

Software Design and Development

1 Hello World

Terry Marris July 2009

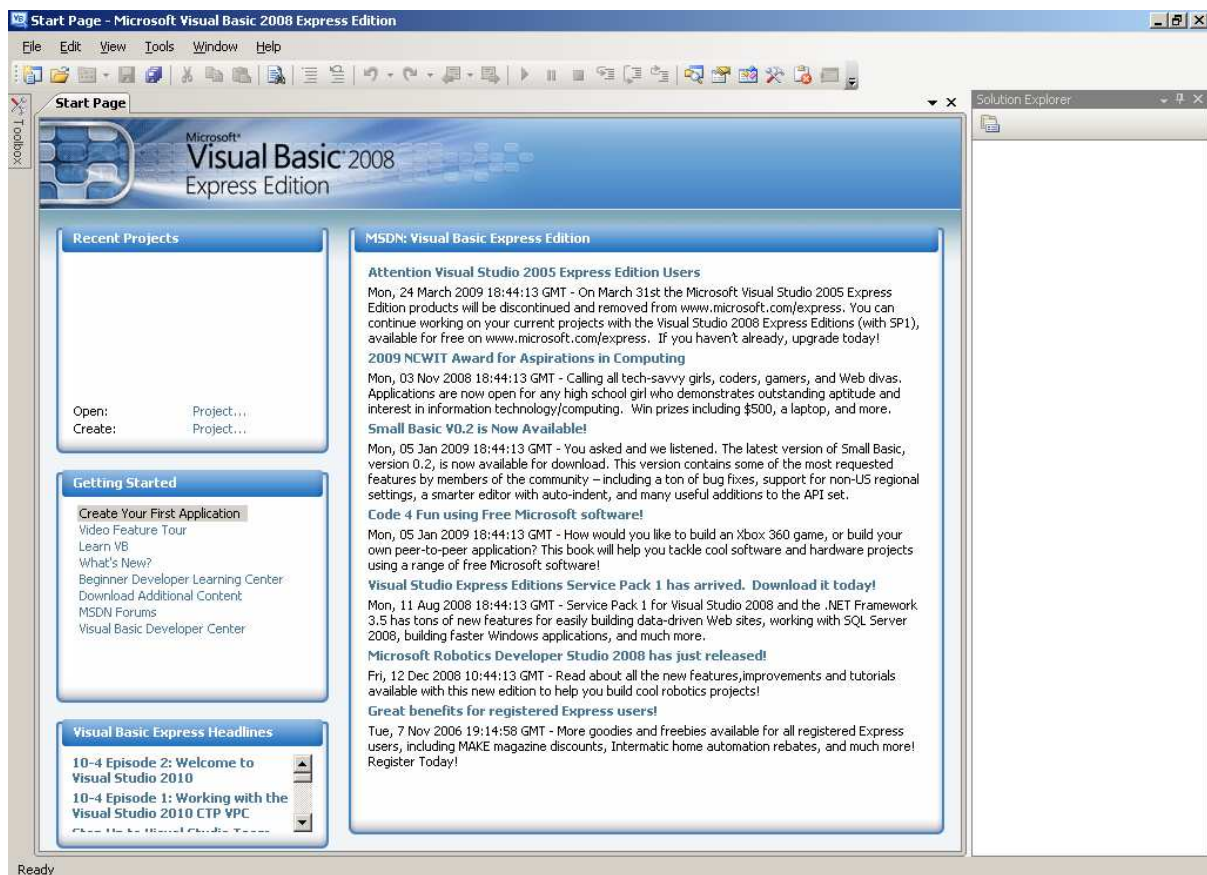
The first program in any programming language displays *Hello World* on the screen.

The program development environment we shall be using is Microsoft Visual Basic 2008. Essentially, we have to:

