CS 215 – Spring 2021
Lab 1

Learning Objectives:

- First use of Microsoft Visual Studio C++
  - Create a new project
  - Add a source file to the project
  - Type/Enter C++ code
  - Compile/Execute a C++ program
  - Debug a C++ program
- Demonstrate a lab to a TA
- Submit a .cpp program in Canvas

1. Look at the detailed steps on how to start each new Lab/Project/LabExam found in the **start** document under **Labs** on the course website: http://cs.uky.edu/~kwjoiner/

2. Follow the steps in the document, naming the project **Lab1** and the source file **lab1.cpp**

3. Copy (type) the following code into MS VS:
   a. note: no copy/paste available from this .pdf document.
   b. You do not have to enter the (green) comments found to the right of some lines of code.
   c. You **do** need the comment box at the top. **Add your name** and **section** where indicated

```
//-----------------------------------------------------
//           CS 215 - Spring 2021 - Lab 1
//-----------------------------------------------------
// Author: YOUR NAME HERE
// Section: YOUR SECTION HERE, EX: 003
// This code asks the user to enter their name and
// prints a greeting including the name.
//-----------------------------------------------------
#include <iostream>     // needed for cout
#include <string>       // needed for string and getline
using namespace std;    // needed for cout and string

int main() {
    string name;        // Declare a variable: name is a string var
                        // A string can have any number of characters

    cout << "What is your name? ";   // Print the prompt on the screen
    getline(cin, name);              // Halt, allower user to enter answer
                                     // and press enter. name = whatUserTyped

    cout << "Hello " << name << "! Nice to meet you!\n"; // Print the greeting
    return 0;                                            // End of program
}
```

4. Save and execute your program as described in the **start** document. If you have errors, fix them and try again.

5. If you had no errors, and the code executed the first time, congratulations!! However, you need to see what compiler errors look like.

    a. remove the semicolon (;) from the end of the **return 0**
    b. compile and execute again.
    c. You should see a "missing semicolon" error message at the bottom, and the black execution box should not have popped up.
    d. Correct the code: put the semicolon back.
    e. Compile and execute again. Fix any other errors you may have caused.
    f. When it compiles and executes correctly again, SAVE.

6. **Demonstrate your code to the TA**. If you do not demonstrate your code, even if you turn it in in Canvas, you will receive a grade of 0!! The TA may ask you to make some corrections. If so, make the corrections and demonstrate again…repeat until you have 100%!

7. After the successful demonstration, **submit the code in Canvas**. See the instructions in the **start** document about which file to submit. Even if you successfully demonstrated it to the TA, if you do not submit in Canvas by the deadline, you will receive a grade of 0!

Grading Rubrics: The TA will make the following checks during the demonstration, and may add more.

1. Was the **Comment Box** entered correctly at the top, with the student's name and section? [Note: comments on line 10-23 are not required]

2. Were **the #includes** and **using** coded correctly?

3. Was the **main()** function coded correctly?

4. Was the code **indented and lined up** correctly, as shown in the example?

5. Did the program **execute** correctly?

6. Have the student demonstrate what happens when there is an error (remove a semi-colon, or something simple). Be sure to correct the code and make sure it executes correctly before submitting.