CS 499 Milestone Three

Susannah Weatherby

7/27/2025

The artifact used for this enhancement is a set of three java files created on April 28th, 2024 that were used to experiment with automatic testing. This is the second enhancement to this artifact, continuing from the previous enhancement which rewrote the artifact into python and converted it from a proof-of-concept into a functional program. I chose to continue improving this artifact because I believe that the best way to demonstrate my abilities is by following up on previous enhancements to create an even better product than the program was previously. For this enhancement, I demonstrated my skill in data structures by developing the object classes further: contacts no longer are a single type of contact, instead there are two subtypes of contacts; customers and employees. In addition to this, appointments and tasks must now be assigned a customer or employee respectively in order to be created, which are listed when attempting to create one. If the user attempts to create an appointment/task while there are no existing customers/employees, the program will stop before any information can be entered and inform the user no customer/employees exist. Although my plans changed from my initial idea in module one, I believe that I have met the course outcomes for this enhancement. At this time, I do not have any changes to what I have planned for the third enhancement.

While adjusting contacts and its relative functions to be work with its new subtypes ended up being an easy task, I had a harder time reorganizing the appointment and task functions between ensuring they worked properly and keeping track of where everything that needed changes was. At one point I decided to re-organize the code so that contacts were on top, appointments were in the middle, and tasks were on the bottom for all functions of the program which made keeping track of the flow of the program easier. This also made more sense from a user-standpoint, since initially appointments were first on the main menu, but the first thing a user would want to do is create a contact, which was in the middle of the main menu. Besides a few errors I made when coding that had to be fixed, the largest issue I had was when I kept receiving an exception throw error when attempting to view the appointment or tasks lists, which was because I had written \_\_str\_\_() to import the contact service from \_\_main\_\_, while it was actually defined in main(). After fixing this issue, everything worked smoothly.