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Narrative One

The artifact being enhanced is the AirGead annual interest rate calculator. This was from my first C++ class . I chose this artifact for numerous reasons, first C++ is on of the languages I want to specialize in, there was a lot of room for improvement on the application even though it is a very simple application. For this category Software Design/Engineering I wanted to focus on creating a user interface in this case a windows form GUI opposed to the original console application. This will help to showcase my ability to use innovative skills and techniques for implementing design solutions, through the use of input checks and try/catch blocks I have shown some basic abilities to address potential design flaws related to security and set myself up for the second category enhancement that will also be completed on this project.

This enhancement alone doesn’t quite hit everything on my list of enhancements for this artifact, in fact at the moment this application doesn’t work. My design for the complete artifact mixes category one and category two enhancements working together, my goal for this milestone was to get to a point where I can comfortably begin the next phase of development. Essentially, I am treating this as a sprint with the end goal of having a UI built, the next sprint will include adding the enhancements for category two which are based on the logical side of the application, this will conclude with a third sprint where I will incorporate any instructor feedback into the application and final polishing. The original application had a basic console with a prompts for each user input, I have enhanced this to a simple windows form with prompts and text boxes for user input. Each text box has a check to ensure that the text box hasn’t been left empty. Once the user presses enter the values in the text boxes are converted to the appropriate data type within a try/catch block and then set to the appropriate variables.

The enhancement process came with numerous challenges the biggest being determining the appropriate tools to use. I began researching C++ UI tools and kept running into two specific tools Qt and winforms, I decided to go with winforms simply because I already have visual studios and the downloads necessary to work with them. Next I had to learn how to work with this type of file, first I had to create a new project as my original artifact was a console application not the correct type of project. This did show me the value of creating reusable code as I was easily able to copy and paste the important bits of the original code into this new project easily. Another thing I learned was that I couldn’t do everything at once I was planning to start the enhancement for category two so that I would have a fully functional application by the end of this milestone. I quickly found out that trying to do everything at once was going to greatly take away from the overall quality so I changed up my approach to the sprint style approach that I discussed above. Normally my projects aren’t to big and it is fairly easy to just knock it all out together in a few days, in this case while still not a large project I wanted to ensure I had a higher quality submission so breaking it up made sense.