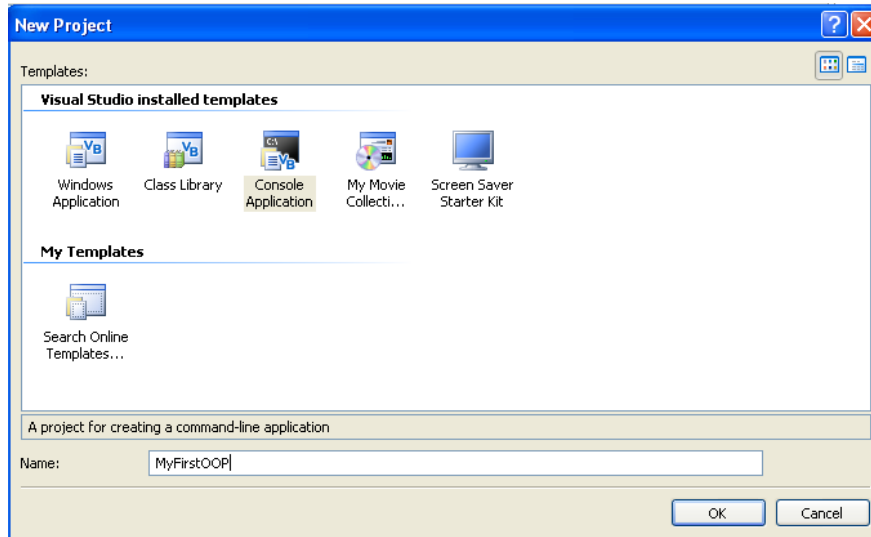
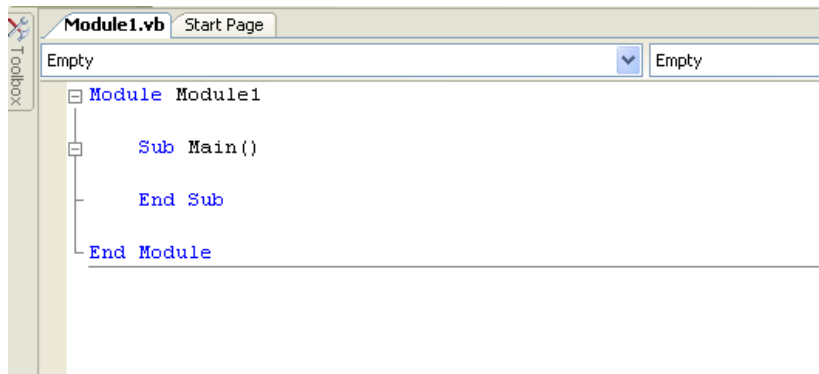


# Introducing Object Orientated Programming in VB.NET

- **Begin**  
Start VB.NET and create a Console Application.  
Call it MyFirstOOP



You will now see the usual text edit window.

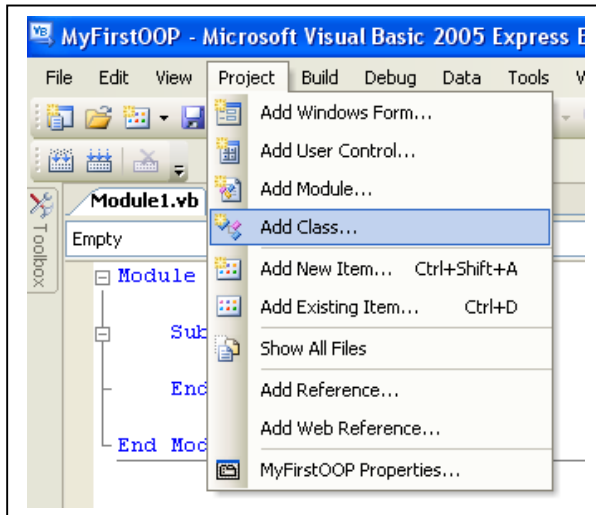


This first simple example program will create a project that includes a class called Dog that will have attributes Name and Age. It will have functions Bark() and Walkies().

