

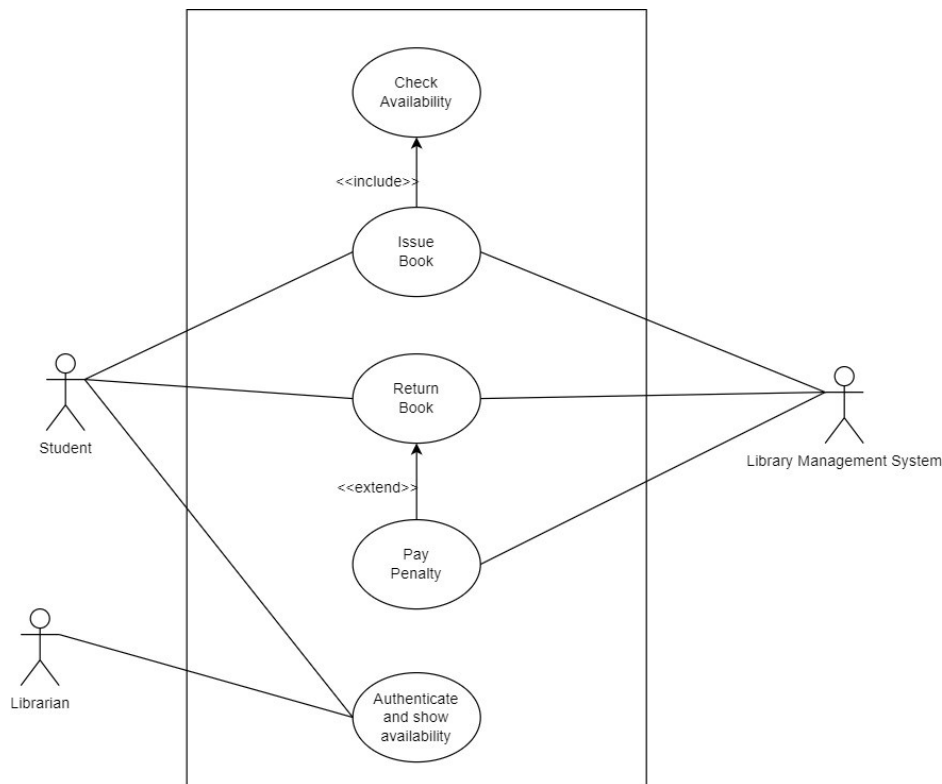
IT313 Software Engineering

Lab-7 Domain Analysis Modelling & Sequence Diagram

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Q1: Library Management System

1. 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.

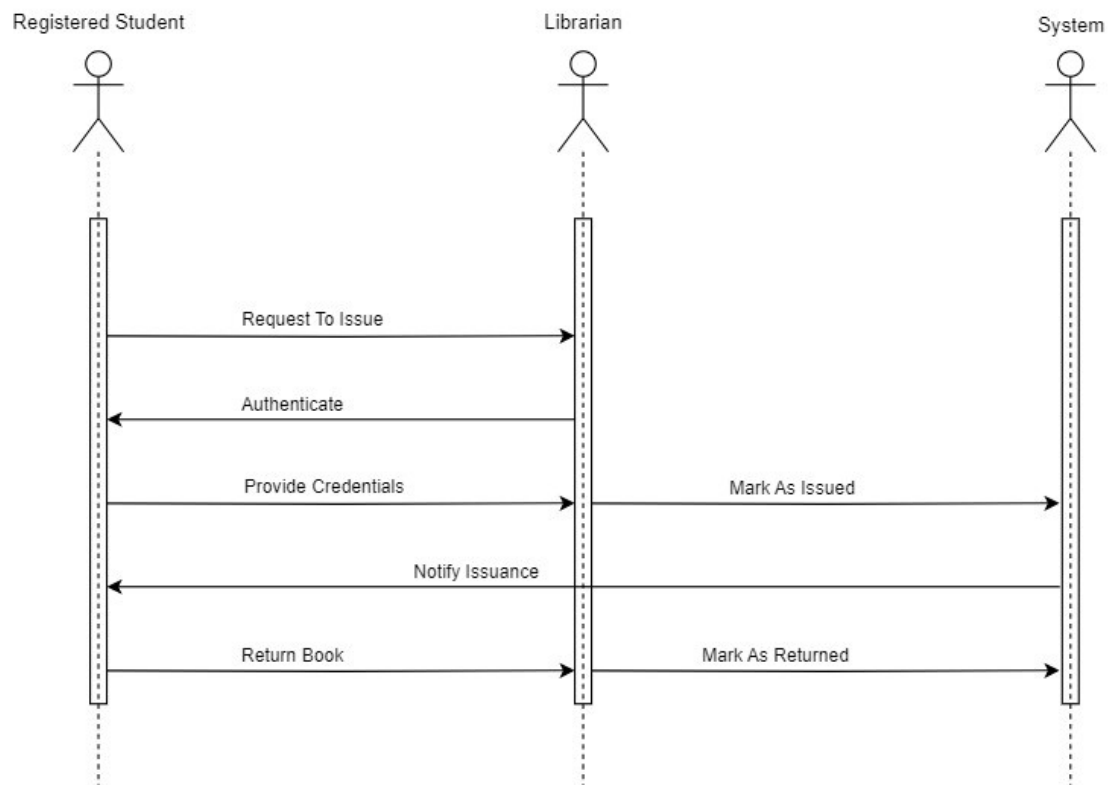
Main flow:

- 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.

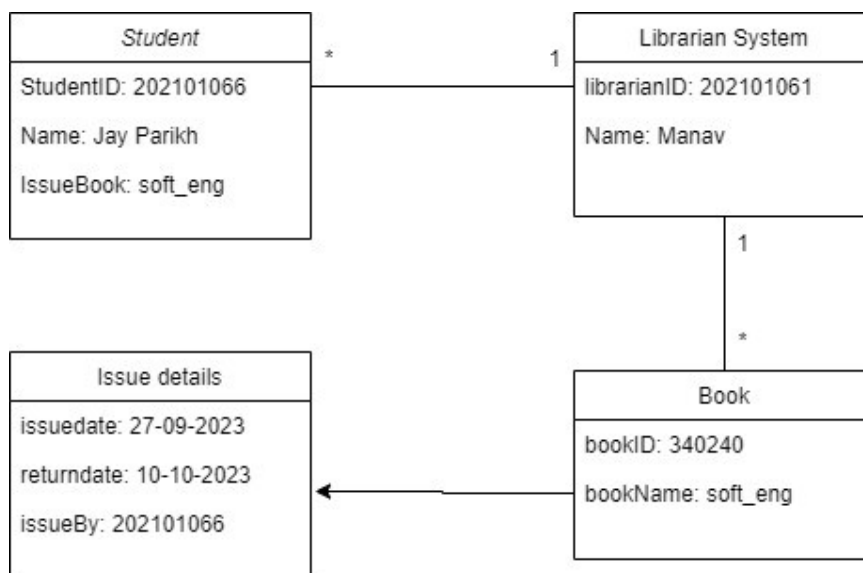
Alternate Flows:

- 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

2. Sequence Diagram



3. Class Diagram



Q2: Examination Management System

