

# IT314 Software Engineering

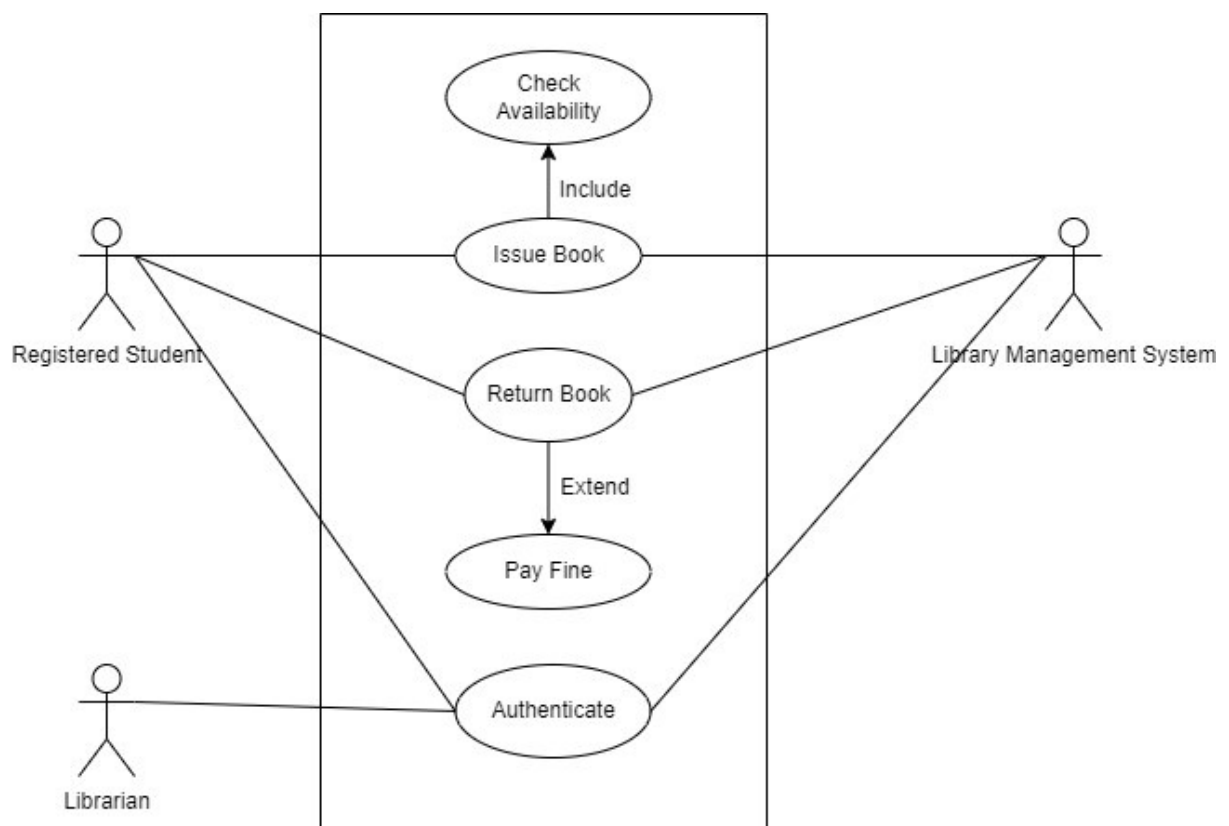
## Lab 7 Domain Analysis

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### Q.1 Library Management System