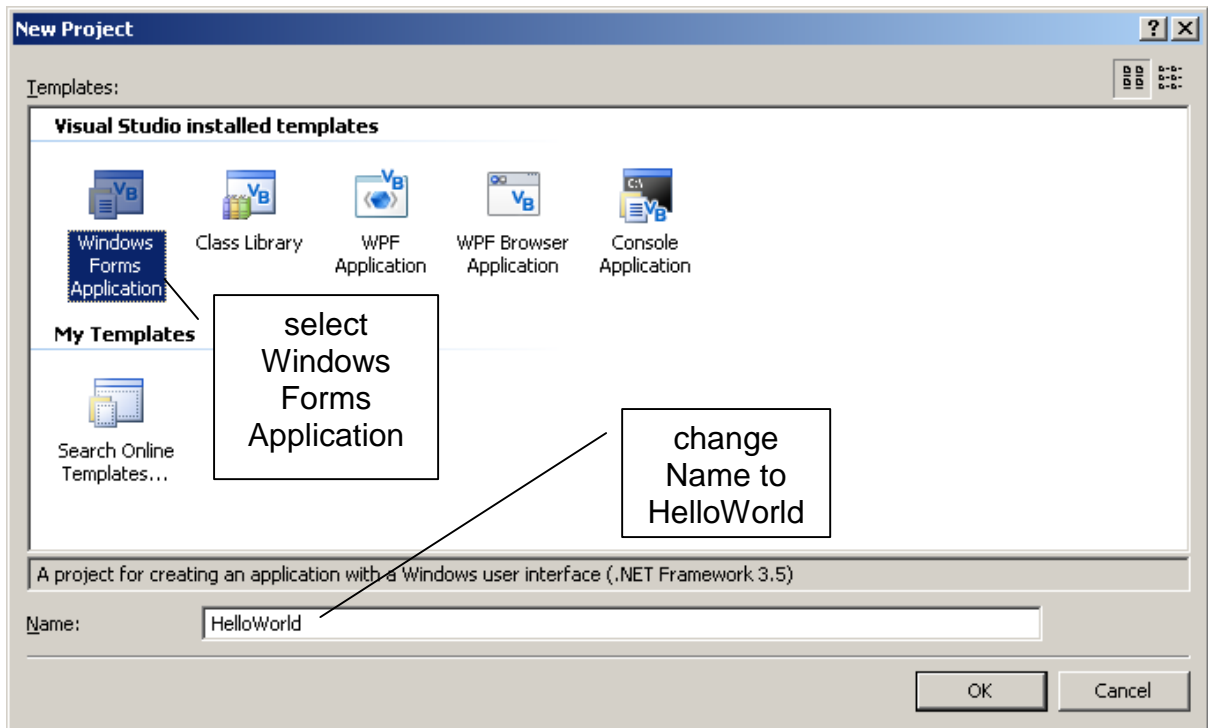
- load the program development environment
- put a label on a form
- write the greeting in the label
- run the program and view its output, and
- save the program somewhere

