

Object Oriented Software Design - CS2062

Group Project

Revisit Design Models

Team 10 - Deck of Aces

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Revisit Introduction

Project Theme:

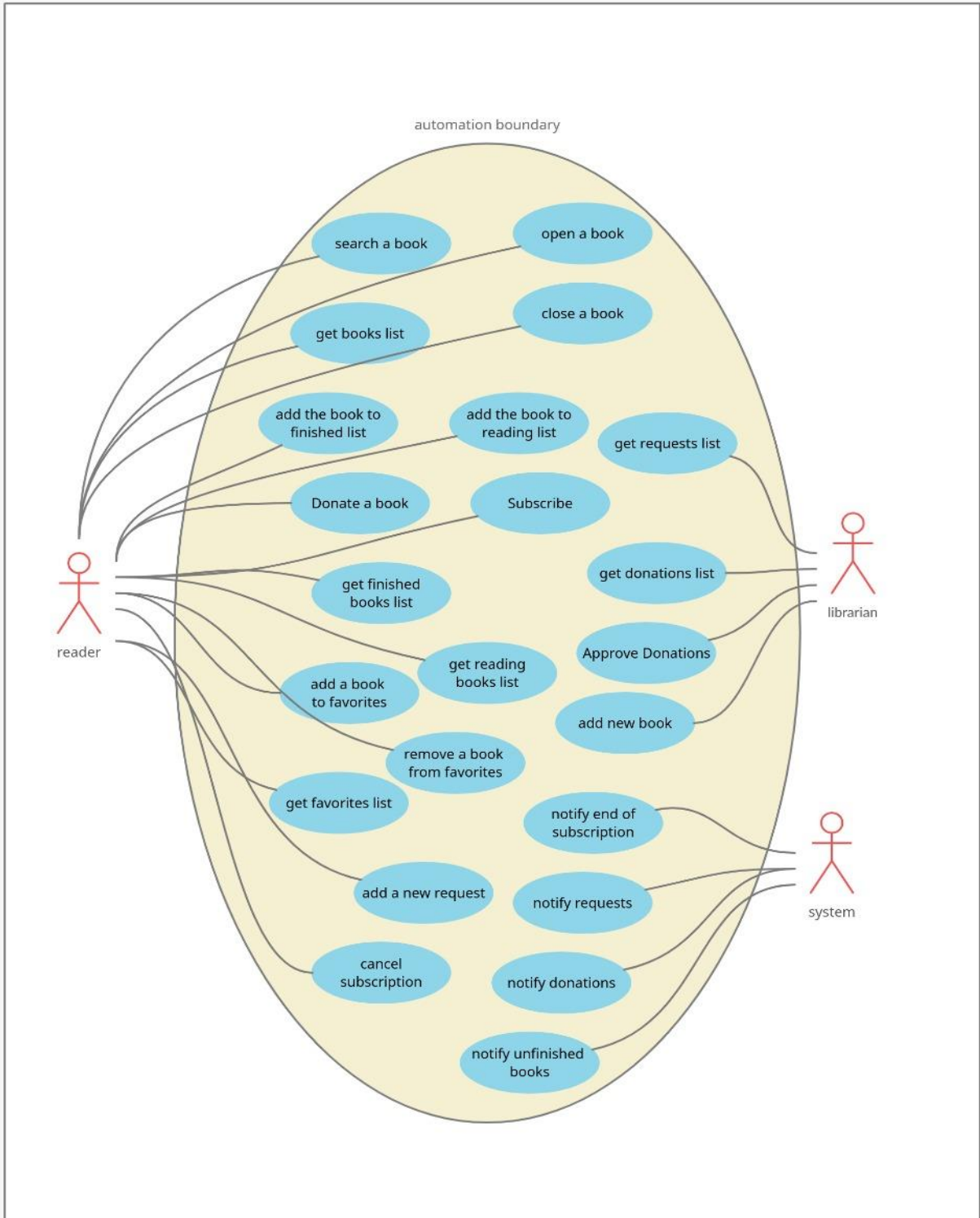
To build a virtual library platform to facilitate the readers who have been stuck at home in this pandemic times.

