Secure programming of Access database

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1. Protect the VBA (Visual Basic for Application) code by selecting the **Properties** on the **Tools** menu of the **Microsoft Visual Basic** editor window and selecting the **Protection** page on the **Project Properties** dialog box. Finally, select **Lock project for viewing** , along with a password protection. In this way, the structure and data of tables can still be viewed and modified.

2. Use the **Make MDE** file function to prevent modification of code, form design and report design. In this way, the structure and data of tables can still be taken to transfer to another .MDB file that is viewed and modified.

3. Use **Encrypt / Decrypt database .** to encrypt the database, prevent utility programs from processing decrypted documents, but still use Access to open.

4. Use the **Set database password** function to specify the password for the database. This is a little annoying if there is a table in another database that links (links) to it. If I forgot my password . would I cry?

5. Design a boot form, which requires a name and password, using the **Startup** dialog box (from the **Display Form / Page list**) to specify this form to be opened each time you first open the database. This way, you can hide the **Database** window, where you can view and select the components of the database to repair.

In the above ways, the 5th way can still be overcome by pressing and holding the **Shift** key while opening the database. To fix this, we can use Visual Basic to assign **False** to the **AllowBypassKey property** to disable the **Shift** key when opening the database.

Suppose you have a database named dbLock.MDB. Every time people open it, you want the **frmKhoiDong** form to always be displayed first by specifying **Display Form / Page** as **frmKhoiDong** . To change the **AllowBypassKey property** , it is required to open the database, assign a new value to this attribute, close the database, then open the new database. Remember, it is necessary to lock it so that people cannot open it and open it, which means we must have the key to open it. The key here is another form, such as **frmChiaKhoa** .

Once you have changed the **AllowBypassKey property** , make sure the **frmKhoiDong** form is displayed when you open the database. So we put the key through this form by drawing a control box (as long as it has a procedure to handle the **Click** situation is okay), such as label **lblChiaKhoa** , then set the **Visible** property to **No** and add command line **DoCmd.OpenForm 'frmChiaKhoa'** into the procedure to handle the situation **Click** . You have to remember the location of the label to get the key out. Thus, the remaining problem is in the **frmChiaKoa** form.

Open the Microsoft Visual Basic editor window, select **References .** to ensure **Microsoft DAO xx.xx Object Library** (where **xx.xx** version may be: **2.5** or **3.51** or **3.6** depending on Access version, of course should choose the latest version) selected in the **Available References** list.

Picture 1 of Secure programming of Access database

***Figure 1** : Design form*

Figure 1 is a **frmivided** form. The **tree** needs to be designed, including a text box **txtPassword** to receive the password that the person who needs to unlock must type, a **cmdLock** button performs the database lock and a **cmdUnlock** button to perform database unlock . Done, you type the procedures to process as code 1. Before messing up this on a database, you should copy the database to prevent the lock problem but cannot open it (because you mistakenly type the command line) .

Code snippet 1

'The **ChangeProperty** function changes the properties of the database

*Function **ChangeProperty** (strPropName, varPropType, varPropValue)*

Dim dbs As Database, prp As Property

Const conPropNotFoundError = 3270

Set dbs = CurrentDb

On Error GoTo Change_XuLyLoi

dbs.Properties (strPropName) = varPropValue

ChangeProperty = True

Change_KetThuc:

Exit Function

Change_Language:

'Attribute not found

If Err = conPropNotFoundError Then

Set prp = dbs.CreateProperty (strPropName, _

varPropType, varPropValue)

dbs.Properties.Append prp

Next Resume

Else

'I don't know what the error is

ChangeProperty = False

Resume Change_KetThuc

End If

End Function

*'Handling the situation of selecting the **[Lock database]** button*

*Private Sub **cmdLock_Click ()***

'This form is preloaded

ChangeProperty "StartupForm", dbText, "frmKhoiDong"

ChangeProperty "StartupShowDBWindow", dbBoolean, False

ChangeProperty "StartupShowStatusBar", dbBoolean, False

ChangeProperty "AllowBuiltinToolbars", dbBoolean, False

ChangeProperty "AllowFullMenus", dbBoolean, False

ChangeProperty "AllowBreakIntoCode", dbBoolean, False

ChangeProperty "AllowSpecialKeys", dbBoolean, False

*'Do not use the Shift key to skip the form **frmKhoiDong***

*ChangeProperty "AllowBypassKey", dbBoolean, **False***

MsgBox "Database has been locked! Close the database, _

then reopen it to press-es. ", vbOKOnly," eChip Security "

cmdExit.SetFocus

cmdUnlock.Visible = True

cmdLock.Visible = False

End Sub

'Handling the situation to select the button ***[Open database]***

Private Sub ***cmdUnlock_Click ()***

'No boot form needed

ChangeProperty "StartupForm", dbText, ""

ChangeProperty "StartupShowDBWindow", dbBoolean, True

ChangeProperty "StartupShowStatusBar", dbBoolean, True

ChangeProperty "AllowBuiltinToolbars", dbBoolean, True

ChangeProperty "AllowFullMenus", dbBoolean, True

ChangeProperty "AllowBreakIntoCode", dbBoolean, True

ChangeProperty "AllowSpecialKeys", dbBoolean, True

ChangeProperty "AllowBypassKey", dbBoolean, ***True***

MsgBox "The database has been unlocked! _

Close the database, then reopen it with press-approval. ", _

vbOKOnly, "eChip Security"

cmdExit.SetFocus

txtPassword = ""

cmdLock.Visible = True

cmdUnlock.Visible = False

txtPassword.Visible = False

End Sub

'Handle the situation when opening the form

Private Sub ***Form_Open*** *(Cancel As Integer)*

Dim dbs As Database

Set dbs = CurrentDb

On Error GoTo KhongCoThuocTinh_Err

If dbs.Properties ("AllowBypassKey") Then

cmdLock.Visible = True

txtPassword.Visible = False

Else

cmdLock.Visible = False

txtPassword.Visible = True

End If

Sub Exit

KhongCoThuocTinh_Err:

cmdLock.Visible = True

txtPassword.Visible = False

End Sub

*'When people type the password and press the **Enter** key*

Private Sub txtPassword_LostFocus ()

If txtPassword = "echip" Then

cmdUnlock.Visible = True

End If

End Sub