Design Evaluation

In evaluating our overall design we considered its completeness and consistency, as well as several object oriented design metrics. Overall, our design performs pretty well, but there are definitely areas that can be worked on.

Our design is fairly complete. We tried to make a concept statement that involves most parts of any normal library. Most of our requirements came from this concept statement so we fill mostly confident about our design. That being said we noticed a few parts from our analysis phase that we filled. This design has moved towards more completeness compared to our analysis.

In regards to consistency our design performs well. All of our boundary, controllers and database objects have consistent responsibilities across the collaboration diagrams. Maintaining our consistency throughout the different phases was tough and changes were made when needed. Most of the larger concepts weren’t changed too much through the phases and the consistency was mostly maintained.

Our design has some decent quality that can be seen through simplicity and modularity. Our design meets our set requirements from our concept statement. Our separation of concerns and coupling were pretty good. Our classes and overall naming complexity were kept to a minimum to maintain the simplicity of our system.

Usability was also a quality concept that we focused on. We designed our system keeping usability as simple as can be since most users for a library might not be as use to a computer as others. This allows the system to perform well without as many bugs coming from over complicating the usability in our design. The interface is straightforward and simple to navigate without losing the necessary information that the user wants.

Our system could build upon our usability even more. There is functionality that other library websites have that we could have designed and implemented but due to time constraints they were left out. We considered adding in a search function and user communication to librarian through a messaging system, but considering the time we had we decided to leave these out.

Our system performs with regards to some of the object oriented design metrics. Most of our methods are extremely simple which can be more easily maintained in the long run. Overall most of our methods are reused while some are only used once so their reuse is low. While keeping object oriented design in mind we kept our system from getting too complex.

We considered to redesign our design to allow for a more complicated user interface with more functionality. While comparing the pros vs cons for having a more complicated design for a library system we realized most of the functionality wouldn’t be used or seen as much as our other required functionality so as a group we prioritized this to only add in if we had the time.

Overall our system has had significant improvements from our Analysis phase. Our complexity was kept to a very minimum which helps with keeping those parts easily maintained, but hard to get rid of if that need arises. Our usability was kept simple and this was thanks to having a pretty good Analysis phase.