###### 

**PUCIT**

Punjab University College of Information Technology

**Second Deliverable for Object Oriented Approach**

**Version 1.0**

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# 

## ***1 Introduction***

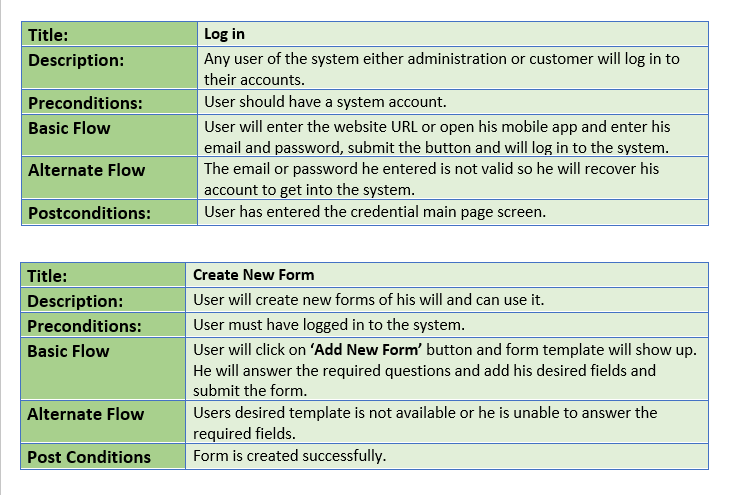
Third deliverable is all about the use case modeling and software design. In the previous deliverable, analysis of the system is completed. So we understand the current situation of the problem domain. Now we are ready to strive for a solution for the problem domain by using an object-oriented approach. Following artifacts must be included in this deliverable.

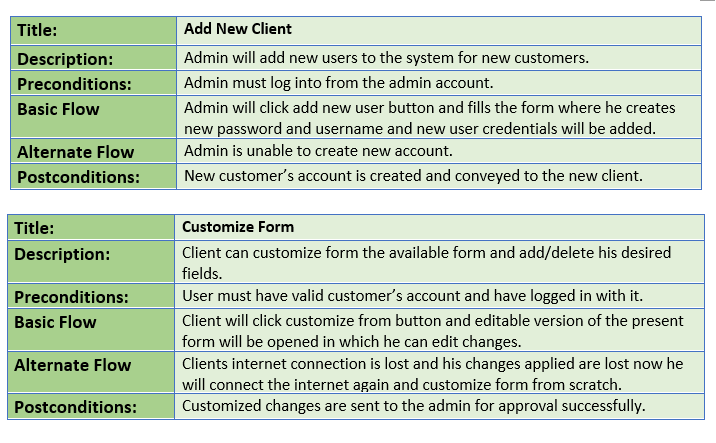
1. Use case description
2. Use case diagram refined
3. Domain Model
4. Sequence Diagram
5. Collaboration Diagram
6. Operation Contracts
7. Design Class Diagram
8. Data Model

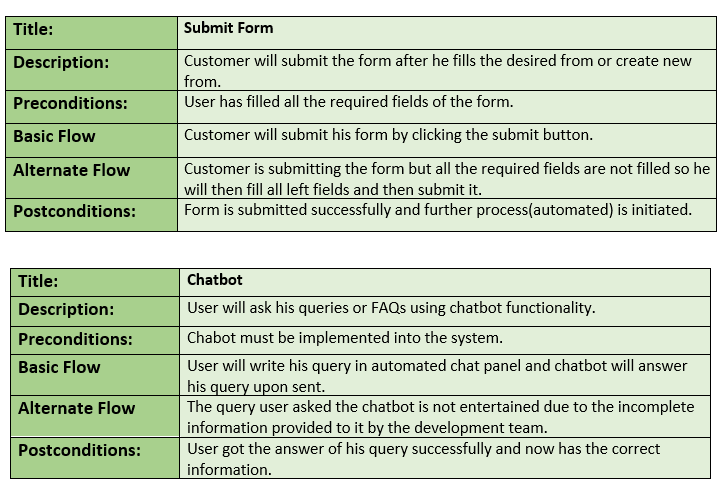
Now we discuss these artifacts one by one as follows:

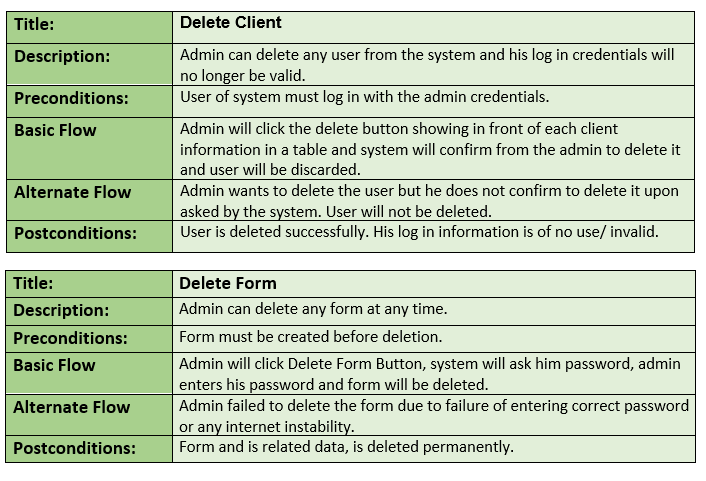
## ***1.1 Usecase Description***

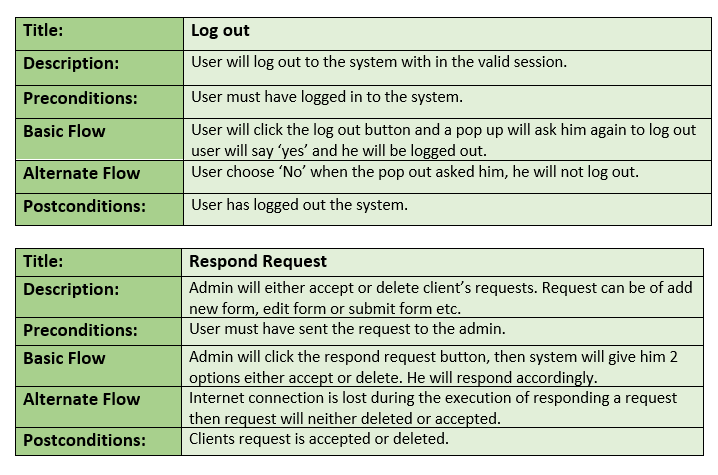
**Use Case Descriptions**



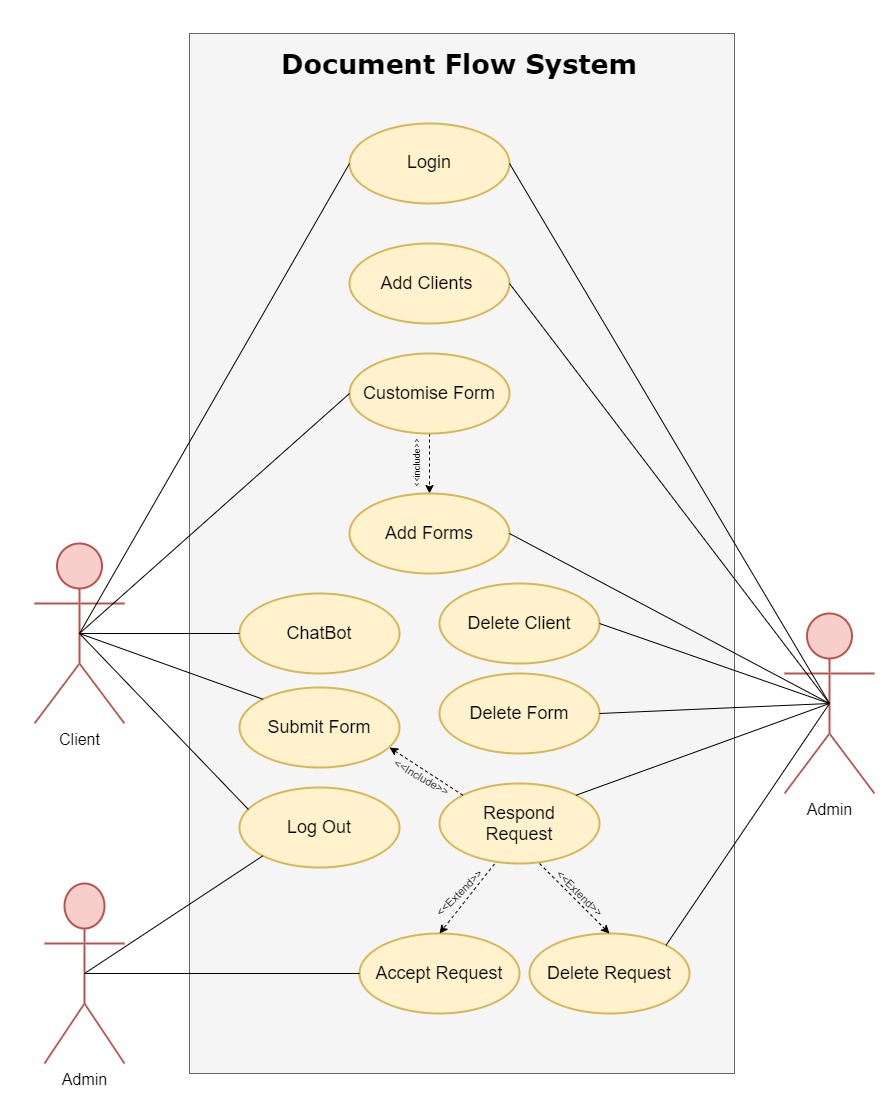








## ***1.2 Usecase Diagram (refined and updated)***

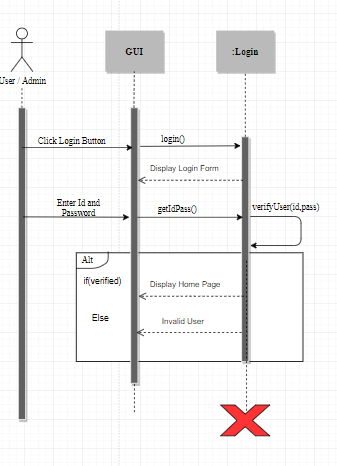