1.1 Load the Program Development Environment (PDE)

1. From the Windows **Start** menu choose Microsoft Visual Basic 2008. The *Start Page* appears.

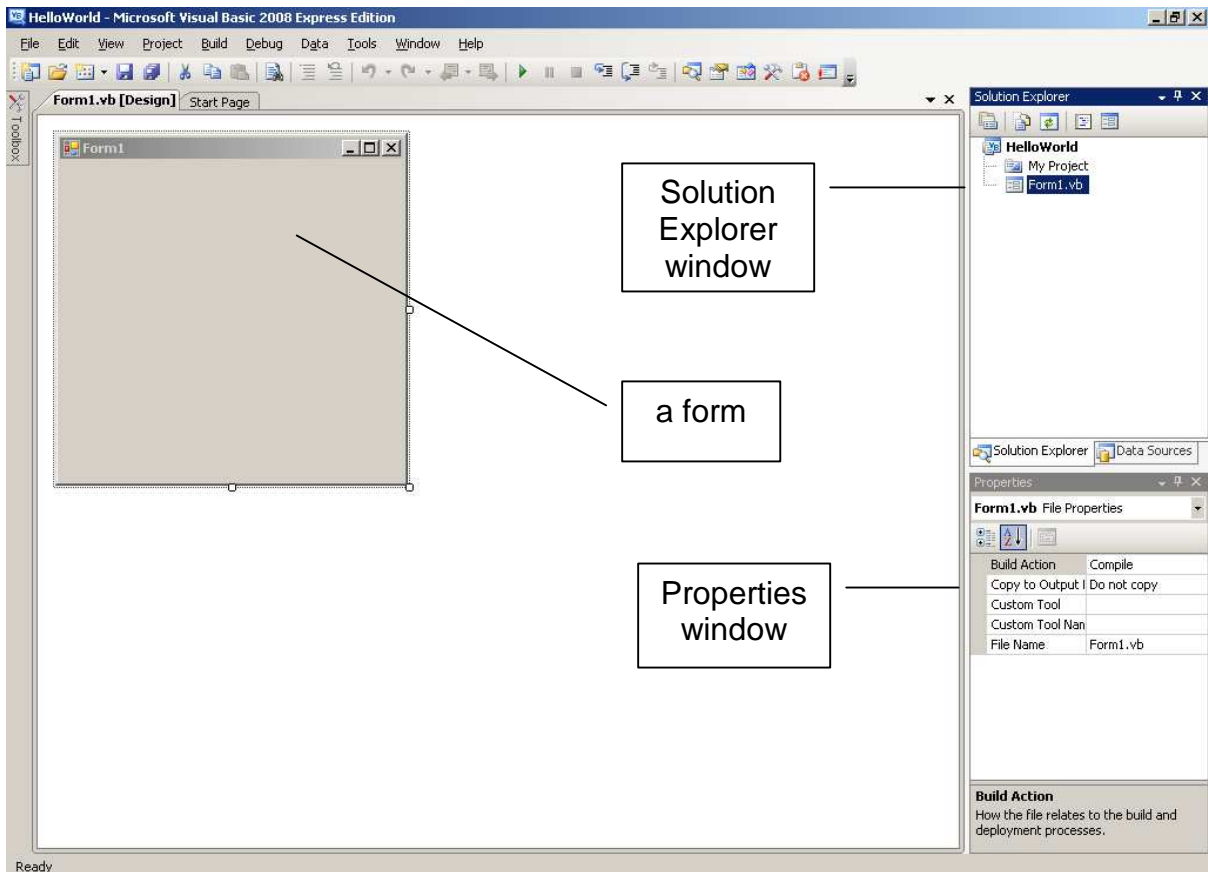


2. On the **File** menu click **New Project**. The New Project dialogue box opens.



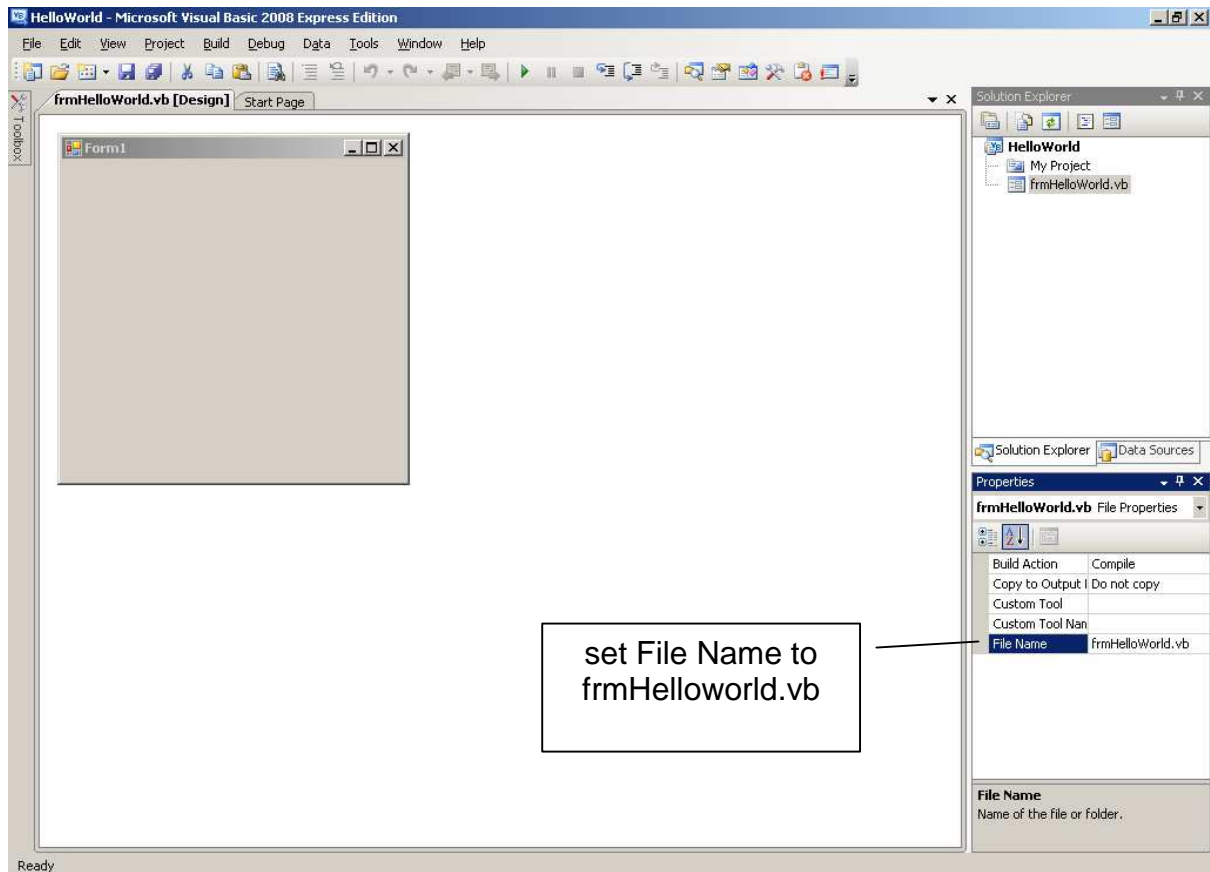
3. Select **Windows Forms Application**

