Nicholas LaMantia - CS-255 - Quiz 2 - Professor Anderson (Not related to the Matrix) - November 16, 2023

Create a simple single-use case using this Class Diagram. (30 mins)

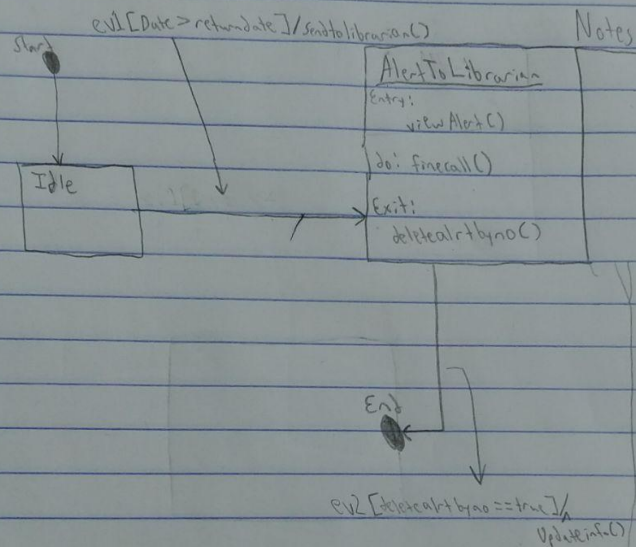
The use case that I'm focusing on is the Alert sending a message to the Librarian about an overdue book. This is important functionality for the library system as well as for the user because it helps to notify the user that a book is due (by charging them a fine for the book).

In other words, as an actor on the system, I want the functionality of getting a fine for an overdue book so that I can properly pay for or return the overdue book. This is important for the security and responsibility of each book in the catalog.

Once you have a Use Case, construct a single State machine/State Chart associated with the Use Case and Class. (30 mins)

The state diagram is below. When there is still time for the book to be returned, to when the book is overdue, is a change in state. That is represented in the diagram. It utilizes the Alert class and the Librarian class.

Quiz 2 Question 2



Notes: · Behavior model

- Don't need and or nested states
- if overdue, send an alert to librarian.
- librarian checks alert, does finecall(), then deletes the alert.
- This is a state machine for if there's an overdue book that is not returned.
- I'm assuming that finecall() does more than just return the amount of the fine for a book. Finecall() should use the user's information to bill them if it is called.
- The Updateinfo() updates the availability of the book in the catalog.

Transcript for my notes:

- Behavior Model.
- Don’t need “and” or “nested” states.
- If overdue, send an alert to the librarian.
- Librarian checks alert, does finecall(), then deletes the alert.
- This is a state machine for if there’s an overdue book that is not returned.
- I’m assuming that firecall() does more than just return the amount of the fire for a book. firecall() should use the user’s information to bill them if it is called.
- The Updateinfo() updates the availability of the book in the catalog.