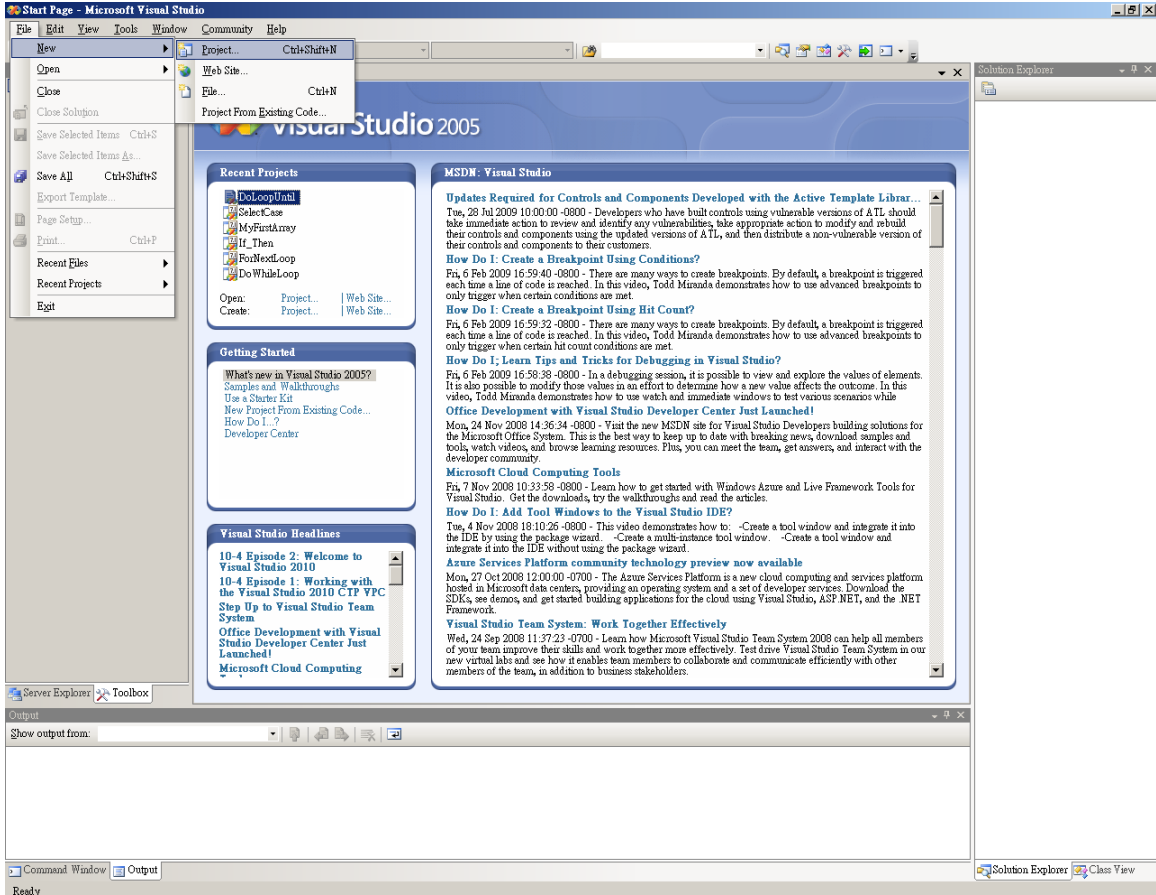
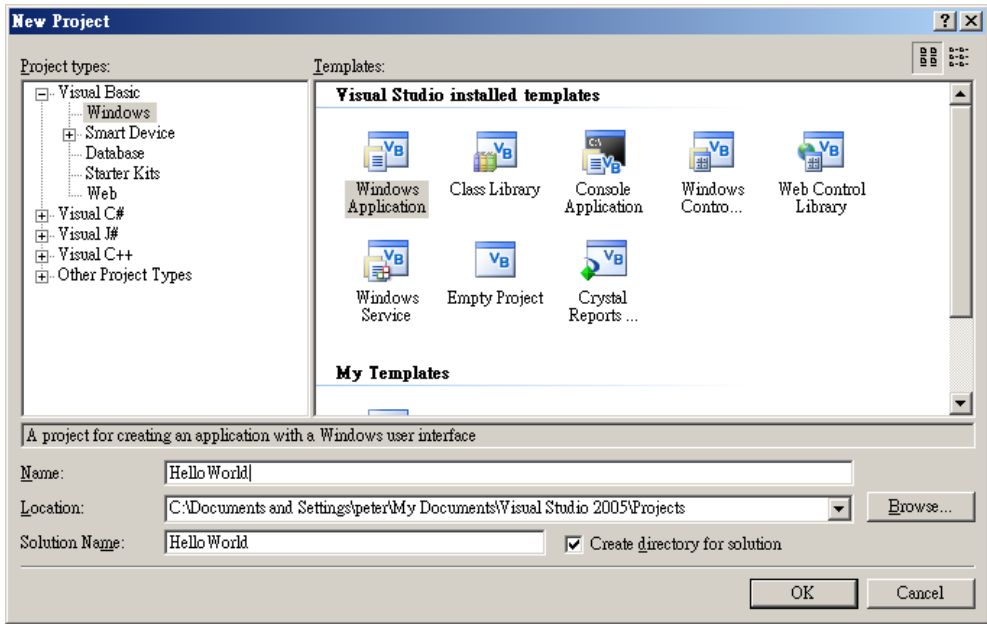


