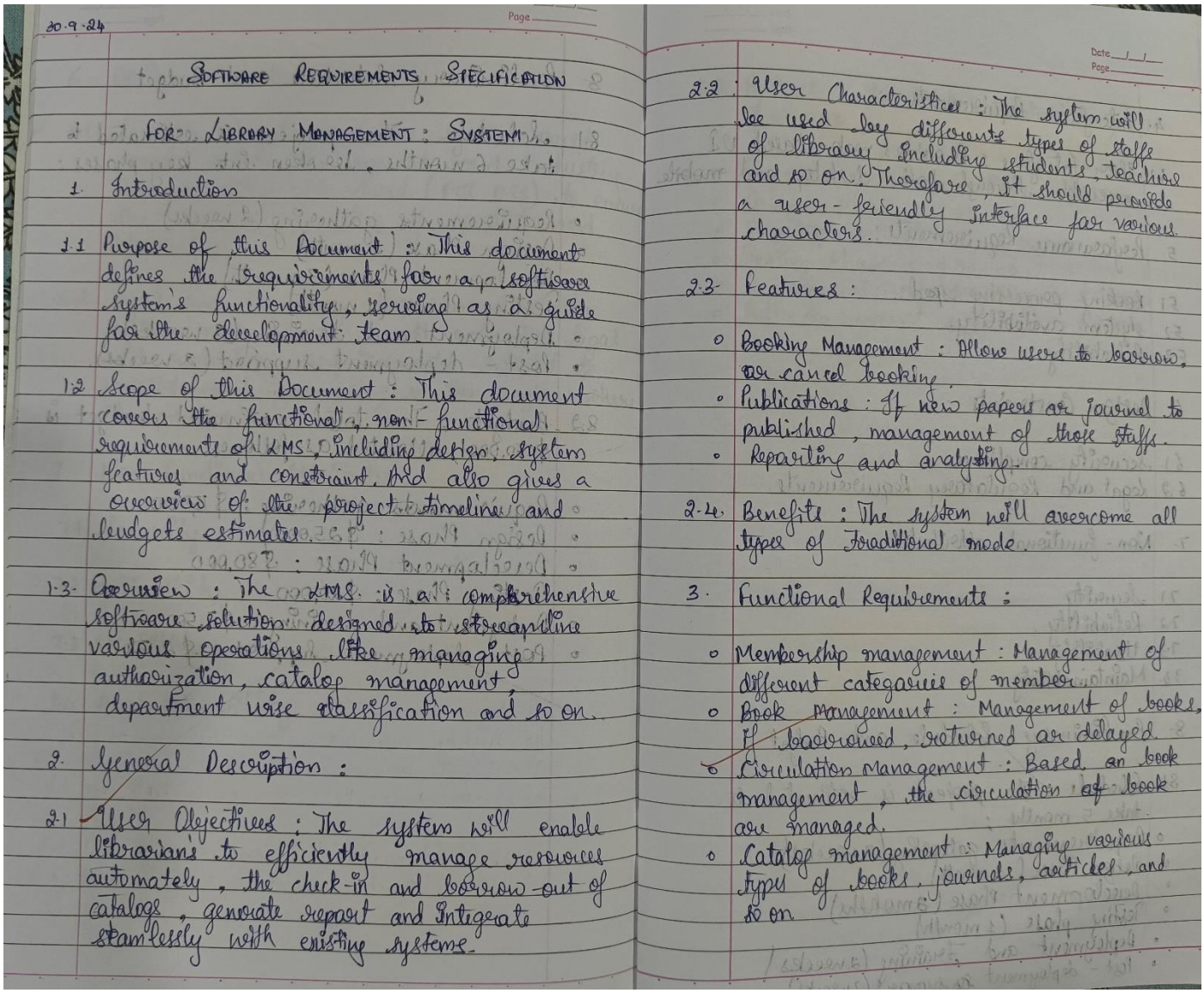
LIBRARY MANAGEMENT SYSTEM

SOFTWARE REQUIREMENTS SPECIFICATION



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SOFTWARE REQUIREMENTS SPECIFICATION

FOR LIBRARY MANAGEMENT SYSTEM

1. Introduction

1.1 Purpose of this Document : This document defines the requirements for a software system's functionality, serving as a guide for the development team.

