

Question 1.

Functional:

- borrow book
- return books
- book reservation
- update of patron profile
- advanced book searching by title or name
- download e-book (faculty only)
- loan extension
- add book
- delete book
- user registration (librarian only)
- secure login/identification
- borrowing service (student) 1 month
- borrowing service (teacher, librarian) 1 semester

Non-functional:

- scalable
- high performance

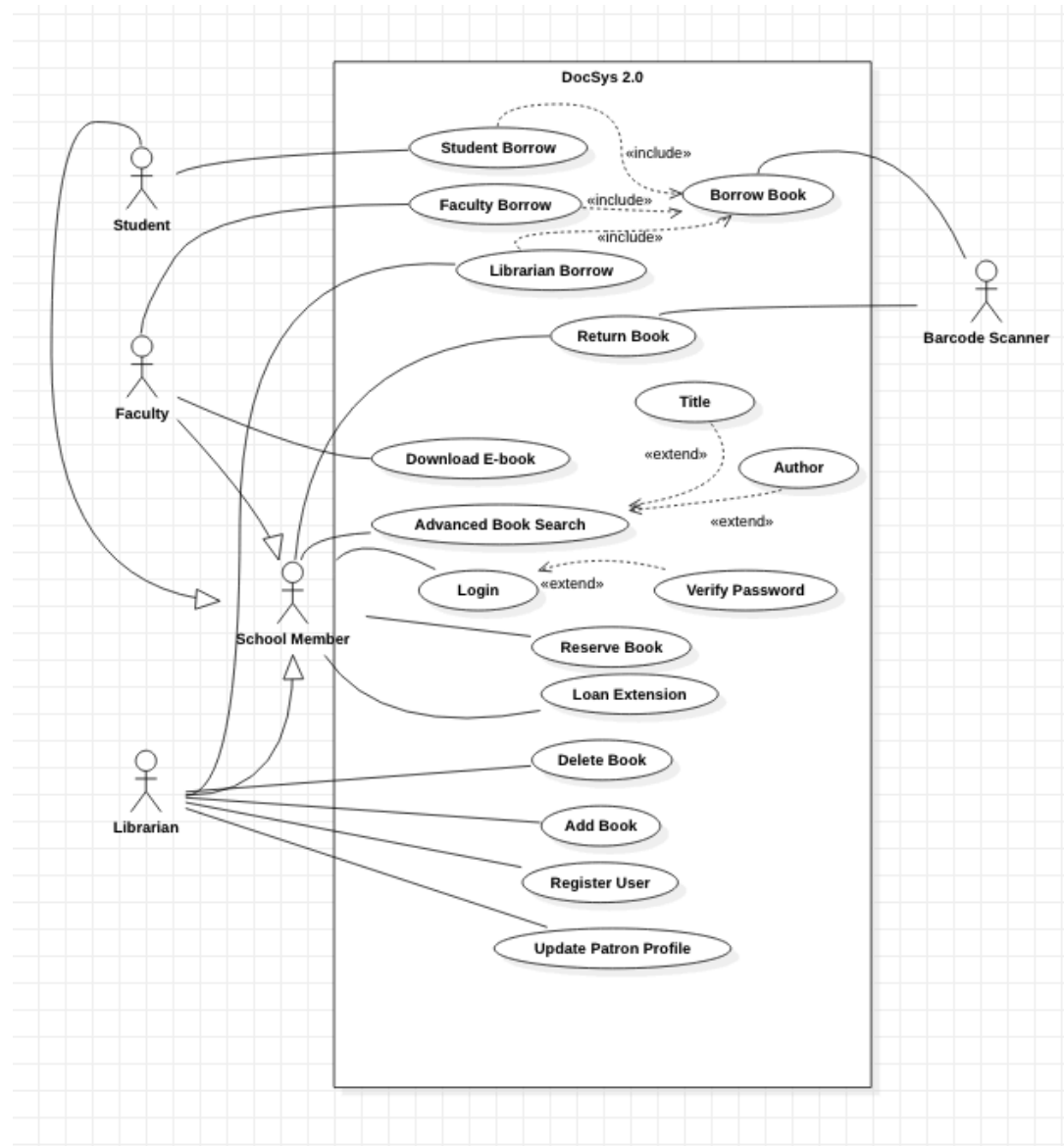
Question 2.

The project DocSys 2.0 is a scalable and high performance system that is developed to assist all individuals affiliated with the University of Dreamville. It will be handle both borrowing and returning of books using barcode scanner. Furthermore, depending on the user's privileges; the system allows for book reservation, update of patron profiles, advanced book searching, downloading E-books, and extending loans.

There are four types of actors in the system three of which are derived from a more general member of the school. The first is the Student actor who is able to use the function Student Borrow (borrowing for a max of one month), and any functions that the more generalized school member can use. Another actor is Faculty, which can download E-books, and borrow books for a max of the entire semester, in addition to any function that a normal member of the school can perform. Third is the Librarian actor which can use functions such as Delete Book, Add Book, Register User, and Update Patron profile, in addition again to what the a normal member of the school community can use.

Each and any member of the school can login to the system, search for a book with advanced queries, reserve books, extend their loaned book time, and return their borrowed books.

Question 3.



Question 4.

Use Case:  
Add Book

Brief Description:  
Adds book to the library's database.

Primary Actor:  
Librarian

Preconditions:

The user is type Librarian. Book does not already exist in system.

Post-conditions:

If the use case was successful, book is now in the library's database.

Main Success Scenario:

Actor Action

[1. Enters details of book into system.]

System Response

[2. System adds book with book details into library database]

Alternative flows:

-----

Use Case:

Download E-Book

Brief Description:

Faculty downloads available E-Book from the system.

Primary Actor:

Faculty

Preconditions:

E-Book is available on system. User type is Faculty.

Post-conditions:

If the use case was successful, the E-Book is downloaded from the system.

Main Success Scenario:

Actor Action

[1. User requests to download E-Book]

System Response

[2. System responds by allowing download of E-Book to user's computer]

Alternative flows:

-----

Use Case:

Delete Book

Brief Description:

Removes book from the library's database.

Primary Actor:  
Librarian

Preconditions:  
Book exists on system. User type is Librarian.

Post-conditions:  
If the use-case is successful, book is removed from the library's system.

Main Success Scenario:

Actor Action

[1. User requests to delete certain book from library's system]

System Response

[2. System responds by removing said book from the library's system]

Alternative flows:

---