Description:

Since the team was taking an adaptive SDLC approach in this project, simple revisits have been done throughout the implementation process for the past few months. We have identified some changes and improvements to be made for the predictive design models for various reasons such as to make our application more user friendly and interactive, more efficient, more convenient when applying design patterns and such. Therefore, team was gathered for a final revisit, discussed the modification for use case diagram and activity diagrams designed by individuals, reviewed them and bundled up as presented below.

Only the changed/ modified models are included in this report as all the previous models have already been submitted to evaluate.

Use Case Diagram



Revisit details for Use Case Diagram

User

- More features are added to the application to improve the user experience.
- To add a book to the finished list, it's not mandatory to close the book. The user can do it explicitly and maintain the list according to his liking. Therefore, the extended use case broken down to a separate single use case in revisited model.
- To access the currently reading books fast and keep track of them a reading list is also maintained per user. The user can add books he wants to this list as well. New use cases are introduced here.
- The buy book option is changed to donate a book because there may be books the user previously purchased, that he wants to donate to the library.

Librarian

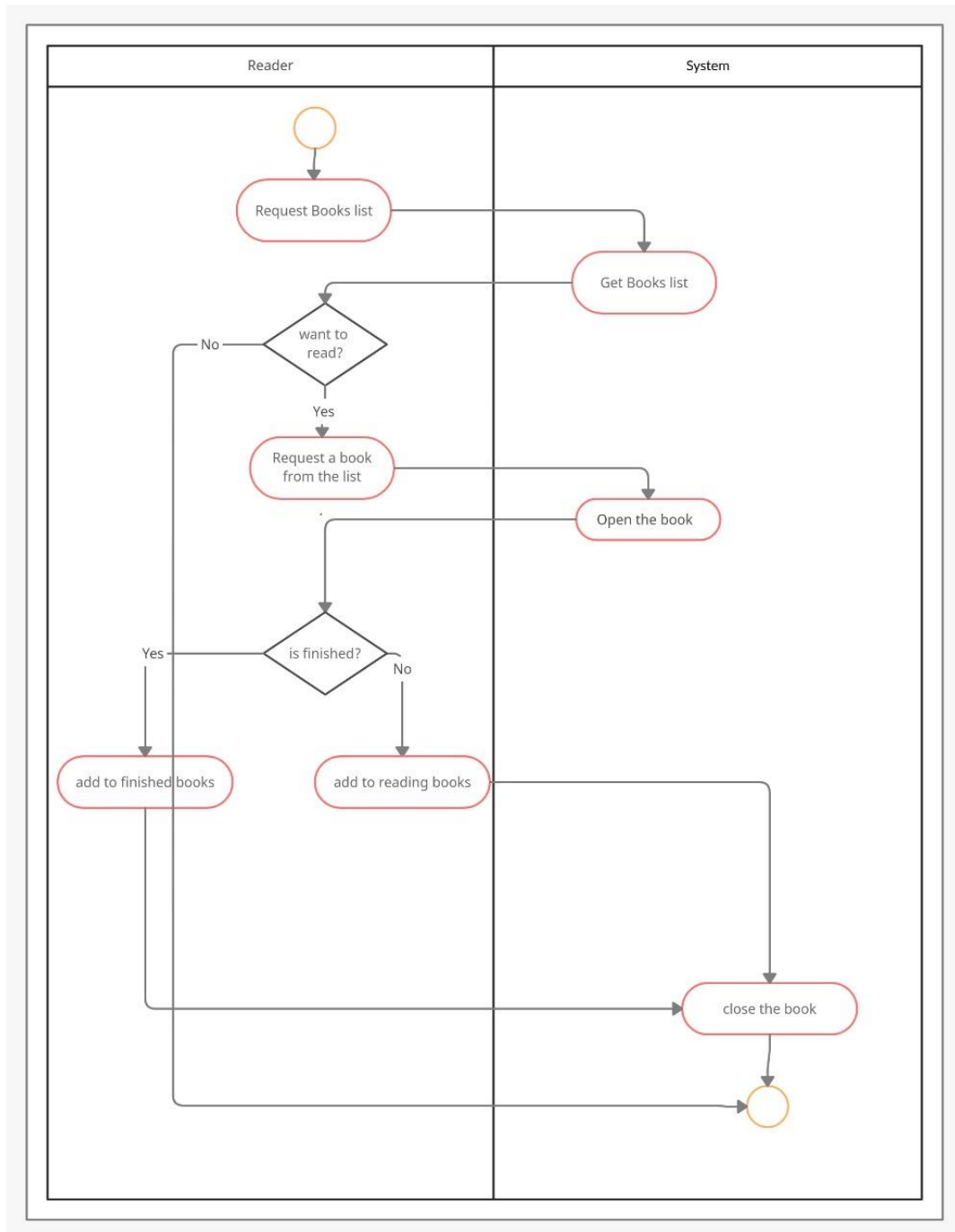
- Since the user is not buying books from the gateways we provided, there can be issues with the uploaded files. So, the librarian should check the books donated before adding them to the library. For that, a new use case is introduced where Librarian approves user donations.
- Librarian can also check the requests made by the users, and later decide to add those books of request to the library.