4. Name the application *HelloWorld* and click **OK**. A form appears.

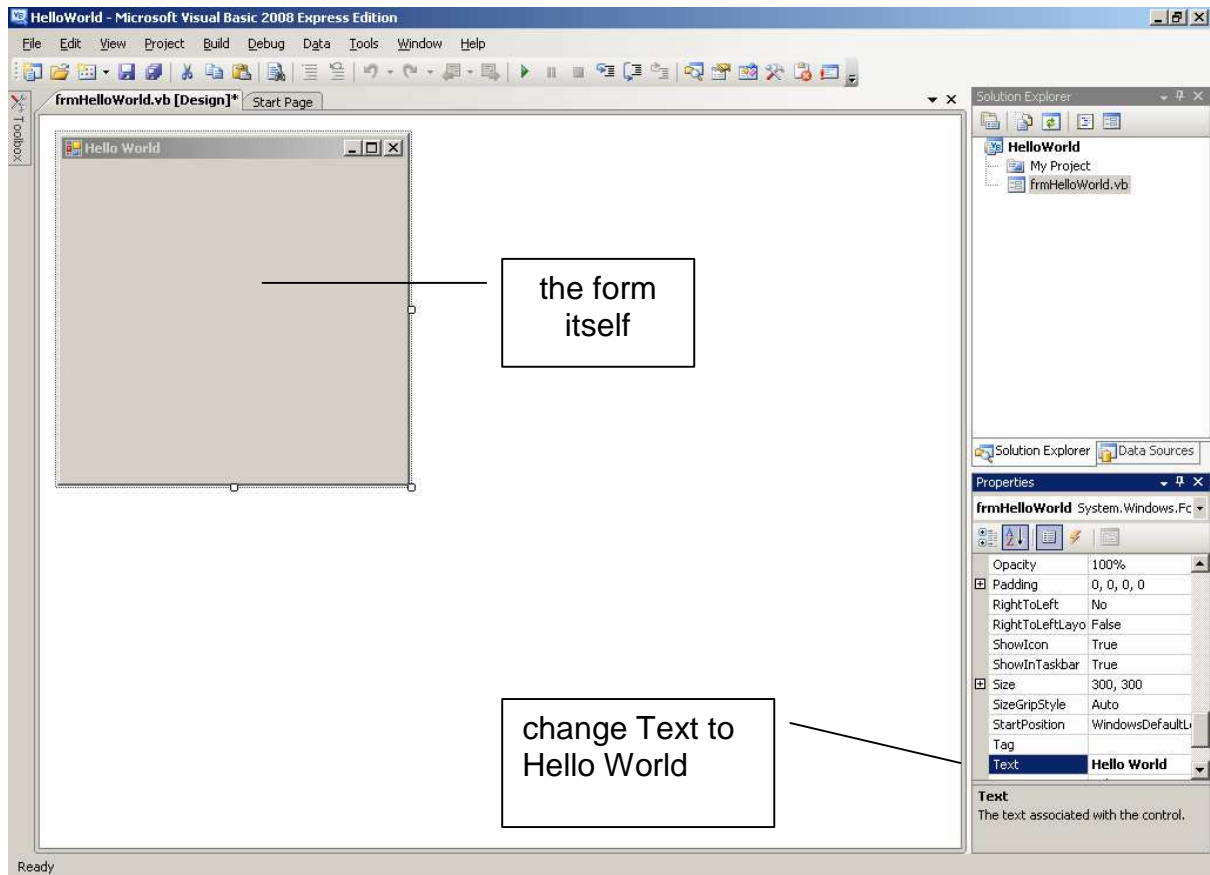


1.2 Set the File and Form Names

1. Rapid double click on File Name
2. Change *form1.vb* to *frmHelloWorld.vb* and press Return. Note:
 - a. no spaces - this is a filename
 - b. use of capital and small letters - makes it easier for programmers to read and understand
 - c. .vb on the end - this is a VB file.



