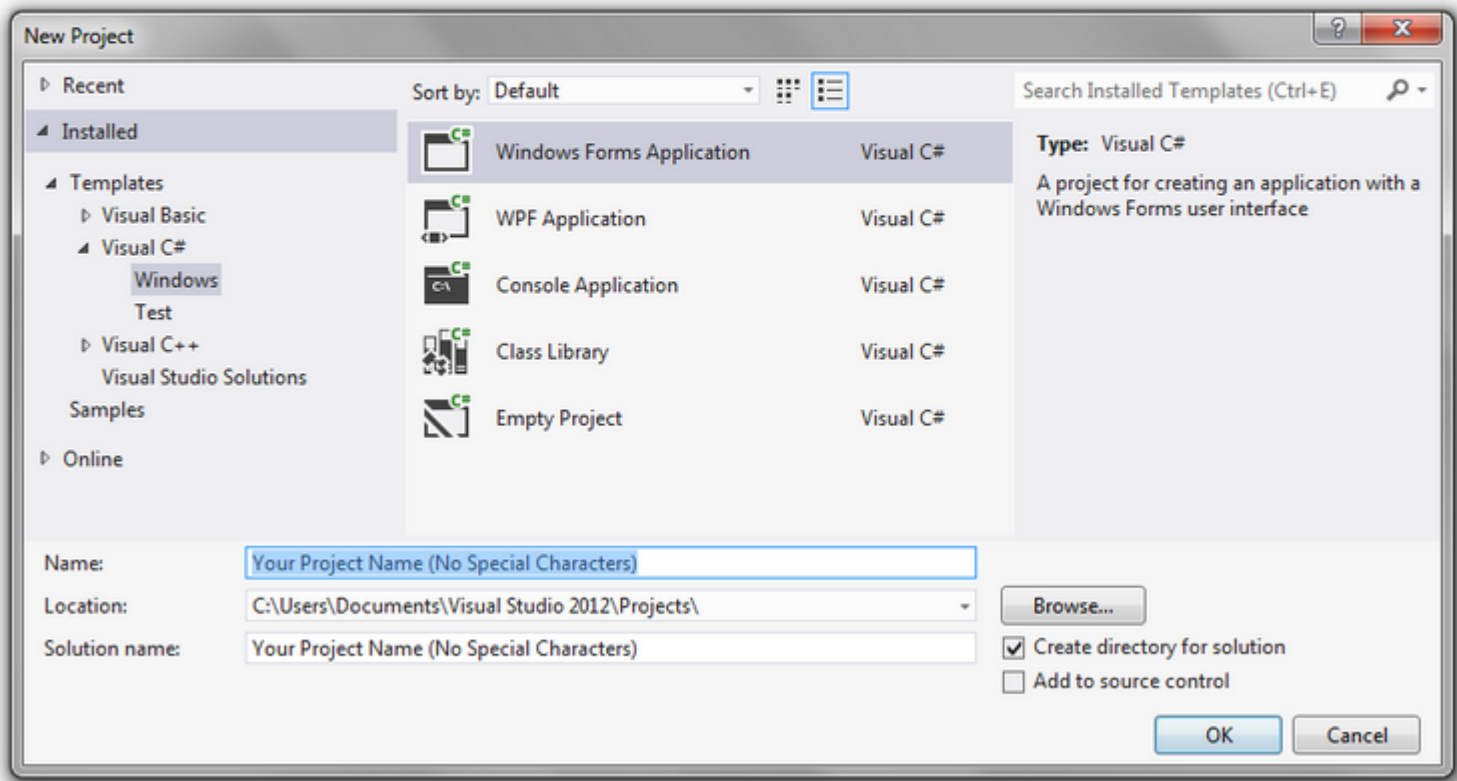


## CREATING A NEW PROJECT

An application consists of several related files. In C#, these files are collectively maintained as a ***project***.

- Select **New Project** from the **File** menu or click . The New Project dialog box is displayed:



- Select the *Windows Forms Application* template in Visual C#.
- In the Name box, replace the existing text with a project name starting with your last name, then a descriptive application name.