System

- To improve performance another notification type is added, that is notifications about books donations.
- Instead of maintaining separate notifications section, we decided to go with pop-up notifications where users will be notified when login.

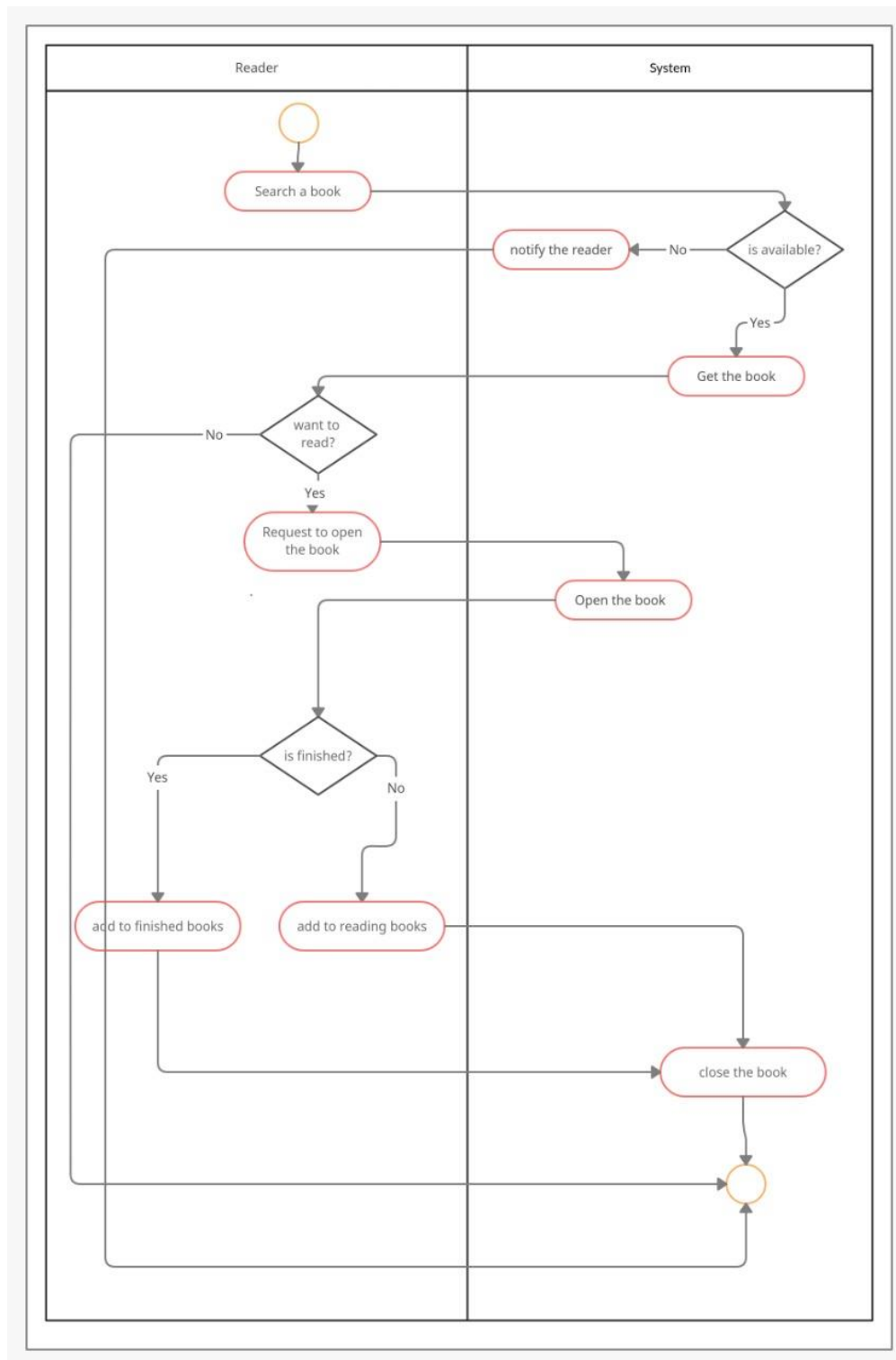
Activity Diagrams

By Akila



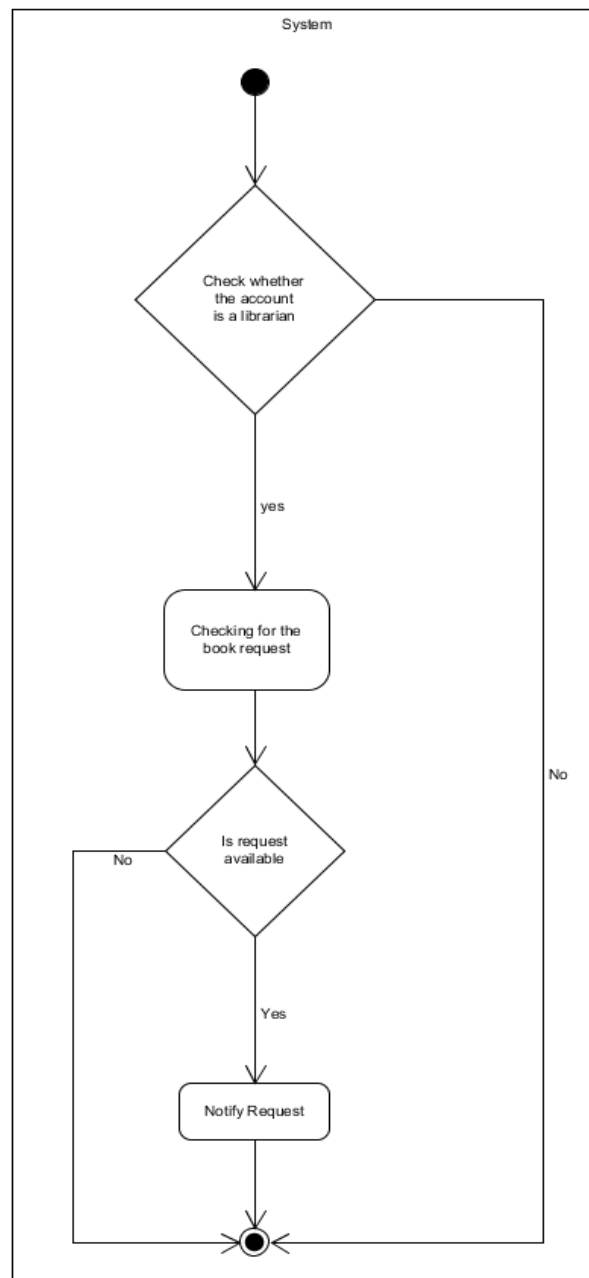
As mentioned above, the decision to whether add a book to the finished list or reading list after opening the book is made by the user, not through a prompt by the system. This modification seems to make the library more user-friendly and freeing for the reader.