# 1. Create your First VB.Net Program “Hello World”

1. Open Microsoft Visual Studio and start a new project by select **File → New → Project**.

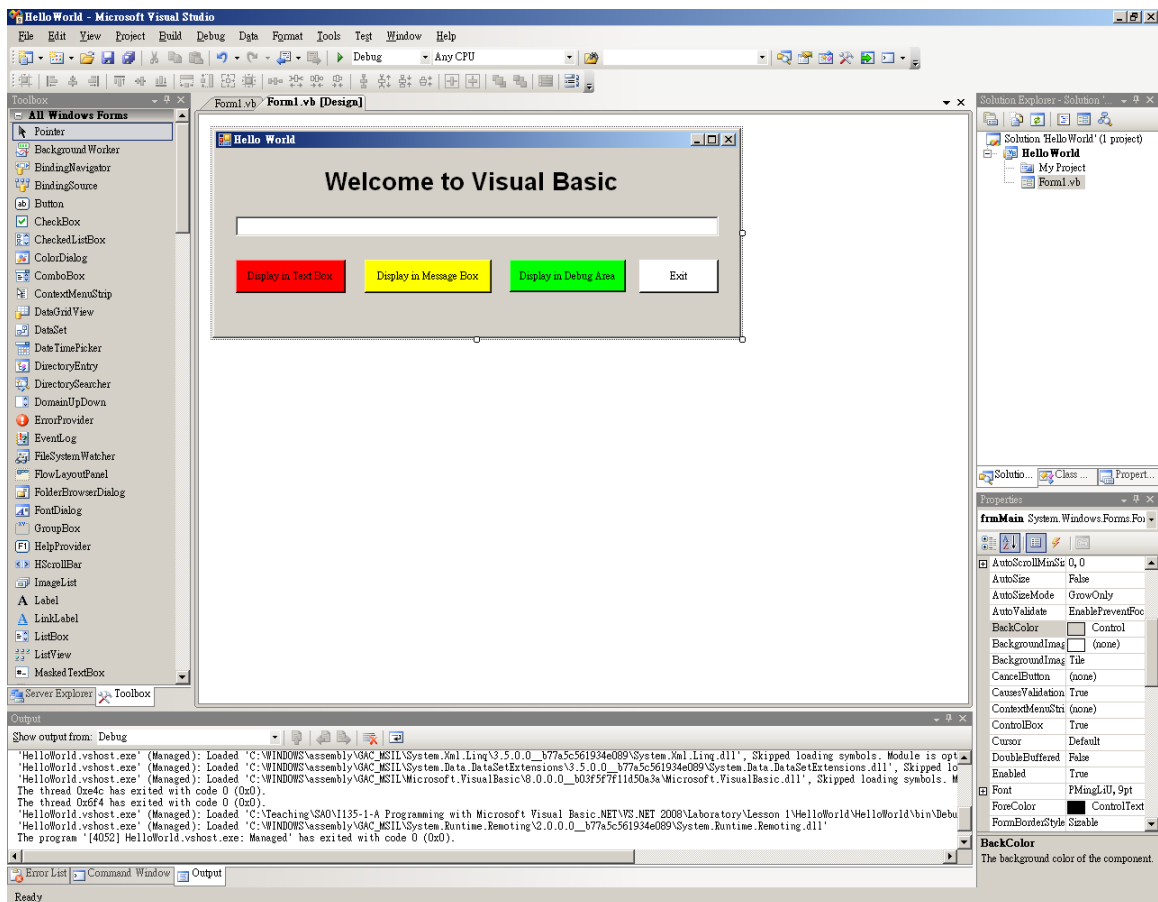


2. Select **Windows Forms Application** and name it as “HelloWorld”.

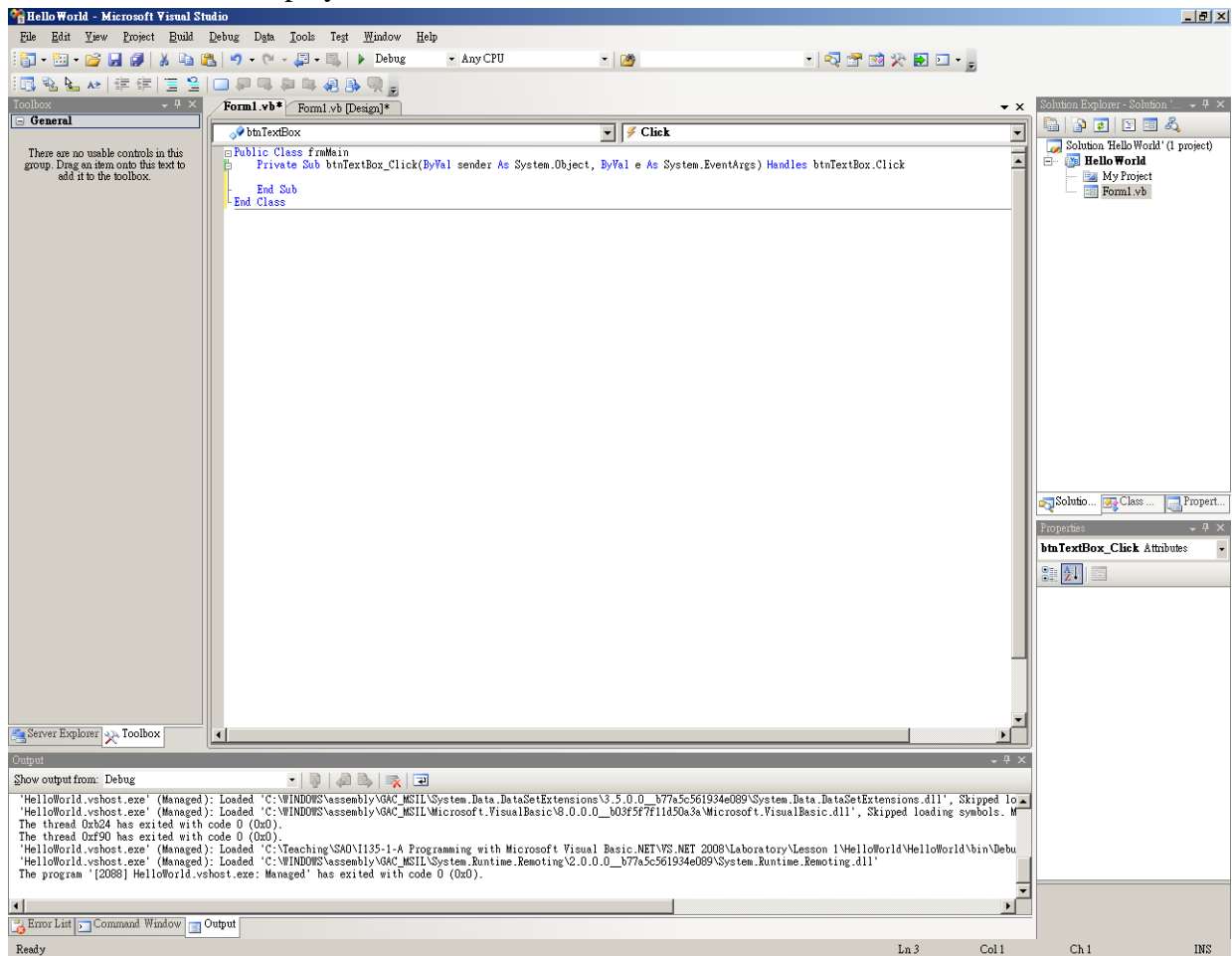


- From the Toolbox, drag a **Label**, a **TextBox** and four **Button** controls onto the form and customize the properties.

Object	Name	Property	Property Value
Form	frmMain	Text	Hello World
Label	lblTitle	Text	Welcome to Visual Basic
		Font Name	Arial
		Font Size	20 point
		Font Style	Bold
TextBox	txtOutput	Text	(Blank)
Button	btnTextbox	Text	Display in Text Box
		BackColor	Red
	btnMessageBox	Text	Display in Message Box
		BackColor	Yellow
	btnDebug	Text	Display in Debug Area
		BackColor	Green
	btnExit	Text	Exit
		BackColor	White



4. Double click the “Display in TextBox” button to enter “Code Edit” mode.



5. Put the following code in the **Click** event of **btnTextbox** (Display in TextBox) button.

```
Private Sub btnTextBox_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnTextBox.Click
    ' Display the text in Text box
    txtOutput.Text = "Hello World"
End Sub
```

6. Put the following code in the **Click** event of **btnMessage** (Display in Message Box) button.

```
Private Sub btnMessageBox_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnMessageBox.Click
    ' Display the text in Message Box
    MessageBox.Show("Hello World", "Your Title")
End Sub
```

