Hello World!

Introduction to the basic structure of a VB.Net Program

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This tutorial will guide you through creating a basic Windows Forms application in VB.Net. We'll build a program that greets the user by name! Along the way, you'll learn the fundamental building blocks of VB.Net applications.

> *Please read tutorial on Crating Windows Forms Application from Microsoft.learn.com before going through this tutorial.*

The Building Blocks

- **Class**: A blueprint that defines the properties (data) and methods (actions) of an object. In our case, the `Form1` class represents the entire application window.
- **Form**: A visual element that holds the user interface (UI) components like buttons, text boxes, and labels.
- **Sub**: A block of code that performs a specific task. Our program has a `btnGreet_Click` sub that executes when the button is clicked.
- **Event**: An action triggered by the user or the system. Clicking a button is an example of an event.
- **Variables**: Containers that store data used by your program. We'll use a string variable (`userName`) to hold the user's name.

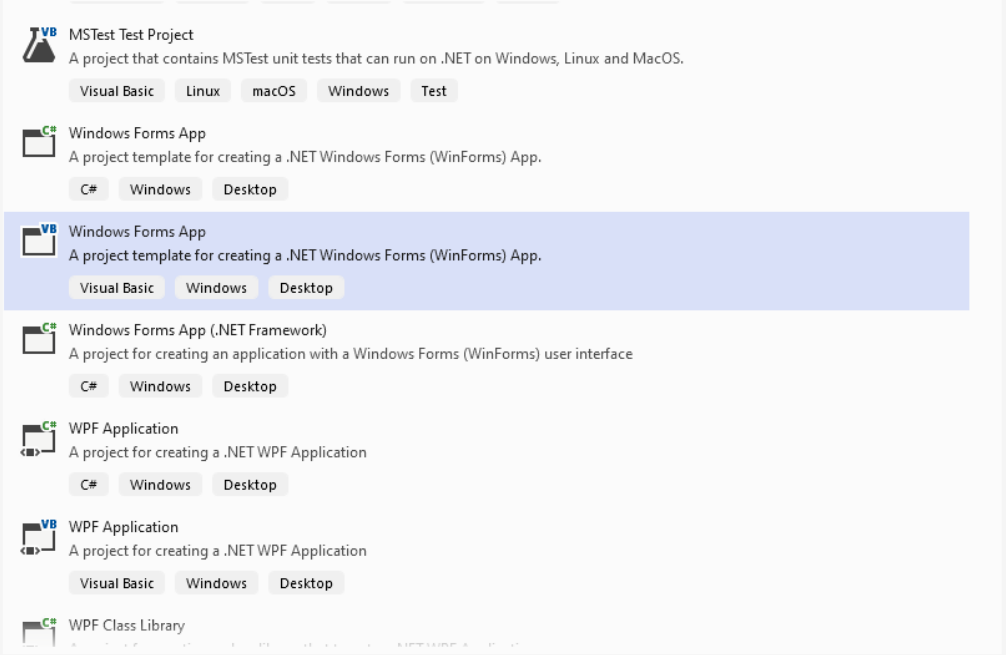
Setting up the project

Now that we have defined the building blocks, let us create our project.

Try It: Create VB Windows Forms Application.

1. We'll use Visual Studio to create and code our application. If you don't have it, download the free Community Edition from Microsoft Visual Studio Community.

2. Launch Visual Studio and create a new **Windows Forms App (.NET Framework)** project with VB.Net as the language.



Building the Hello World App

Our app will allow a user to enter their name, and the get a personalized greeting.

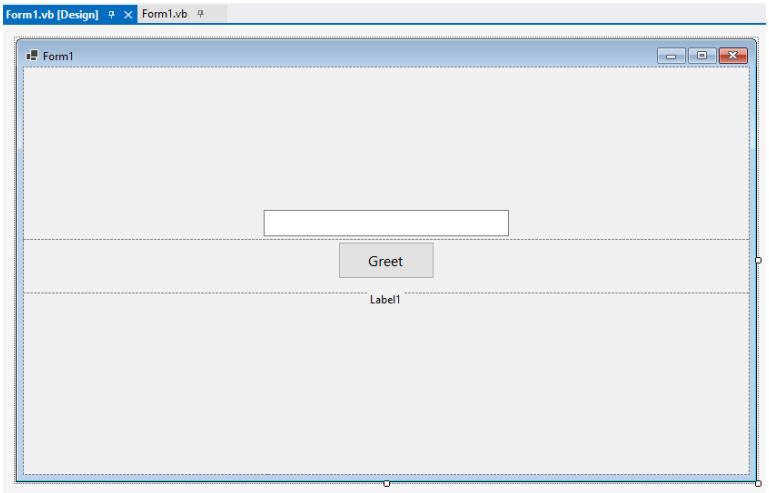
Try It: Create the Hello World Application.