By Akila



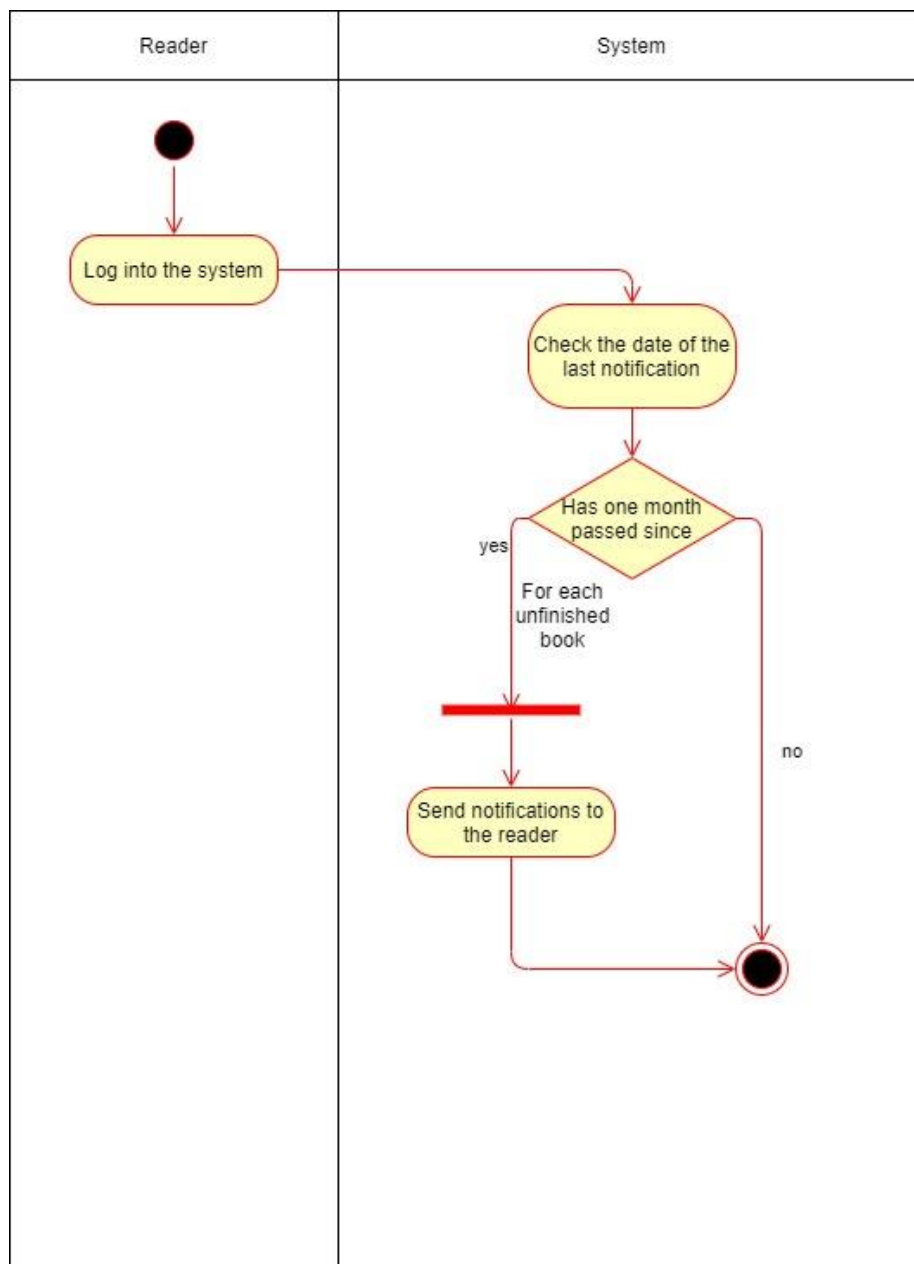
The only difference in this scenario also occurs only when the reader is closing the book. It will be the same case as above. The reader will add the book to a list according to his preference instead of the system asking through a prompt.