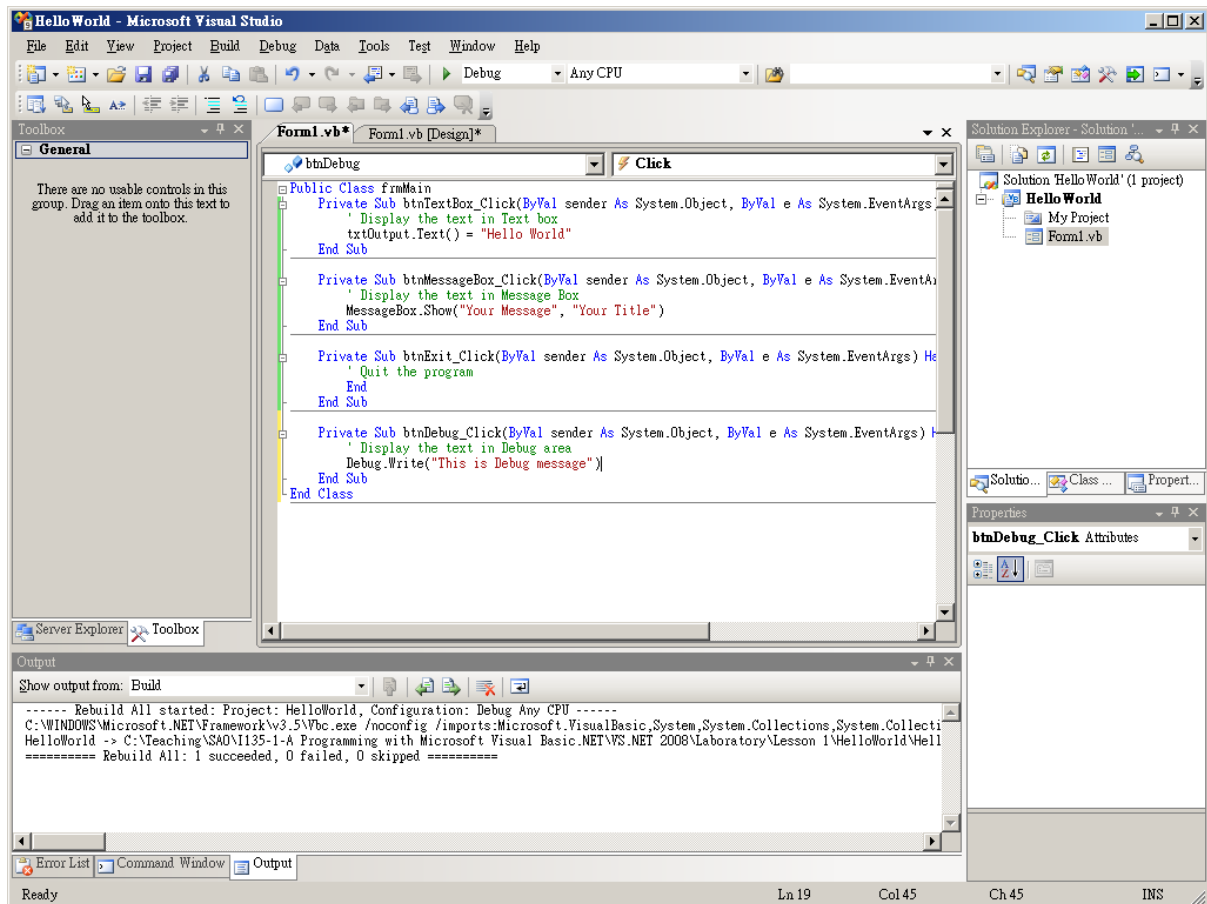
7. Put the following code in the **Click** event of **btnDebug** (Display in Debug Area) button.

```
Private Sub btnDebug_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnDebug.Click
    ' Display the text in Debug area
    Debug.WriteLine("This is Debug message")
End Sub
```

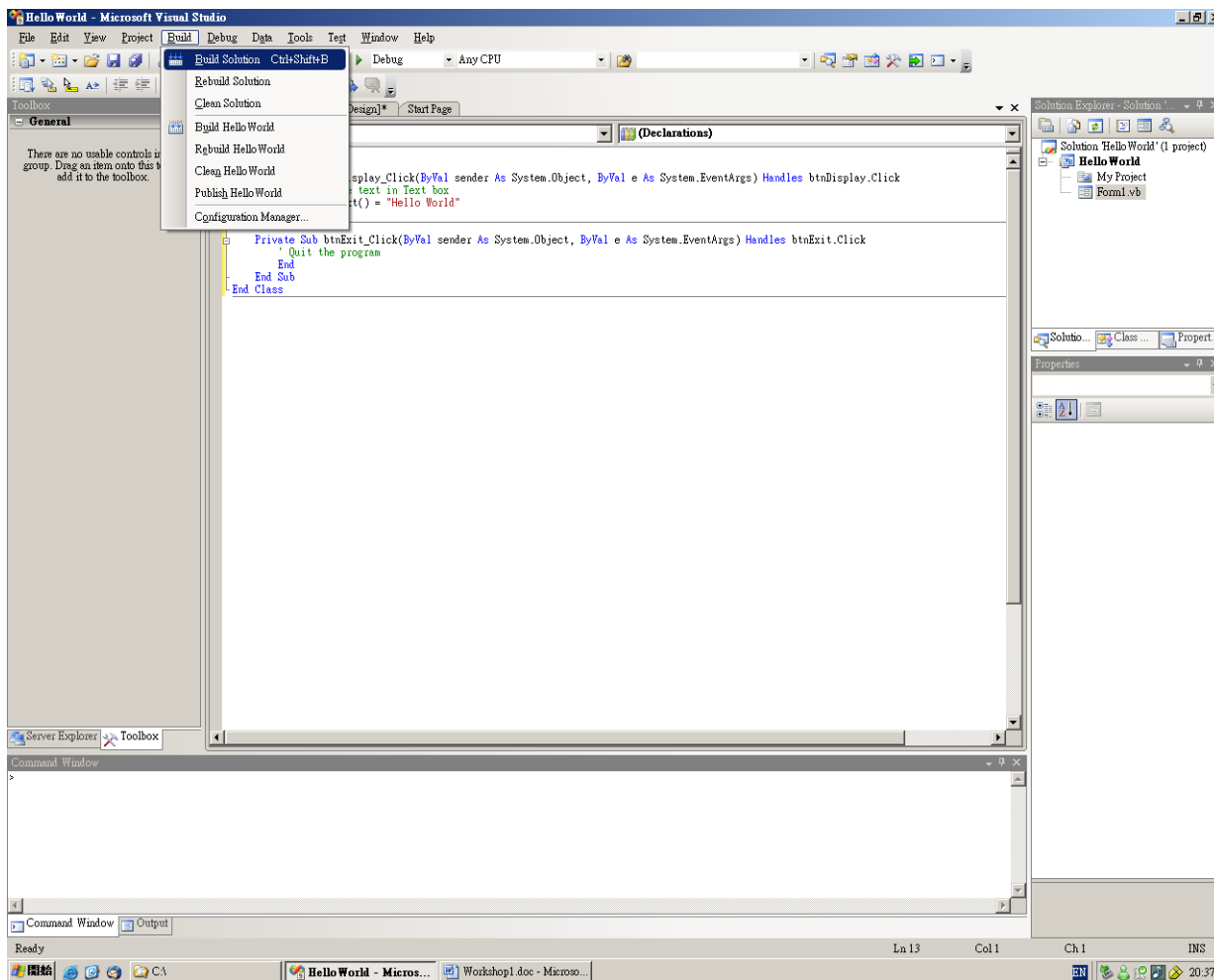
8. Put the following code in the **Click** event of **btnExit** (Exit) button.

```
Private Sub btnExit_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnExit.Click
    ' Quit the application
    Me.Close()
End Sub
```

