

Form Adapter Example

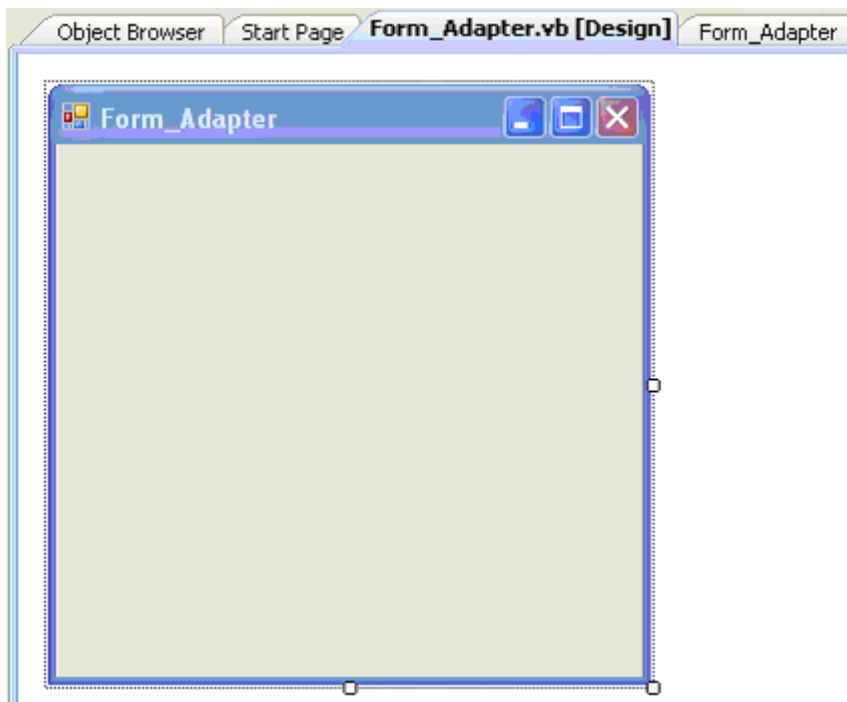
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Creating Form_Adapter.vb

Open Visual Studio, click File, and select “New Project.” Visual Studio will prompt you to select a type of project. You’ll want to choose “Windows Form” and name it “Form_Adapter.” Under properties, change your form name to “Form_Adapter.” You should begin with a form similar in appearance to the one below.



Adding the Code

Next, you’ll want to enter the code for this project. To do so, double click the form you created, which will take you to the Code Explorer screen. You’ll notice the following code already there.

```

Public Class Form_Adapter
    Private Sub form_adapter_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
    End Sub
End Class

```

Take note of this code, because you'll want to integrate yours into the existing framework. I've highlighted the existing code for your convenience. Type the following into the Code Explorer, making sure you reproduce it character for character. Again, the highlighted code should already appear on the screen.

```

Imports System.Data.OleDb
Public Class Form_Adapter
    Dim myConnection_string As String
    Dim live_wireoledb_connection As OleDbConnection
    Dim live_wireoledb_adapter As OleDbDataAdapter
    Private Sub form_adapter_Load(ByVal sender As System.Object,
ByVal e As System.EventArgs) Handles MyBase.Load
        Dim sql As String
        live_wireoledb_connection =
open_connection_to_access_database()
        sql = "SELECT * FROM CONTACTS"
        live_wireoledb_adapter = New OleDbDataAdapter(sql,
live_wireoledb_connection)
    End Sub

```

By typing the above code, you've imported System.Data.OleDb, declared variables, and ran a private sub procedure. Next, you'll want to enter the first of two functions into the Code Explorer, directly following the "End Sub" line.

```

Function open_connection_to_access_database()
    Dim myConnection As OleDbConnection
    myConnection_string = make_connection_string()
    myConnection = New OleDbConnection(myConnection_string)
    Return myConnection
End Function

```

Finally, add the following code, which will complete your program. Again, be sure to type everything character for character, and not to retype any highlighted code.