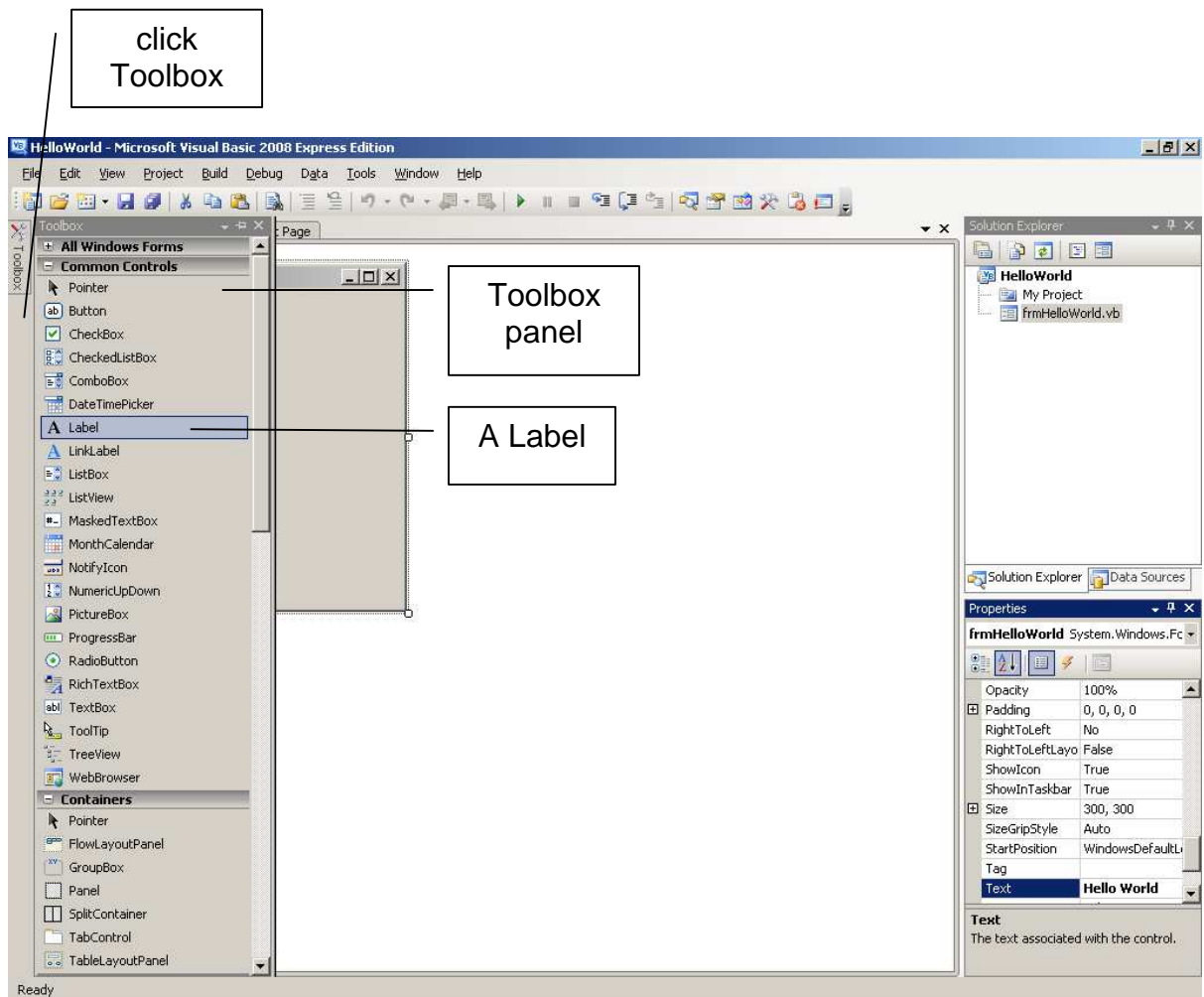
3. Click on the form itself
4. Change the form's text to *Hello World* and press Return. Notice the space between *Hello* and *World* - the space