# IT313 Software Engineering

# Lab 7

# Domain Analysis Modeling & Sequence Diagram

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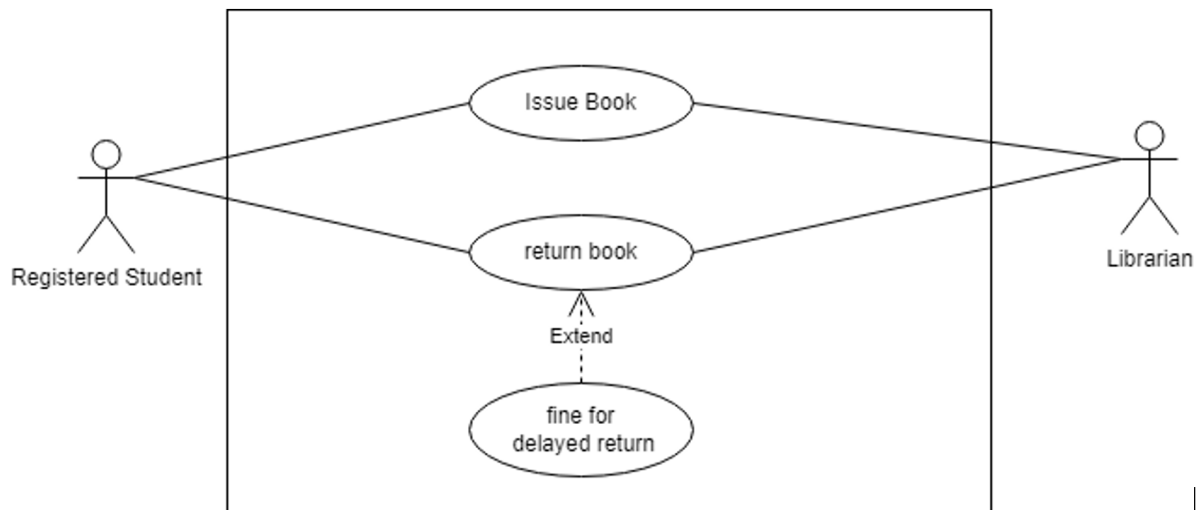202101486

Group 6

September 18, 2023

DA-IICT, Gandhinagar

**Question 1**

**1. Complete the use case diagram for the above problem text along with use case documentation for "issueBook" use case.**



**Description:** This system is used by students, faculty members and staff for issuing book. In this for students, they can issue available book, and they should return the book. If the return date of book is after the due date the students have to pay some fine for that.

This section should provide a description of both the reason for using the use case and the expected outcome of the use case.

**Actors:** Student, Librarian, Library

**Preconditions:** Student should register in the library.

**Trigger**: student comes to library for issuing the book or returning a book.
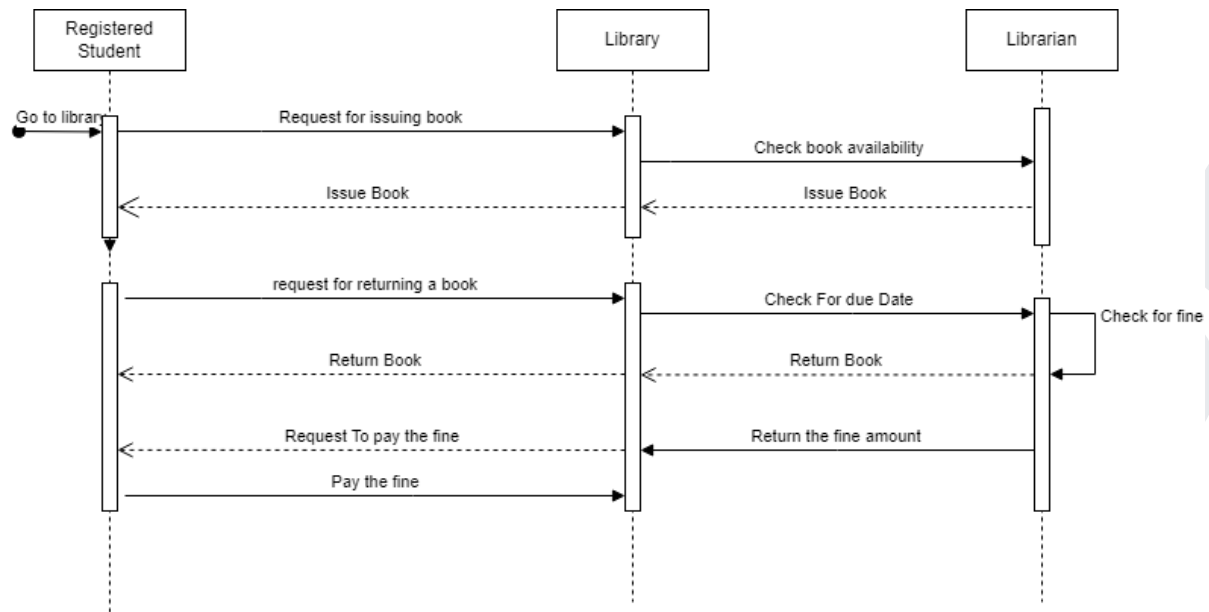
**Postcondition:** The entry of issued or returned book should be added to the database of library.

