

Quiz #1, on Thursday, September 6, will consist of questions taken or inspired from the Part I of this homework and from the lab. Project #1, presented in Part II, 2, is due Friday, September 14, before 11:30 PM.

## Part I — Questions

1. List five softwares, and three hardware components of a computer.
2. List four programming languages.
3. What is a GUI? What is a CLI?
4. What, if any, is the difference between a compiler and an assembler?
5. A machine code (or machine language program) is made of circuits, binary numbers, classes, or compilers?
6. What happen when the source code you're giving to the compiler has syntax error? Is the compiler case-sensitive?
7. Suppose I replace every white space in your source code with two white spaces. Will you program still compile? Why, or why not?
8. Which of the followings, if any, are keywords?  
`Welcome1`      `public`      `91.3`      `apples`      `int`      `"I'm a string"`
9. Which of the following are programmer-defined names (or identifiers)?  
`BankAccount`      `class`      `91.3`      `apples`      `int`      `itemPerCapita`      `statement`
10. Why are variables called "variables"?
11. What is string interpolation?
12. What is the difference, if any, between `3`, and `"3"`?
13. In a C# program, comments start with `\\` (double backslash) or with `//` (double (forward) slash)? Do they have to end with a `;` (semicolon)?
14. What is the limitation, if any, to the number of methods you can have per classes? Why is the method called `Main` special?
15. What is a namespace?
16. What is the difference, if any, between the `WriteLine` and `Write` methods?
17. Write a statement that would display the following at the screen:

```
Hi_Mom!↵  
How_are_you_doing?
```

18. Assume we have a variable whose name is `myVariable`, whose type is `string`, and whose value is `"My message"`. What would be displayed at the screen by the following statement?

```
Console.WriteLine($"Here is my variable: {myVariable}");
```

19. Which of the following are correct identifier names?

`$myHome3` `class` `my%variable` `91.3` `ANewHope` `9_train` `_ThisIsAVariable` `statement`  
Is the name `myVariable` the same as `myvariable`? If not, why?

20. Which one(s) of the following, if any, is a correct assignment (assuming that `variable`, `x` and `apples` have been declared as `int` variables)?

```
5 => variable;  
x=5;  
apples= 23  
x <= 23;  
variable =1,890;
```

## Part II – Problems

### Problem 1

As a warm-up, look at the following code. There are 4 errors that will prevent it from compiling. Can you spot them all?

```
// My first attempt.  
using System  
  
class Wel  
{  
    static void Main();  
{  
        Console.WriteLine("Welcome \n to the lab!");  
    }  
}
```

### Problem 2

In Visual Studio, create a project named “Proj01”. Write your name and the date in a delimited comment at the very beginning of your code. In the main method, declare a variable and store your augusta username in it. Then, your program should display at the screen the content of that variable, followed by “would like to know your favorite number. Please enter it:”. After this, the program should read an integer from the user, multiply it by 2, and display it on the screen.

Once your project is completed, compile without error nor warning, and can be executed, compress it into a zip file named “lname\_fname.zip”, where “lname” (resp. “fname”) is your last name (resp. first name). Upload this zip on D2L before **Sep 14, 2018 11:30 PM**, in the “Proj01” assignment submission folders.

Further details will be given in Lab, but make sure you follow those instructions as closely as possible. You can have partial feedback and I can look at your project even if it's not complete. Just make sure to ask me ahead of time, and not during lab.

