Assignment 4
Detailed Design

Statement of Work

In the analysis deliverable of the requirements we describe the purpose of the system and discovered the domain objects needed. In the system design deliverable, we described the system in terms of its architecture and defined the platforms it will be deployed on. This allowed us to select off-the-shelf components to use in our system. In this deliverable we will focus on closing the gap between our domain objects and those components by identifying additional solution objects and refining our existing objects.

Required Deliverables

For this deliverable, your group must provide:

1. Refined class diagrams that cover the following aspects of the system:
   1. The creation of new holding requests and the interaction with the holder.
   2. The fulfillment of holdings and the payments of said holdings.
2. At least three nontrivial OCL class invariants with textual explanations
3. At least three nontrivial OCL method specifications with textual explanations
4. Description of at least two design patterns that are used in your design. Include the motivation for using them.

Moreover, you must prepare a 5-minute presentation that will be presented to the client.

Due Dates
Your group must turn in the deliverable by **May 25th, 2017**. Late submissions will not be accepted.

**Guidelines**

- Use the template given in the course book.
- All class diagrams should include inheritance and aggregation relations, including cardinalities.
- All methods and attribute signatures should be well typed and have visibility defined.
- Include textual descriptions for any class or method that does not have clear semantics.

**Simplifications**

Your client has decided that the system does not need to have payment method and will be handled by third party.