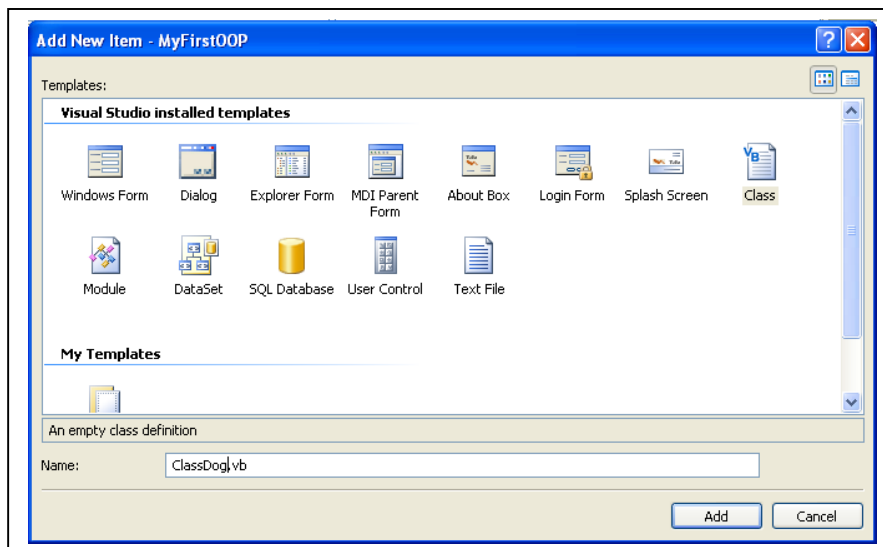
- **Add a Class**

The Class is added as a new file.

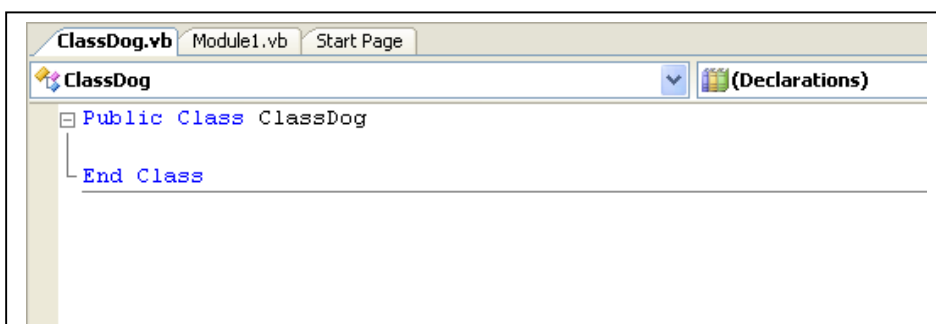
This is created via the **Add Class** option in the **Project** drop down menu.



Call the new file ClassDog as shown below.



The new file appears in the text editor as a new tab at the top of the text window.



Enter the following between **Public Class Dog** and **End Class**

```
Public Class ClassDog
    'Attributes
    <VBFixedString(10)> Private Name As String
    Private Age As Integer

    'Methods
    Sub setName( )
        Name = Console.ReadLine
    End Sub

    Sub setAge(ByVal n As Integer)
        Age = n
    End Sub

    Function getName( ) As String
        Return Name
    End Function

    Function getAge( ) As Integer
        Return Age
    End Function

    Sub Bark( )
        Console.WriteLine("Woof Woof")
    End Sub

    Sub Walkies( )
        Console.WriteLine("Walkies!")
    End Sub
End Class
```

} Attributes

} Methods

**set** –set an attribute to a value.

**get** –return an attribute value. (note these are functions)

Operations are subroutines -**Sub**.

- **Add the Main Code**

Return to the main module and enter the following code between **Sub Main()** and **End Sub**

```
Sub Main( )
    Dim myNewDog As ClassDog
    myNewDog = New ClassDog

    Console.WriteLine("We have a new dog.")
    Console.Write("What shall we call it? :")
    myNewDog.setName()
    myNewDog.setAge(2)
    Console.WriteLine("We have a new dog called {0}. He is {1} years old.",
        myNewDog.getName, myNewDog.getAge)

    myNewDog.Bark()
    myNewDog.Walkies()

    Console.ReadKey()

End Sub
```

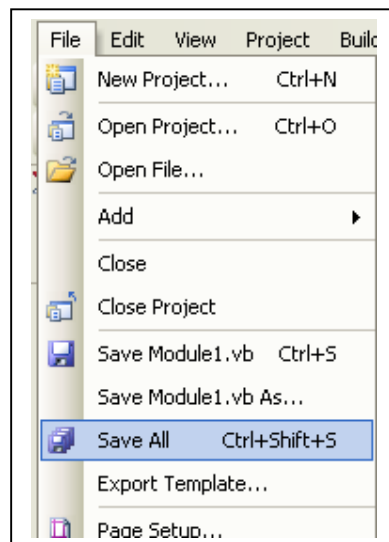
} This is one long line.

Run the Program –Here is my program run ..... I called my Dog Rover.

```
We have a new dog.  
What shall we call it? : Rover  
We have a new dog called Rover. He is 2 years old.  
Woof Woof  
Walkies!
```

### Save the Project

Select Save All from the File menu.



### Exercise

Add the following **attributes** to the Class: TypeOfDog, Gender & Cost

Add appropriate **get & set** functions for these new attributes.

In the main program, add code to set and display the new attributes.

For example:

```
We have a new dog.  
What shall we call it? : Rover  
We have a new dog called Rover. He is 2 years old.  
It is a Male Shitsu and cost £50.  
Woof Woof  
Walkies!
```

Add a new operation (Subroutine) to Sleep.