 To DCount("ID", "NameBook")
                If Form_RecordBook.ListBox.Column(0, i) = txtID Then
                    'MyID = i
                    Found = True
                    ListFound.Visible = True
                Set Lvw = ListFound.ListItems.Add(, , Form_RecordBook.ListBox.Column(0, i))
                    Lvw.SubItems(1) = Form_RecordBook.ListBox.Column(1, i)
            
```

```

        Lvw.SubItems(2) = Form_RecordBook.ListBox.Column(2, i)
        Lvw.SubItems(3) = Form_RecordBook.ListBox.Column(3, i)
        Lvw.SubItems(4) = Form_RecordBook.ListBox.Column(4, i)
        Lvw.SubItems(5) = Form_RecordBook.ListBox.Column(5, i)
    End If
    Next
    If Not Found Then LblListFound.Visible = True
'=====
    Case 2
        For i = 1 To DCount("ID", "NameBook")
            If Form_RecordBook.ListBox.Column(1, i) = txtNameBook Then
                Found = True
                ListFound.Visible = True
            Set Lvw = ListFound.ListItems.Add(, , Form_RecordBook.ListBox.Column(0, i))
            Lvw.SubItems(1) = Form_RecordBook.ListBox.Column(1, i)
            Lvw.SubItems(2) = Form_RecordBook.ListBox.Column(2, i)
            Lvw.SubItems(3) = Form_RecordBook.ListBox.Column(3, i)
            Lvw.SubItems(4) = Form_RecordBook.ListBox.Column(4, i)
            Lvw.SubItems(5) = Form_RecordBook.ListBox.Column(5, i)
        End If
        Next
        If Not Found Then LblListFound.Visible = True
'=====
    Case 3
        For i = 1 To DCount("ID", "NameBook")
            If Form_RecordBook.ListBox.Column(2, i) = txtAuthor Then
                Found = True
                ListFound.Visible = True
            Set Lvw = ListFound.ListItems.Add(, , Form_RecordBook.ListBox.Column(0, i))
            Lvw.SubItems(1) = Form_RecordBook.ListBox.Column(1, i)
            Lvw.SubItems(2) = Form_RecordBook.ListBox.Column(2, i)
            Lvw.SubItems(3) = Form_RecordBook.ListBox.Column(3, i)
            Lvw.SubItems(4) = Form_RecordBook.ListBox.Column(4, i)
            Lvw.SubItems(5) = Form_RecordBook.ListBox.Column(5, i)
        End If
        Next
        If Not Found Then LblListFound.Visible = True
'=====
    End Select
End Sub

.....
**Private Sub CmdExit_Click()
    DoCmd.Close
End Sub

.....
**Private Sub Form_Load()

```

```
FrameOption.Value = 1
txtID.SetFocus
ListFound.Visible = False
LblListFound.Visible = False
End Sub
```

---

```
** Private Sub FrameOption_Click()
    Call Choice(FrameOption.Value)
    Select Case FrameOption.Value
        Case 1
            txtID.SetFocus
            If Len(txtID.Text) <> 0 Then
                CmdSearch.Enabled = True
            Else
                CmdSearch.Enabled = False
            End If
        Case 2
            txtNameBook.SetFocus
            If Len(txtNameBook.Text) <> 0 Then
                CmdSearch.Enabled = True
            Else
                CmdSearch.Enabled = False
            End If
        Case 3
            txtAuthor.SetFocus
            If Len(txtAuthor.Text) <> 0 Then
                CmdSearch.Enabled = True
            Else
                CmdSearch.Enabled = False
            End If
    End Select
End Sub
```

---

```
**Sub Choice(x As Integer)
    CmdSearch.Enabled = False
    Select Case x
        Case 1
            txtID.Visible = True
            txtNameBook.Visible = False
            txtAuthor.Visible = False
        Case 2
            txtID.Visible = False
            txtNameBook.Visible = True
            txtAuthor.Visible = False
    End Select
End Sub
```

```
Case 3
    txtID.Visible = False
    txtNameBook.Visible = False
    txtAuthor.Visible = True
End Select
End Sub
```

```
.....

**Private Sub ListFound_Click()
    For i = ListFound.ListItems.Count To 1 Step -1
        If ListFound.ListItems(i).Selected = True Then
            End If
        Next
    End Sub
```

```
.....

**Private Sub txtAuthor_GotFocus()
    ListFound.Visible = False
    LblListFound.Visible = False
End Sub
```

```
.....

**Private Sub txtAuthor_KeyUp(KeyCode As Integer, Shift As Integer)
    If Len(txtAuthor.Text) <> 0 Then
        CmdSearch.Enabled = True
    Else
        CmdSearch.Enabled = False
    End If
End Sub
```

```
.....

**Private Sub txtID_GotFocus()
    ListFound.Visible = False
    LblListFound.Visible = False
End Sub
```

```
.....

**Private Sub txtID_KeyPress(KeyAscii As Integer)
    If KeyAscii >= vbKey0 And KeyAscii <= vbKey9 Or KeyAscii = 8 Then
        Exit Sub
    Else
        KeyAscii = 0
    End If
End Sub
```

```
.....

**Private Sub Form_Open(Cancel As Integer)
    DoCmd.Maximize
```

End Sub

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```
.....  
**Private Sub txtNameBook_GotFocus()  
    ListFound.Visible = False  
    LblListFound.Visible = False  
End Sub  
.....
```

```
.....  
** Private Sub txtNameBook_KeyUp(KeyCode As Integer, Shift As Integer)  
    If Len(txtNameBook.Text) <> 0 Then  
        CmdSearch.Enabled = True  
    Else  
        CmdSearch.Enabled = False  
    End If  
End Sub  
.....
```