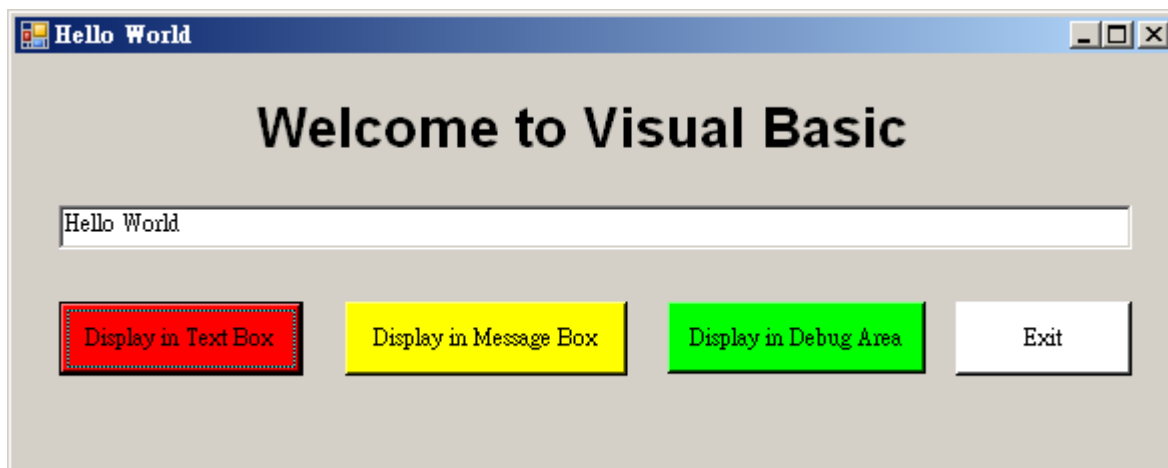
9. After you finish the coding, the screen should look similar as follow.