**Flow:** the student will come to issue a book for reading, Librarian will check for the availability of book in the library. Then he will issue the book and record it in the library database.
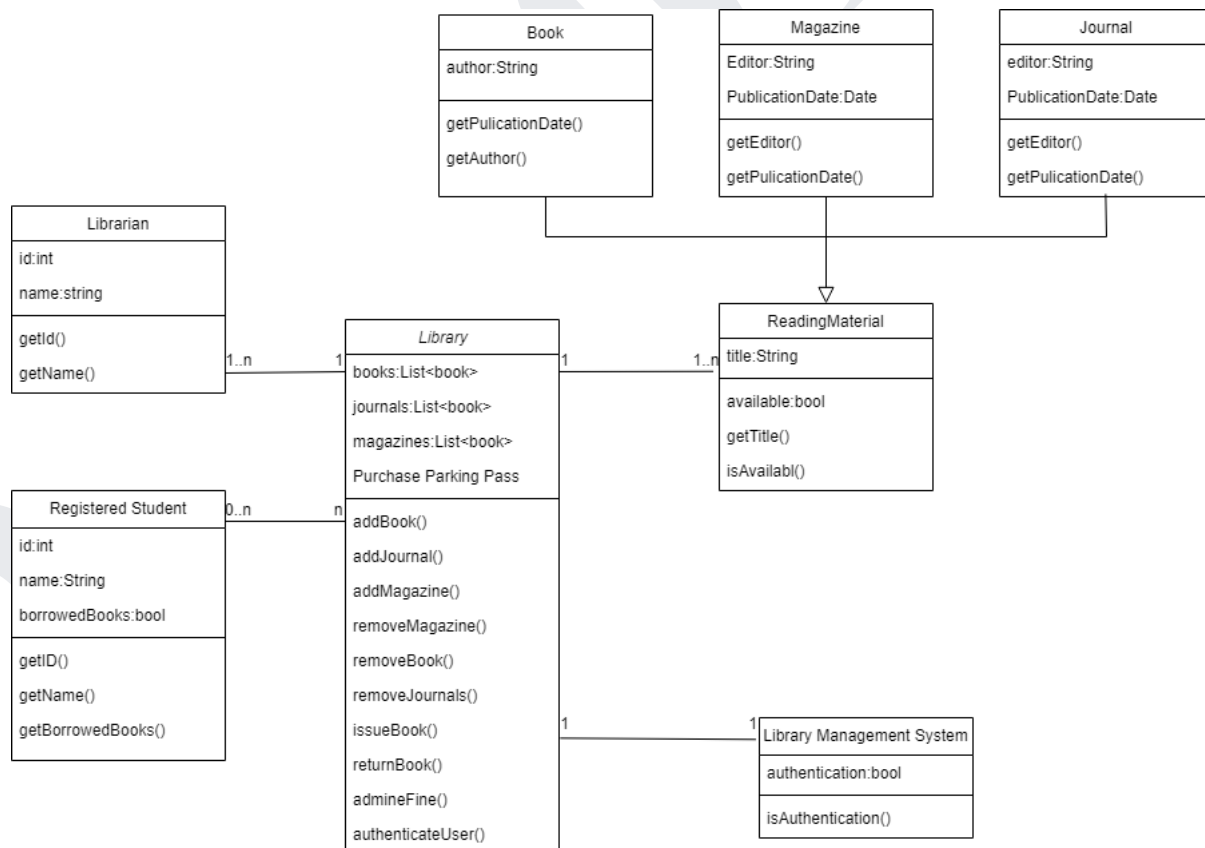
At the time of returning the book, student will return the book, librarian will check the due date, if the student if already late in returning then he/she should pay the fine. Librarian will accept the fine and take the book return and update the database.

**Alternative Flows:** If the book which student want to read is not available then librarian will notify this to the student.

## 2. The sequence diagram for the "issueBook" use case.



## 3. Draw the analysis object diagram for the "issueBook" use case analysis.

**Question 2**

**Sequence diagram**