

I found this assignment to be very enlightening. Before this assignment, I had never developed software with a GUI that is not a video game, so this was my first time doing so. The code I initially wrote was in C++ and I wrote it on my own without any external resources. I made a very successful to-do list and meeting organizer that ran in the terminal. However, upon completing, debugging, and testing the code, I realized it needed a GUI and I had never created a GUI before. After some very brief research on easy GUI software for C++ programs, I decided to try out Qt. This was my first error; I had never used Qt before and, as I was unfamiliar with it, I did not know how to transfer my C++ program to Qt and build a GUI. I did some research and tried to follow some tutorials, but there was simply not enough time to learn Qt and successfully build a working artifact while completing my work for other classes. I turned to ChatGPT in hopes that it would help me translate my code from a C++ application running in the terminal to a working demo with a GUI built in Qt. Rather than helping, ChatGPT made things worse, giving me code that did not work and ran with 3 errors. Once these three errors were fixed, 28 more errors popped up and fixing some of these errors just exponentially increased the errors. At this point, I decided to pivot and see what the easiest way to write code with a GUI was. After some research, I discovered Python's Tkinter. I asked ChatGPT to convert my C++ code into Python with a GUI built in Tkinter and this time, ChatGPT worked, giving me code that worked without error and as I intended. My next step was to integrate Canvas and Google Calendar support. For this, I turned again to ChatGPT which explained that I would need to add the ability to import .ics files. Thankfully, this was not too difficult and, with some additional help from ChatGPT walking me through the process, I had a working program.

I learned the hard way from this project just how important the software development process is. I should have planned to use a GUI software and planned that from the beginning. I should have made sure I knew how to develop the software with a GUI and spent time in advance learning to use my chosen tool. Additionally, I learned how valuable the detailed notes I took during the user story activity were. They guided my design and coding process, helping me quickly write code that prioritized the important things my partner wanted.

When my partner first proposed his idea of a to-do list/planner application, I thought it would be easy, that he would simply want a program that would track his assignments to-do and meetings to attend. However, the more I listened to my partner, the more I understood what he really wanted. He wanted a complex and robust application with multiple user-created to-do lists, the ability to send reminders, and, most challengingly of all, the ability to import tasks and meetings from other applications. If I had not interviewed my partner, I would not have known how important it was to have the ability to import tasks and meetings from Canvas and Google Calendar and I likely would not have included this functionality. My partner taught me to listen to everything someone says in an interview to make sure my software meets the requirements of the user.

This assignment will be very useful moving forward in my semester project. It taught me the importance of planning ahead and making sure I understand the tools I plan to use before I attempt to use them as exhibited by my attempts at creating a GUI with Qt. This assignment also helped me learn how valuable ChatGPT could be as a learning tool. For some time, I dismissed it as a flawed "cheat code" that would dispense mostly broken code while teaching nothing. For this assignment, ChatGPT actually helped

me learn and understand tools I was not familiar with which was very beneficial. Finally, I learned how important it is to listen to all information given by a user. Listening carefully to my partner helped me to build an application that I think meet all of his specifications, including importing tasks and meetings from other applications, that he would be satisfied with and actually use.