**PRACTICAL # 11**

**OBJECT:**

Creating a Desktop GUI application

**THEORY:**

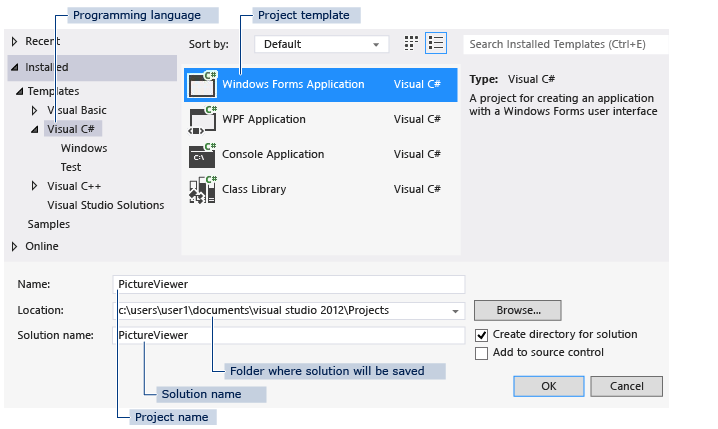
C# coupled with .NET framework supports different types of applications. In this lab, we will create GUI applications based on Windows Forms. These applications inherit Form class in the .NET framework. A Windows forms application is one that runs on Windows desktop computer. The application will normally have a collection of controls such as buttons, labels, text boxes, list boxes, etc.

**Program:**

To create a Windows Form in Visual Studio,

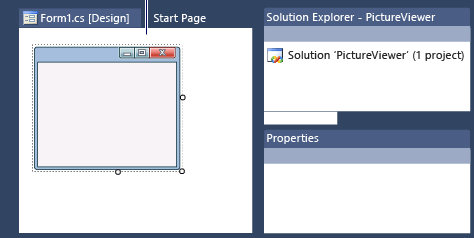
1. choose File → New → Project.

The dialog box should look like this.



2. Choose Visual C# in the Installed Templates list, and select Windows Forms Application. Name the new project, and press OK button.

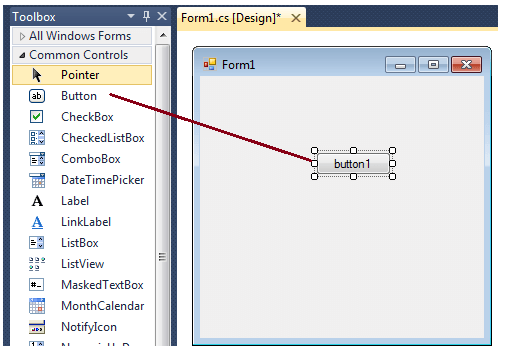
This creates a new project in Visual Studio with the following interface:



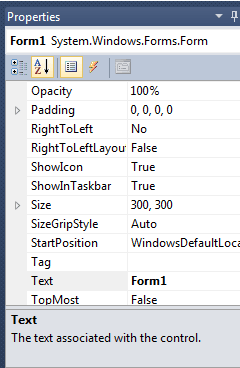
The interface contains three windows: a main window, Solution Explorer, and the Properties window.

If any of these windows are missing, restore the default window layout by, on the menu bar, choosing Window, Reset Window Layout. You can also display windows by using menu commands. On the menu bar, choose View, Properties Window or Solution Explorer.

**Adding Controls to a form**

4. You can open toolbox and select GUI elements to be created on the form. There are a number of different UI controls and containers available to design your application interface. Simply drag and drop a control from the toolbox onto the form and it will be created on that specific location.

The Windows Form in Designer view is a visual representation of the window that will open when your application is opened. You can switch between this view and Code view at any time by right-clicking the design surface or code window and then clicking View Code or View Designer.

At the top of the form there is a title bar which displays the forms title. Form1 is the default name, and you can change the name to your convenience . The title bar also includes the control box, which holds the minimize, maximize, and close buttons.

5. To set any properties of the Form, use Visual Studio Property window to change it. If Properties window is not visible, go to the View menu, click Properties window. This window lists the properties of the currently selected Windows Form or control, and its here that you can change the existing values.

**Running Your Application:**

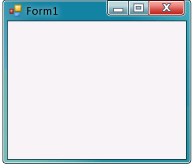
When you created a new solution, you actually built a program that runs. It doesn't do just displays an empty window that shows Form1 in the title bar.

1. There are different ways to run your application in Visual Studio.

> Choose the F5 key.

> On the menu bar, choose Debug, Start Debugging.

> On the toolbar, choose the Start Debugging button, which appears as:



2. Visual Studio runs your program, and a window called Form1 appears. The following diagram shows the program you just built.

3. Similar to running the application, there are different ways to stop it:

> On the toolbar, choose the Stop Debugging button.

> On the menu bar, choose Debug, Stop Debugging.

> Choose the X button in the upper corner of the Form1 window.

**ACTIVITIES**

**Activity 1**

Create a simple Windows Forms application project.

**Activity 2**

To the program created above, add some GUI control elements from the toolbox and run your application.

**REVIEW QUESTIONS**

1. How do you create a windows forms application?
2. What is the base class for the Windows Forms application?
3. How do you add controls to the Form?
4. How do you set properties of different elements on the Form?