## ***1.3 Domain Model***

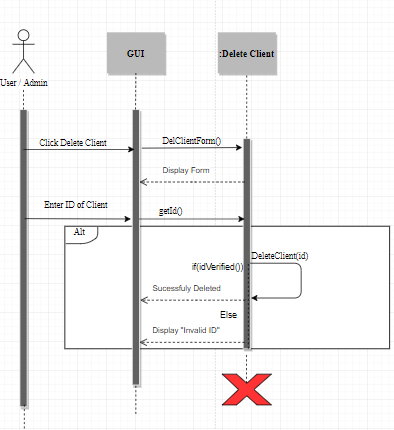
## 

## ***1.4 Sequence Diagram***

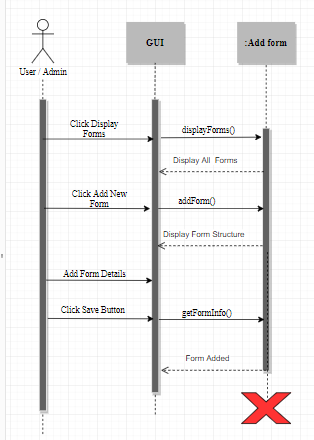
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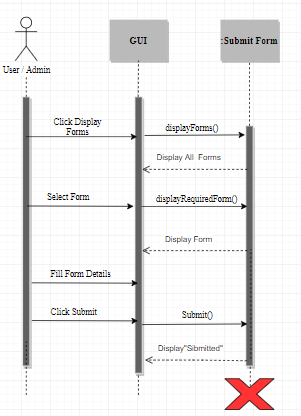
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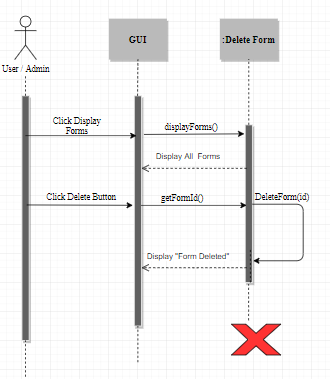
