

# INTRODUCTION TO VISUAL BASIC 2010

Microsoft Visual Basic is a set of programming tools that allows you to create applications for the Windows operating system. With Visual Basic, even a beginner can create professional-looking applications.

Visual Basic combines the BASIC programming language used by programmers all over the world with a **Graphical User Interface** (or GUI). A GUI lets you use both text and graphics to communicate with the computer.

When you learn Visual Basic, you must learn more than just a new set of commands. You must also master the Integrated Development Environment (IDE). For every VB project, you will need to complete the following:

## 1. DESIGNING THE INTERFACE

Designing the interface is done interactively without the need to program. Screen objects (or controls) are selected from the toolbox, and placed and sized using the mouse. When you launch VB, the environment is in design mode, presenting a blank form, labelled **Form1**. This is where the interface (or the first screen of the interface) is constructed. To place a control on **Form1**, double click on a toolbox icon. That object appears in the centre of the form. From here the object may be dragged into place using the mouse.

## 2. SETTING PROPERTIES

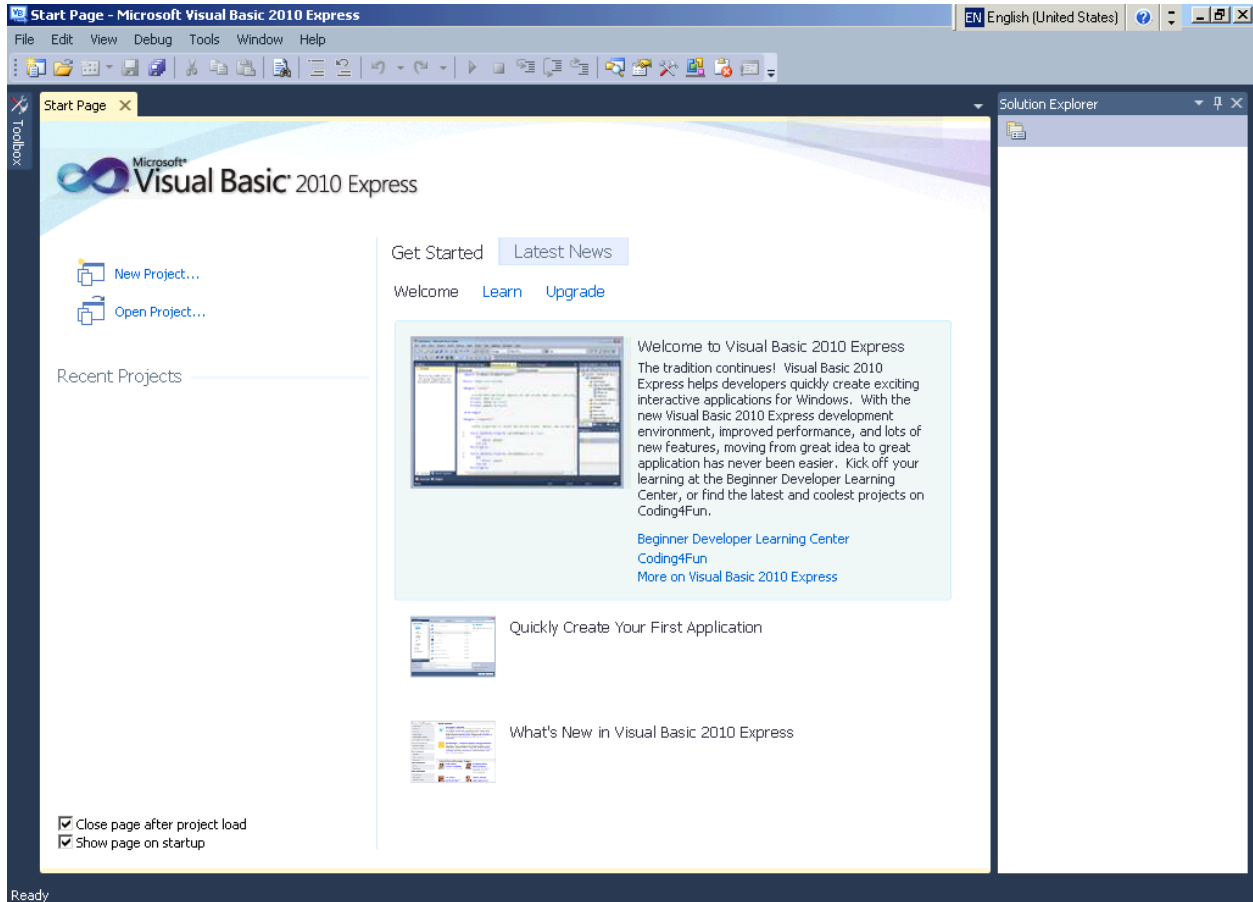
Properties are set using the properties window. If this is not visible, press F4 or use the Windows menu to invoke it. To set the properties of a screen object, click on the object. The object box (under the properties title bar) displays the name of the object. This is a list box that can be used to select any of the objects on the current form. The property value can be edited by typing, or by selecting from a pre-defined list of possible values (obtained by clicking on the down arrow to the right of the settings list if available).

