Design Document

for

40.Library Management System

Version<1.0>

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(Based on SRS Version <1.0> prepared by
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**Course   : CS4097D Object Oriented Systems
Laboratory**

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Glossary

App-Application

DB-Database

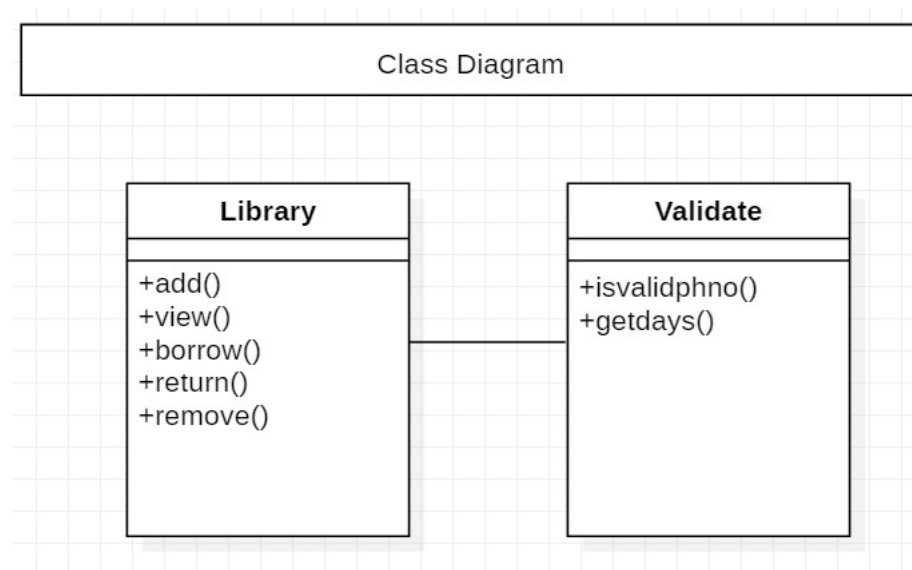UML-Unified Modelling language

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1.Detailed Design through UML diagrams

1.1 System model using Class Diagram

Class Diagram in the Unified Modelling Language is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods) and the relationships among classes.
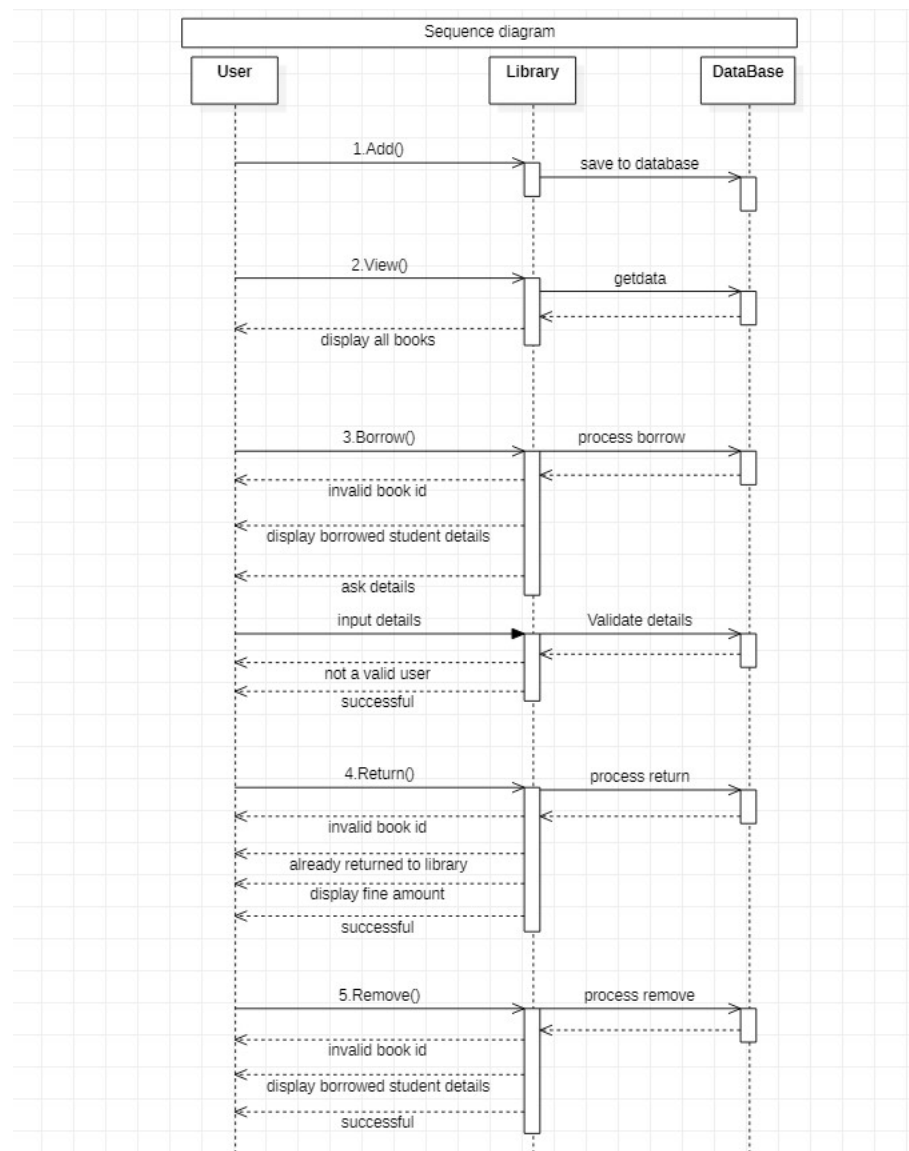
1.1.1 Class Diagram