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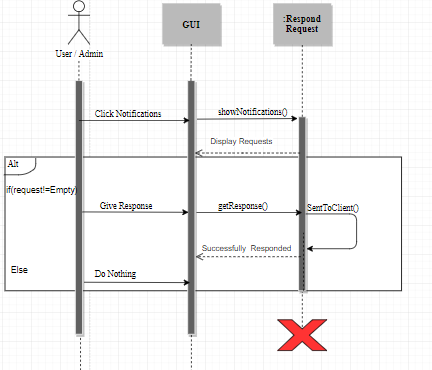
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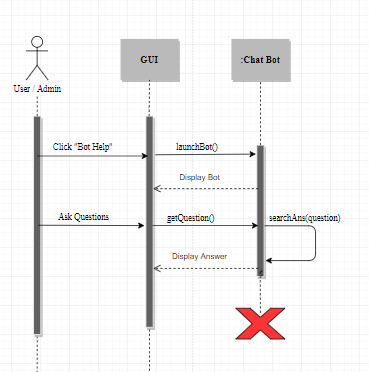
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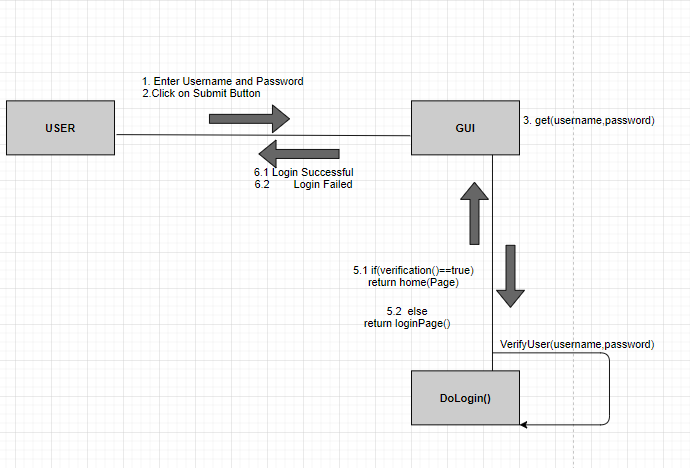