## 3. WRITING PROGRAM CODE

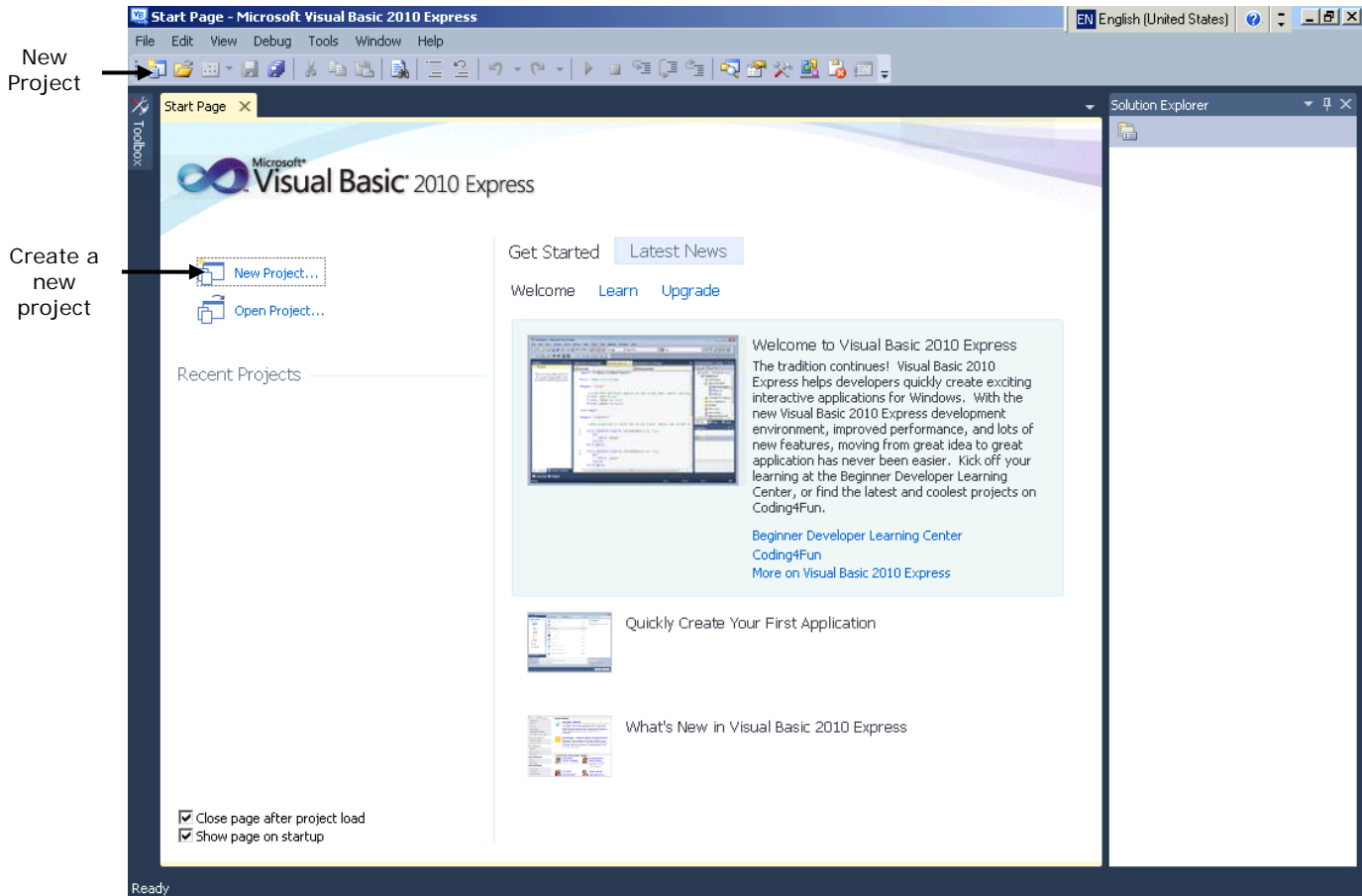
You will need to write program code to specify what will happen as users interact with the screen objects. This step is often described as providing the 'functionality'. The final step is writing the code that activates the application, or makes it run. Once the correct control object has been selected the next step is to choose which event the control is going to respond to.

