CS 201 Homework 0

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Source Code Link: `https://www.github.com/ngvanoverbeke/cs201/tree/master/HW0`

This homework took approximately 4-6 hours to complete.

1 Design

For the main program, I simply made a while loop that exits once the given text—"Hello world" in this case—has been printed 5 times. Previously I simply copy/pasted the same *cout* statement 5 times, but I felt this was a lazy, and frankly poor design that doesn't meet c++ best practices. The new design has the same, single *cout* statement within a while loop that uses n, which is initialized at value 0; the while loop exits at n = 4.

For my 3rd program I wanted to use a .txt file and just have the program read from the document, but after about an hour trying to make it work elected for a basic *cout* with quotes.

2 Post Mortem

Other than the failed attempt at implementing a .txt doc readout in program 3, I had no issues within the design of the programs themselves. I did, however, have some difficulty getting VS code setup with all the required extensions as well as installing and

properly configuring git on my computer. I don't have any commits early in the design of my program due to waiting until I was mostly done with writing the original code before having git setup properly. As I stated in the design section, I finished my main program with a poor design before reworking it with a while loop that is much cleaner in my opinion.

3   Answers to Questions

- There are virtually endless uses for software within science, medicine, and entertainment. Some particularly intriguing ones include the ever growing world of animation in the movie industry that runs some of the most powerful server farms in the world just to render their animations into video. Another use case is DNA sequencing that gets cheaper and faster every year; this helps with everything from ancestry information to determining if a particular person is at risk of any number of genetic diseases. …

- A software developer can look like anyone, we hail from all walks of life, Stack Overflow's yearly developer survey grants some very interesting statistics though. Software development is somewhat unique in that many of us are relatively inexperienced, in fact 20.5% of respondents had less than 5 years experience, and over half had less than 10! You can read the developer survey here:

  https://insights.stackoverflow.com/survey/2019 …

- My computer has 16 GB of RAM, 6 GB of VRAM, and 4 seperate disks. My boot drive is a 250 GB SSD, I have a 1 TB SSD plus another 250 GB SSD for storage (mostly taken up by games) I also have a 1 TB Hard Drive.

  Currently I'm running and old bulldozer FX-8350 with a hefty overclock, but hope to upgrade to a 3rd gen Ryzen processor within the next 6 months.…

- Web applications, communication platforms, video games, operating systems, and anything within IT are all use cases for software that are of particular interest to me. I hope to work into a DevOps type position after I graduate but plan on working my way through the IT world to gain the knowledge for that half of the job. DevOps and systems administration are of particular interest to me as I find the way it bridges the gap between regular IT and software development of relatable, as my personal interests lie somewhere in between as well. …

4   Sample Output

Listing 1: Main Program Output

```
Hello, world
Hello, world
Hello, world
Hello, world
Hello, world
```

5 My Program

```cpp
// Nathan VanOverbeke
// cs201
// 9/3/2019
// This is the main program of HW0; it simply plrints the given text 5 times

#include <iostream>

using namespace std;

int main()
{
    /* I used a simple while loop instead of copy/pasting "Hello world"
    like I did in the original version. It is much easier to change the
    number of times or what is printed while using this design */

    int n = 0;

    while (n <= 4)
    {
        cout<<"Hello world"<<endl;

        n++;
    }
    return 0;
}
```