**Chatbot:**

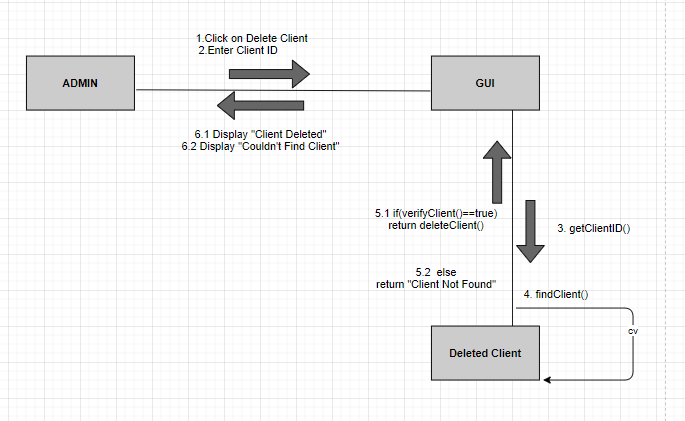


## ***1.5 Collaboration Diagram***

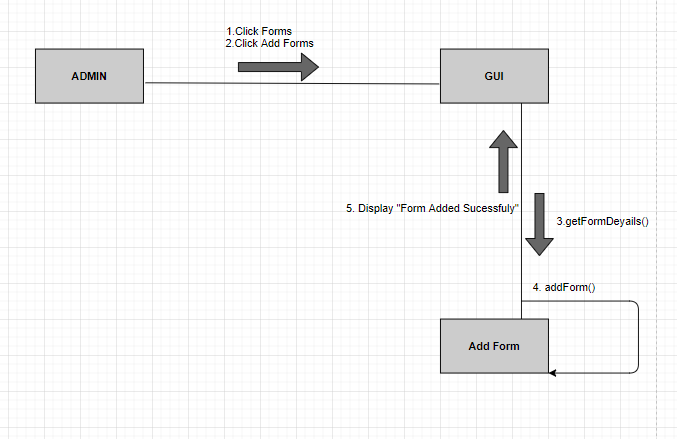
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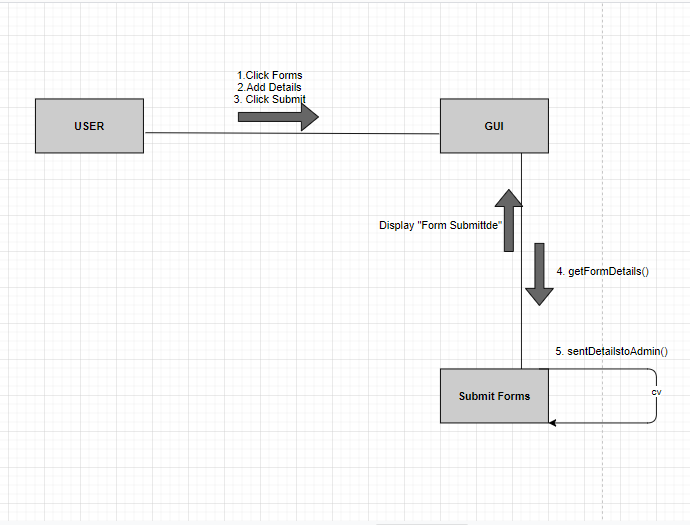
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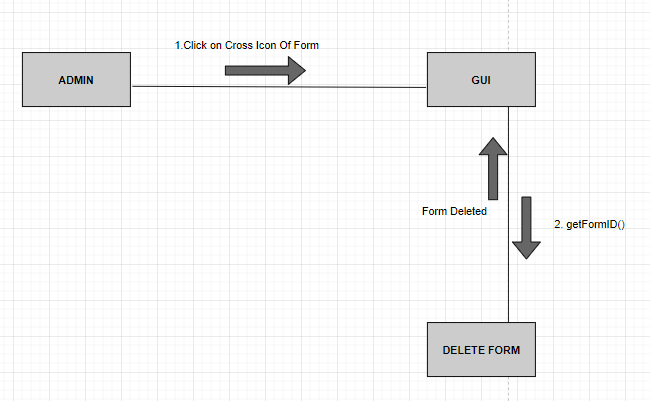
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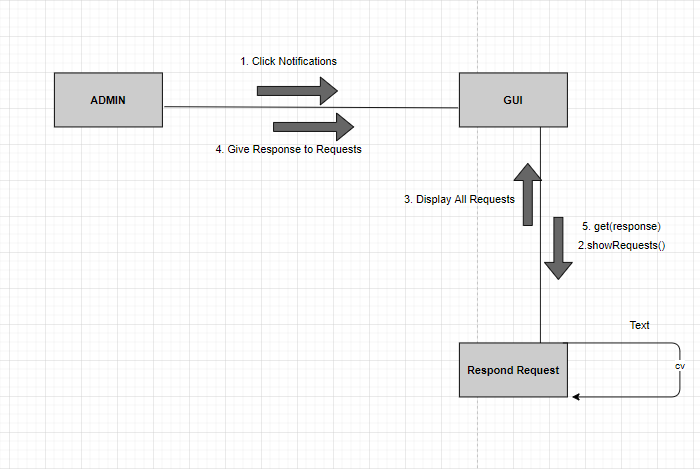