# VISUAL BASIC IDE

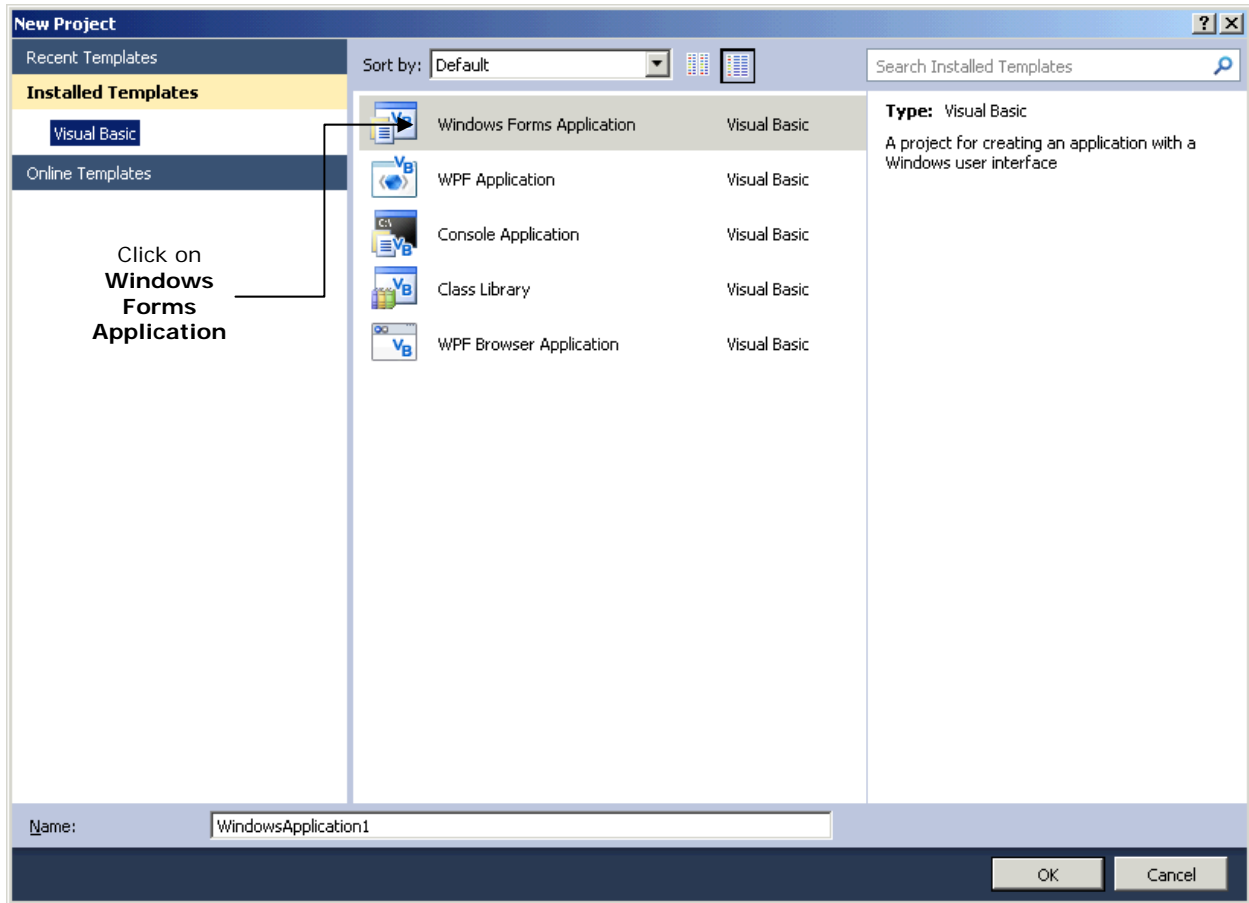
When you first start Visual Studio, you will see the following Start Page which contains a list of links to resources, including the latest developments in Visual Basic and information on advanced programming topics.



