COS30031

02 - Lab - C++ For
Programmers

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Goals / deliverables:

Create a program that achieves that achieves the following:

1. Create a function that accepts at least two values (simple parameter values, not user input), prints the values to screen, and returns nothing. Call this function from your main.

2. Create a function that accepts one value, alters it, and returns it (simple value). Call this function from main, and print the returned value.

3. Declare a pointer to a variable, and demonstrate the setting and reading of the value in the variable using the pointer.

4. Create a function that uses a for loop to print all odd numbers between 0 and 20 on a single text line of text output, formatted with spaces. Call this from main.

5. Create a function that creates a 1-dimensional array of 5 integers, then fill the array with random int values, print the contents of the array to the screen. Call from main.

6. Split the line of text, such as "this has spaces in it", by spaces, and show each part to screen.

7. Declare a simple class that has at least one private variable, one public variable, and one public method. Create an instance of the class, and demonstrate its use.

Technologies, Tools, and Resources used:

- Google Chrome (for assistance)

- Visual Studio Code (IDE)

- G++ (c++ compiler)

- MinGW (to install g++ compiler)

- * C++ Sandbox: https://codehs.com/sandbox/id/c-qd7S4X

- * C++ Cheat Sheet: 02 - Lab - C++ For Programmers\CppQuickRef.pdf (http://www.hoomanb.com/cs/QuickRef/CppQuickRef.pdf)

- * VSCode Cheat Sheet: 02 - Lab - C++ For Programmers\VSCode Cheat Sheet _ ShortcutFoo.pdf (https://www.shortcutfoo.com/app/dojos/vscode-win/cheatsheet)

Tasks undertaken:

- Download MinGW and install the required G++ packages

- Open Video Studio Code
- Confirm G++ is working by typing g++ --version in the integrated terminal
- Create a main.cpp and complete all the required tasks.

What we found out:

C++ syntax is similar but different than other languages. Little things such as:

- -> instead of . for accessing members of pointers
- basic native libraries to support string and array manipulation are much less built up.

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