#### a) Use Case Diagram



#### Use Case Documentation

Use case name: Issue Book

Description: Represents the process Issuing book

Primary Actors: Registered Students

Secondary Actors: Library, Librarian

**Pre-conditions:**

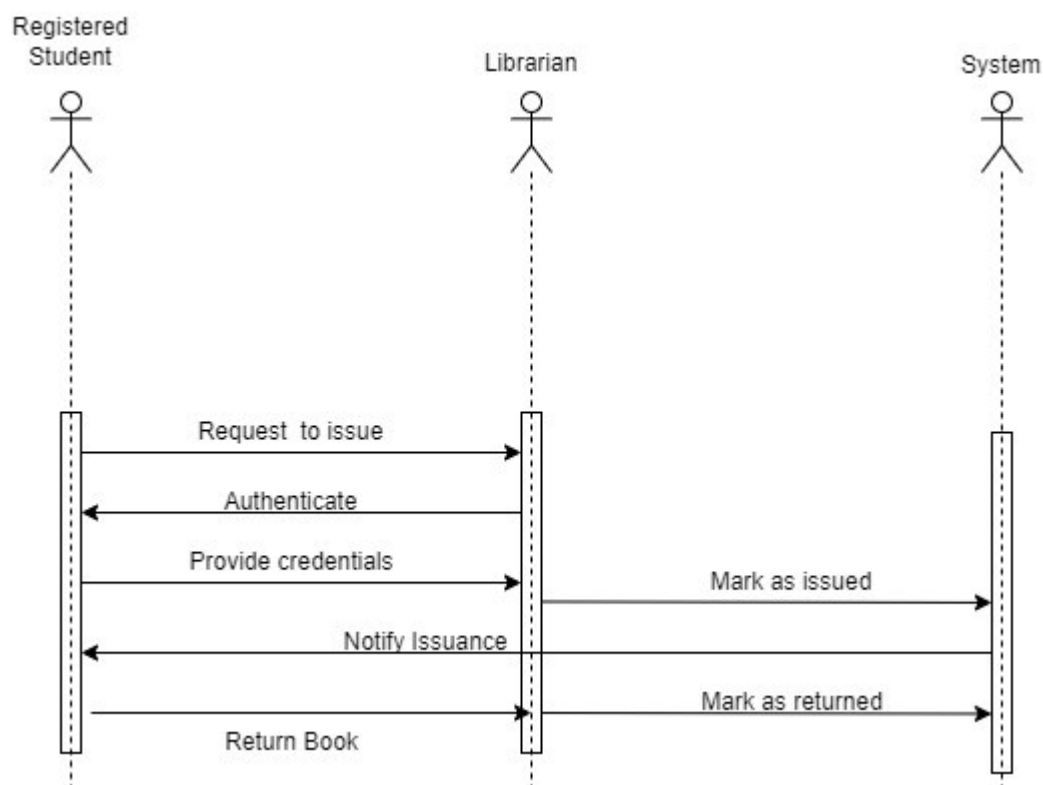
- Registered student must be logged in and authenticated by the librarian.
- The book being issued must be available in the library.
- Post-conditions:
- The book is marked as issued to the student.
- The due date for returning the book is set.
- The student is notified of the successful issuance.

**Main flow:**

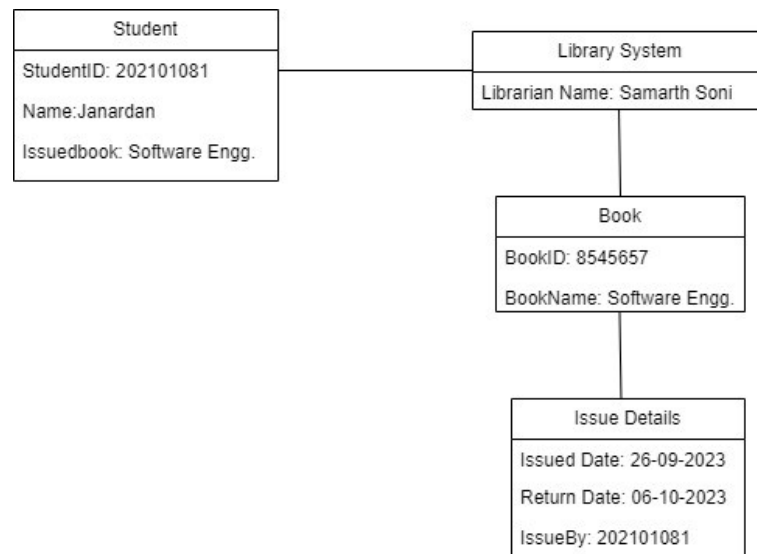
- The registered student requests to issue a book.
- The system validates the student's authentication status.
- The system checks if the requested book is available.
- If the book is available, the system marks it as issued to the student.
- The system sets the due date for returning the book.
- The system notifies the student and the librarian about the successful issuance.

**Alternate Flows:**

- If the book is not available, the system notifies the student that the book cannot be issued at the moment.
- If the user is not authenticated, the system notifies the librarian

**b) Sequence Diagram**

### c) Analysis Object Diagram



### Q.2 Examination Management Process