10. Save the project, and then build the solution by click **Build** → **Build Solution**.



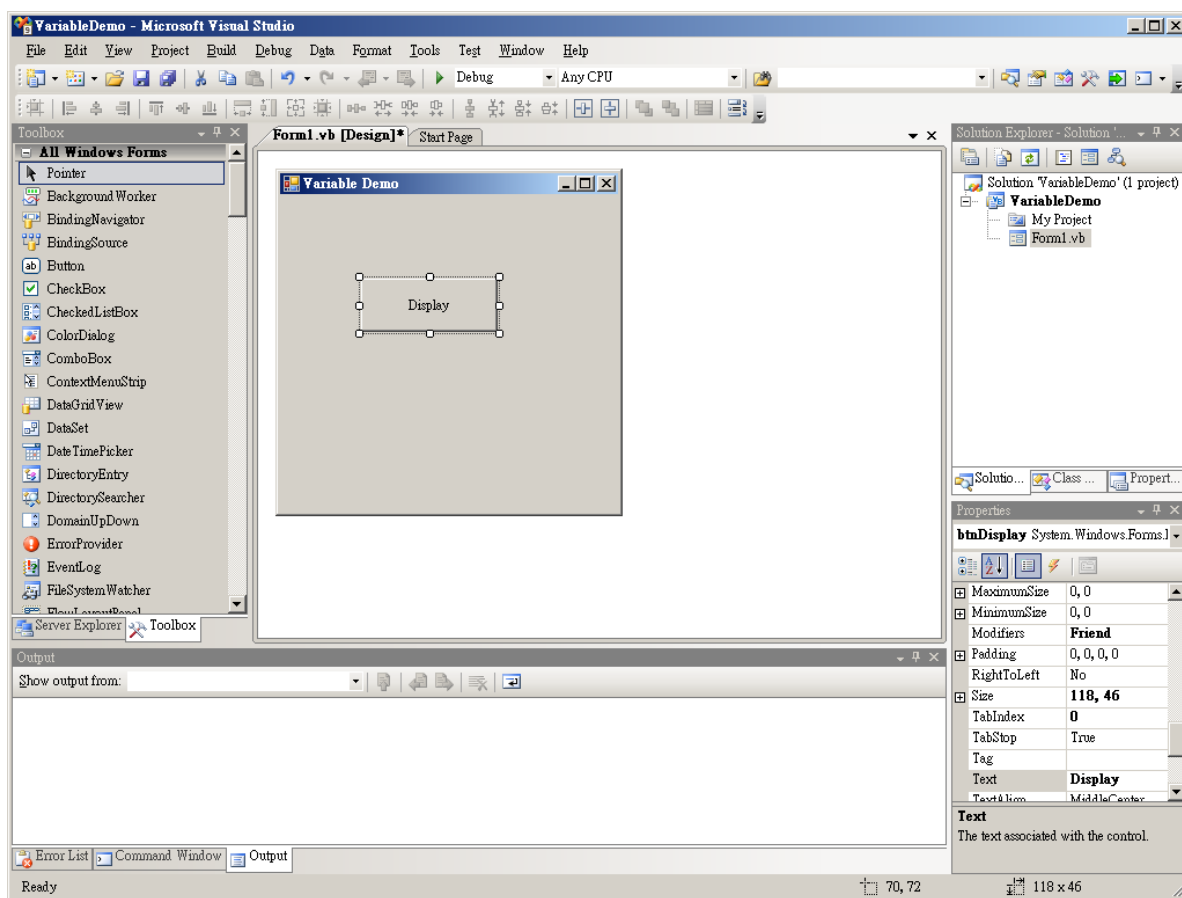
11. Press [F5] to run your program, and then press each button to observe the result, and then press [Exit] button to quit the program. Can you find the output from “Display in Debug Area”?



## 2. Declaring and Assigning Variables

1. Open the Microsoft Visual Studio and start a new project named as **VariableDemo**. From the Toolbox, drag a **Button** control onto the form and customize the properties.

Object	Name	Property	Property Value
Form	frmMain	Text	Variable Demo
Button	btnDisplay	Text	Display



2. In the **Click** event procedure of the **btnDisplay** control, add the following code. This code declares three variables (an Integer, a String, and a Boolean) and assigns their default values.

```
Private Sub btnDisplay_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnDisplay.Click
    ' Declare variables and assign value
    Dim var1 As Integer = 42
    Dim var2 As String = "Good Evening"
    Dim var3 As Boolean = True

    ' Display the result in dialog box using the "MsgBox" function
    MsgBox(var1)
    MsgBox(var2)
    MsgBox(var3)

    ' Quit the program
    Me.Close()
End Sub
```

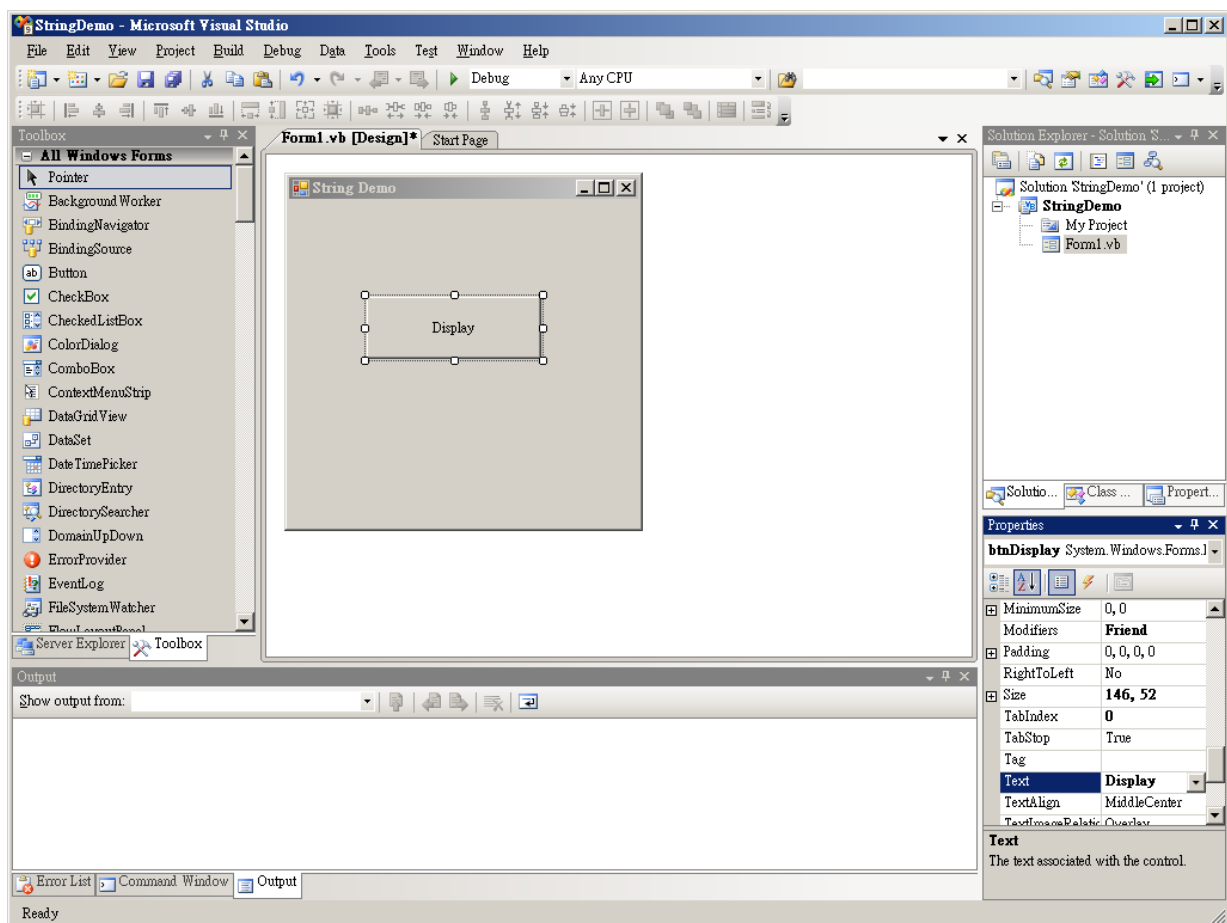
3. Press **[F5]** to run your program. Click **[OK]** for each window as it appears after press the **[Display]** button. Note that the value of each variable is displayed in turn, and then the program ends. After the program has finished, you can go back and change the values that are assigned in the code and run the application again - you'll see that the new values are displayed.



