Library software

Library software

- 1-Requirements
- 2-Use case diagram
- 3-Class diagram
- 4-State diagram
- 5-Sequence diagram
- 6-Activity diagram
- 7-Component diagram

1-Requirements

-Library software shows the librarian's name and shows which books they have issued and returned...Librarians may verify members and order books , each librarian have an id number. librarians have the right to add, update, delete, search and display information about each book in library database.

-Our library software also shows the date of membership, the maximum number of books they might check out, and the members' names and addresses and give each member an id .

-It will also show the books currently checked out and the books that
have been returned .. librarians create a part responsible for checking books out to members it can create , delete and retrieve transaction.

1-Requirements

-Our library software needs to charge late fees if books aren't Returned on time so there's a bill. librarians also issues books. Every book have an id, members and librarians can search for books By author, title, date of publication, publisher, or subject .
-There are many types of book like book speaks about geography, Science ,and art .
-Books need authors . Every author of a book which have his name And biography .Each author wrote a lot of books .
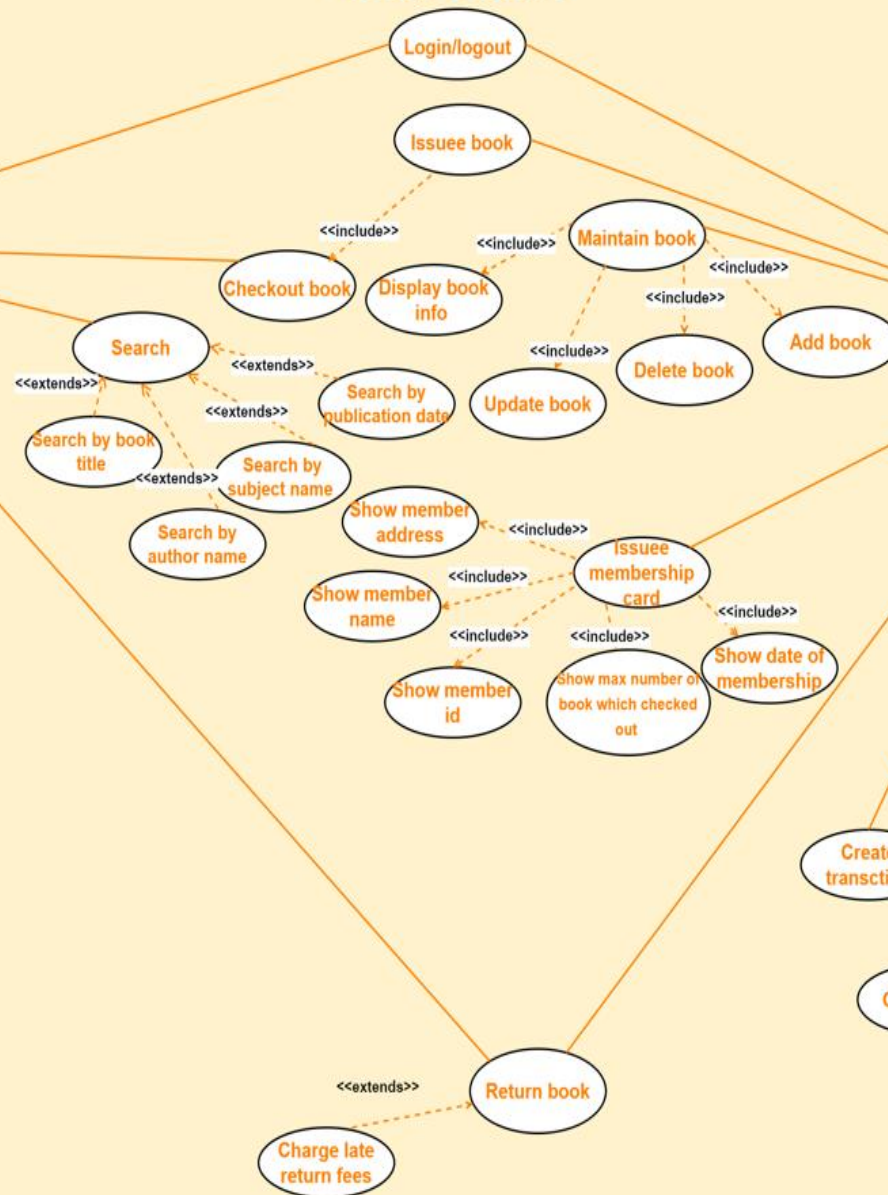-There is a notification happened in the software when some events happen.