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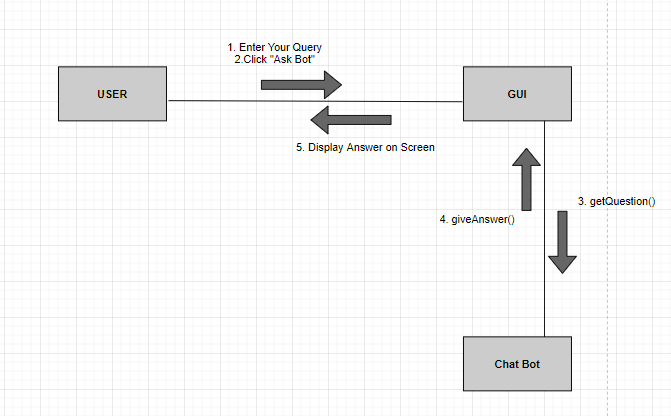
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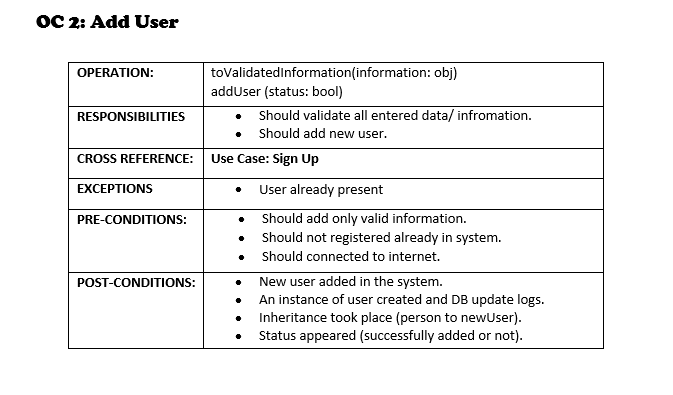
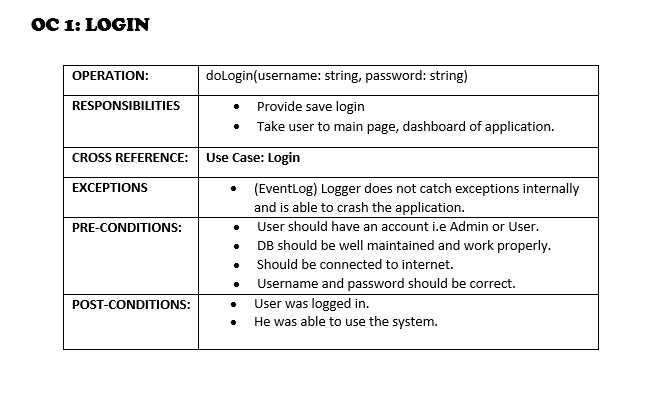
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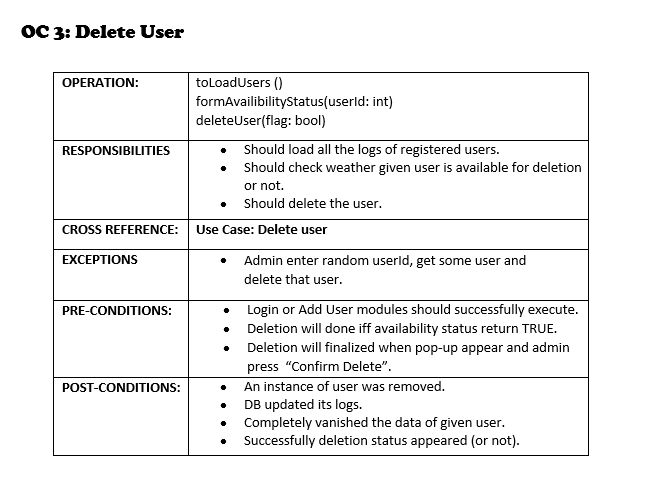