makes it easier for the user to understand. Programmers write programs for users to use.



1.3 Create a User Interface

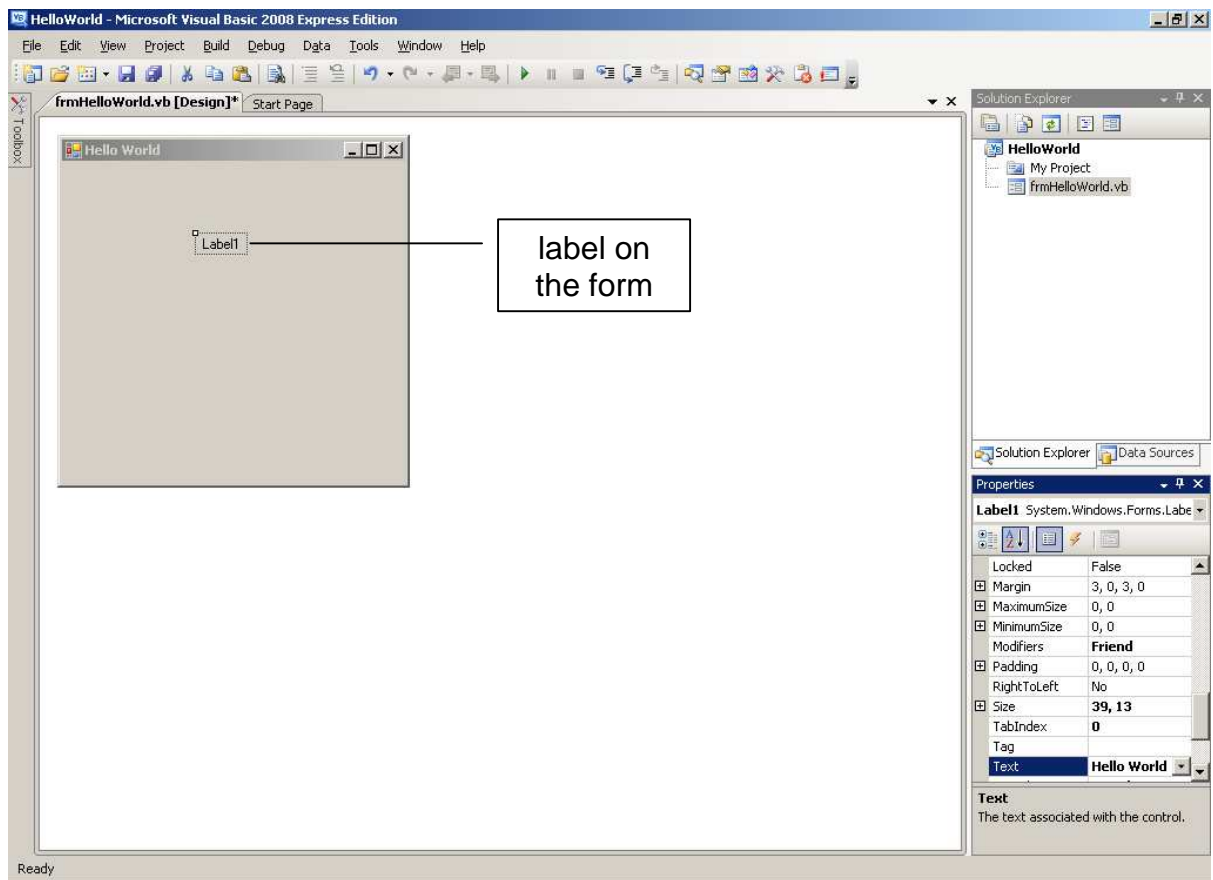
We add a label to the form.