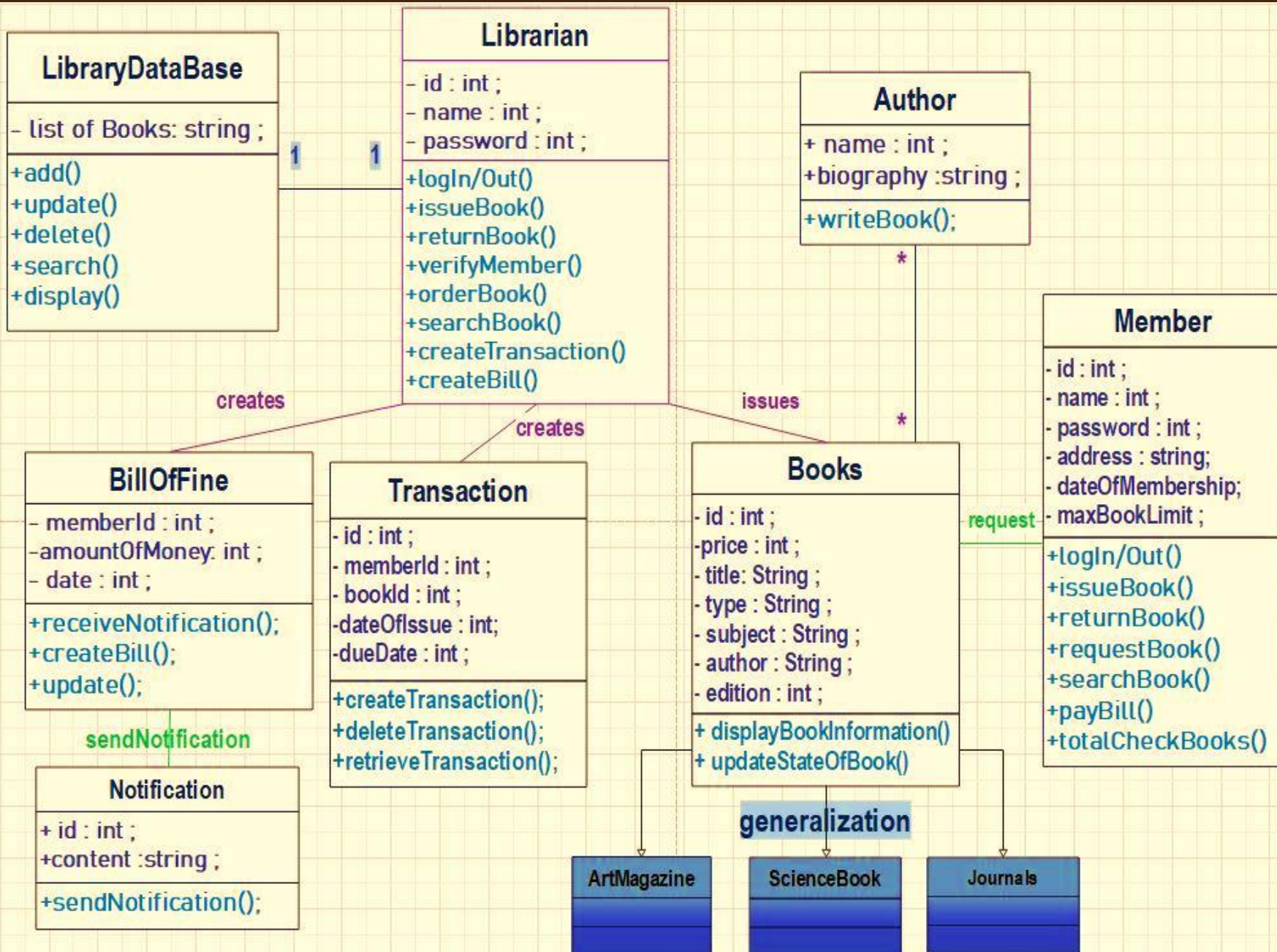# 2-Use case diagram

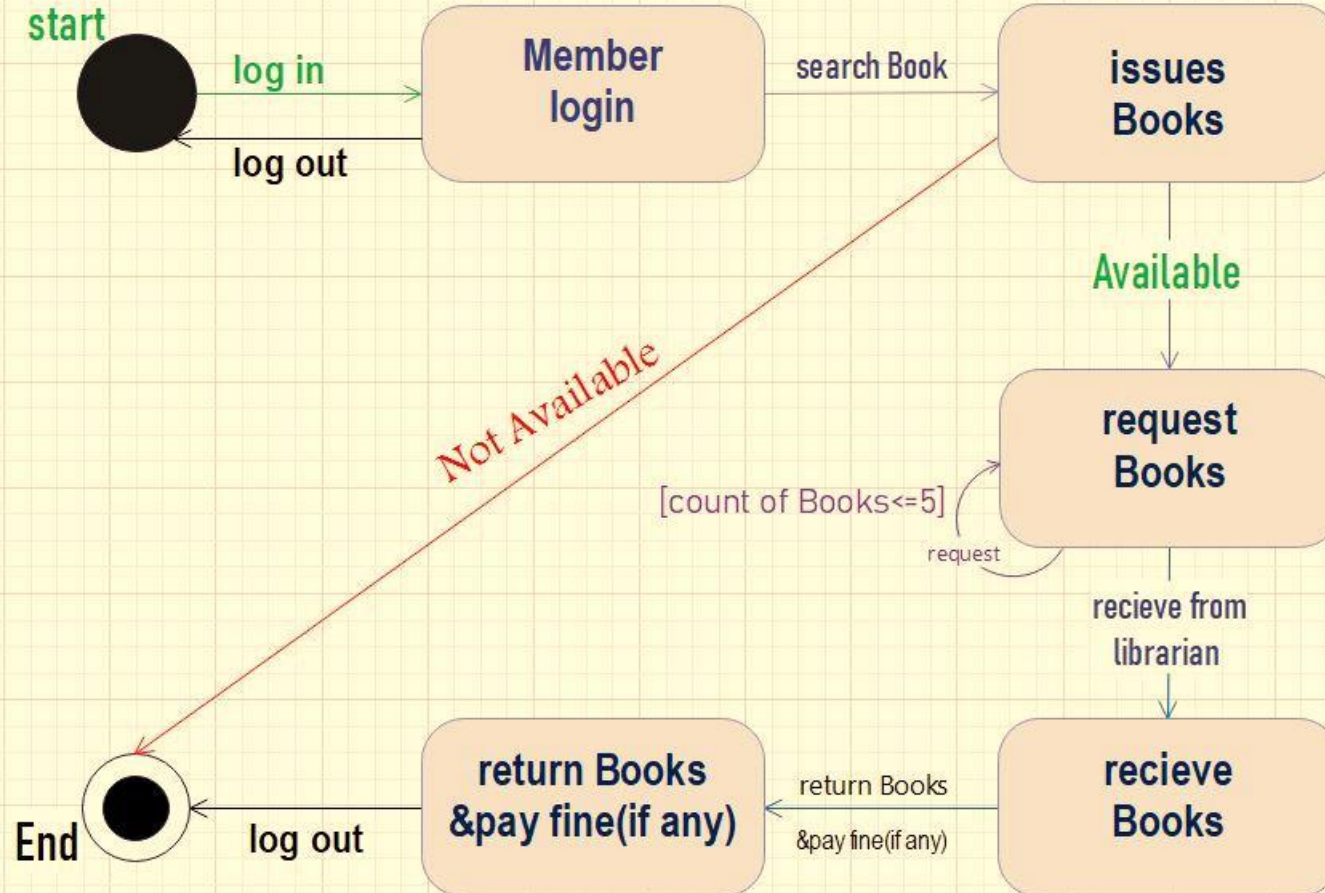-Made by Mariam Elsheikh & Id : 200681

Library software

Member

Librarian

- Login/logout
- Issuee book
  - Checkout book   <<include>>
  - Display book info
- Maintain book   <<include>>
  - <<include>> Add book
  - <<include>> Delete book
  - <<include>> Update book
- Search
  - <<extends>> Search by book title
  - <<extends>> Search by subject name
  - <<extends>> Search by author name
  - <<extends>> Search by publication date
- Issuee membership card
  - <<include>> Show member address
  - <<include>> Show member name
  - <<include>> Show member id
  - <<include>> Show max number of book which checked out
  - <<include>> Show date of membership
- Create transction
- Create bill
- Return book
  - <<extends>> Charge late return fees