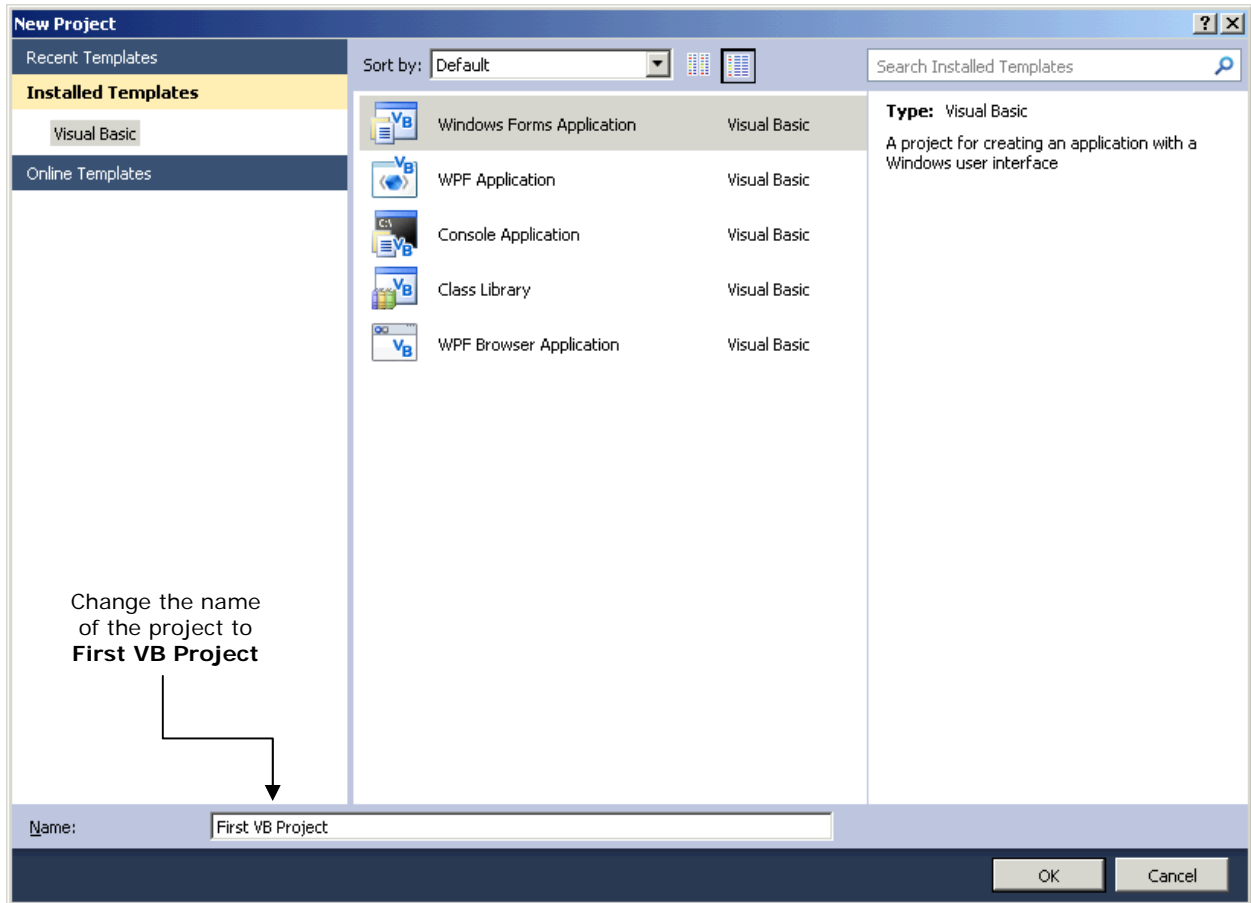
To create a new project, you can click on the **New Project** link or on the **New Project** icon from the Toolbar:



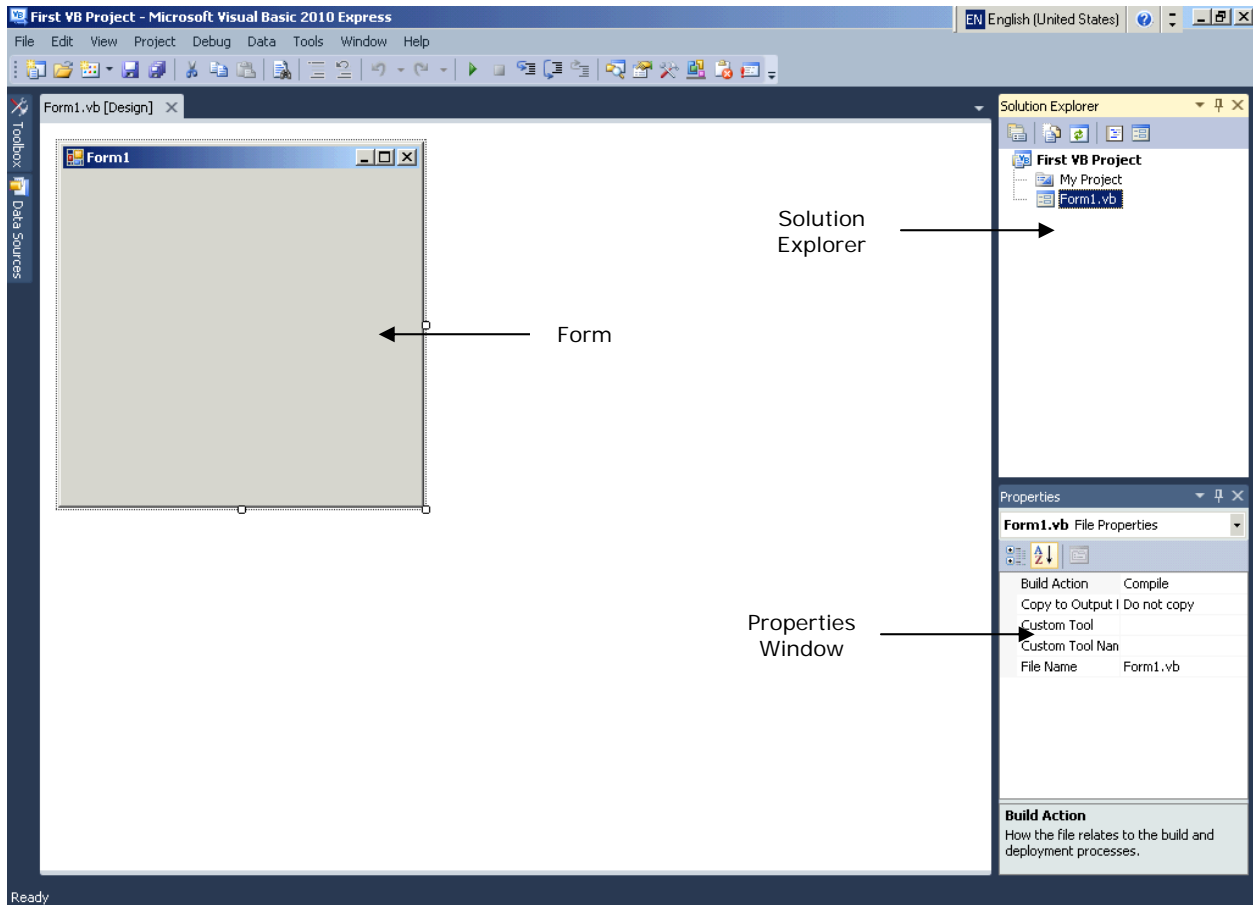
The next step is to click on the **Windows Forms Application** template, which is an application that executes within a Windows operating system and typically has a graphical user interface.



