CS 1428
Fall 2019
Gentry Atkinson
Lab 0

Introduction:

The purpose of this lab is to explore and reinforce the concepts from the lecture section of CS 1428. Today we will cover creating and compiling a file using the Code::Blocks integrated development environment.

Directions:

1- Launch Code::Blocks on your own computer.

2- Create a new empty file by selecting **File->New->Empty File**. Now select **File->Save File As…** and name your file "your__last_name_lab0.cpp".

3- As the first lines of your new file copy the following:

```
//Your Name
//CS1428 Fall 2019
//Lab 0
```

The **"//"** indicates that a line is a comment that will be ignored by the compiler. Comments can be used to mark ownership of files or explain what blocks of code are doing.

4- The next line of your file should be:

```
#include <iostream>
```

This tells Code::Blocks that you want to use commands which are defined in a library. You can include any number of blank lines to improve the readability of your code.

5- Your next line of code will be:

```
using namespace std;
```

This line is important when you're using standard libraries like iostream.

6- Now type:

```
int main () {
```

This is the beginning of a function definition. Every C++ program must include a "main" function. Code::Blocks will probably autofill the closing "}" curly bracket. All of the code for a function must be written between these brackets.

7- For the first line of your main function type the instruction:

cout << "Hello World." << endl;

This line will cause the text "Hello World" to be printed in the console and then will start a new line. The semicolon at the end of the line tells the compiler that you've finished the command and is very important. Every statement in C++ must end with a semicolon.

8- Use the "**cout**" statement to answer the following questions. Answer each question with a separate "**cout**" and end each statement with an "**endl**" to start a new line. Keep your answers short.

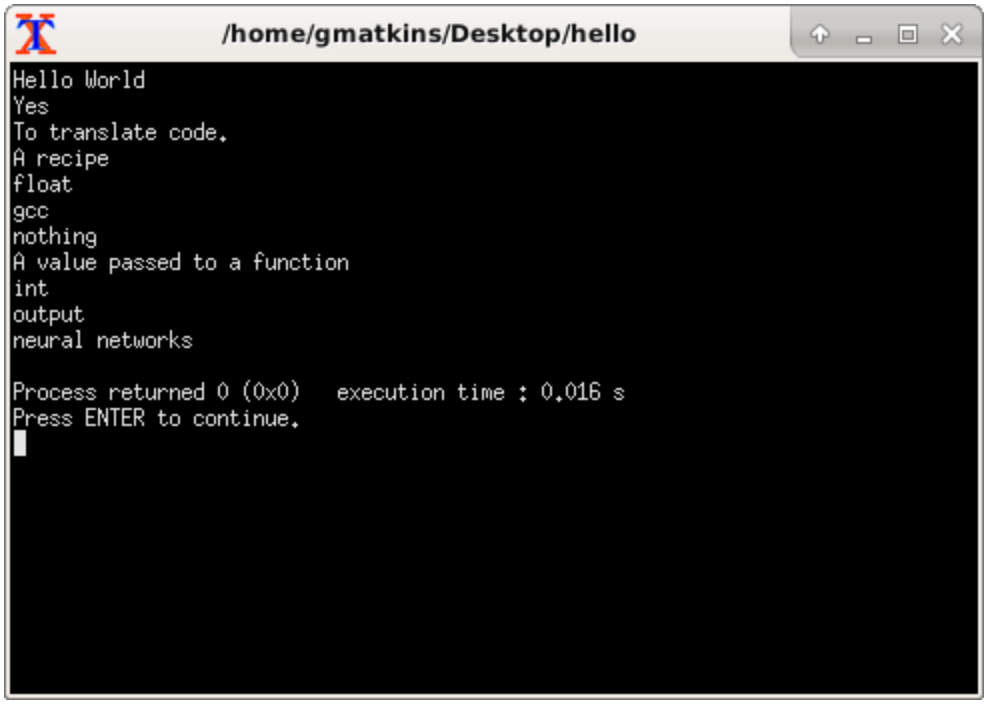
1) Do you have any programming experience?
2) What is the purpose of a compiler?
3) What is an algorithm?
4) What data type would you use to store a number that includes a decimal?
5) What is the name of the compiler we are using with the Code::Blocks IDE?
6) What would you change in this code in order to ensure that it will execute correctly on a Macintosh computer? Windows? Linux?
7) What is an "argument" in programming?
8) What type of value will your main function return?
9) What type of device is a computer monitor?
10) What area of computer science interests you most?

9- The last statement in your function should be:

return 0;

Make sure that you close the main function with a final curly bracket **"}"**.

10- Save your work. Use the "**Build and Run**" button to compile and execute your program. If there are any errors in your code they will be displayed in the Build Log window of Code::Blocks. Correct any errors that exist in your code. If there are no errors in your code you will see something like this (although these answers may not be correct):



11- Attach your .cpp file to the TRACS assignment and submit. You can leave whenever you've finished the assignment.