1. Click the **Toolbox** panel. The **Toolbox** opens.
2. Select **A Label** and drag it onto the Form.



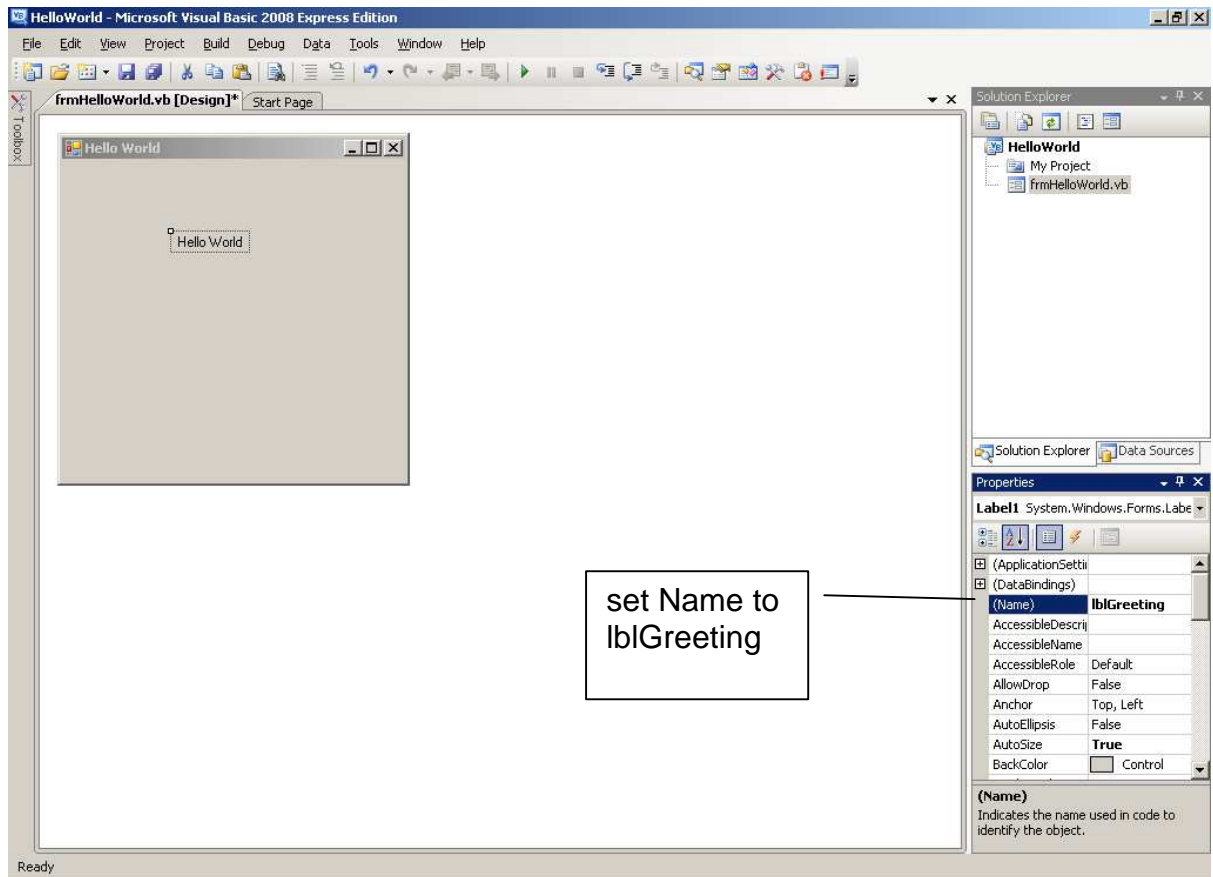
6

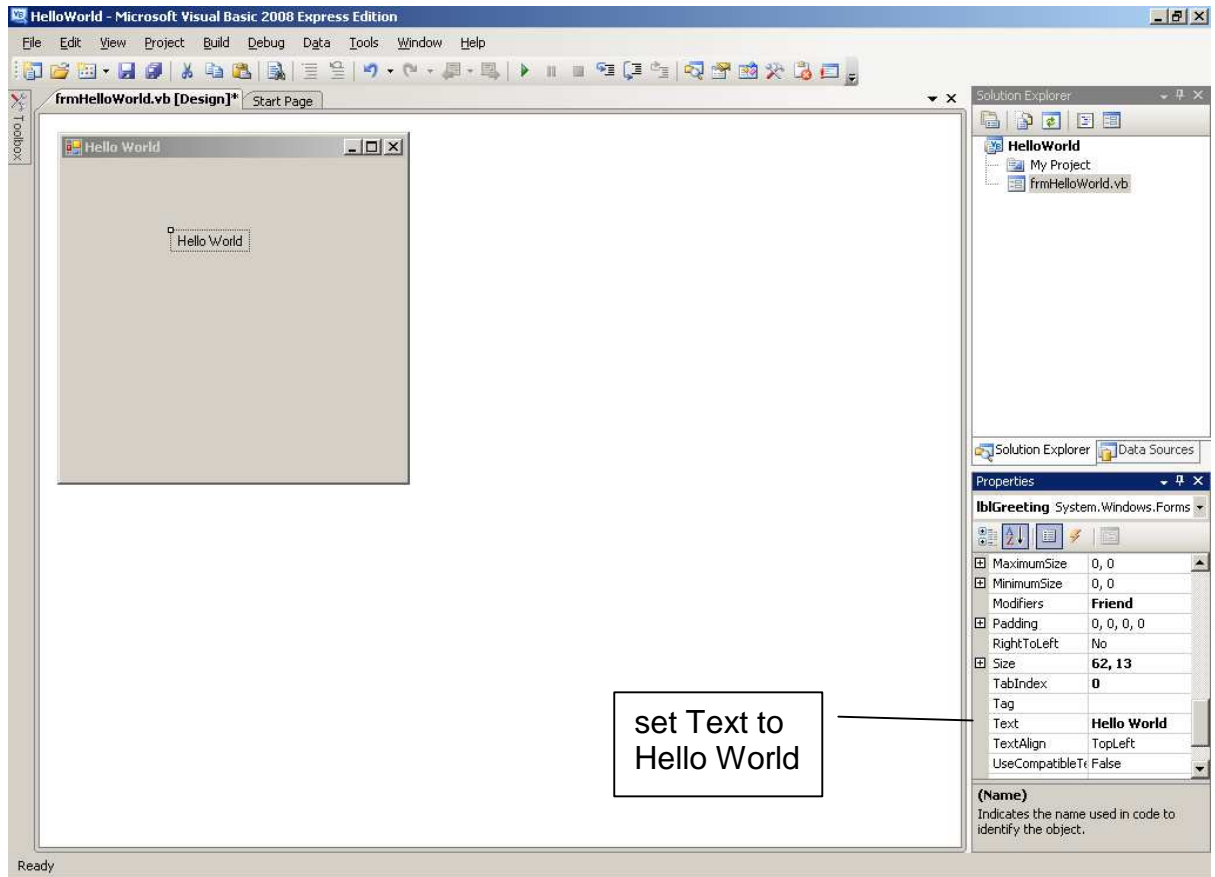
3. Drag the label to the centre of the form