By default, Visual Basic assigns the name **WindowsApplication1** to the project and places these files in a directory named **WindowsApplication1**. To rename the project, simply type the name of the project in the **Name** field. For our first project, we will use the project name **First VB Project**.



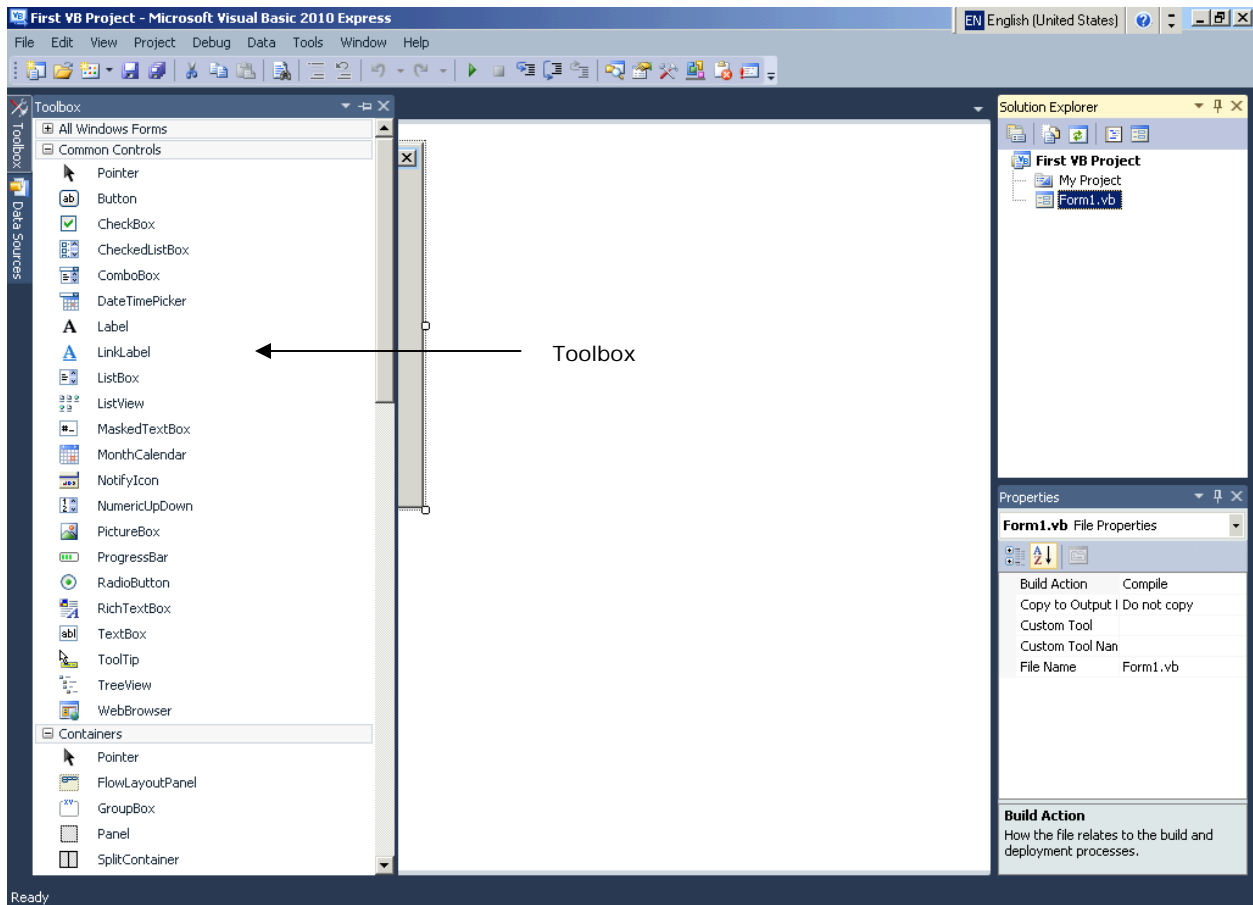
Once you have selected a template and renamed your project, the project appears in **Design View**.