1. The designer window shows the visual layout of your application. Here's what we'll add:

    a. A **Button** Clicking this button will trigger the greeting. Name it "btnGreet".

    b. A **TextBox** This is where the user will enter their name. Name it "txtUserName".

    c. A **Label** This will display the greeting message. Name it "lblGreetingText".



2. Double-click the "btnGreet" button to open the code window. This is where the magic happens! Write the following code:

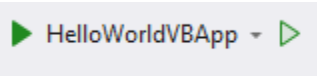
```
Public Class Form1
    Private Sub btnGreet_Click(sender As Object, e As EventArgs) Handles btnGreet.Click
        Dim userName As String
        userName = txtUserName.Text

        lblGreetingText.Text = "Hello, " & userName
    End Sub
End Class
```

Explanation

- `Public Class Form1`: This line declares the `Form1` class, the foundation of our application.
- `Private Sub btnGreet_Click(...)`: This defines a sub named `btnGreet_Click` that's triggered when the button is clicked (`Handles btnGreet.Click`).
- `Dim userName As String`: This declares a variable named `userName` of type `String` to store the user's name. Dim is an example of a keyword in VB.Net. A keyword is a word or phrase that has a special purpose in the programming language. Dim is a keyword used to declare variables.
- `userName = txtUserName.Text`: This line retrieves the text entered in the "txtUserName" textbox and assigns it to the `userName` variable.
- `lblGreetingText.Text = "Hello, " & userName`: This line sets the text of the "lblGreetingText" label to "Hello, " followed by the value stored in the `userName` variable.
- `End Sub`: This marks the end of the `btnGreet_Click` sub. Notice that blocks of code in VB must be opened and closed.

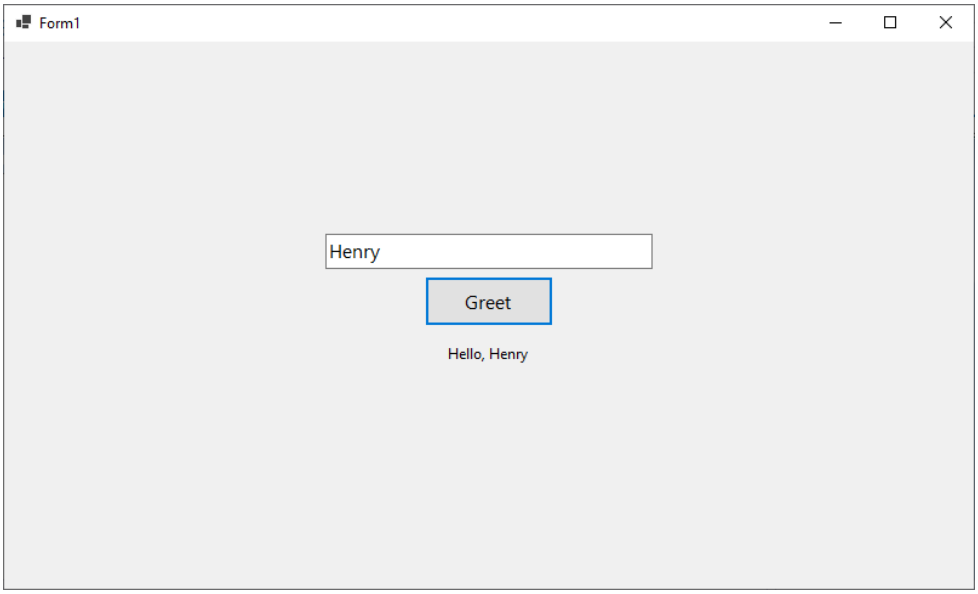
Running the Application

Press **F5** or click the **Run** button in Visual Studio. This will compile and execute your code.



Enter your name in the textbox and click the "Greet" button.

The label should now display a personalized greeting with your name


Form1
Henry
Greet
Hello, Henry