Release Notes:

[2.2.0] Sun Sep 27 2020

What's new

- Created Hello World as a start to learning C++
- Applied basic knowledge on input/ouput and variables on Hello World

What I learned

(Comparing this to C# since it's my strongest programming language)

- C++ is a "lower" language compared to C#. One example is C++ requires the user to manually handle memory (eg. pointers), whilst C# handles it automatically. It gives the programmer more control over managing/optimizing performance.
- Giving the user more control also means giving them more "nubs and dials" to watch out for, so I expect this language to be more complex and a tad harder to learn
- The syntax for C++ and C# are pretty similar, so far the only noticeable difference is the way the output message is done and the way variables are passed into functions (using pointers, not the actual variable)

Resources used when researching

1. w3schools on C++
https://www.w3schools.com/cpp/default.asp

2. How to do Hello World on C++
https://www.youtube.com/watch?v=VWJWUR-UnzQ&ab_channel=ProfessorHankStalica

3. Differences between C++ and C#
https://www.guru99.com/cpp-vs-c-sharp.html

4. What is a pointer in C++
https://www.youtube.com/watch?v=DTxHyVn0ODg&ab_channel=TheCherno

[2.3.0] Sun Sep 27 2020

What's new

- Updated code to reflect requirements

```cpp
#include <iostream>
#include <string>
using namespace std;

class Person {
	private:string name;
	public: int age;

	public: void SetInfo(string* nameToSet, int* ageToSet) {
		name = *nameToSet;
		age = *ageToSet;
		cout << "Person initialized." << endl;
		cout << "Name has been set to: " << *nameToSet << endl;
		cout << "Age has been set to: " << *ageToSet << endl;
	}
};

int ChangeToOne(int* number) {
	*number = 1;
	return *number;
}

void PrintAllOdds(int const& start, int const& end) {
	cout << "All odd numbers from " << start << " to " << end << ":" << endl;

	for (int i = start; i < end; i++)
	{
		if (i % 2 == 1) {
			cout << i;
			if (i + 1 == end) {
				cout << "\n";
			}
			else {
				cout << ", ";
			}
		}
	}
}

void PrintRandomArray() {
	int intArray[5] = { rand() % 101, rand() % 101, rand() % 101, rand() % 101,
rand() % 101 };
	int intArrayLength = sizeof(intArray) / sizeof(*intArray);
	cout << "Random array: [";

	for (int i = 0; i < intArrayLength; i++)
	{
		cout << intArray[i];
		if (i + 1 == intArrayLength) {
			cout << "]" << endl << endl;
		}
		else {
			cout << ", ";
		}
	}
}

void PrintWordsFromSentence(string* sentence) {
	string word = "";
	string* wordPtr = &word; //3rd requirement

	for (auto i : *sentence)
```

```
	{
		if (i == ' ') {
			cout << *wordPtr << endl;
			*wordPtr = "";
		}
		else {
			*wordPtr += i;
		}
	}

	cout << *wordPtr << endl;
}

int main() {
	Person* person = new Person();
	string name = "Jake";
	int age = 20139;
	string sentence = "This is a string broken down into words";

	cout << "Hello World!" << endl;
	person->SetInfo(&name, &age);
	cout << "Maybe not . . . Age reset to: " << ChangeToOne(&person->age) << endl
<< endl;
	PrintAllOdds(1, 20);
	PrintRandomArray();
	PrintWordsFromSentence(&sentence);

	cin.get();
}
```

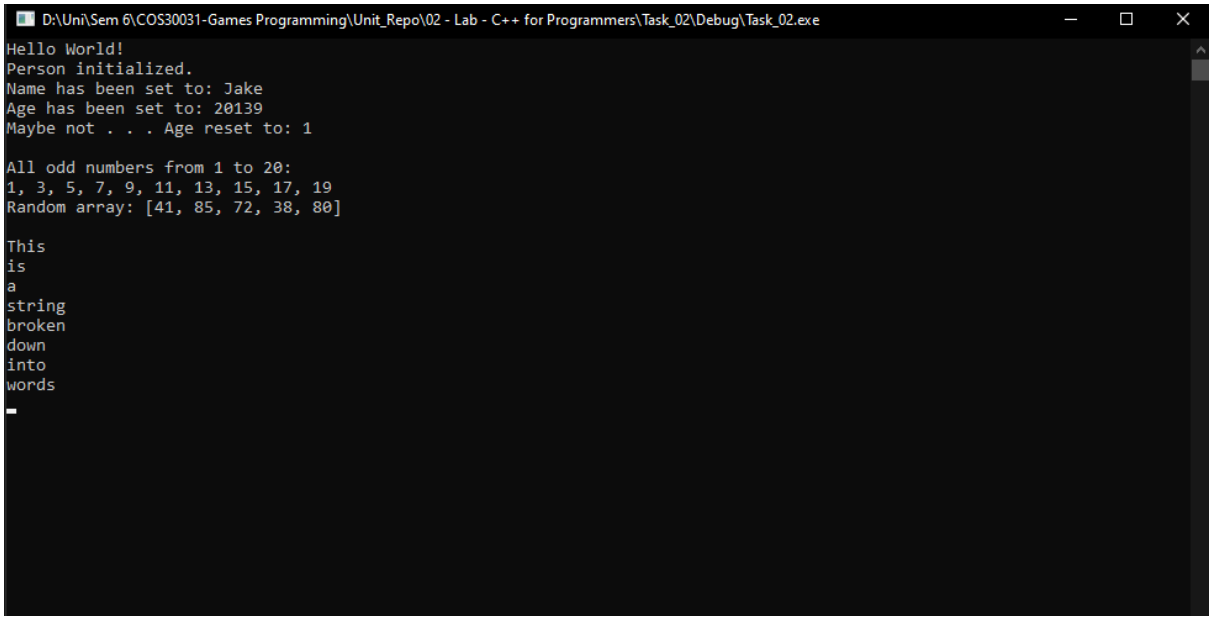

Figure 1. Code and Output for HelloWorld