1.2 System Interactions through Sequence Diagrams

Sequence diagrams are interaction diagrams that show the sequence of messages exchanged by the set of objects performing a certain task. A sequence diagram shows, as parallel vertical lines (lifeline), different processes or objects that live simultaneously, and as horizontal arrows, the messages exchanged between them, in the order in which they occur.

1.2.1 User sequence diagram

This is the user sequence diagram where we can see all lifelines of the functionalities that users will perform.
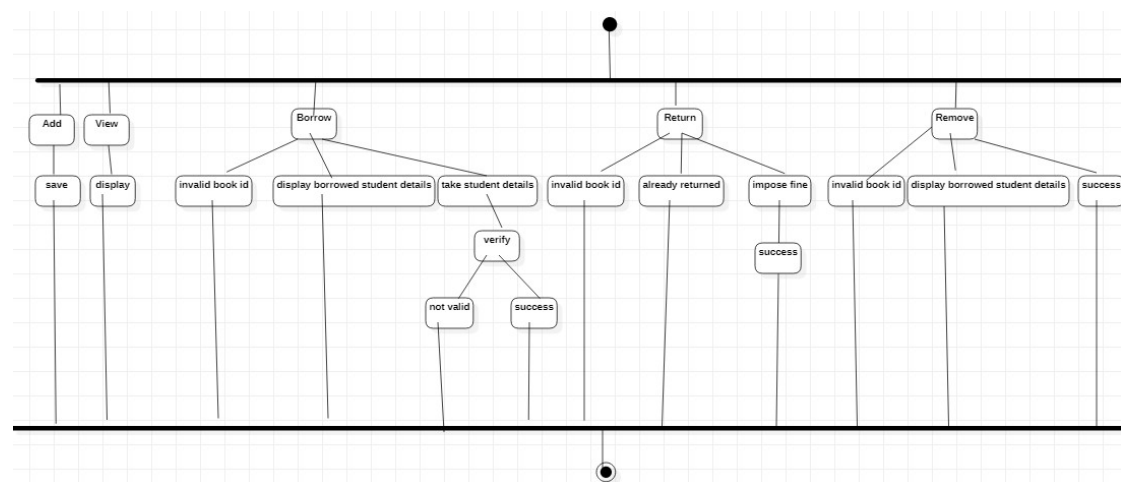

1.3 Control and Data Flows through Activity Diagrams

Activity diagram is another important diagram in UML to describe the dynamic aspects of the system.Activity diagram is basically a flowchart to represent the flow from one activity to another activity. The activity

can be described as an operation of the system.The control flow is drawn from one operation to another. This flow can be sequential, branched, or concurrent. Activity diagrams deal with all type of flow control by using different elements such as fork, join, etc

1.3.1 User activity diagram

The activity diagram represents the steps that are going to be executed by user of this application.

References

UML Modelling:

https://www.visual-paradigm.com/guide/uml-unified-modeling-language/

StarUML:

https://staruml.io/