## FORM DESIGNER

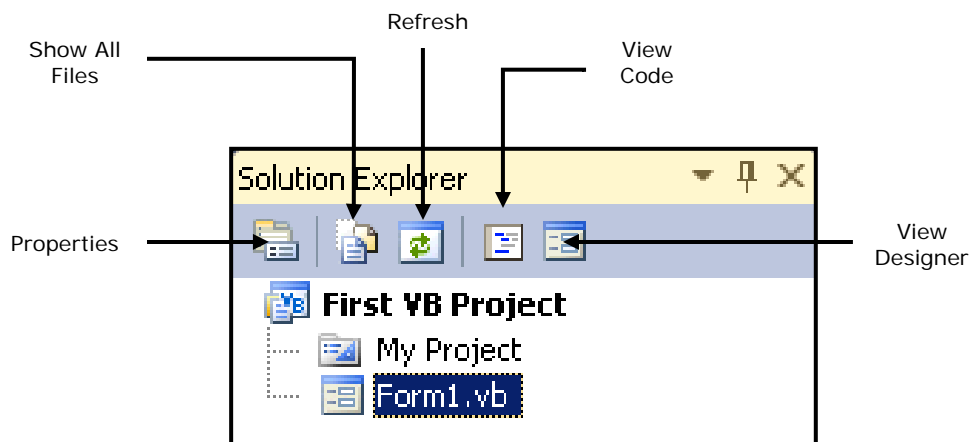
The **Form** represents the main window the Windows Application that you are creating. Forms can be enhanced by adding controls, such as **Buttons**, **Labels**, **TextBoxes**, etc.

You can add controls onto the Form by activating the **Toolbox**. To activate the **Toolbox** you just need to click on the **Toolbox** button along the left-hand side of the IDE. The Toolbox groups prebuilt controls into categories. When you click a group name, the Toolbox displays all the controls in that group.



## SOLUTION EXPLORER

The **Solution Explorer** window provides access to solution files and allows you to manage files visually.



# PROPERTIES WINDOW

The **Properties Window** displays the properties for Form and control objects. Properties specify an object's attributes, such as its size, colour and position. The Properties window allows you to set object properties visually without writing code.