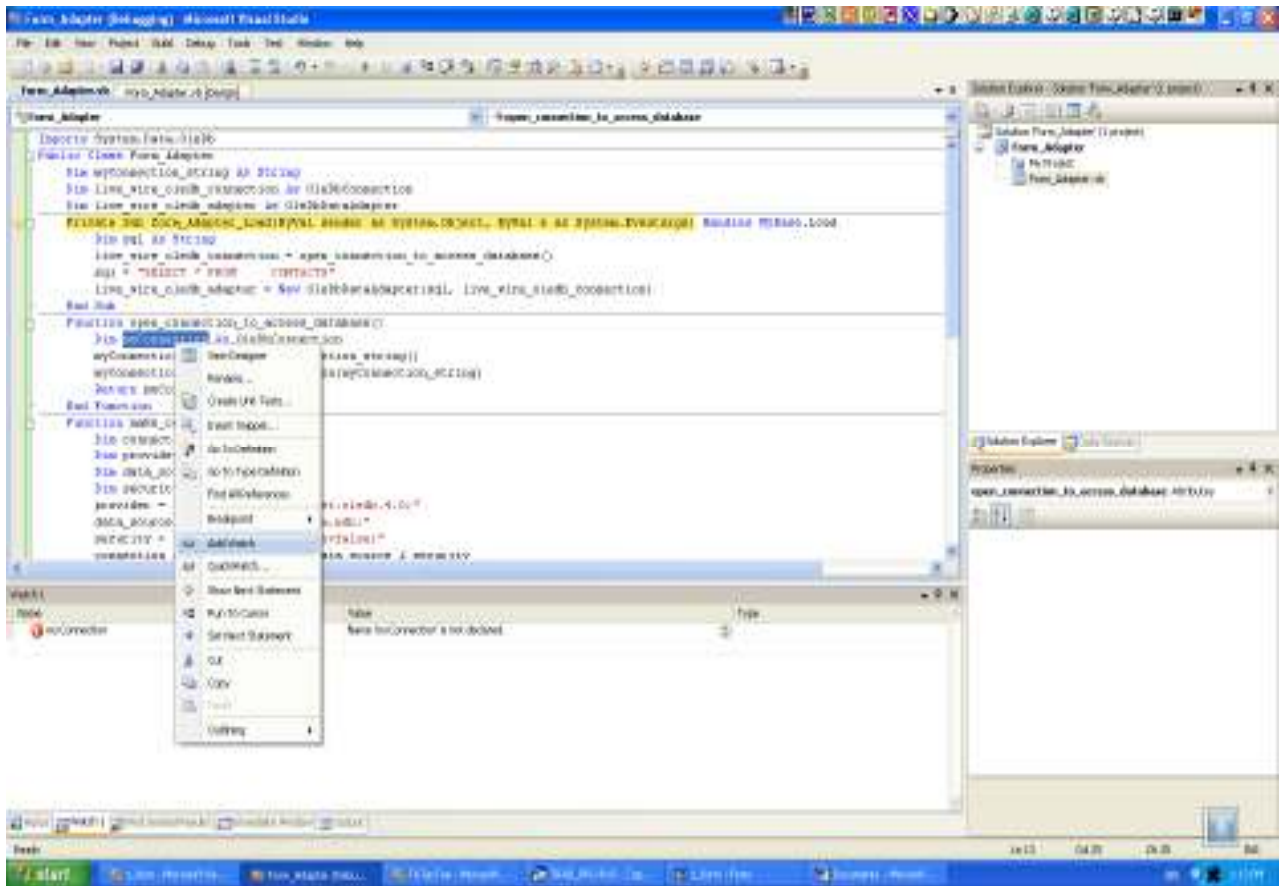
```
Function make_connection_string()  
    Dim connection_string As String  
    Dim provider As String  
    Dim data_source As String  
    Dim security As String  
    provider = "Provider=Microsoft.jet.oledb.4.0;"  
    data_source = "Data Source=c:\slm.mdb;"  
    security = "Persist Security Info=false;"  
    connection_string = provider & data_source & security  
    Return connection_string  
End Function  
End Class
```

Fixing Errors

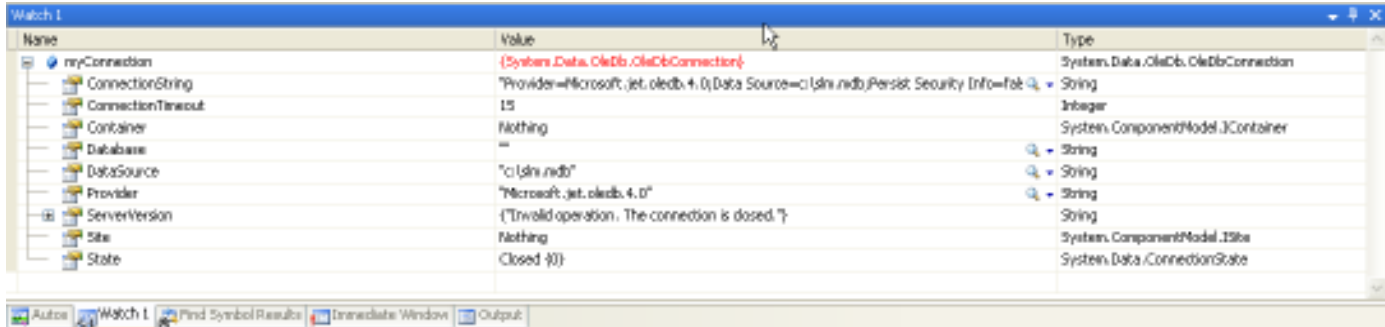
If after typing this code you encounter any errors that prevent you from debugging, compare each line of code you wrote to those above, and fix any discrepancies.

Watching myConnection

After entering the code, take the time to use F8 to step through the individual lines of code. Select the "myConnection" variable, right click it, and select "Add Watch."



Keep using F8 to step through the individual processes, and note how the “myConnection” variable value goes from *undeclared* to *nothing* to eventually `{System.Data.OleDb.OleDbConnection}`. Once you’ve reached this point, expand myConnection in the Watch window by clicking the plus sign to its right. You should see a screen similar the following.



Running Form_Adapter

Press F8 a few more times, and you should see a fully loaded form—meaning that our program, Form_Adapter, is running! Your program works!

