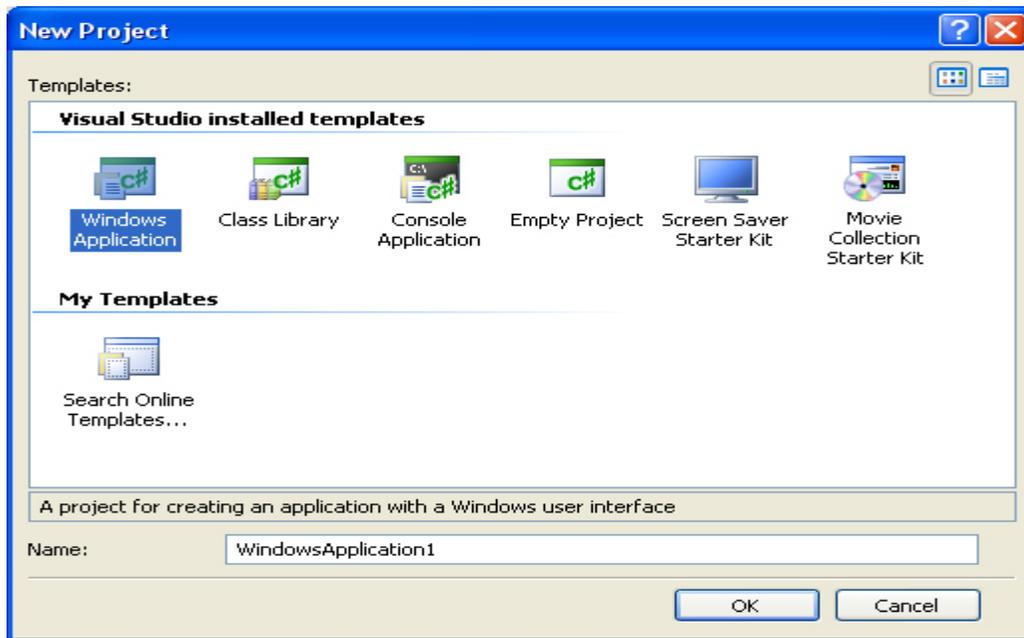
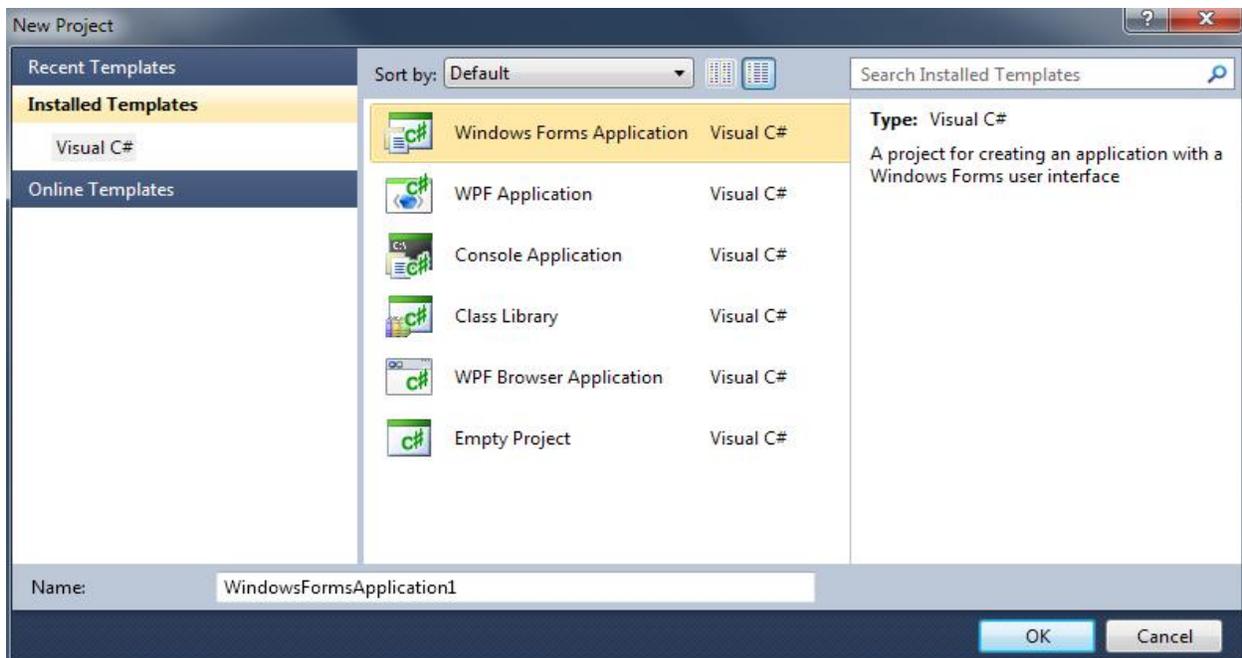


## Your Windows First Form

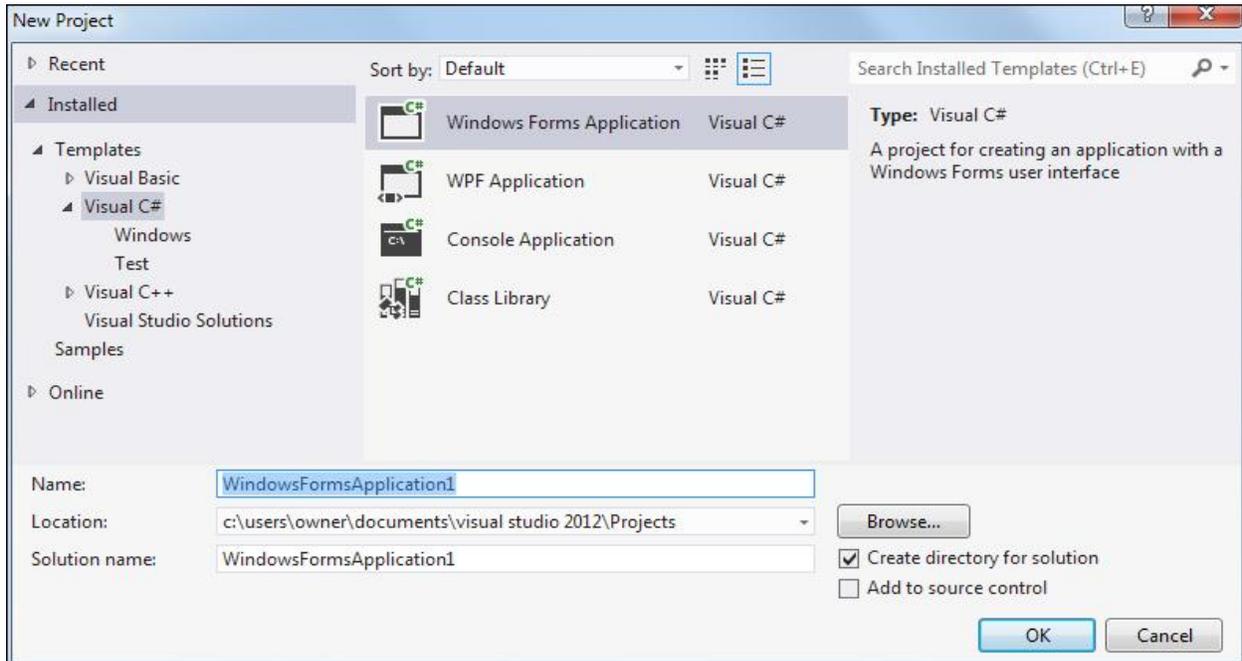
Windows Forms Applications make use of something called a **Form**. The Form is blank at first. You then add controls to your form, (things like buttons, text boxes, menus, check boxes, radio buttons, etc.). To get your first look at a Windows Form, do the following. Click the **File** menu to create your first Windows form project. Select **New Project** from the menu. When you do, you will see the New Project dialogue box:



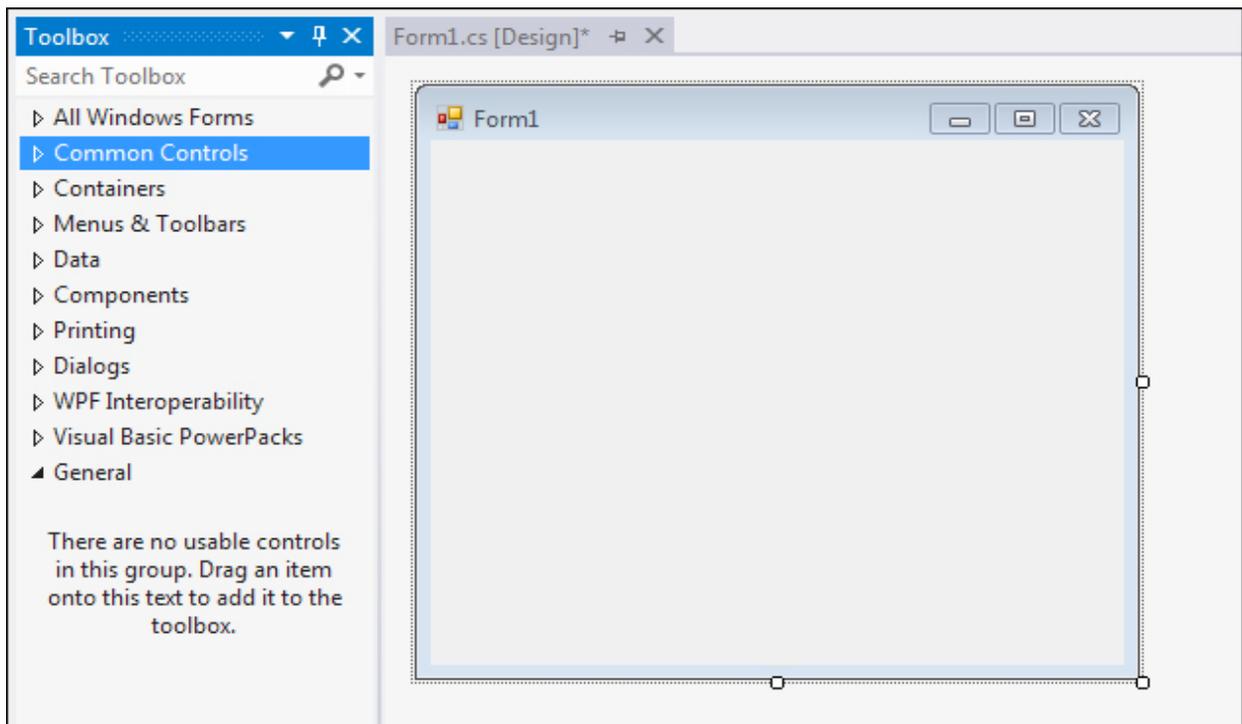
Or this one in C# 2010:



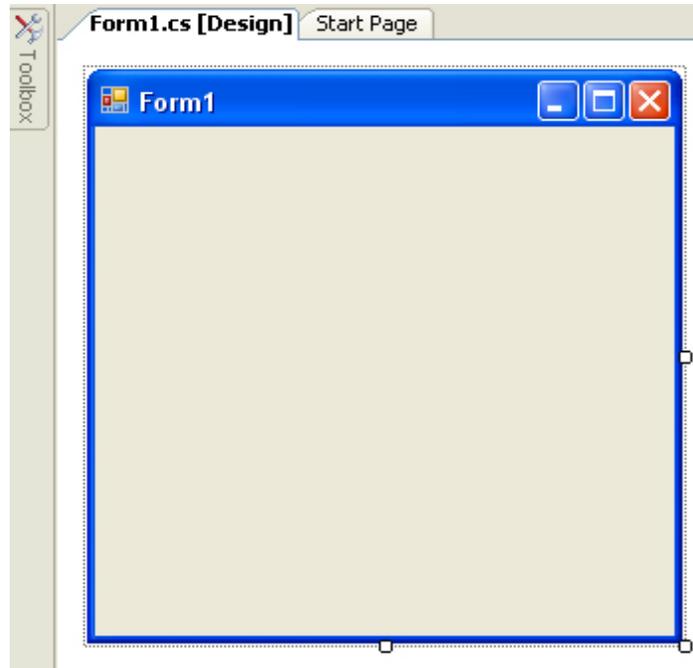
In Visual Studio Express 2012, click **Visual C#**, under **Templates** on the left:



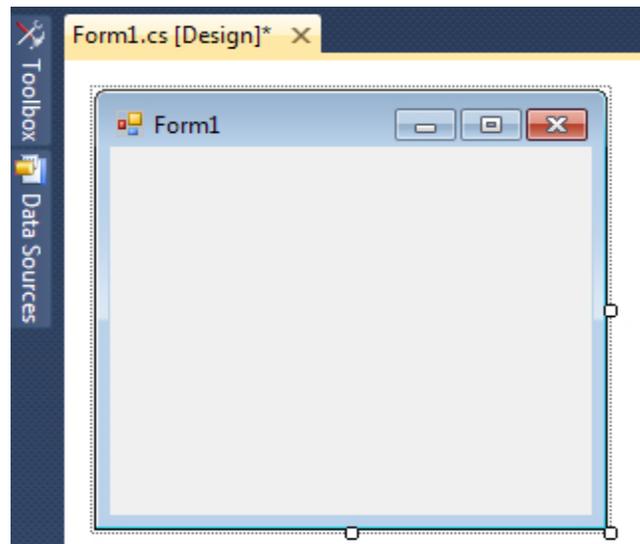
In all versions, select **Windows Forms Application** (or Windows Application in earlier versions) from the available templates. Keep the Name on the default of **WindowsFormsApplication1** and then click OK. When you click OK, a new Windows Application project will be created for you:



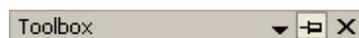
Notice the Toolbox on the left hand side. We will be adding controls from the Toolbox to that blank Form1 you can see in the image above. If you cannot see the Toolbox, you may just see the Tab, as in the following image:



In C# 2010, your screen will look like this (version 2012 is similar but less colorful):



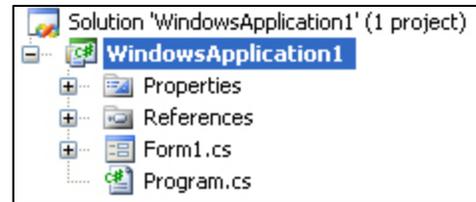
Move your mouse over to the Toolbox tab, or just click it. It will expand to show you the items in the toolbox. If you want to permanently display the Toolbox, click on the pin symbol:



Notice the Solution Explorer on the right side of your screen. (If you cannot see the Solution Explorer, click its entry on the **View** menu at the top of Visual Studio Express.) If you compare it with the Solution Explorer when you created your Console Application, you will see there is only one difference – the Form.



Console Application



Windows Application

We still have the Properties, the References and the Program.cs file. Double click the Program.cs file to open it, and you will see some familiar code:

```

using System;
using System.Collections.Generic;
using System.Windows.Forms;

namespace WindowsApplication1
{
    static class Program
    {
        /// <summary>
        /// The main entry point for the application.
        /// </summary>
        [STAThread]
        static void Main()
        {
            Application.EnableVisualStyles();
            Application.SetCompatibleTextRenderingDefault(false);
            Application.Run(new Form1());
        }
    }
}

```

And here’s the code from the Console Application (newer versions of Visual Studio will have more **using** lines):

```

using System;
using System.Collections.Generic;
using System.Text;

namespace ConsoleApplication1
{
    class Program
    {
        static void Main(string[] args)
        {
        }
    }
}

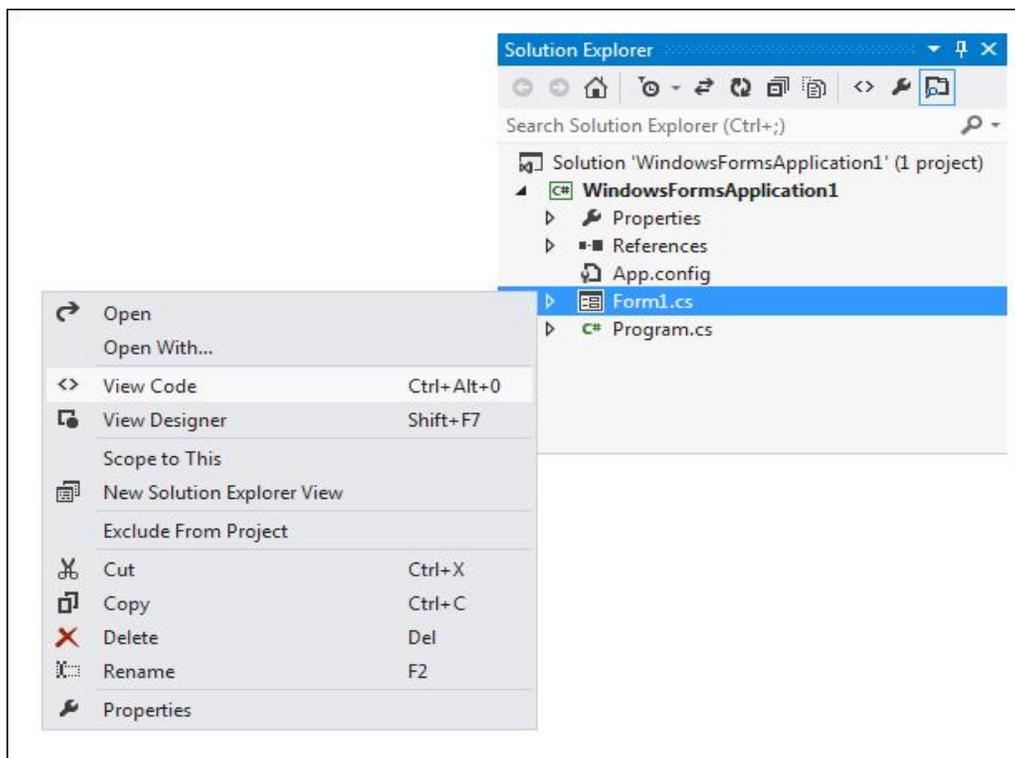
```

Both have `using` lines, a `namespace`, a `class` called `Program`, and a Main Method. The **Main** Method is the entry point for your program. The code between the curly brackets of **Main** will get executed when the program first starts. The last line in the **WindowsApplication1** code above is the one that **Runs** `Form1` when the **Application** starts. You can do other things here. For example, suppose you had a program that connects to a server. If it finds a connection then it loads some information from a database. In the Main Method, you could check that the server connection is OK. If it is not, display a second form; if it is OK, then display the first form. However, do not worry if all that code has you scratching your head. The thing to bear in mind here is that a method called **Main** starts your program. In addition, **Program.cs** in the Solution Explorer on the right is where the code for **Main** lives. However, we will not be writing code in the **Program.cs** file, so we can close it. Have a look near the top of the coding window, and you'll see some tabs:



In version 2008, right click the **Program.cs** tab and select **Close** from the menu that appears. In newer versions, just click the X to close the tab. You should now see your form again (you may have a **Start** tab as well. You can close this, if you want).

To see the window where you will write most of your code, right click **Form1.cs** in the Solution Explorer:



The menu has options for **View Code** and **View Designer**. The Designer is the Form you can see at the moment. Click **View Code** from the menu to see the following window appear (you can also press the F7 key on your keyboard in earlier versions, and CTRL + ALT + 0 in version 2012):

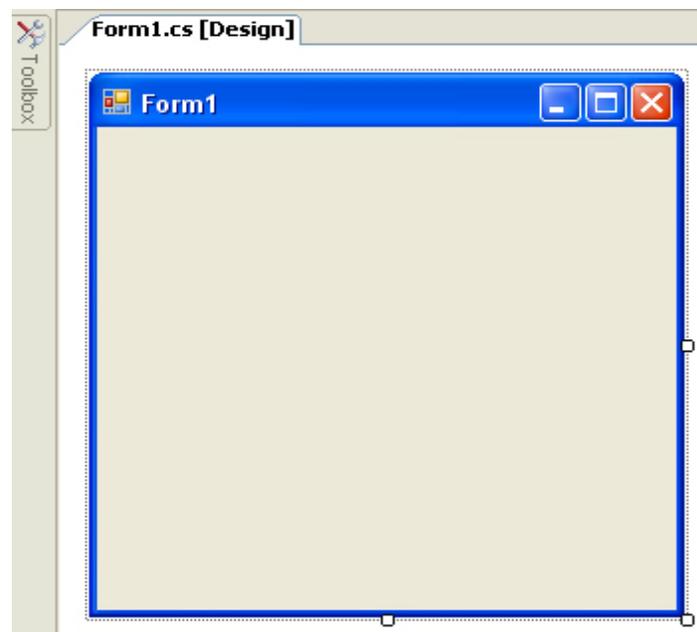
```

using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;

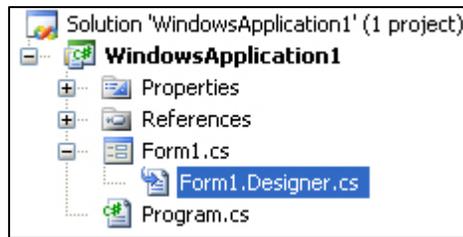
namespace WindowsFormsApplication1
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void Form1_Load(object sender, EventArgs e)
        {
        }
    }
}
    
```

This is the code for the Form itself. This Form (screenshot from version 2008):



The code also says **partial class** Form1. It is partial because some code is hidden from you. To see the rest of it (which we do not need to alter), click the plus or arrow symbol next to **Form1.cs** in the Solution Explorer:



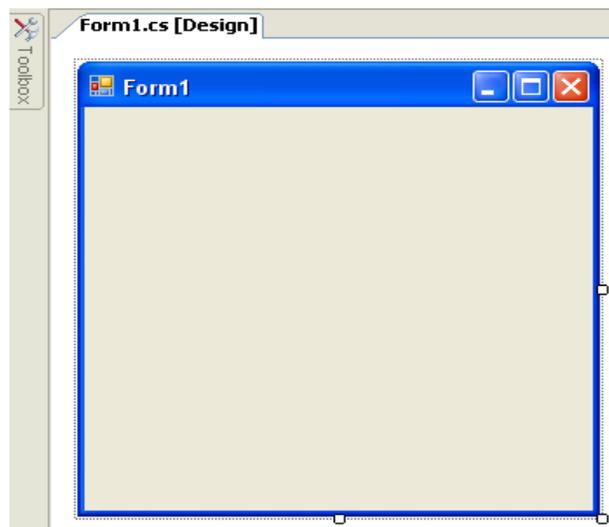
Now double click **Form1.Designer.cs**. You'll see the following code:

```
namespace WindowsApplication1
{
    partial class Form1
    {
        /// <summary> ...
        private System.ComponentModel.IContainer components = null;

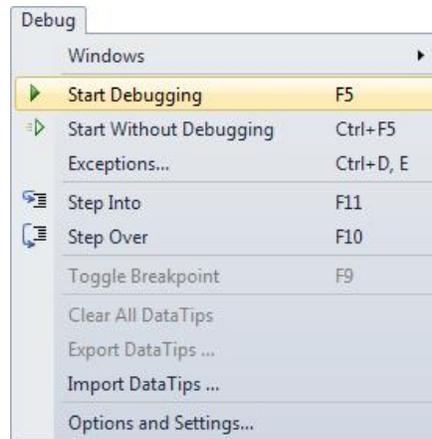
        /// <summary> ...
        protected override void Dispose(bool disposing)
        {
            if (disposing && (components != null))
            {
                components.Dispose();
            }
            base.Dispose(disposing);
        }

        Windows Form Designer generated code
    }
}
```

Click back on the **Form1.cs** tab at the top to see your form again. If the tab is not there, right click Form1.cs in the Solution Explorer on the right. From the menu, select **View Designer**. Here is what you should be looking at:



It is in Designer view that we will be adding things like buttons and text boxes to our form. However, you can run this program as it is. From the **Debug** menu at the top, click **Start Debugging** (Or you can just press the F5 key on your keyboard.):



When you click Start Debugging, Visual C# will build the program first, and then run it, if it can. If it cannot run your program, you will see error messages. However, you should see your form running on top of Visual Studio. It will have its own Red X and its own minimize and maximize buttons. Click the Red X to close your program, and to return to Visual Studio. From now on, when we say Run your program, this is what we mean: either press F5, or click **Debug > Start Debugging**.

**OK, time for you to start adding things to the form, and to do a little coding!**