### 3. Using String Variables to Organize Words

1. Open the Microsoft Visual Studio and start a new Project named as **StringDemo**. From the Toolbox, drag a **Button** control onto the form and customize the properties.

Object	Name	Property	Property Value
Form	frmMain	Text	String Demo
Button	btnDisplay	Text	Display





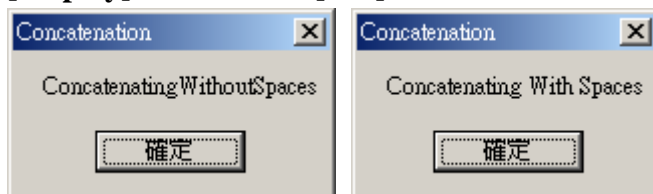
- In the **Click** event procedure of the **btnDisplay** control, add the following code. The first four lines declare four string variables and assign the string values. The text displayed in the message box is the result of joining the string variables that were assigned in a previous step. In the first box, the strings are joined together without spaces. In the second, spaces are explicitly inserted between each string.

```
Private Sub btnDisplay_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnDisplay.Click
    Dim aString As String = "Concatenating"
    Dim bString As String = "Without"
    Dim cString As String = "With"
    Dim dString As String = "Spaces"

    ' Displays "ConcatenatingWithoutSpaces"
    MsgBox(aString & bString & dString)

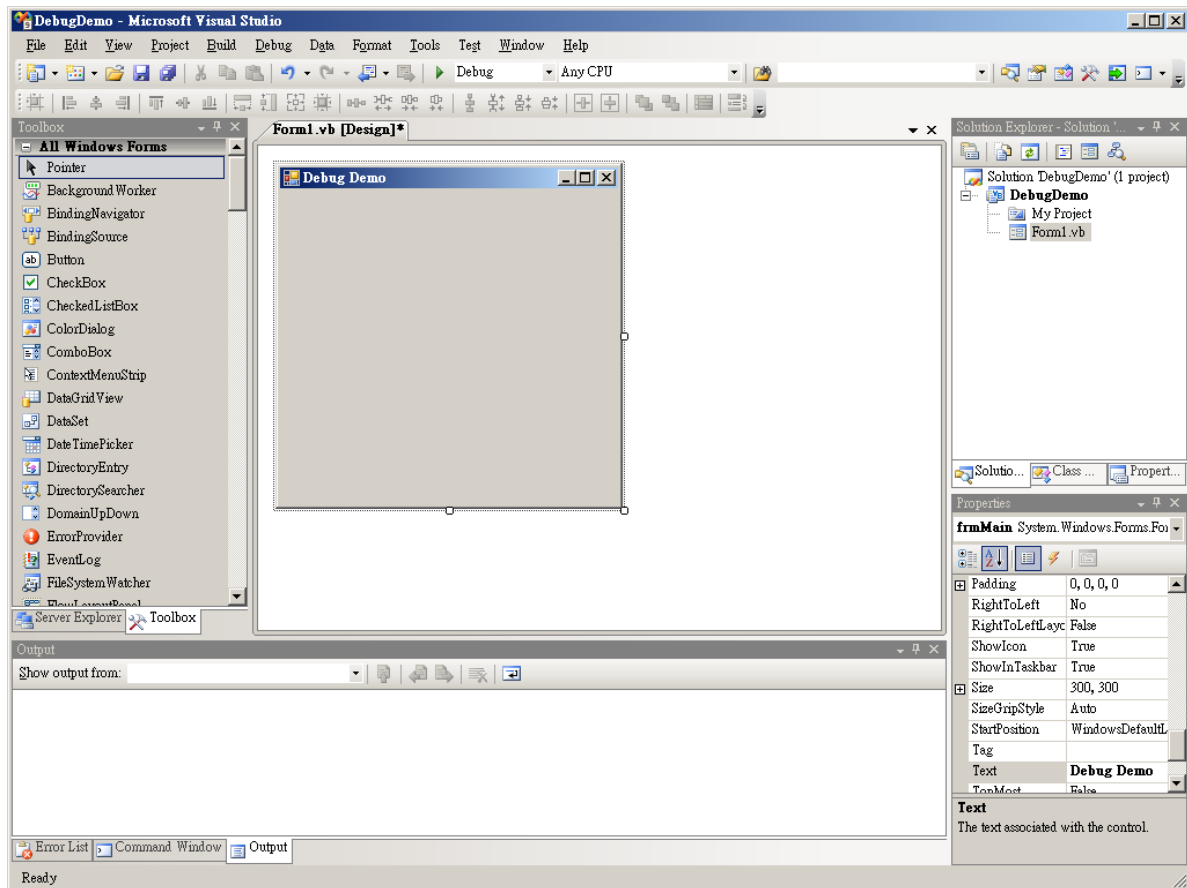
    ' Displays "Concatenating With Spaces"
    MsgBox(aString & " " & cString & " " & dString)
End Sub
```

