#### **SOFTWARE ENGINEERING**

Lab Assignment: 7

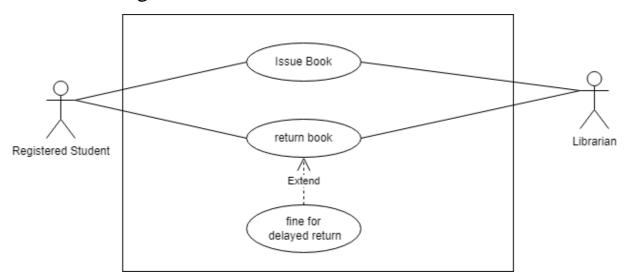
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#### **Question: 1**

#### Use case Diagram:



Description: Students, faculty members, and staff all use this system to distribute books. Students may borrow any book that is available in this case, but they must return it. Students are required to pay a fine if they return a book after the due date.

The purpose of using the use case as well as the expected result of the use case should both be described in this section.

Actors: Student, Librarian, Library

Preconditions: Student should register in the library.

Trigger: student comes to library for issuing the book or returning a book.

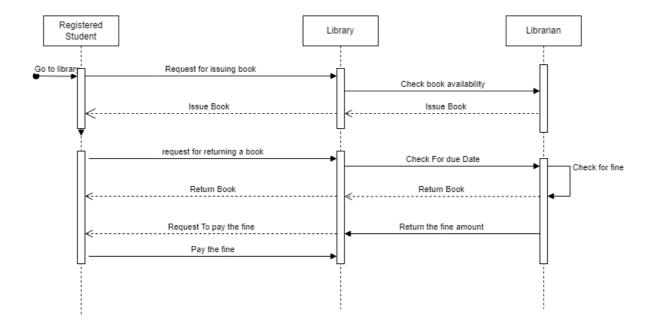
Postcondition: The entry of issued or returned book should be added to the database of library.

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.

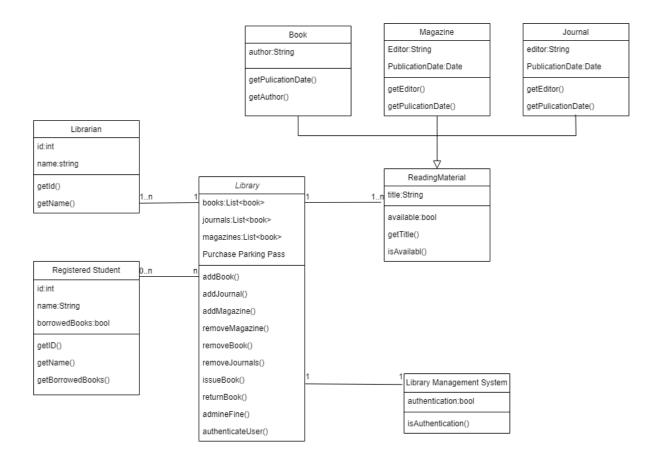
At the time of returning the book, student will return the book, librarian will check the due date, if the student if already late in returning then he/she should pay the fine. Librarian will accept the fine and take the book return and update the database.

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

### Sequence Diagram:



# Class Diagram:



### Question: 2

# Sequence Diagram:

