Challenges and Lessons Learned

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One of the initial challenges I faced was re-learning Java coding. It had been about eight years since I had done any significant coding in Java. I've been primarily using C++ and Python at work, so initially I was just getting used to the keyword and syntax changes. When I started working on the User Interface, it was the first time I've used Swing. The window builder helped get me started, but when I started doing code manipulation, inheritance, and overriding of the Swing classes it was a steep learning curve. There was a lot of unknowns, such as how to display a pop-up window or update a list, but once I figured it out, then I could re-use that for multiple use cases and it became easier. I'm glad that I had this refresh and practical application of Java, Eclipse and Swing. Working to add use case functionality was a great motivator to figure out how all the pieces need to work.

Many of the diagrams and documents used in this project were totally new to me. Creating and using these documents, in the implementation of the system, gave me an appreciation for their utility. At work, I've referenced some of the diagram types (Sequence and class diagrams) but this was my first time creating them alongside a new development effort. I had made a number of mistakes in my initial use case documents. Through feedback I gained a better understanding of actor interactions, use case naming and organization. The Domain Model and Glossary were not something that I had seen before, but it is a great tool to conceptualize the system for a customer. I could certainly see myself using this in the future. Through refactoring, I learned about code consolidation, using builder methods, avoiding duplication, and how separating functionality can improve maintainability. Using controller classes in my design helped to simplify the UI interaction with the Domain logic. I'm pretty happy with the final design of the project. This project was a great vehicle to use the various design practices and diagrams that were discussed in class and the text.