1.4 Set Properties

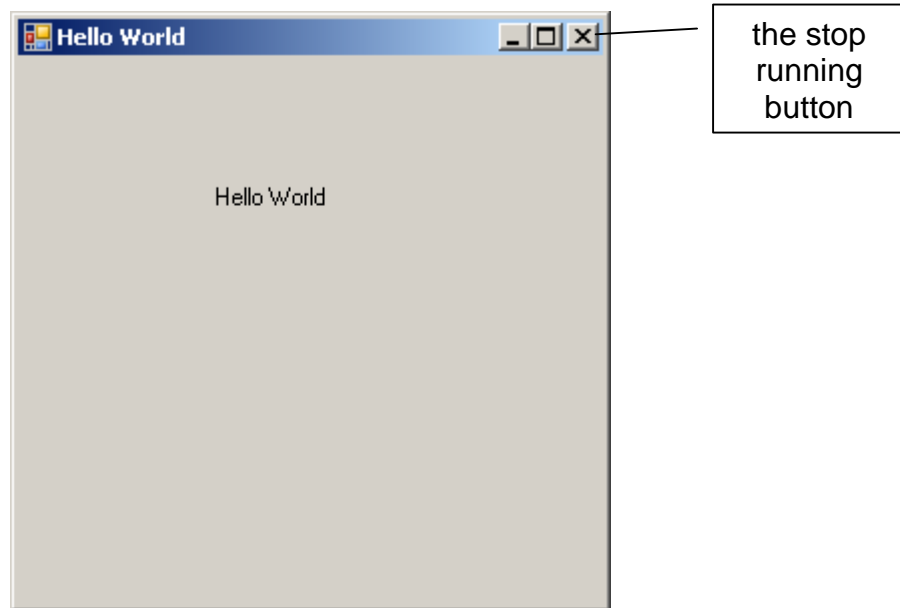
1. Click on the label. Label1 appears in the **Properties** box.
2. In the **Properties** box change the label's **Name** to *lblGreeting* and press Return
3. Change the label's **Text** to *Hello World* and press Return






1.5 Run Your Program

1. Press the F5 key. Your program runs.



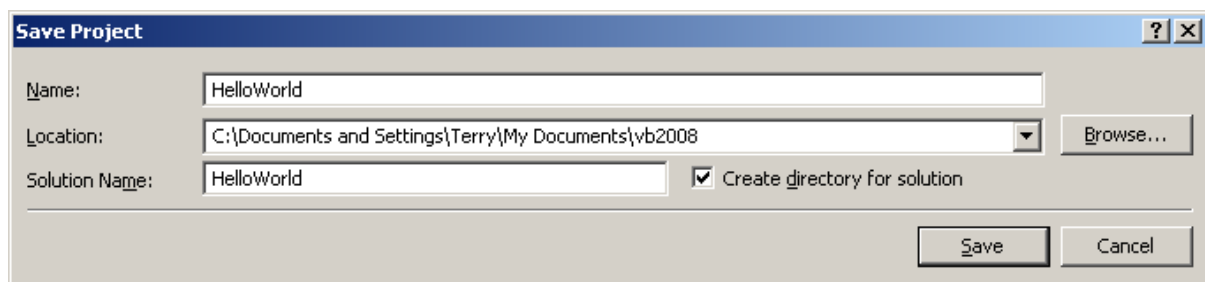
2. Press the  and your program stops running.

1.6 Print Your Program Run

1. When your program is running press the ctrl-PrtScrn keys together at the same time. Open a Word document. Choose **Edit** then **Paste**. Now you can print your Word document.

1.7 Save Your Work

1. Create a folder for your VB programs. I have named mine vb2008.
2. Choose **File, Save All** The Save Project dialogue appears.

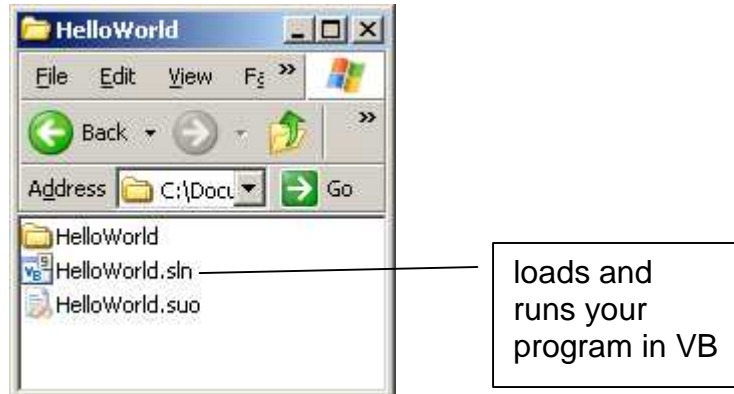


3. Check that the Create directory for solution is ticked
4. Select the location for your VB program and click **Save**.

Phew. Have a break. Congratulations. You are now a VB2008 programmer.

1.8 Run a Previously Created Program

1. Use **My Computer** to find the program you want to run



2. Rapid double click on *HelloWorld.sln*. When it opens you might like to click on **View** and select **Designer**.

Exercise 1.1

You cannot run a marathon without practice and training. In the same way, you cannot learn to program without practise and training.

- a. Try out the program, shown above, that displays *Hello World* on the screen.
- b. Write a new program that uses two labels to display *Hello Ladies* and *Hello Sailors* on the screen.
- c. Write a new program that displays the first four lines of a song or poem.
- d. At home download VB2008 from <http://www.microsoft.com/express/download/> Complete the exercises **a**, **b** and **c** shown above.

Bibliography

<http://www.microsoft.com/express/download/> accessed 21 July 2009

Next we look at input and output.