

INFORMATION SYSTEM ANALYSIS & DESIGN

SEMESTER I, 2022 - 2023

EXERCISE 3

A Library Management system (**LibSys**) is responsible for managing book items in physical and file forms, permits actors to perform the following corresponding functionalities.

Actors

- **Librarian:** Mainly responsible for adding and modifying information of books, book items, and users. The Librarian can check reservation and fine....
- **Member:** All members can search the catalog, reserve, renew via Internet && and return books at desk room, down load files,....
- **AutoSystem:** Mainly responsible for sending notifications of overdue status, reservations, etc.

Functionalities

- **Register/Login**
- **Add/Remove/Edit book:** To add, remove or modify information of books or book items.
- **Search catalog:** To search books by title, author, subject or publication date.
- **Register new account/cancel membership:** To add a new member or cancel the membership of an existing member.
- **Check-out book:** To borrow a book from the library at desk room or via Internet
- **Reserve book:** To reserve a book via Internet which is not currently available.
- **Renew a book:** To re-borrow an already checked-out book.
- **Return a book:** To return a book to the library which was issued to a member.

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1. Construct use case diagram (biểu đồ ca sử dụng)
2. Write 10 scenarios
3. Utilize scenarios and make use of red color to extract nouns for class/attributes candidates from scenarios (boundary, controller, entity)
4. Construct a class diagram in analysis (> 20 classes)
5. Construct data model (physical)
6. Generate data base in mySQL

7. Construct 10 activity diagrams
8. Construct 10 sequence diagrams
9. Construct 10 communication diagrams