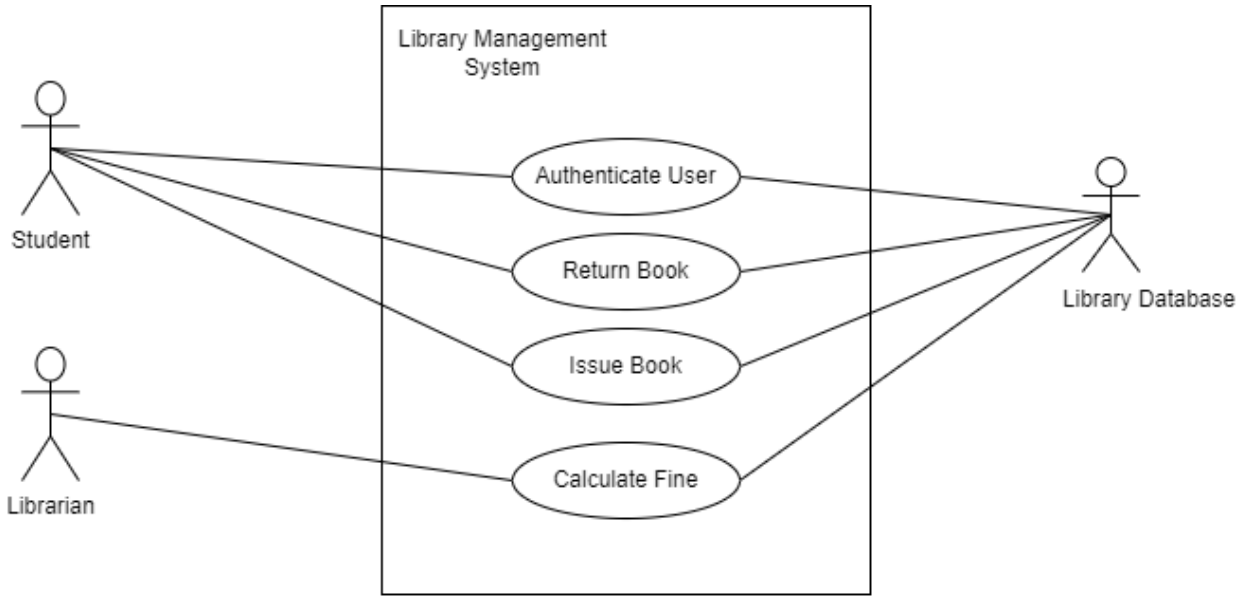
IT-314
Software Engineering

Lab 7

Name: Vandan Bhuva
ID: 202101404

Q1 - 1) Use Case Diagram



Use Case Documentation for "issue book" Use Case:

Use Case Name: Issue Book

Description: This use case illustrates the process of issuing a book from the library by a registered user.

Primary Actor: Registered Student

Secondary Actor: Library Database and Librarian

Preconditions:

- The registered student must be logged in and authenticated by the librarian.
- The library must have the book that is being issued.

Postconditions:

- The book is marked as issued.

- The due date for returning the book is set.
- The student is notified that the book is issued to them.

