AMB1 - Task 1F – Tchaikousky Thomas

1. There are many things to consider when developing a mobile application. One must consider which operating systems to support, potential resource limitations, and implementing an adequate user interface that allows users to easily manipulate data on typically small devices. Mobile devices are limited in memory and storage, so that must be taken into consideration when designing a mobile application. This application was developed under Android operating system sdk version 30 and is compatible with any Android operating system sdk above sdk version 26.

2. One of the challenges I had while developing my mobile application was implementing the Room persistence library. This project was my first-time implementing Room, so there was a slight learning curve. Another challenge I experienced while developing my mobile application was finding myself consistently needing to add to the data model well after it had been constructed. One last challenge I faced while developing my mobile application was improving the user interface of the application after it was fully functional.

3. The way I overcame the challenge I had implementing the Room persistence library was spending some time reading the official android documentation on the Room library. I familiarized myself with commonly used methods, while also familiarizing myself with the data flow that is utilized when using the Room library in an android application. The way I overcame the consistent need to add to the data model after I was past the modeling stage was pausing the active development phase the project and going back and redoing the modeling phase. With my last challenge of improving the user interface of the application after the application was fully functional, I believe that I more so learned from that challenge than overcame it. Once I reached that point, the only option that I had was to continue the course that I was on.

4. There are a couple of things that I would do differently if I did this project again. I would spend much more time in the planning and modeling stage than I did when developing this application this time. I lost a lot of time having to pause development and construct proper data models. Another thing that I would do differently is to complete presentation of the user interface before I implement the functionality on the back end. Lastly if I were to complete this project again, I would be sure to familiarize myself with all technologies before beginning the project. I could have saved time during the development phase during this project if I familiarized myself with the Room library prior to beginning this project.

5. Emulators are programs used to imitate other devices/operating systems. A pro of using an emulator is the ability to test your software on many different devices without having to own the actual physical devices. One con of using emulators is the performance of the device that is being emulated is limited to the actual operating system that you are using. A pro of using a physical device is the reliability of a physical device compared to the potential of outside influences of the host operating system when using emulators. A con of using physical devices when developing a mobile application is the cost of acquiring multiple devices for testing.