

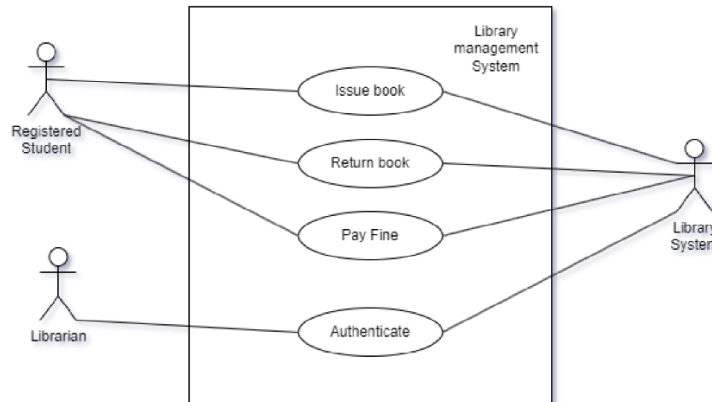
# IT314 - Lab7

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## 1) Library Management System:-

### a) Use case Diagram:



### b) Use case documentation:

→ Use Case Name: Issue book

→ Use Case Description: This use case represents the process of issuing a book to a registered student. The librarian selects a book and student, verifies the student's eligibility, and issues the book to the student. If the book is available and the student is eligible, the book is issued and recorded in the system.

→ Primary Actors: Registered Students

→ Secondary Actors: Library\_system,

→ Librarian Preconditions:

1. Librarian is authenticated.
2. The book is available.
3. The student is registered.

→ Postconditions:

1. The book is issued to the student.
2. The transaction is recorded in the system.
3. The due date for returning the book is set.

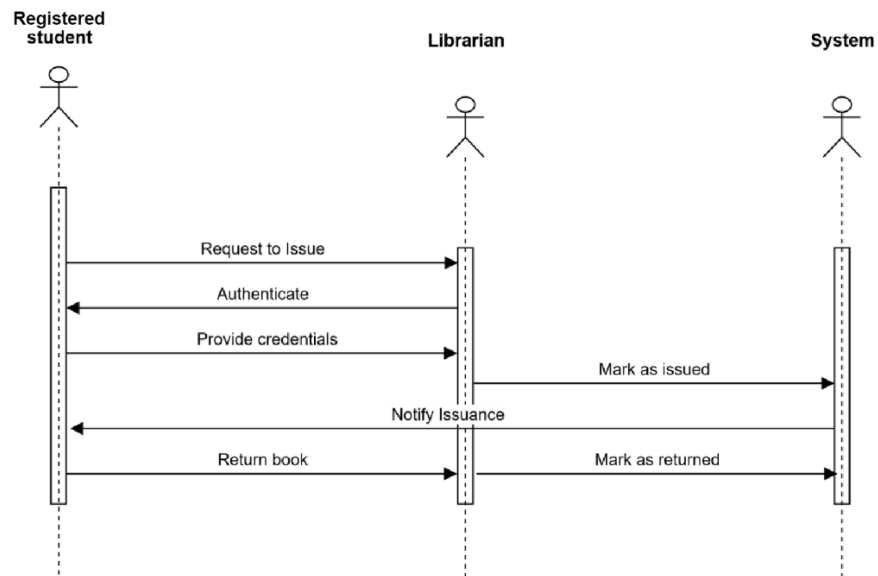
→ Main flow:

1. The registered student requests to issue a book.
2. The system validates the student's authentication status.
3. The system checks if the requested book is available.
4. If the book is available, the system marks it as issued to the student.
5. The system records the transaction.
6. The system sets the due date for returning the book.
7. The system notifies the student and the librarian about the successful issuance.

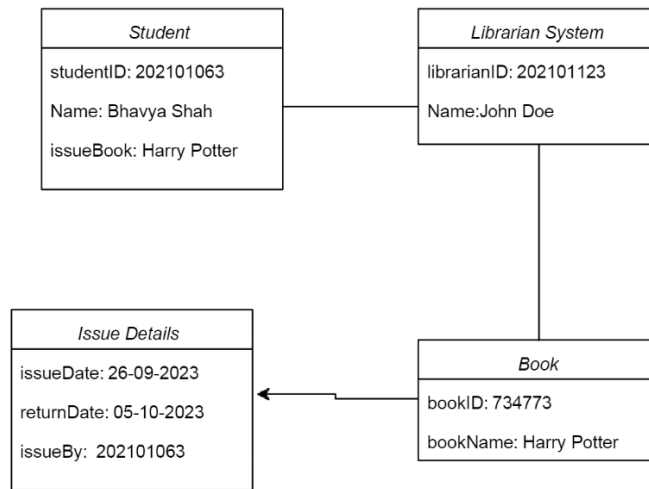
→ Alternate Flows:

1. If the book is not available, show an error message.
2. If the student is not eligible, show an error message.

**c) Sequence Diagram:**



**d) Class Diagram:**



## 2) Examination Management System:

