Lab 1: Review of structured, looping and modular programming

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CS-230 Data Structures

# Introduction

The materials used in making this lab include: Windows 10, C++ lde(Dev-Cpp 5.11 TDM-GCC 4.9.2), <https://github.com/TheTrueMalkavian/CS-230_Lab1>. In this lab we where tasked with creating a program that allows the user to initially enter information on 4 students and 10 courses. The program then had to associate each student to at least four courses for a semester session. We also had three specific requirements in option 3 shouldn't work if you have no students and courses in the database, Option 1 forces the user to enter a minimum of 4 students, Option 2 forces the user to enter a minimum of 10 courses.

## Procedure/Methodology

*David Wells*

I started to look back at my old notes from CS-200 to try and apply what I learned from the banking app to use with this program. I ended up getting a little confused and decided to just take everything that we went over in class and rewrite it for use in this project. I started by writing in the menu and then filled out students header file. After this I filled in everything for the .cpp file, all while regularly compiling the code. The first error I ran across was when I made the Courses.cpp file I ended up included the .ccp file itself and it got caught in and endless loop. Then I found that I didn’t write down the functions in the header file that I wrote into the .ccp file. I ended up getting stuck at option 3 and trying to figure out how to get the function to work. I realized one way was that I could make a nested switch statement and put their choices into another array.

*Jacob Rush*

First, I had to look at some of the applications that we had built in class to create a base for the application. This ended up working for the creation on the project, but it didn’t cover a lot of the core functions of this application. The main issue I kept running into was the correlation of the courses to the student. We ended up having to create a for loop that incremented through the courses to assign them on the output.

#### Analysis.

*David Wells*

I liked the way that cs 200 gave us time to get used to git hub. I found that all my teammates ended up having to make an account and were unfamiliar with it. It even took me a while to get used to it. Last semester I couldn’t get the GUI to work and ended up using the command line for everything. This semester I was struggling with the command line and easily got the GUI to work. While I was working in the Cyber Lab I found that our group wasn’t the only ones with bad communication. On Thursday we all got on discord and github but Friday we ended up picking Jacob onto our team. I think this also shows that we didn’t have much communication. I believe it might be the way that room is compared to us being in square desks where we can face each other and talk amongst our selves better. I believe the class in the library is great for lectures, but not for gathering groups or any type of group work. Also as a result of me and my teams poor communication and tardiness. I didn’t realize I should have explained how git hub works and that we all should be working on the same code. The result was that now we pretty much have 2 branches of different code.

*Jacob Rush*

This lab was a learning experience for me. I had to first pull from the knowledge of my cs-200 class to try and write this program. Our group also used github to collaborate on the code. This was my first time using github so it made it a big learning curve for me. But after figuring out how it works, I was able to efficiently contribute to the lab.

**Conclusion**

*David Wells*

This project I am starting to feel more comfortable with C++ but find that I come to roadblocks and it takes me about a day to kind of realize how to do it. Overall this project was very rushed, and this is mostly my fault as I should have made sure on Tuesday everyone knew what they were doing. Thursday came along and I found out that no one has even heard of git let alone started working on the project. I think group projects are great and that I really need to work on my communication skills.

*Jacob Rush*

This lab made me look back at CS-200 to remember some of the skills I had forgotten to be able to create this project. Due to this I know I have some brushing up to do on my coding technique in C++. I also got to learn a valuable skill in learning how to use github. This skill will come in handy when I go to collaborate with other coders.