SOFTWARE ENGINEERING

Lab Assignment: 7

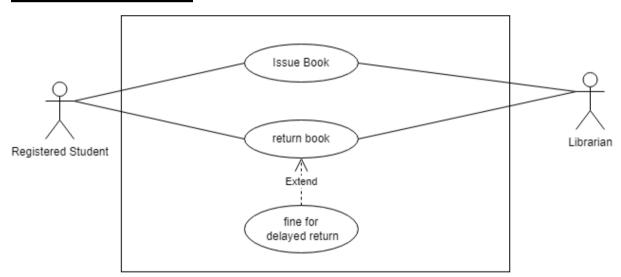
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Lab Group: 6

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Question: 1

Use case Diagram:



<u>Description</u>: This system is used by students for issuing books and by librarian to keep record of the books and maintain library. Students can issue any of the available books and if any student fails to return the book before the given due date, he/she must pay fine for the same.

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

Actors: Student, Librarian, Library

Preconditions: Student should be registered in the library.

<u>Trigger</u>: Student comes to library for issuing or returning a book.

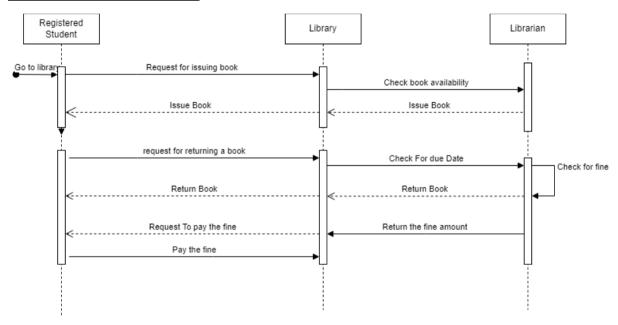
<u>Postcondition</u>: The entry of issued or returned book should be added to the database of library.

<u>Flow</u>: The student will come to issue a book for reading, Librarian will check for the availability of the book in the library. Then he will issue the book and record it in the library database.

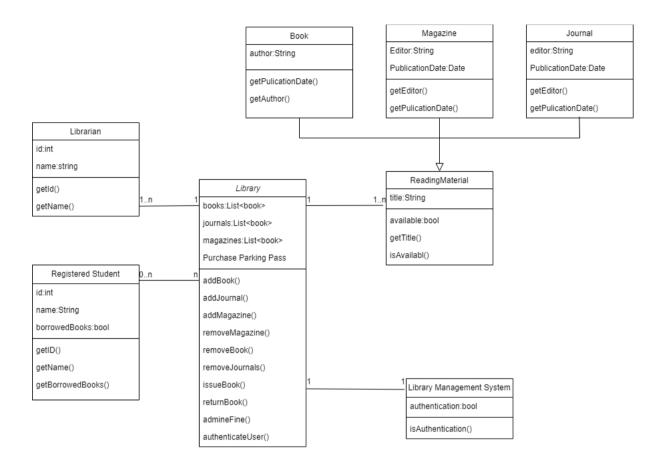
At the time of returning the book, librarian will check the due date, if the student has exceeded the due date, then he/she must pay the fine. Librarian will accept the fine and take the book and update the database.

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

Sequence Diagram:

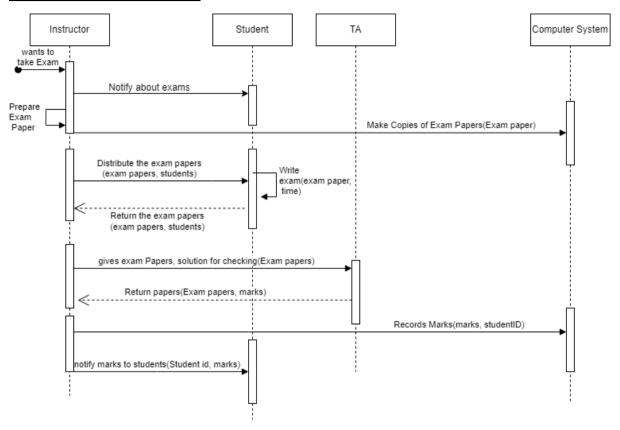


Class Diagram:



Question: 2

Sequence Diagram:



Here, the instructor will notify the students about the exam, this is a process. The instructor will set the paper and hand it to the system for copying it, then distribute them to students. Students will write the exam and return the papers. Instructor will give the papers to TAs for checking. TAs will return the papers and Instructor will enter the marks. The students will then be informed about their marks. And all these are function of exam papers.