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Institute of Information and Communication Technology

**Subject: Software Engineering**

**Subject code: IT 314**

## Lab VII

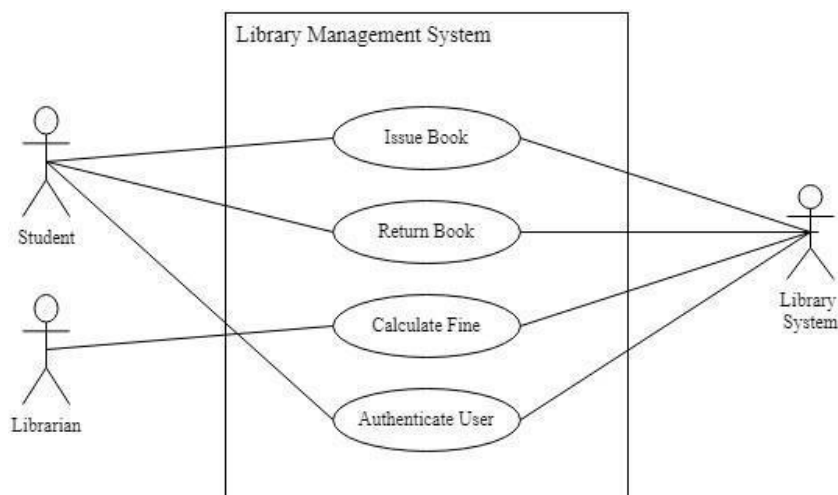
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**Topic: Domain Analysis Modeling and Sequence Diagram**

### **Library Management System**

#### **1.1 Use Case Diagram**



#### **1.2 Use Case Documentation**

**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.

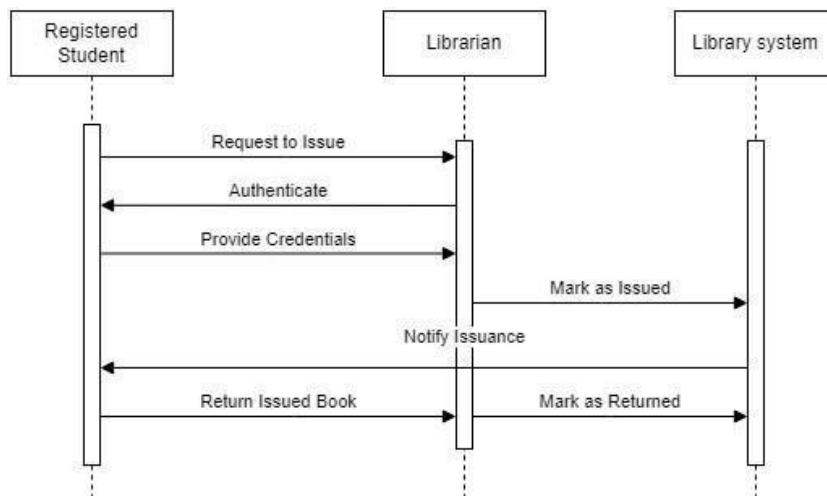
**Main flow:**

- 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

### 1.3 Sequence Diagram



## 2 Examination Management Process