By Bhanuja



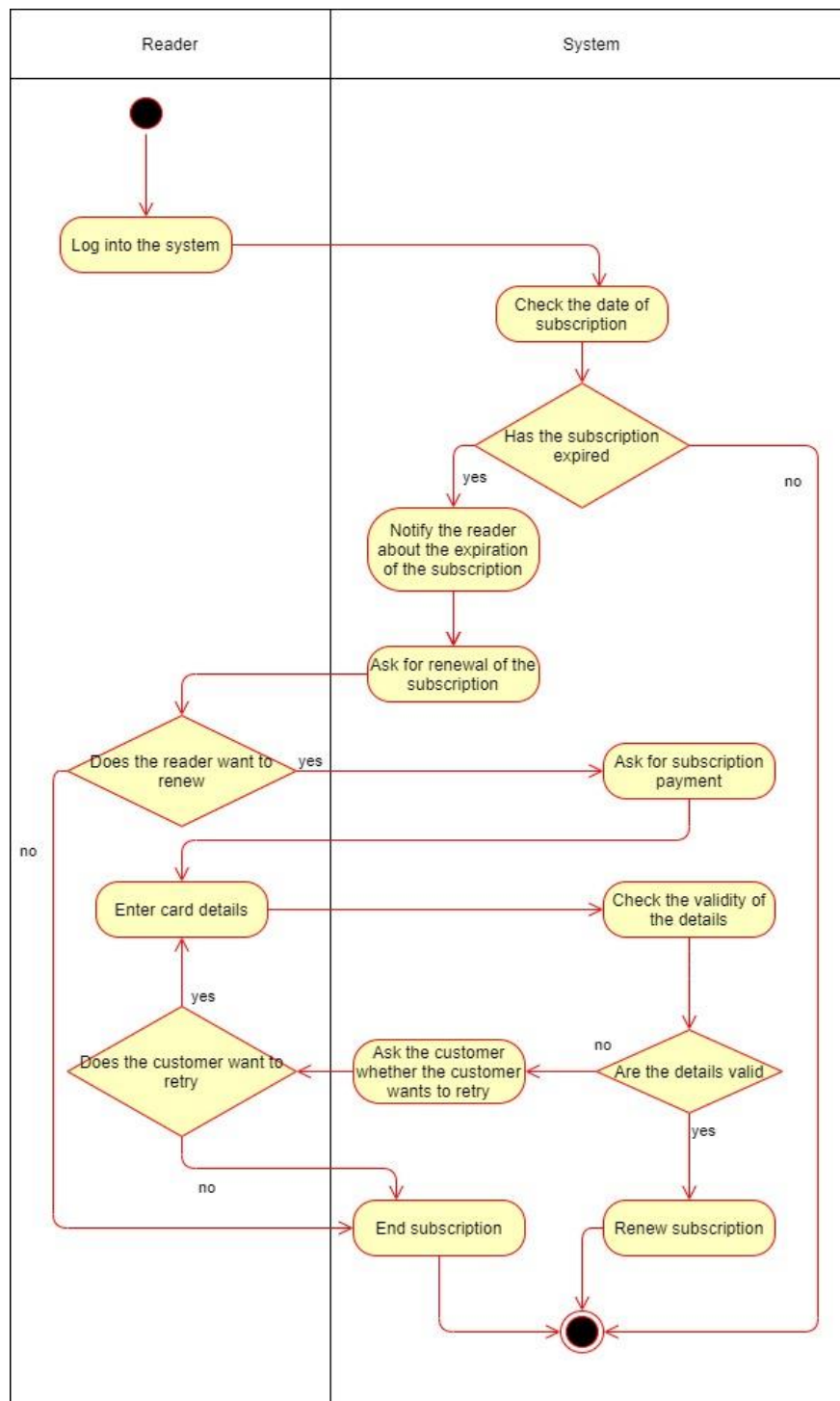
There are a few differences in this scenario. First of all, the system needs to check the account is a librarian or not because this scenario is only available for a librarian. If the account is not a librarian, then the activity ends, because managing requests is only relevant to Librarian. Next, the system no longer checks every month for new requests. It checks every time the librarian logs in. We decided to change this from a temporal to a state event because keeping requests unnoticed for a long time would be inconvenient for a system.

