Reflective Narrative

Some expectations I had coming into the course consisted of two things: When I first enrolled in the class I was worried, not because I thought there to be a difficult path that lied ahead of me, but because I enrolled in the class after classes formally began and I had never taken a coding class before. So I was worried I already missed some material but I was relieved to find out that all the class recordings were uploaded to Slack and that I actually did not miss much pertaining to the actual course material as I thought I would. My second expectation was that I knew almost nothing about code, so I was expecting to be introduced to something entirely new, which I found both exciting and interesting. I am an engineering major, and there was a class I took at my second semester here at JMU where I was introduced to Arduino and Matlab. So technically I had some knowledge of code, but I did not understand how the languages worked. I spent lots of time in that class working with the SparkFun sensors such as a pressure and temperature, and organizing the code where I can collect atmospheric data for a weather balloon we were making. Another challenge was incorporating an Xbee radio into the system to send the data from the balloon to a laptop. I do not remember much about specifics in terms of coding, but it was definitely a challenge for me. My team succeeded, but only a small amount of knowledge carried over with me into this semester since I have not done anything with code since then. All I had was vague knowledge of how Arduino/C++ worked.

Once we started diving into the material for this course, I realized that none of my prior experience would be of use to my learning, and that I would have to start fresh. A learning goal I set for myself was to gain a basic understanding of how Python works, as that was the language that interested me the most and pertained to my interests which are engineering and robotics. Another goal was to just basically understand code in general. I want to be able to look at code I or someone else wrote and understand the purpose and reasoning behind each line. One of the reasons why I chose to take this class was to build a stronger knowledge base on something that I find interesting. Technology has been on the rise and knowing how to program is a skill that is in high demand in a range of fields, like engineering. I think the day where I can fully understand code and can quickly troubleshoot errors will be the day where I can feel confident to say I have incorporated coding into my skill set.

I think I did a good amount of research and work to help my learning in this class. I mainly stuck to FreeCodeCamp for my Python tutorials, watching hours and hours of videos. I would also rewatch them whenever I felt stuck or confused. But usually when I had a small error, I would rely on a simple google search, which did the trick. There are lots of forums I visited over the semester, whether it was Stack Overflow, Reddit or even Bytes. I think some of my favorite tutorials and practice problems I did were through CodingBat. I enjoyed doing the first warmup because all of the solutions were there for me to look at if I ever got stuck. CodingBat also helped me learn about making tests when we were first introduced to them, although I did not do them for every exercise. In terms of time I spent doing work outside this class, I would probably say I averaged about 5 or 6 hours per week. A goal I had was to at least get in one hour each day of

the school week, whether it consisted of doing exercises/tutorials or watching the FreeCodeCamp videos, which took me quite some time over the first half of the semester since there were a lot to watch as well as a 4-hour introduction to Python.

My goals certainly did evolve over the course of the semester. Originally I wanted to gain a basic understanding of Python, but throughout the semester I found myself diving into deeper and more complicated topics related to Python. Now I probably was lost most of the time or did not fully grasp what the advanced topic was about, but I believe it was beneficial for my learning to have come across them. Early on in the semester I began working on my personal website, and while it took me some time until I actually put a lot of effort into it, I think that is another way my goals evolved. I did not think I would put lots of effort into the website when I first made goals for myself in the beginning of the semester, but I am glad I was able to dedicate more time to constructing the website. I started to think that using my own personal website to my advantage and display all I can about me and what I am doing for school. And if I were to continue editing it (which I hope to for a long time) I would love to display my progression and achievements throughout my college career.

This leads me to my successes over the semester. I would say one of the things I am most proud of completing is my website. It started off small, with just a blank white page with the title “Jack’s Website” with a couple of sentences under. Once I figured out how to add a photo to it, I was super excited and tried to move what I had to a template which was discussed in class at the beginning of the semester. I went through a number of them until I found one I liked, and started from there. But part of me also believes that the website is not so much of an accomplishment, since a majority of it is indeed a template, and I just made a lot of small adjustments to the code and added photos. But overall I think I can consider this as a success, since I had to actually understand how the HTML/CSS code worked and how to format and insert links into the website. It is something I am proud of that I did, but it was not the only thing. Something else I was proud about was making my own password generator. I had troubles on the first one I did, and just ditched it entirely and made a new one. Unlike the first one (which I did by following a tutorial) the second one was a bit more original for me. I used elements from different examples and researched what was essential for making a password generator. This is also something I am proud of, because it is something I can actually use whenever I want to, like my website. There were other smaller successes, such as making a rock paper scissors game and doing the CodingBat exercises.

I think one area where I failed to achieve my goals and wish I had more practice with testing. I did not think I grasped the concept as well as I should have while taking this class. It was something that I understood when it was first introduced, but when it came time to try and make my own tests for code I always felt stuck. I believe that I should have asked for help, and dedicate more time to understanding these tests. Since it seems like my lack of understanding of tests was my biggest failure in the class, I learned that I always need to ask for help and reach out to those around me who are willing to help. If I would have done that, maybe I would have understood even more about programming than I even do now. In the future, I plan on pushing myself harder in

school because I am basically halfway through my college career and I do not want to spend every semester struggling to understand something when I know I can ask for help or do more research.

I feel more educated rather than enlightened, due to my one failure. Overall, I do indeed feel more educated because I have picked up a lot of new information and knowledge this semester, since it was my first programming class. The activities that I went through this semester definitely contributed to knowing myself and what I want to do in the future. In fact, it more so “reassured” my passion for engineering because of one thing, and that is problem solving. While programming everyone encounters problems with their work and has to work to understand and solve those problems. I am someone who enjoys solving problems and gets the most ecstatic feeling from it. Programming just helped me by taking another step in the direction that I want to head in, and I am grateful for that.

This leads me to say that I think I should get a B+ or A- for this course. My reasoning for this was that while I did not attend every class, I still watched the recordings of the classes I missed later on in the day. I made sure I was keeping up with the lecture, as well as my weekly team meetings. If I recall I only missed 1 or 2 meetings, but I still tried to say what I did in the Slack chat when I did miss the meetings. Online learning is something we have all had to adapt to over the past year and it sometimes makes it difficult to really learn. It makes it harder to participate in class whether it was saying something aloud or typing something in the chat, but I tried my best to dedicate time to this class and understanding the basics of programming.