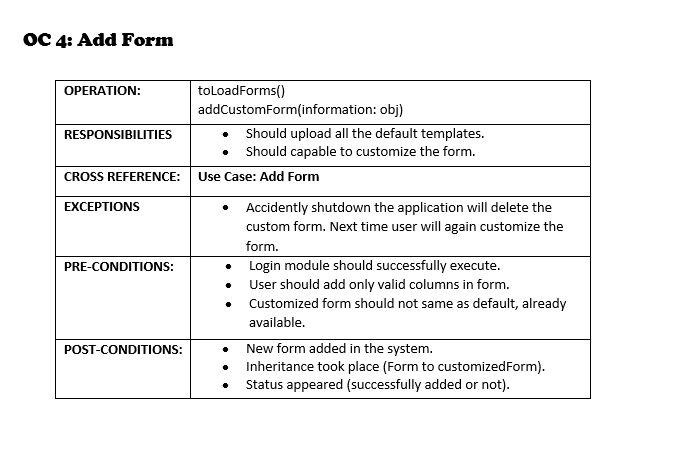
**Chat Bot:**

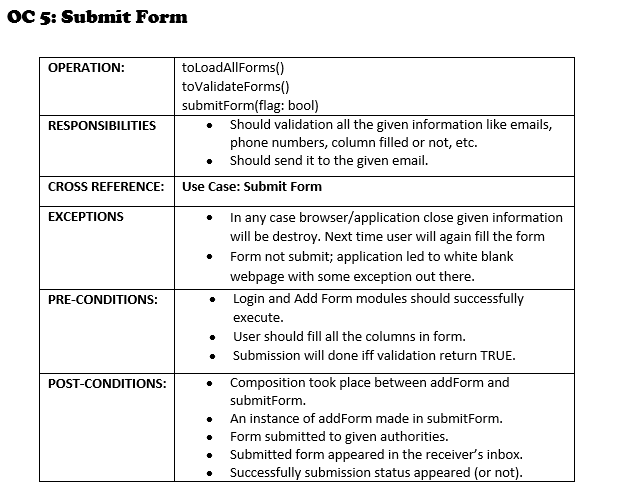


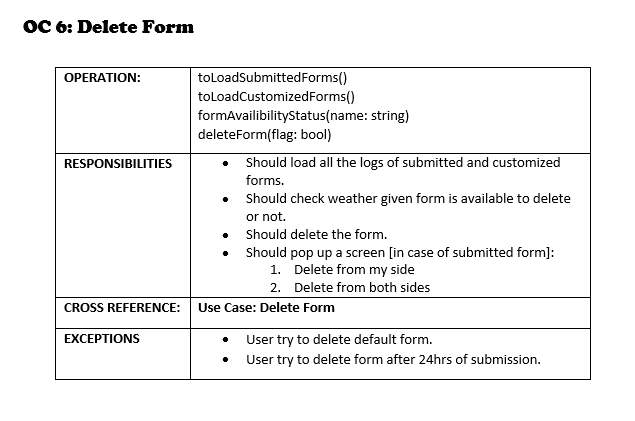
## ***1.6 Operation Contracts***

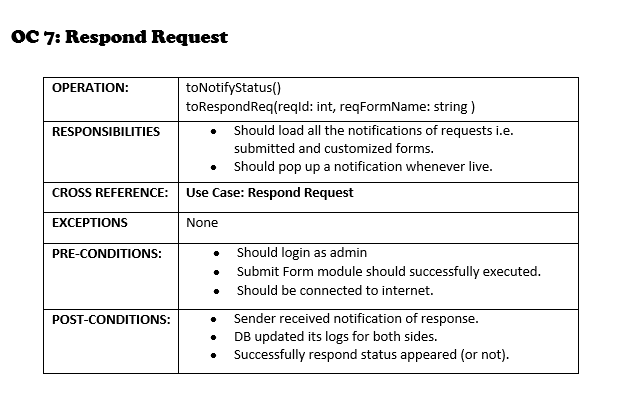


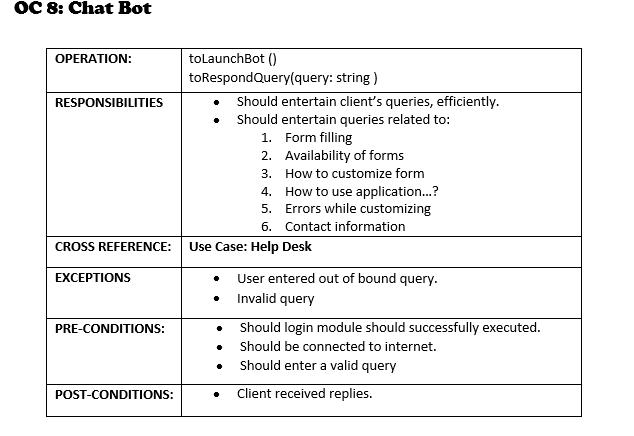




