Visual Basic .Net

## Chapter 1 Assignment

### Short Answers (even questions)

1. **What is the difference between operating system software and application software?**  
   Operating System software manages the computer's hardware devices and controls processes. Application software on the other hand makes the computer useful to the user.
2. **What is a control?**  
   A control is a specific type of object that is used in the GUI of an application. An example is a textbox control which lets the user enter text in the textbox.
3. **From what you have read in this chapter, describe the difference between a Label control and a TextBox control. When is it appropriate to use one or the other**?  
   A label control is used to label things. They are often found near textboxes to indicate what the user should enter into the textbox. A Textbox is used to capture user input. A label should be used if the information is just to be shown and not changed by a user. However, a label may be changed by the program during runtime.
4. **What is a form?**  
   A form is a control that holds (a container for) other elements. It is also known as a Window.
5. **What is a keyword?**  
   A keyword is a reserved word that is special to a programming language. It has a very specific meaning to the language.
6. **What is language syntax?**  
   Syntax is a set of rules that must be followed when writing a program. It dictates how each keyword can be used, operator usage, and types/how to use punctuation characters.
7. **What is a runtime error?**  
   A runtime error is an error that happens when the program is running. It does not prevent the program from running however; it makes it so that the program returns incorrect results. Mathematical calculations are an example of this. The program may run but the formula was set up incorrectly in the code so that the wrong answer is given.
8. **What is a flowchart?**  
   A flowchart is a diagram of a program that shows the flow of a method with graphics. It uses Ovals and Rectangles to illustrate the steps along with arrows to show the flow.
9. **What default name will Visual Basic give to the first Label control that you place on a form?**   
   The default name given the first Label is **Label1**.  
   **What default name will Visual Basic assign to the first TextBox control that you place on a form?**  
   The default name given the first TextBox is **TextBox1**.
10. **What is Auto Hide? How do you turn Auto Hide on or off?**  
    Auto Hide is used to give space to the main window (code or design view). It makes the ToolBox, Properties, and Solution Explorer windows either opened or shown as tabs along the sides of the main window. The PushPin is used to turn on or off Auto Hide. I love Auto Hide!
11. **What is the standard toolbar in Visual Studio?**  
    The standard toolbar in Visual Studio contain easy access buttons to commands that are found in the menu bar. Examples of buttons found on the standard toolbar are Debugging buttons, Solution Explorer (to show it).
12. **If you do not see the Solution Explorer window in Visual Studio, how do you display it?**  
    To display the Solution Explorer in Visual Studio, click the Solution Explorer button on the standard tool bar, press Crtl+Alt+L, or navigate to View🡪 Solution Explorer on the menu bar.
13. **Figure 1-30 shows the Visual Studio IDE. What are the names of the four areas that are indicated in the figure?**  
    1. ToolBox  
    2. Form Control in the Designer Window  
    3. Solution Explorer  
    4. Properties window

### What Do You Think? (even questions)

1. **What type of control does each of the following prefixes usually indicate?**
   1. btn - Button
   2. lbl - Label
   3. txt - TextBox
2. **The following control names appear in Visual Basic application used in a retail store. Indicate what type of control each is and guess its purpose.**
   1. txtPriceEach – TextBox for price per item
   2. txtQuantity – TextBox for the Quantity
   3. txtTaxRate – TextBox for the Sales Tax
   4. btnCalcSale – Button to Calculate the Sale of the 3 textbox contents above
   5. lblSubTotal – Label to show how much the sale is without sales tax
   6. lblTotal – Label to show how much the sale is including sales tax