ISAT 252 has been my first “programming” focused class. As such, I had absolutely no idea what to expect! I read the class overview on *MyMadison*, but I had no clear expectations. I took this class because it was a pre-requisite to the CIS minor. I minored in CIS because I understand that computer science is very valuable to employers and something that stands out on a resume, not necessarily because I want to become a programmer. Going in, I wanted to learn the very basics of programming, how it works, what it looks like, etc. I wanted to learn if this was something I could be good at and something I enjoyed as you stated in the beginning of the semester.

Having zero understanding of programming and the associated theorem, vocab, etc., I went into this class wanting to have about a Spanish I level expertise in the field. I wanted to be able to go to the supermarket, ask where the bathroom was, and make my way around. This was my goal, I wanted to have a very basic understanding of how “programming” is done. I wanted to explore if programming was something I thought I could do in the future.

For the first half of the semester, [I took notes on our lectures](https://github.com/JohnMeyer01/ISAT-252-Class-Notes). I waited until the YouTube video from class was posted so I could pause and rewind (something I wish all of my professors considered!). As the semester progressed and we began actually working on projects I no longer took notes. However, I feel the different topics we touched upon built a strong foundation for more difficult problems. Apart from our in-class activities, I watched videos and tutorials of things to help with my calorie/weight tracking program. Because I was a virgin programmer, coming to each team meeting with something to show was quite intimidating. That was helpful, though, because it really motivated me to make good progress. I watched [*many* YouTube videos](https://youtube.com/playlist?list=PLRjZ1WA9gWEBspBrxt03f-yqPGicHPS-i) on how to work with Matplotlib. I also spend a lot of time reading from the Matplotlib library on the website, though I do not think that was very helpful as it was a bit harder to digest. Lastly, I worked on two separate courses, one for Matplotlib, and one for SQL to prepare me for my next semester's coursework. I probably spend a minimum of 2 hours and a maximum of 5 hours per week working on my project, watching videos, and working on the courses. The time I worked outside of class was mainly to achieve something to show for my weekly meetings.

My goal in the beginning of the semester was to learn the very basics of programming. I just wanted to get an introduction and see if this was a good fit for me as a person. As the semester progressed, my goals shifted onto the project I was working on. I wanted to make a working program that would help me in my personal muscle gain journey. As I continued working, I realized the implications of such a program. I once again shifted my goals unto creating an application that could help not only me, but others with the same issue. As someone who loves to create things (specifically businesses), this was a very interesting prospect and something I will continue to pursue after this class ends. I am lucky enough to be around people like Hafiz who are willing to help with such endeavors

If success means accomplishing what I set out to do in the beginning of this course, which was to get my feet wet, I believe I more than succeeded. Over the course of the semester, I was able to get a basic understanding of how programs are executed, I was able to build a successful first iteration of a program, [I was able to begin building out an app](https://github.com/JohnMeyer01/Gain_It/blob/main/main.py), and I started a course in SQL.

 My main project this semester was working on my weight-calorie tracking program. The program pulled data from excel and plotted two different important variables, weight and caloric intake. The program plotted these lines over a shared x-axis so the user could easily see the correlation between calories consumed and weight gained. The program then ran a “if-then” statement to compare the last seven days and the seven days before that. If this difference was less than one, [the program suggested eating around 100 more calories](https://github.com/JohnMeyer01/Weight-Calorie-Tracker). This was an extremely challenging task that I would not have thought I would be able to do at the beginning of the year. The skills I learned during this semester-long project may also help me deal with processing large amounts of data from excel. As a future accountant, being able to work with data directly from excel will be very marketable.

I have also begun building my web-based application using Streamlit. Although the app is not functional as of right now, I will continue to build it out over the summer and attempt to publish it at the time of completion. I hope that others can use this, and perhaps build upon it, to help them gain weight.

During the semester I also began working on an intro course to SQL provided by DataCamp. This course will be a strong foundation for my future CIS courses and the proficiency it will gain me will be useful in organizing data for my summer internship with a small accounting firm.

One of my goals this semester was to understand the very basics of programming and the associated vocabulary. Although I took notes, I have not drilled them and thus they have not stuck in my head. I am assuming that similar to a foreign language, you must be engulfed in it in order to really absorb and understand it. In order to better understand my courses moving forward, I will create a quizlet for all of the terms this semester.

Although not a failure, I spend the majority of my time in this course banging my head against the wall and silently fuming. By not having the fundamentals down, I ran into many difficulties that could have been avoided. In fact, whilst working with Matplotlib for the first few weeks of the semester, it was not until I did a proper hour long tutorial on YouTube that unstuck me from many of my problems. Moving forward I will try to do more tutorial work before attempting something completely new.

This course has certainly been a learning experience for me. Programming has always been so mysterious as an outsider. I have many friends in the space who seemed like magicians when they built an app from the ground up. This course has de-mystified the field for me. Working out, specifically bodybuilding and powerlifting, have been an important part of my life for many years. They have been where I have made my strongest (no pun intended) friends and have always provided me an outlet for my personal issues. By enabling me to build a program that fits with my pre-existing interests, this class has kept my attention. In that sense, I do feel this course has led me to lead a more “productive life”. My biggest struggle in lifting has been eating. My fast metabolism and small appetite have been a constant bottleneck in my journey. I feel that the program I am building, that shows how your calories affect your weight and can make recommendations on how much more to eat, will help myself and others greatly.

I have thought long and hard if programming is something I think I could do for a living. I certainly enjoy the process of “running” a program and seeing that box pop up with a working graph, chart, etc. On the other hand, those red lines of “traceback error” might very well haunt me till the end of time. To answer if I could do this for a living, I have to think what I want out of life. Do I want a stable job with a solid income, or do I want an exciting job I love with volatile income? As a risk-averse person, the former is a little more comforting. Afterall, I went to college to get a stable job. I will always be able to fall back on my college education if my passion falls through. With that being said, do I think I could do programming as a living? Yes. Do I want to? No! But I will pursue the CIS minor because I do want that resume booster and do want the *skills* to be able to manage data. I am by no means in love with coding, but I appreciate the knowledge. I am also not in love with creating SWOT analyses or working through FASB codification, but I recognize these skills will allow me to succeed as an entrepreneur. I am thankful that this class has been my first programming experience because it allowed me to apply coding to something I love and has thus kept me optimistic and interested.

I believe I deserve an A or an A- in this course because I accomplished what I set out to do and much more. An A represents that a student was able to accomplish all that was put in front of them by the professor. In other words, they successfully learned the necessary coursework. By allowing us, the students, to determine what we wanted to work on, our pursuit of that is what defines success.  I set out, in the beginning of the semester, to get a rudimentary understanding of programming. To learn what coding looks like, to see if I liked it, and to see if it was something I wanted to pursue. I strongly believe that I accomplished these things and more. By taking notes on lectures, following along in building programs, watching tutorials, and experimenting with apps, I have surpassed the parameters of success I defined for myself, granting me an A.