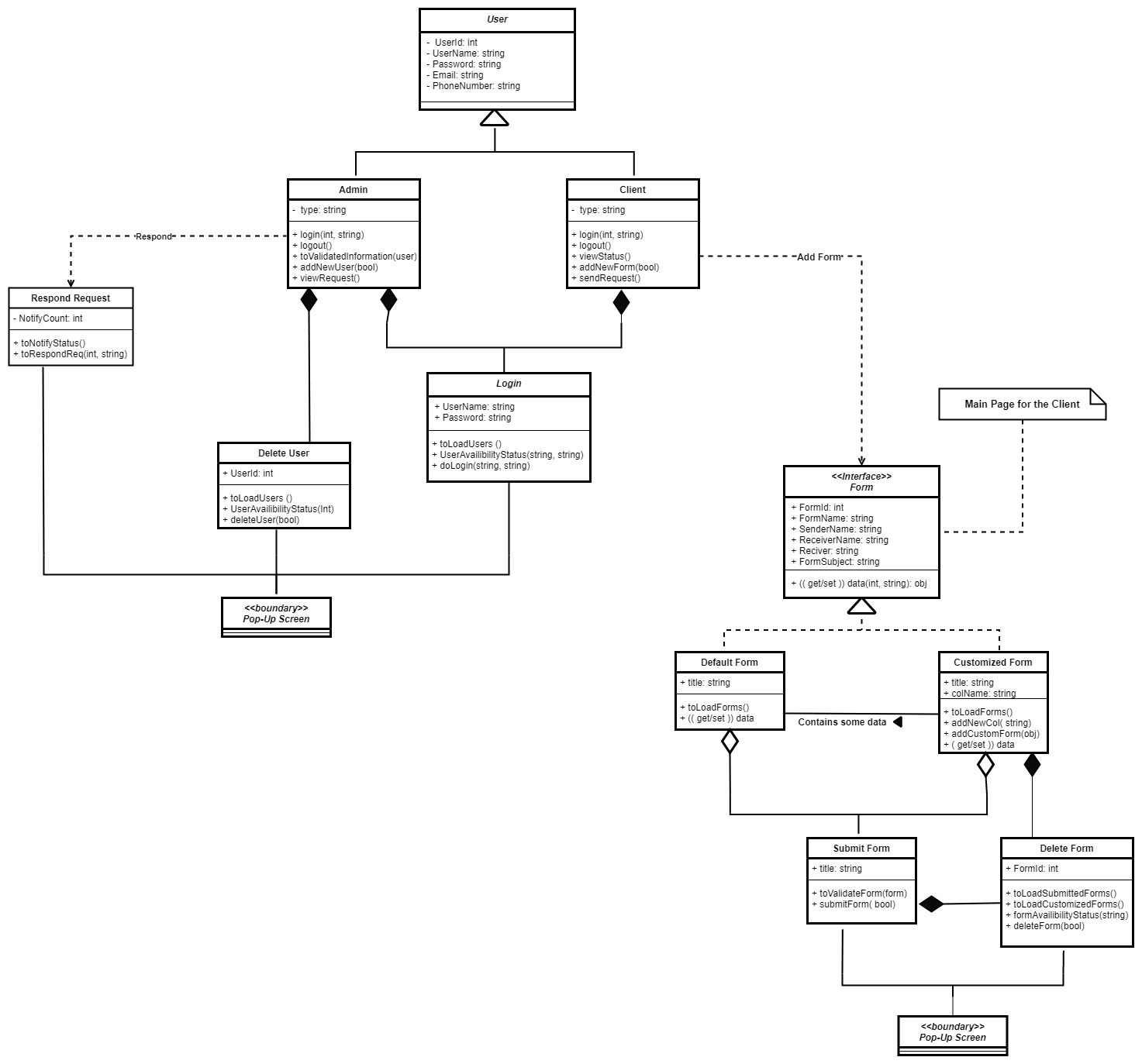








## ***1.7 Design Class Diagram***



## ***1.8 Data Model***

The data model is a subset of the implementation model, which describes the logical and physical representation of persistent data in the system.

**The Relational Data Model**