By Aruna



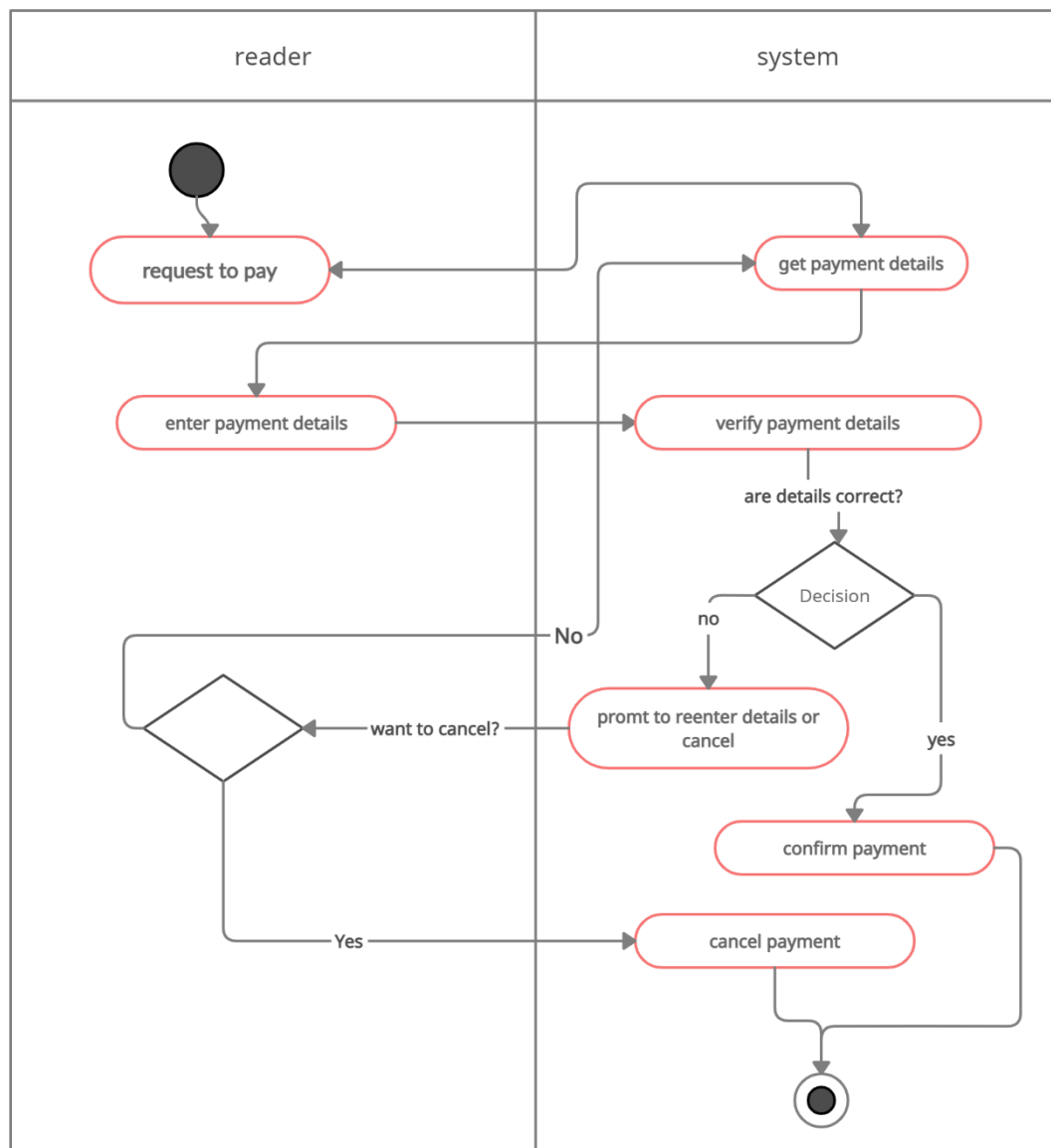
A modification was made in this activity diagram regarding the way the system checks whether it is necessary to send notifications or not. Instead of waiting till the specified time period, now the system checks whether one month has been passed whenever a reader logs in. This change was made due to difficulties in keeping the server active all the time in local servers.

By Aruna



The modification done in this diagram is similar to that of the previous diagram. This change makes the system check for subscription status only when a reader logs in, rather than sending notifications after waiting continuously till the subscription expires.

By Samadhi



Since we'll have to use an external payment gateway to verify credit/debit card details of a user, we won't be able to implement this scenario in a realistic way. Providing the card details is implemented, we are unable to do the verification. But there won't be any change in the activity flow.