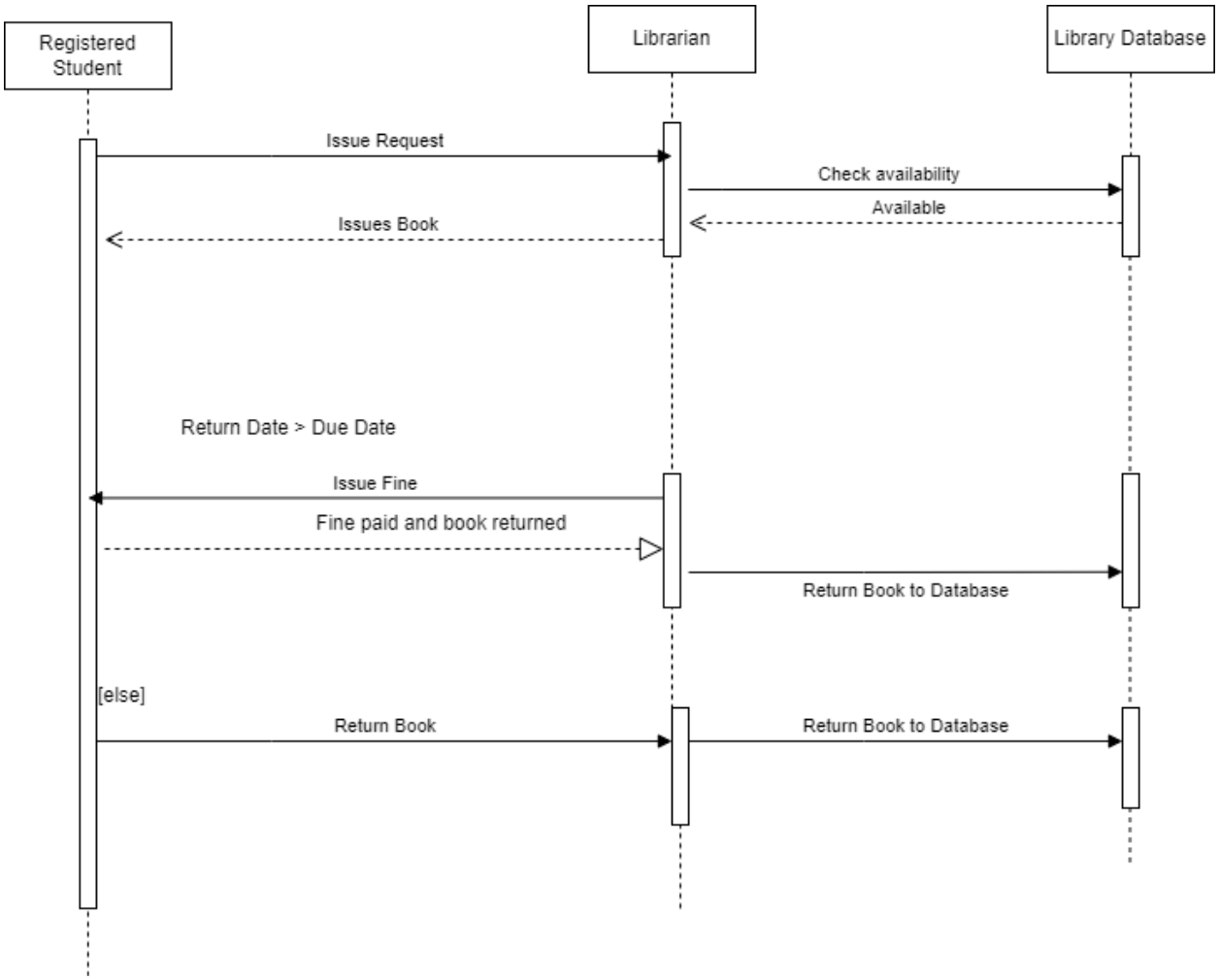
Main Flow:

- The registered student requests to issue a book.
- The system authenticates the student.
- The system checks if the requested book is in stock.
- 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.