1.2 Scope of this Document : This document covers the functional, non-functional requirements of LMS, including design, system features and constraint. And also gives a overview of the project timeline and budgets estimates.

1.3 Overview : The LMS is a comprehensive software solution designed to streamline various operations like managing authorization, catalog management, department wise classification and so on.

2. General Description :

2.1 User Objectives : The system will enable librarians to efficiently manage resources automately, the check-in and borrow-out of catalogs, generate report and Integerate seamlessly with existing systems.

2.2 User Characteristics : The system will be used by different types of staffs of library including students, teachers and so on. Therefore, it should provide a user-friendly interface for various characters.

2.3 Features :

- Booking Management : Allow users to borrow, or cancel booking.
- Publications : If new papers or journal to published, management of those stuffs.
- Reporting and analyting.

2.4 Benefits : The system will overcome all types of traditional mode.

3. Functional Requirements :

- Membership management : Management of different categories of member.
- Book management : Management of books, if borrowed, returned or delayed.
- Circulation management : Based on book management, the circulation of book are managed.
- Catalog management : Managing various types of books, journals, articles, and so on.

4. Interface Requirements :

4.1 User-Interface : Provides web-based UI accessible through both desktop and mobile.

5. Performance Requirements :

5.1 Booking processing speed.
5.2 System availability.
5.3 Reliability.

6. Design Constraints :

6.1 Security compliance.
6.2 Legal and Regulatory Requirements.

7. Non-functional attributes :

7.1 Security.
7.2 Reliability.
7.3 Usability.
7.4 Maintainability.

8. Preliminary Schedule and Budget

8.1 Schedule : The project is estimated to take 5 months ;

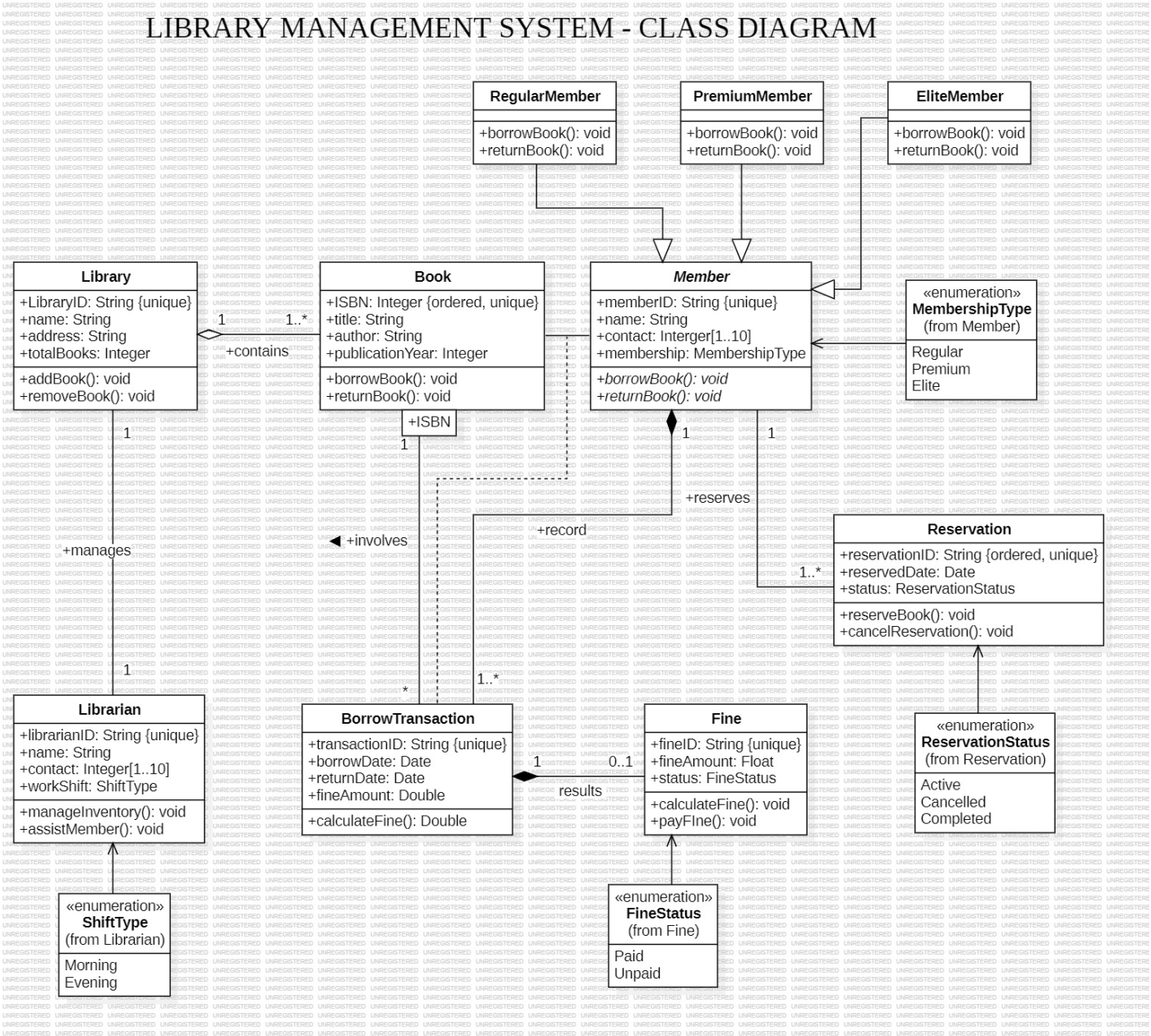
- Requirements gathering (2 weeks)
- Design Phase (1 month)
- Development Phase (3 months)
- Testing phase (1 month)
- Deployment and Training (2 weeks)
- Post-deployment support (2 weeks)

