IT313: Software Engineering

Submitted by

Priyesh Tandel - 202101222
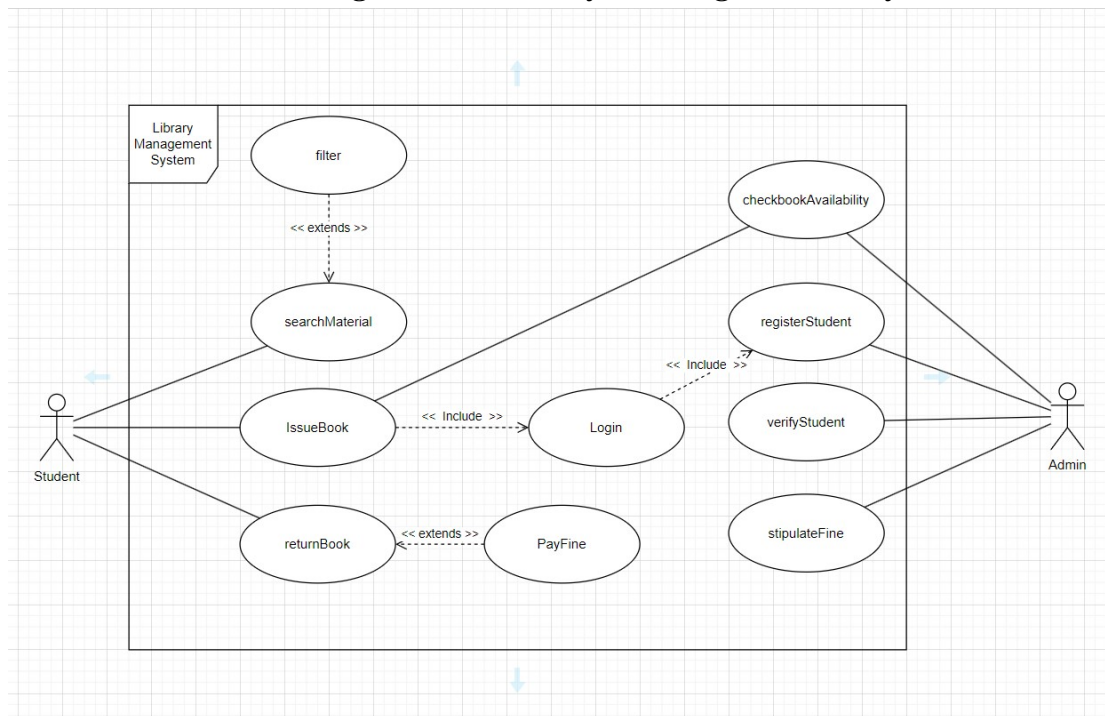**5th Semester, B.Tech**

Submitted to

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Use case Diagram Library Management System :

Use Case Documentation

Use case name : Issue Book

Description : Represents the process Issuing book

Primary Actors : Registered Students

Secondary Actors : Librarian

Pre-conditions:

• Registered student 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.
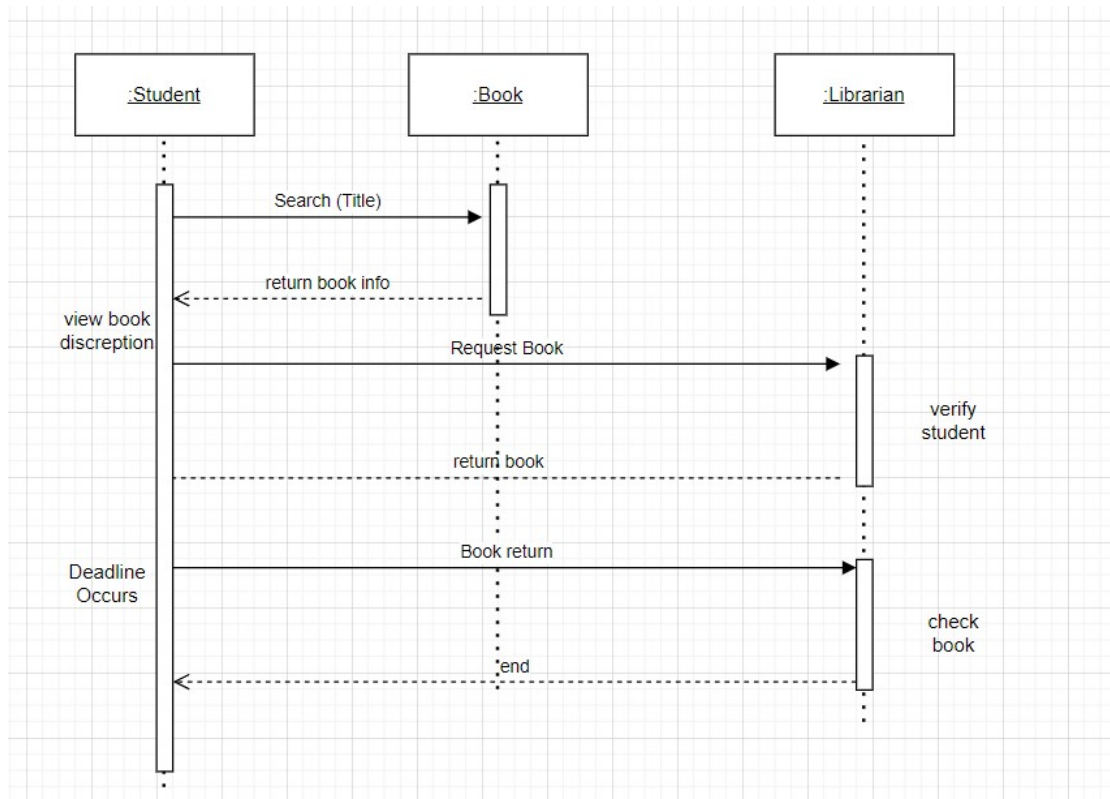
Main flow:

• 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.
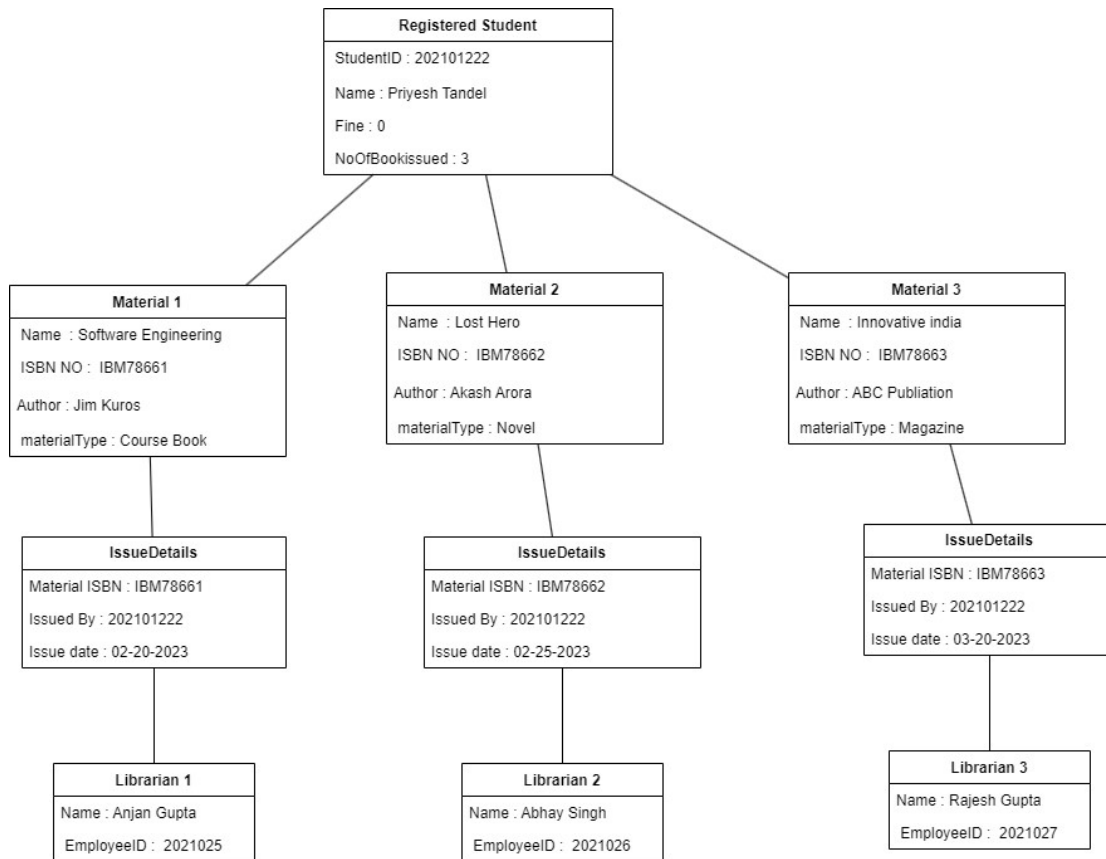
Alternate Flows:

• 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 for the use case "Issue Book" :

object diagram for the "issueBook" use case analysis :

Registered Student

StudentID : 202101222

Name : Priyesh Tandel

Fine : 0

NoOfBookissued : 3

Material 1

Name : Software Engineering

ISBN NO : IBM78661

Author : Jim Kuros

materialType : Course Book

Material 2

Name : Lost Hero

ISBN NO : IBM78662

Author : Akash Arora

materialType : Novel

Material 3

Name : Innovative india

ISBN NO : IBM78663

Author : ABC Publiation

materialType : Magazine

IssueDetails

Material ISBN : IBM78661

Issued By : 202101222

Issue date : 02-20-2023

IssueDetails

Material ISBN : IBM78662

Issued By : 202101222

Issue date : 02-25-2023

IssueDetails

Material ISBN : IBM78663

Issued By : 202101222

Issue date : 03-20-2023

Librarian 1

Name : Anjan Gupta

EmployeeID : 2021025

Librarian 2

Name : Abhay Singh

EmployeeID : 2021026

Librarian 3

Name : Rajesh Gupta

EmployeeID : 2021027

Q2: