IT314 Software Engineering

Lab Report: 7

Domain Analysis Modeling & Sequence Diagram
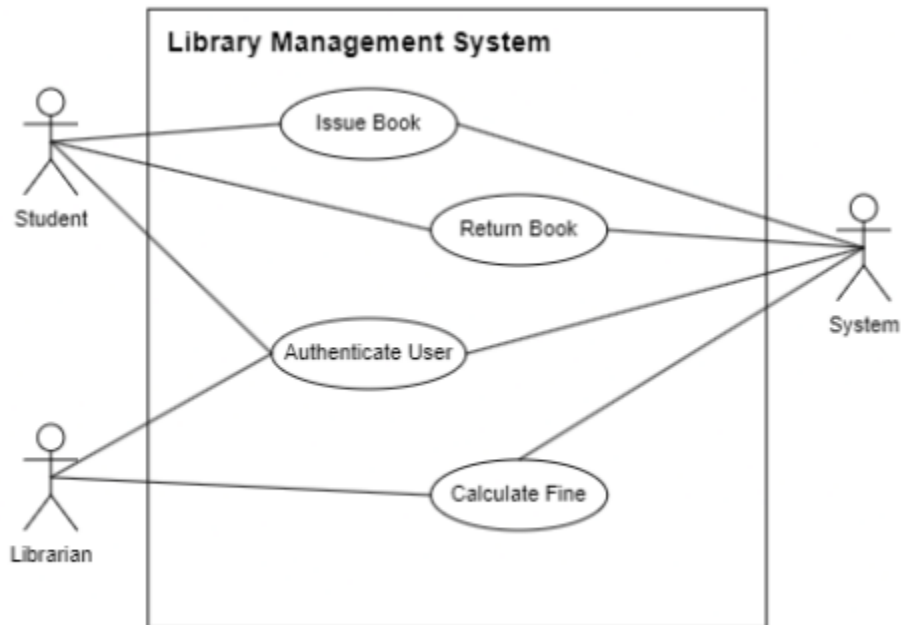
Om Gor   202101484

September 26, 2023

Use case diagram :

Use case documentation for 'Issue book' use case:

Use case name : Issue Book
Description : Represents the process Issuing book
Primary Actors : Registered Students
Secondary Actors : Library, Librarian

Pre-conditions:
• Registered students must be logged in and authenticated by the librarian.
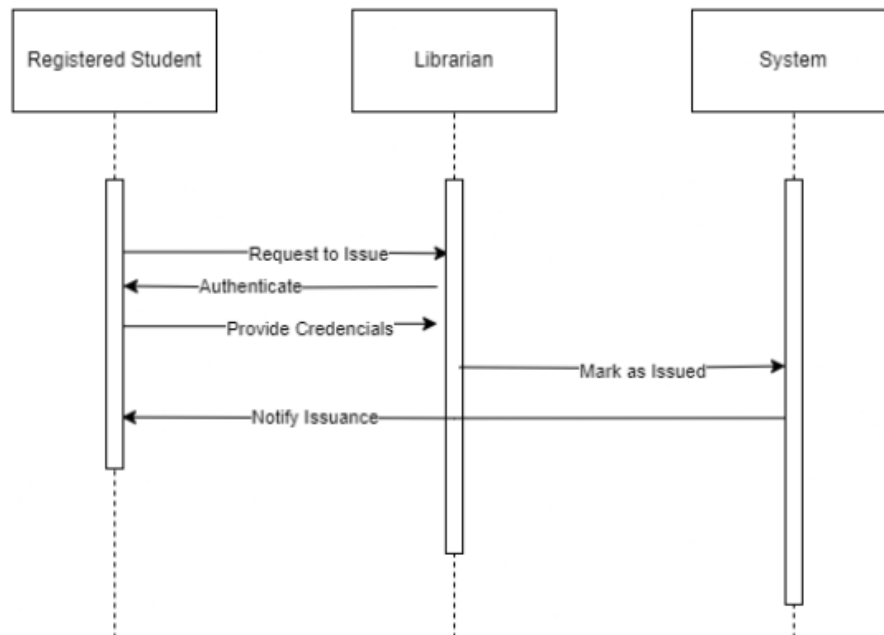• The book being issued must be available in the library.

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
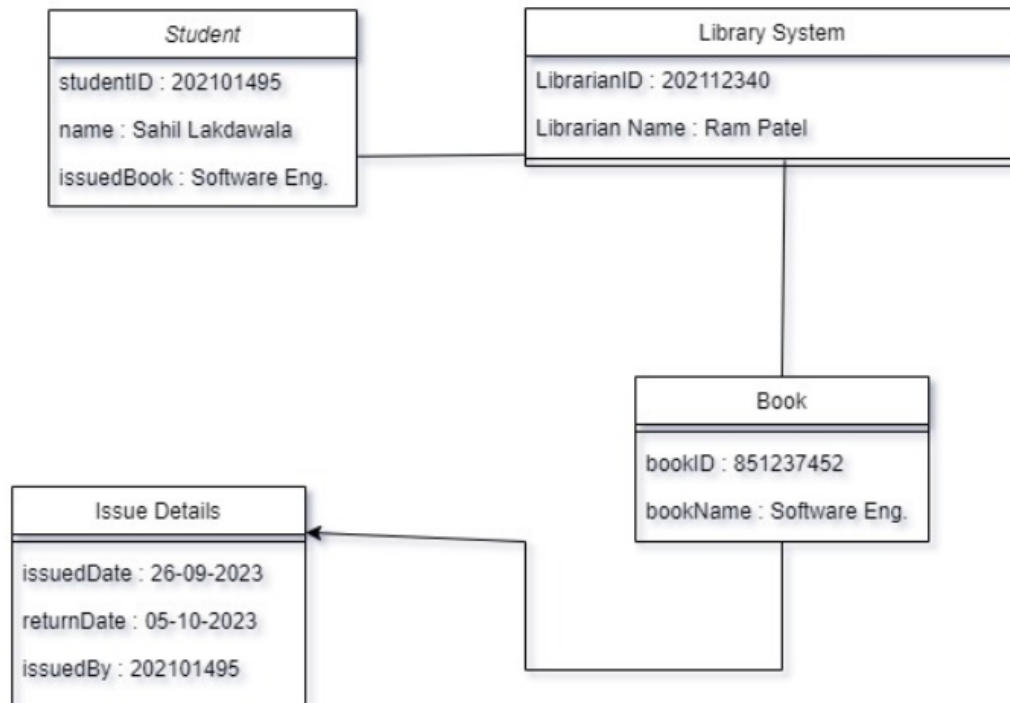
Main flow:
• The registered student requests to issue a book.
• The system validates the student's authentication status.
• The system checks if the requested book is available.
• If the book is available, the system marks it as issued to the student.
• The system sets the due date for returning the 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

Sequence diagram

Analysis object diagram

Student
- studentID : 202101495
- name : Sahil Lakdawala
- issuedBook : Software Eng.

Library System
- LibrarianID : 202112340
- Librarian Name : Ram Patel

Book
- bookID : 851237452
- bookName : Software Eng.

Issue Details
- issuedDate : 26-09-2023
- returnDate : 05-10-2023
- issuedBy : 202101495

Q2 :

Sequence diagram