Activate V

3-Class diagram

-Made by Noran Azzam & Id : 200775

4-State diagram

state machine member in library

start → log in → Member login → search Book → issues Books

log out

Not Available

Available

issues Books → Available → request Books

[count of Books<=5] request

request Books → recieve from librarian → recieve Books

recieve Books → return Books &pay fine(if any) → return Books &pay fine(if any)

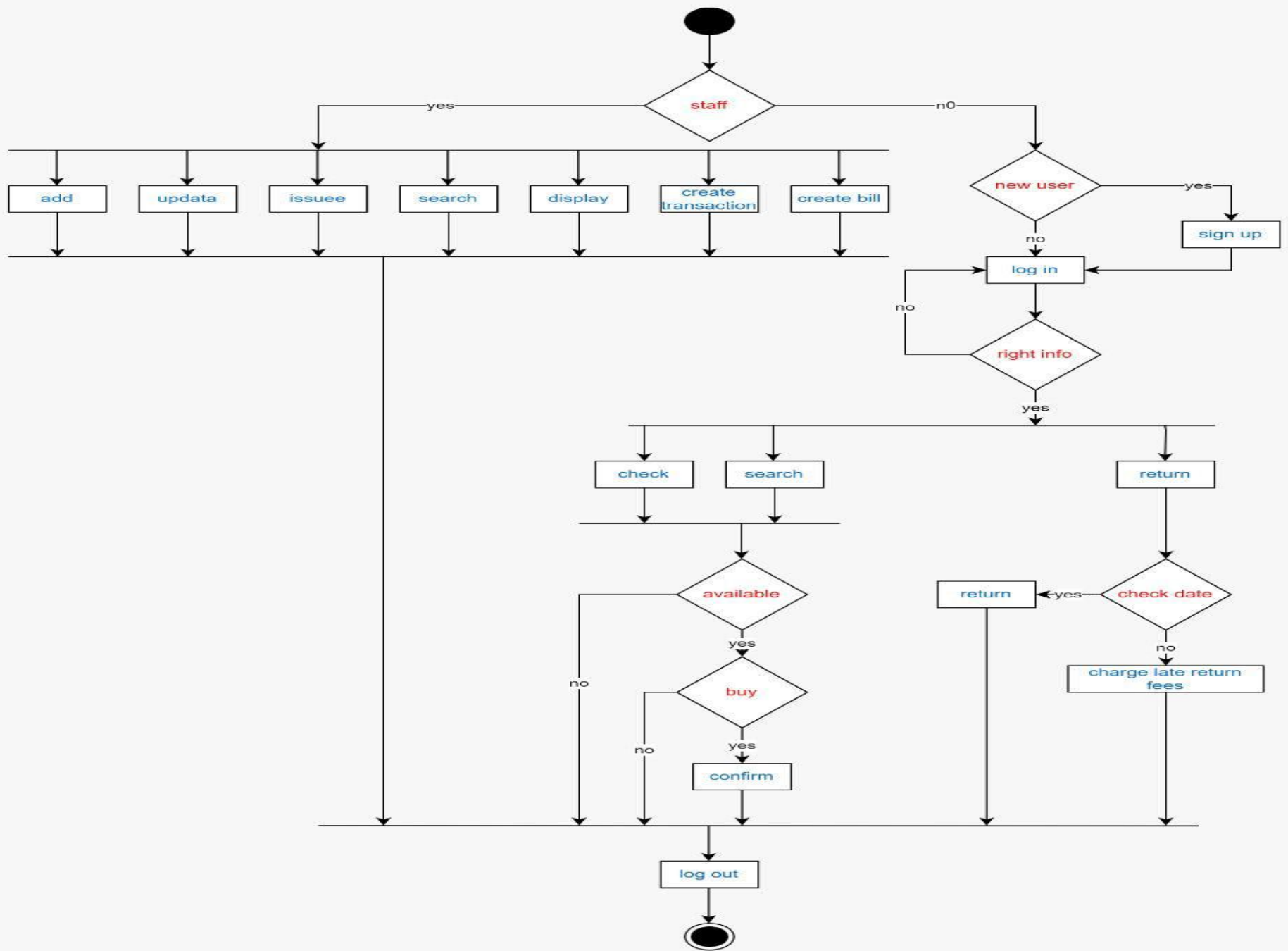return Books &pay fine(if any) → log out → End

5-Sequence diagram

Made by Nawara Saber & Id : 200772
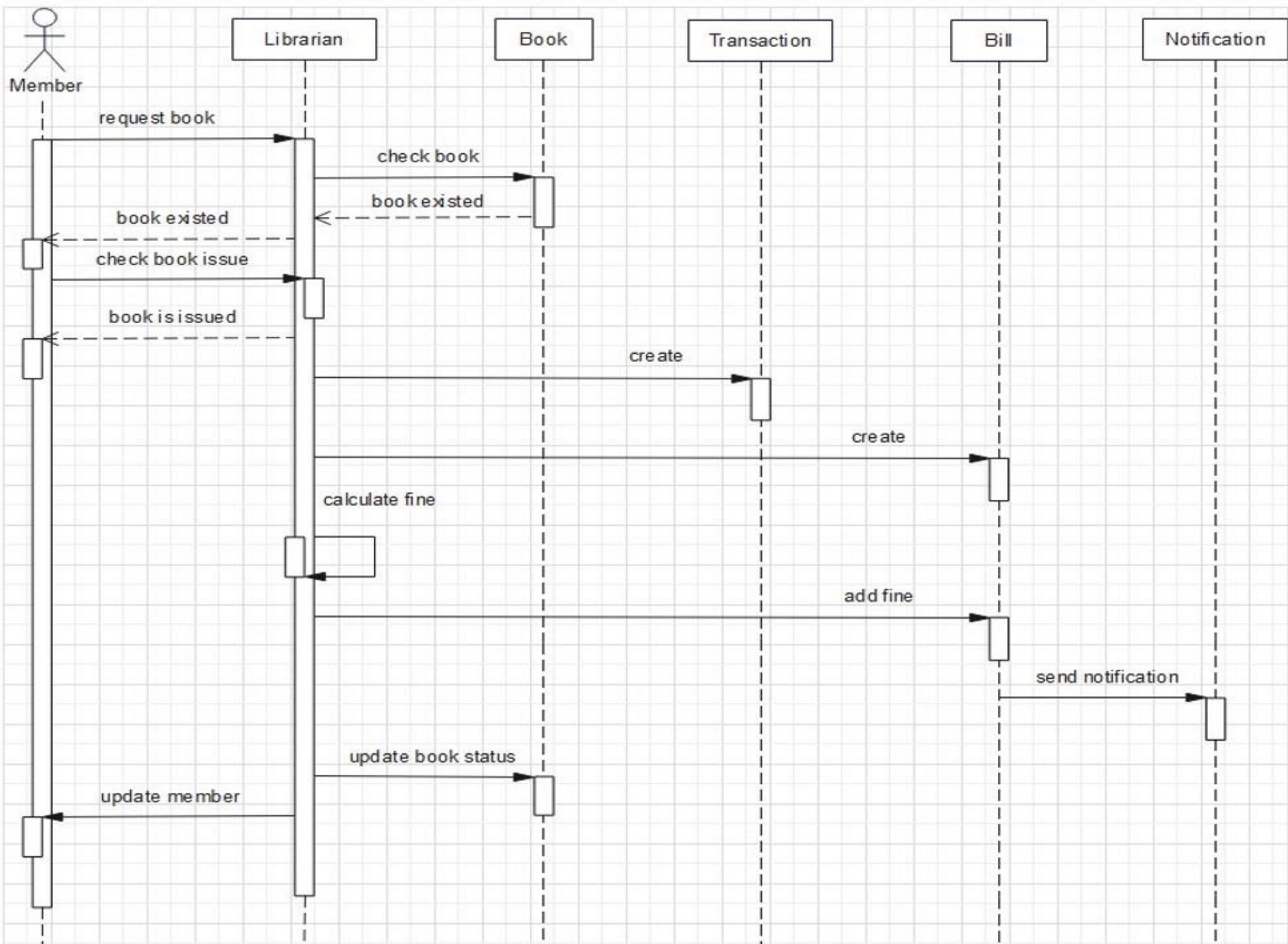
6-Activity diagram

Made by Yomna Saied & Id : 200813

7-Component diagram

-Made by Yomna Abdelgahfor & Id : 200814