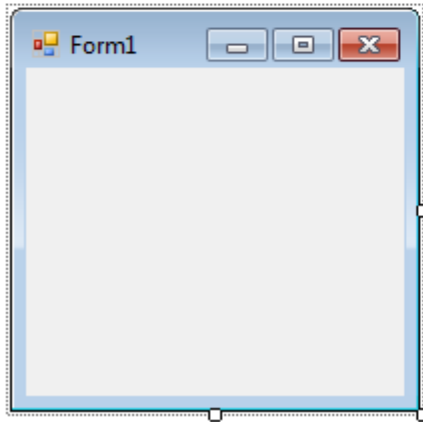
Example “Johnson – Guessing Game” or “Johnson – Project 4”



\*\*\* Do not use an apostrophe ' in your project name, it will cause an error when you try to run it \*\*\*

- A C# application includes many files including a project file (**.csproj**) and a solution file (**.sln**).

## THE WINDOWS FORM

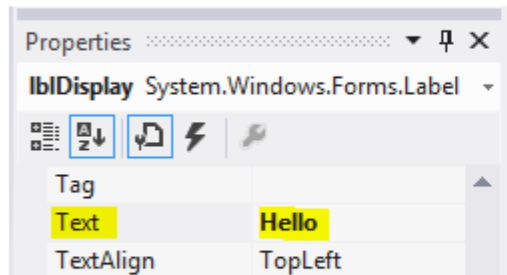
- A **form** is a graphical object that contains a title bar, a system menu, and Minimize, Maximize, and Close buttons.
- A new C# Windows application automatically includes one Form object. To change the size of the Form object, click the form to select it.
- A **selected object** displays handles that appear as squares:



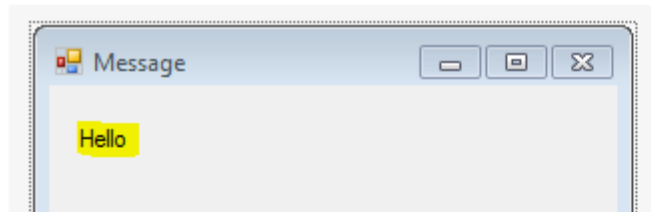
- Drag a side handle to size the height or width. Drag a corner handle to size both height and width together.
- A Form object has **properties** that define its appearance, behavior, position, and other attributes. For example, the Text property of a form defines what is displayed in its title bar. Property values are displayed in the Properties window.
- Properties may be listed in alphabetical order or they may be grouped by category. The *Alphabetical*  and *Categorized*  buttons in the Properties window can be used to switch the list.

## SETTING A PROPERTY

- A *property* value is set by typing or selecting a new value. For example, selecting the form, clicking the Text property in the Properties window, and then typing Message displays the following:




- Pressing Enter or clicking outside the Properties window applies the new Text property value to the form:




## SAVING, OPENING AND RUNNING PROJECTS

### SAVING


- An application should be saved frequently to avoid losing changes.
- To save a project, select **File > Save All** or click the Save All button .
- Ensure the "Create Directory for solution" box is checked, then click the Save button.

☒ Create directory for solution



### OPENING

- To open a project,  browse to the project folder and open the ".csproj" or the ".sln" file.

### RUNNING

- To run an application, click the Start Debugging button  on the toolbar, select **Debug > Start Debugging** or press <F5>.
- The IDE remains on the screen while the application runs. An application can be run at any time during the development process to allow for testing at different stages.

### STOPPING

- To terminate a running application, click the Stop Debugging button  on the toolbar, select **Debug > Stop Debugging**, <SHIFT + F5> or click the Close button  in the upper-right corner of the window.

## PROJECT FILES

- When you build your program a whole bunch of files get made.
- If you open the directory default directory is C:\users\<yourname>\ Documents\Visual Studio\ProjectName You will see a **.sln** file. This is a Visual Studio Solution file and it stores information about other file locations. (you can open it with notepad and read it)
- Next you should see a folder with your project name, inside there are a few more folders and two files, Program.cs.
- Program.cs is your main source code file you can actually open that with notepad as well and you will see your code.
- Then you have ProjectName.csproj this is a C# Project File it stores information about where others files are located it is actually an XML file you can also open this with notepad.
- Then there is a folder called My Project and inside this is a file called AssemblyInfo.cs, this stores information about the program such as company, author, product name, copyright, trademark, description etc. guess what? You can open this with notepad as well.
- You also have **obj** and **bin** folders.
- Inside **bin** is another folder called **debug** and this is where your program will output.