

IT314 – Software Engineering

Lab 7 : Domain Analysis Modeling & Sequence Diagram

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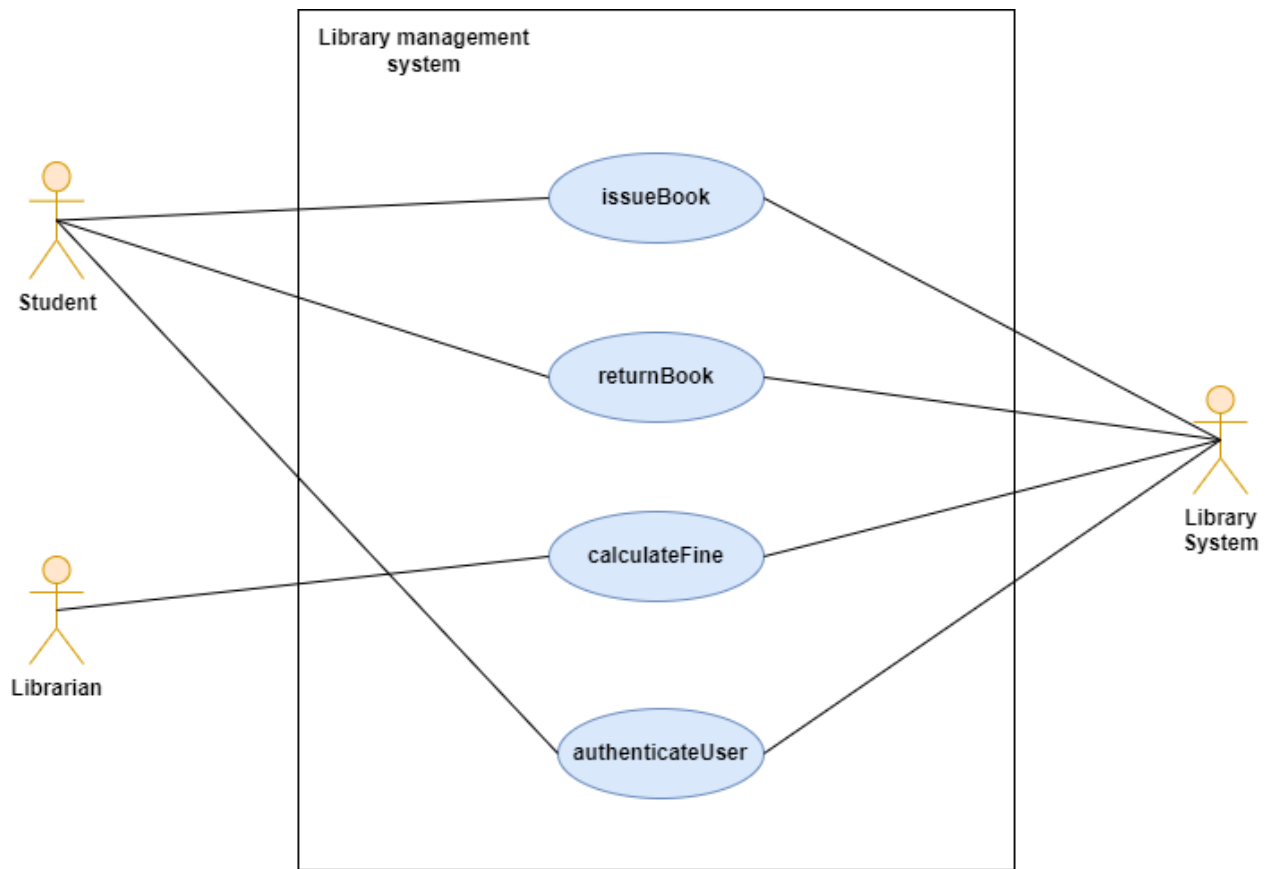
Date : 27/09/2023

Group : 17

Question-1 :

1. Complete the use case diagram for the above problem text along with use case documentation for “issueBook” use case.

Use Case Diagram:-



Use Case documentation for “issueBook” use case:-

Use Case Name: IssueBook

Description: This use case represents the process of a registered student issuing a book from the library.

Primary Actor: Registered Student

Secondary Actor: Library and Librarian

Preconditions: The registered student must be logged in and authenticated by the librarian and the issued book must be available in the library.

Postconditions: 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 verifies the student's authentication status. The system checks if the requested book is available or not. If the book is available, the system

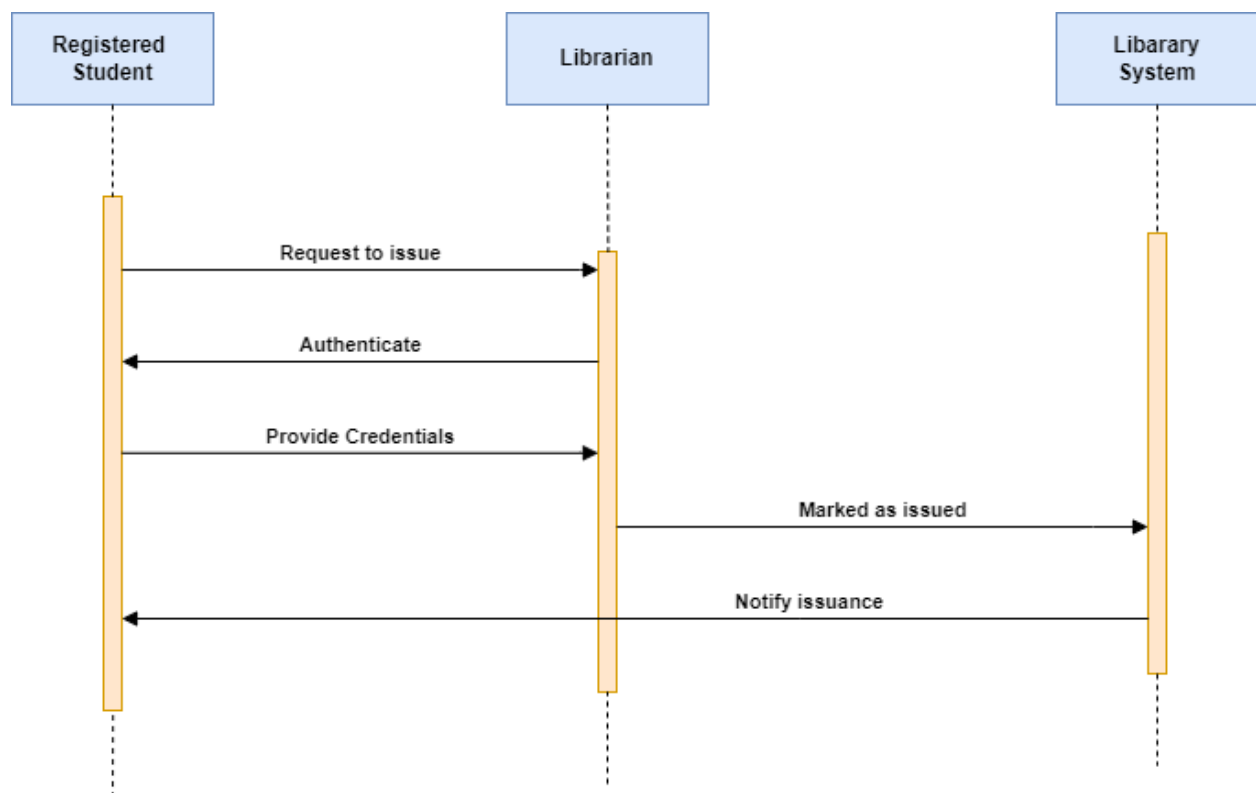
marks it as issued to the student. The system sets the due date for returning the book. The system notifies the student and the librarian about the successful issuance.

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. The sequence diagram for the “issueBook” use case.

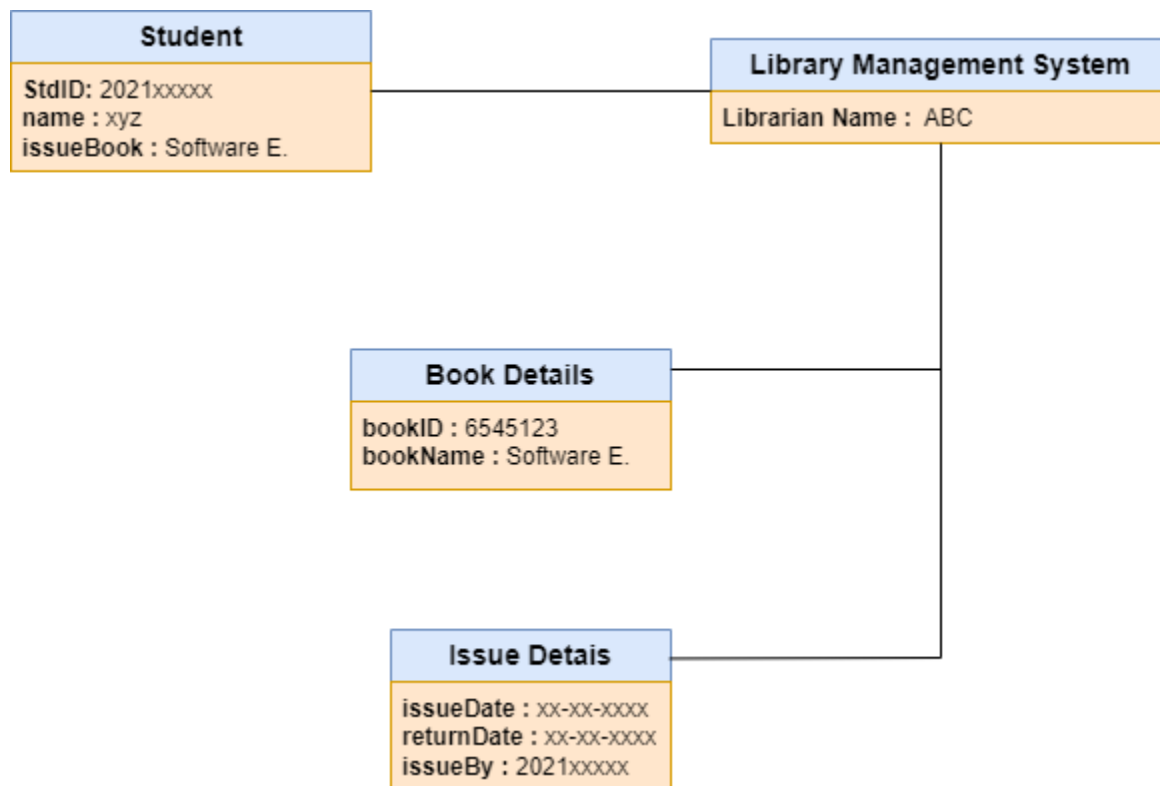
(Hint: Here you need to identify various analysis objects corresponding to entity, boundary, and control classes), and show their interaction to realize the “issueBook” use case.)

Sequence Diagram:-



3. Draw the analysis object diagram for the “issueBook” use case analysis.

Analysis object Diagram:-



Question-2 :

Sequence Diagram:-

