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CS 499: Software Design/Engineering Narrative

The artifact that I chose for this Milestone of the final project was the final project submitted to my CS 330 class in December, 2019. It is a program in C++ that, when run, opens up a window with a chair that can orbit, zoom in/out, change perspectives, etc. based on what buttons the user decides to press or if they choose to move the mouse. The reason that I included this in my ePortfolio is because it encompasses the ability to create a program or design using graphical functions while showcasing my abilities to create a program that can be manipulated in a controlled environment. This was one of the hardest projects I ever worked on due to the fact that it was not only a language I was unfamiliar with, I also had to learn and harness concepts that were very foreign to me; it was unlike anything else that I have ever done. The specific skills that are displayed consist of a proficiency in the C++ language, ability to customize the code, as well as the ability to utilize graphic design and simple, easy-to-understand comments to effectively showcase the purpose of the program to the user.

I improved upon this project by adding more than just a chair to the program. I added a room and a table so that it did not look like the chair was in an infinite environment. Accomplishing this, however, was no small feat. My original plan consisted of adding extra coordinates and colors to be able to physically draw the 3-D images behind/beside the chair. As like many plans in the computer science field, obstacles arise that either can or can’t be ignored. I had to come up with an alternate solution to resolving the issue I had with deciphering multiple objects in one screen without them warping and morphing into the original object. My alternate route ended up being successful, which was to create a separate program to create and call the room, as well as create an additional two files that focused on the drawing of the chair and table to lie within the space of the room. I can confidently confirm that I have met my objectives for the enhancement of my program to the best of my ability at this point in time.

This process was definitely a learning experience for me, and I did need to seek out help from forum communities to aid in recommendations for the successful enhancement of this project. Throughout this process, the obstacles I faced were the challenges of a lack in physical ability to edit my program, the lack of ability to access the virtual environment that this project was originally created in, program creation challenges that displayed less-than-desirable results, and my knowledge in overcoming obstacles such as this. To overcome these, I used the help of my coworker to utilize their computer which had more capabilities than my own, as well as sought out help from communities who experienced the problems I was facing also. What I learned throughout this process was that seeking help is nothing to be ashamed of, and making sure that frustration doesn’t get the better of me is an absolute must. Asking questions allows me to be able to gain knowledge that I didn’t have before and allows me to open up my mind to other problem-solving ideas. Maintaining frequent breaks and times to review and recuperate helped to keep my stress from bogging down my work ethic and hindering my programming capability. Overall, this enhancement was a success.