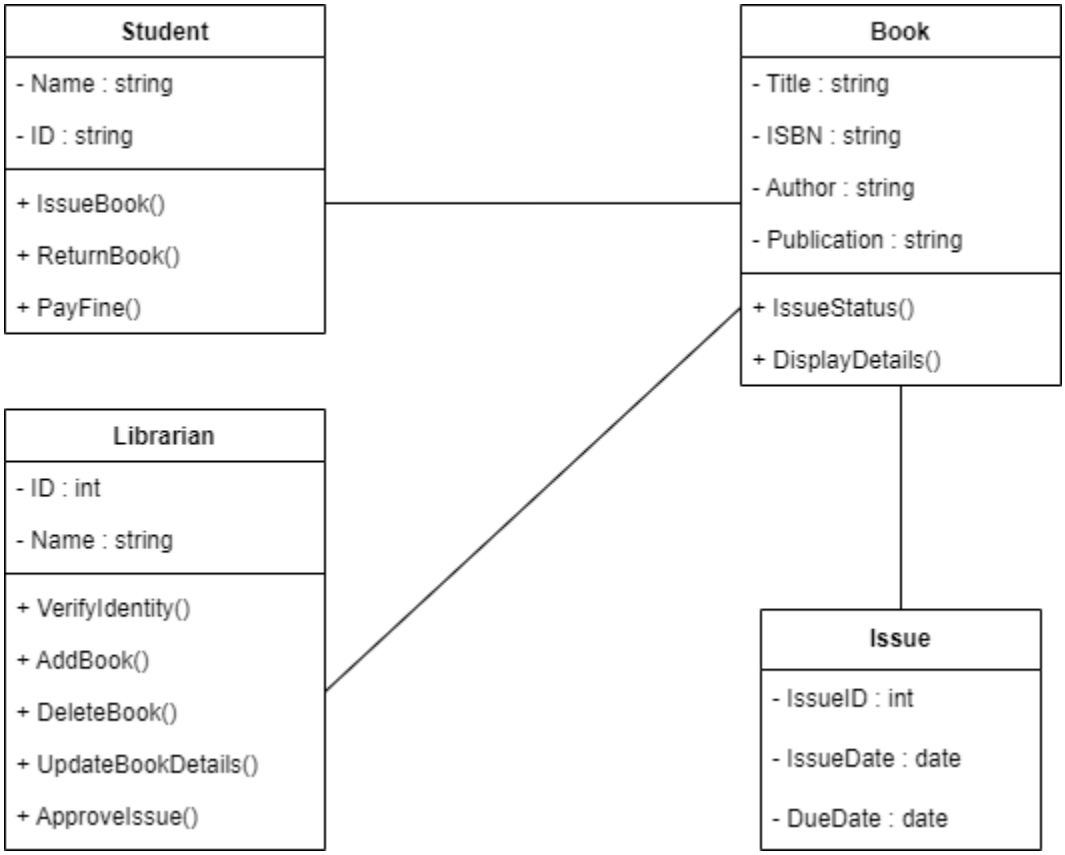
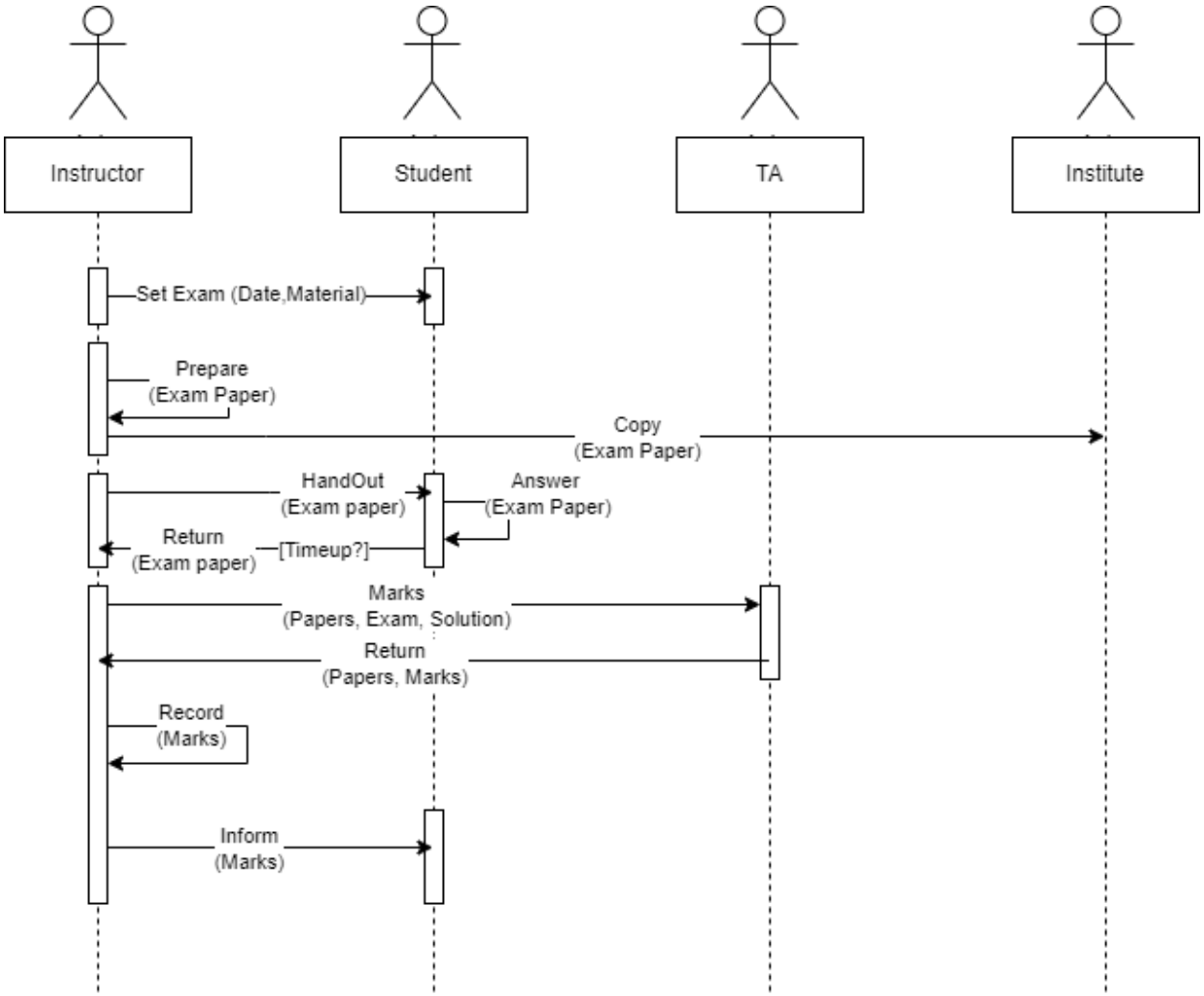
Alternate Flows:

- 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.

Q1 - 2) Sequence Diagram



Q1 - 3) Analysis Object Diagram



Q2) Sequence Diagram