8.2 Budget : The total estimated budget is $150,000 ;

- Requirements gathering : $1500
- Design Phase : $25,000
- Development Phase : $80,000
- Testing Phase : $20,000
- Deployment and training : $7,500
- Post-deployment support : $2500

UML DIAGRAMS

CLASS DIAGRAM



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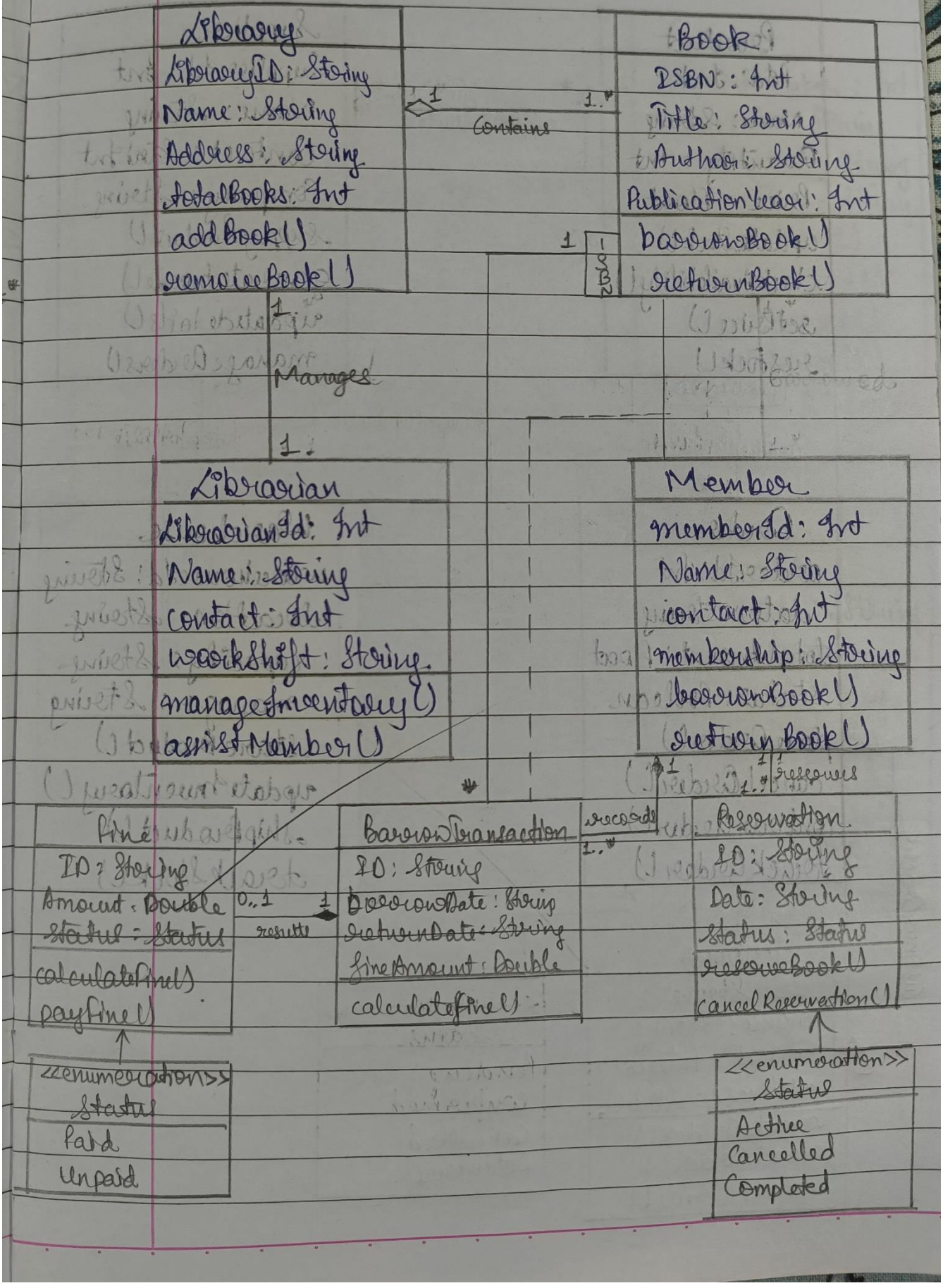
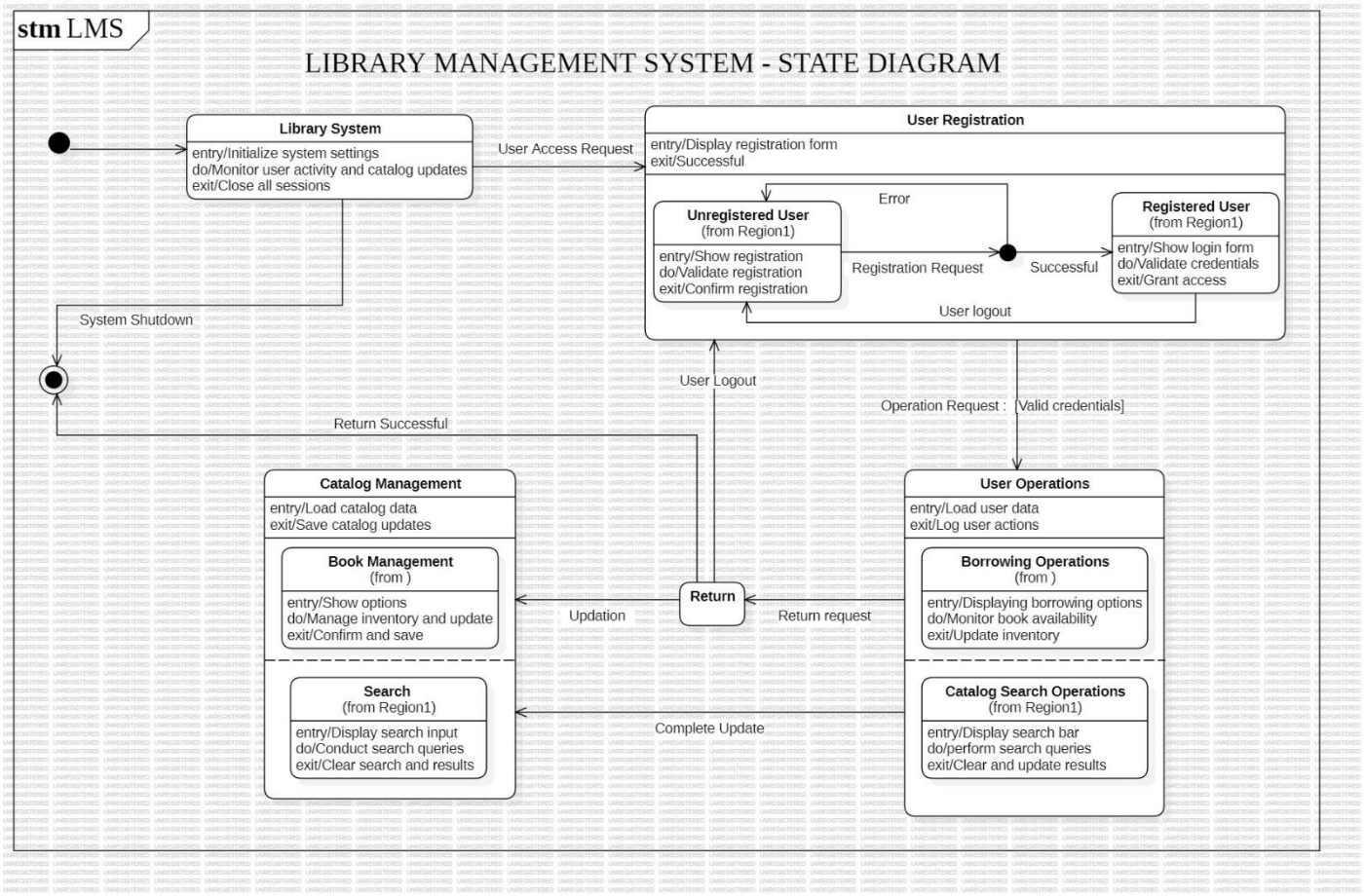
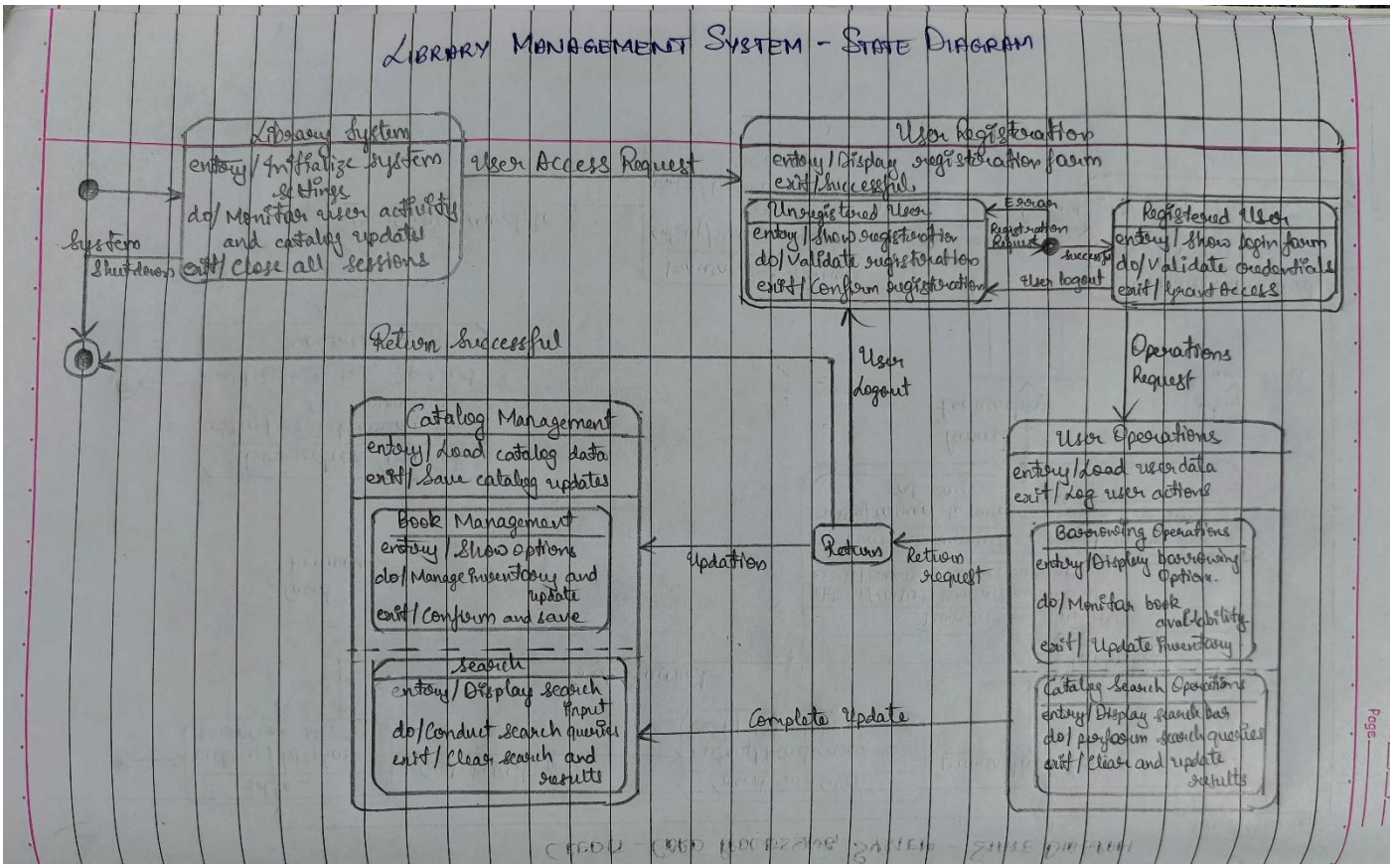
3. LIBRARY MANAGEMENT SYSTEM

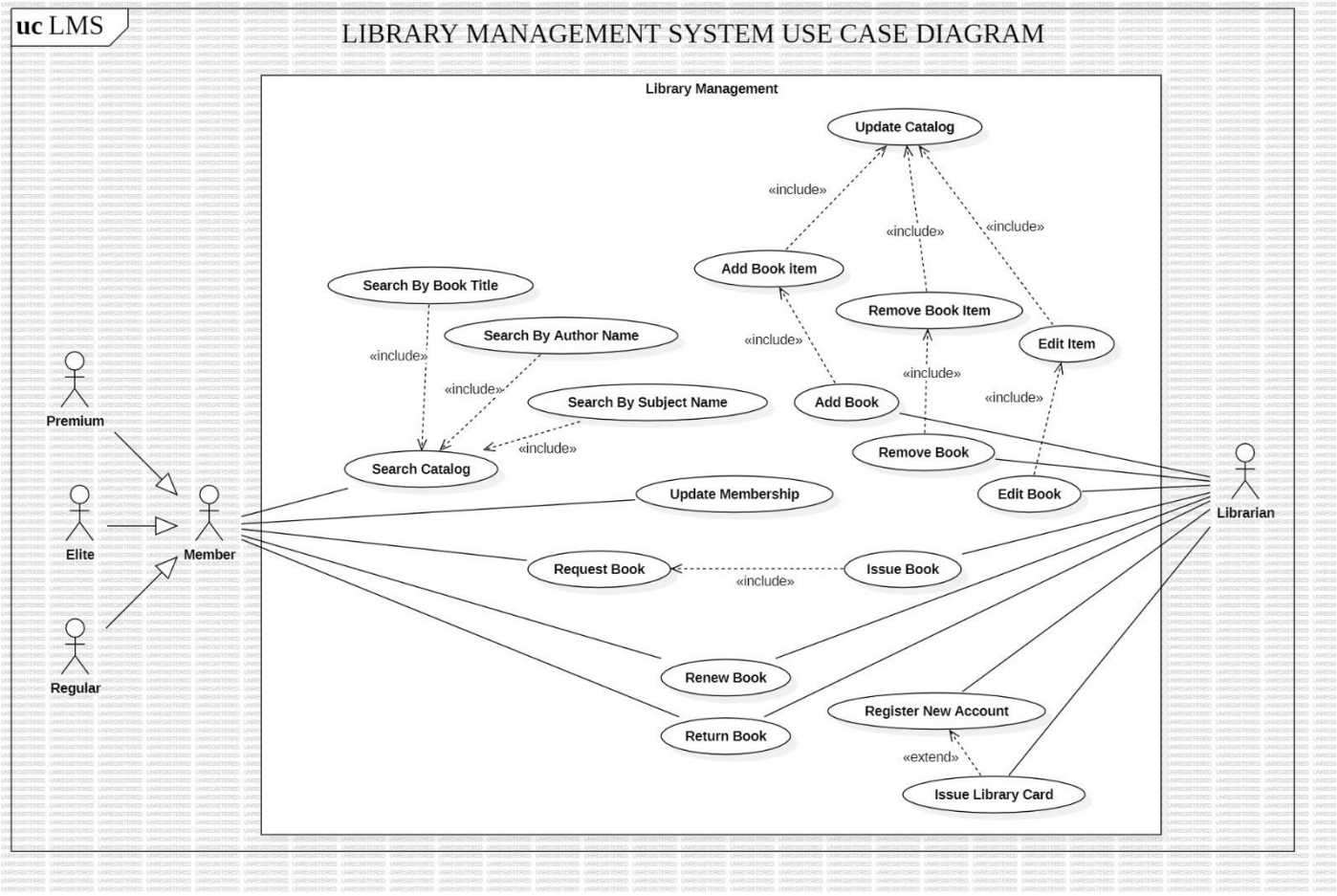


STATE DIAGRAM

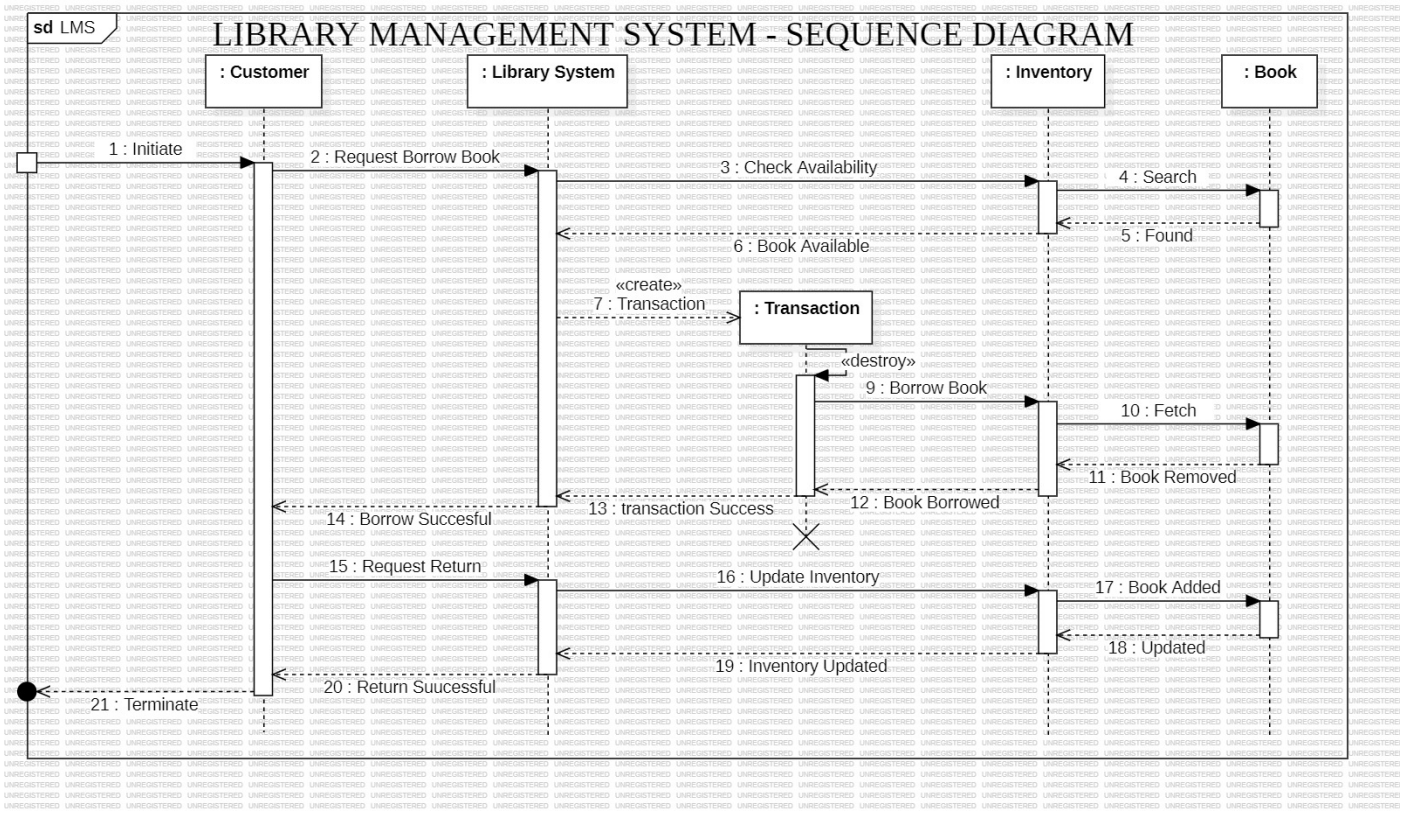




USE CASE DIAGRAM



SEQUENCE DIAGRAM



ACTIVITY DIAGRAM