Before I started in the computer science program I only programmed as a hobby. I was undisciplined but I loved coming up with solutions to all the problems that come with programming. When I entered the SNHU computer science program I realized that I already knew quite a bit that the first few classes teach. I also found that my code was not as secure as it should be and that there were faster and easier ways to code than how I had taught myself. This is what I believe I have shown in this final project.

This project started as a simple program that would allow one student to see the list of courses available to register for. The student would make a choice then click a button and the course ID that they chose would show up in a list box. As I approached this project I realized that updating it would be a perfect example of where I came from, creating simple, easy-to-build programs, to where I believe I am now which is able to craft highly sophisticated, secure code. An example of this would be the updating of the process I explained above. Now, not only is the student required to log in, but the courses that they register for are stored in a database so that way they can access that data even after they have completed their current session in the application. This update of adding databases was based on one of the classes in the program where I worked with mySQL.

Another class that I found helpful in the development of this application was an App Development class that had me make an Android based app in Android Studio. In that class I had to design and create a phone app from the ground up. There were many documents about how I planned on implementing my ideas and integrating API’s into the app. I was tasked with thinking about what the public wanted and how best to serve the company I was working for to build this app. This included mockups of each window of the app that would be presented to the approving manager (the professor) and updates would be made if necessary.

I have also learned a lot about data structures and the algorithms that help to maintain them. In my personal projects I had used arrays but hadn’t thought about creating my own data structures like singly or doubly linked lists. In the data structures course, I took I learned about hash tables, binary trees and lists along with sorting and searching functions that help to navigate these structures.

This project really helped me to bring all these lessons together into one final show of how much I’ve grown as a programmer. Instead of choosing three different artifacts I chose to work on this one artifact and improve it with everything that I have learned. With this project I was able to develop a brand-new database system for all the data that needs to be stored. As well as creating a login system that brings a level of security to the system and allows multiple levels of users access the system. After looking at what I started with and where I have come I truly think my skills shine through in this piece.