- Press **[F5]** to run your program. Click **[OK]** for each window as it appears after press the **[Display]** button. Click **[OK]** for each window as it appears.



## 4. Debug your Application

1. Open the Microsoft Visual Studio and start a new project named as **DebugDemo**.



2. In the **Load** event procedure of the **Form1** control, add the following code (by double click the form).

```
Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
    ' Declare three variable
    Dim var1, var2, var3 As Integer

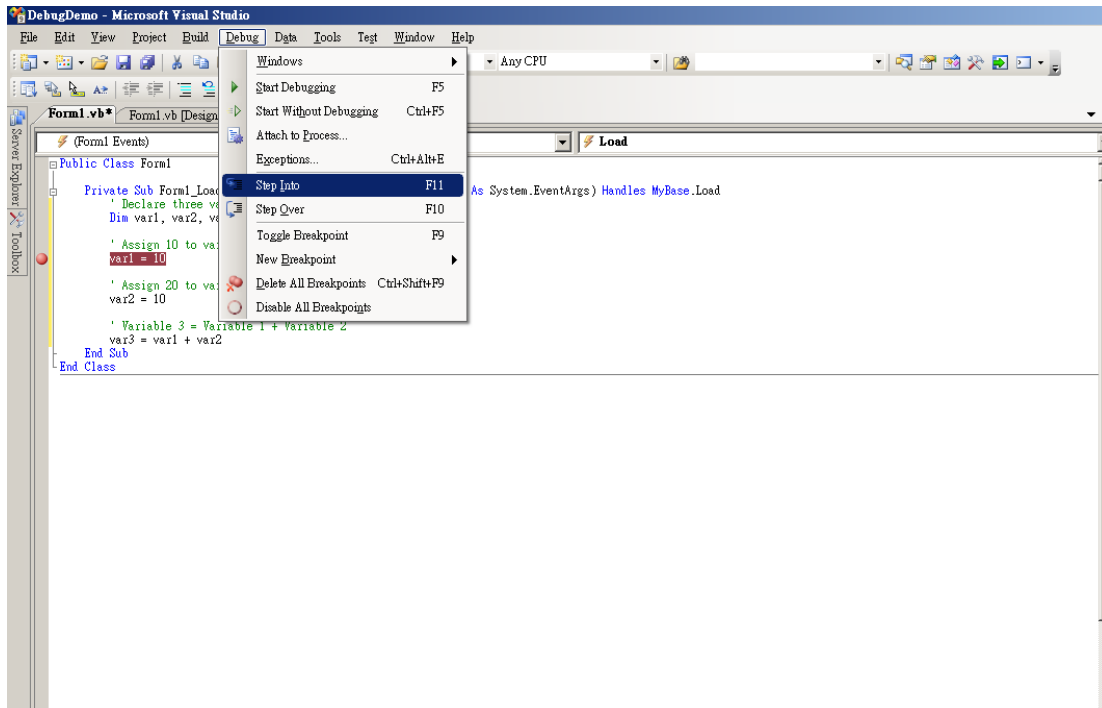
    ' Assign 10 to variable 1
    var1 = 10

    ' Assign 20 to variable 2
    var2 = 10

    ' Variable 3 = Variable 1 + Variable 2
    var3 = var1 + var2

End Sub
```

- Put a break point in the statement and build the project. Then execute it by using “Step Into”.



- By executing the program step by step, you can observe the change of the value for the declared variables..

