30/09/24

LAB-2

3. Software Requirement Specification for library management system

1. Introduction:

- Purpose:

This document outlines the requirements for library management system designed to help libraries efficiently manage their book inventories, member records, the issuing process

- Scope:

The system will assist library staff in managing book collections, tracking member activities and issuing books.

- Overview:

It includes modules for managing members, tracking book issuance returns, calculating fines. Users will be able to search a book via the ~~app~~ desktop or mobile devices.

2. General description:

- Product Perspective:

~~integrate~~ ~~seamlessly~~ The system will integrate seamlessly with existing library hardware and software, allowing staff to manage both physical and digital collections from a single platform.

- User characteristics:

Users include library staff and members what to ~~set~~ search for books. The interface will be simple and user friendly.

- system constraints:

The system must be operational during library hours and capable of supporting multiple users at the same time.

3. Functional Requirements:
   - Manage book catalog
   - Track book issuance and returns
   - Manage member accounts
   - Calculate fine fees
   - Enable search ~~opt~~ functionalities

4. Interface Requirements
   - GUI for staff members
   - web-based portal for library members

5. Performance Requirements:
   - system must accomodate upto 200 concurrent users
   - Search should be faster

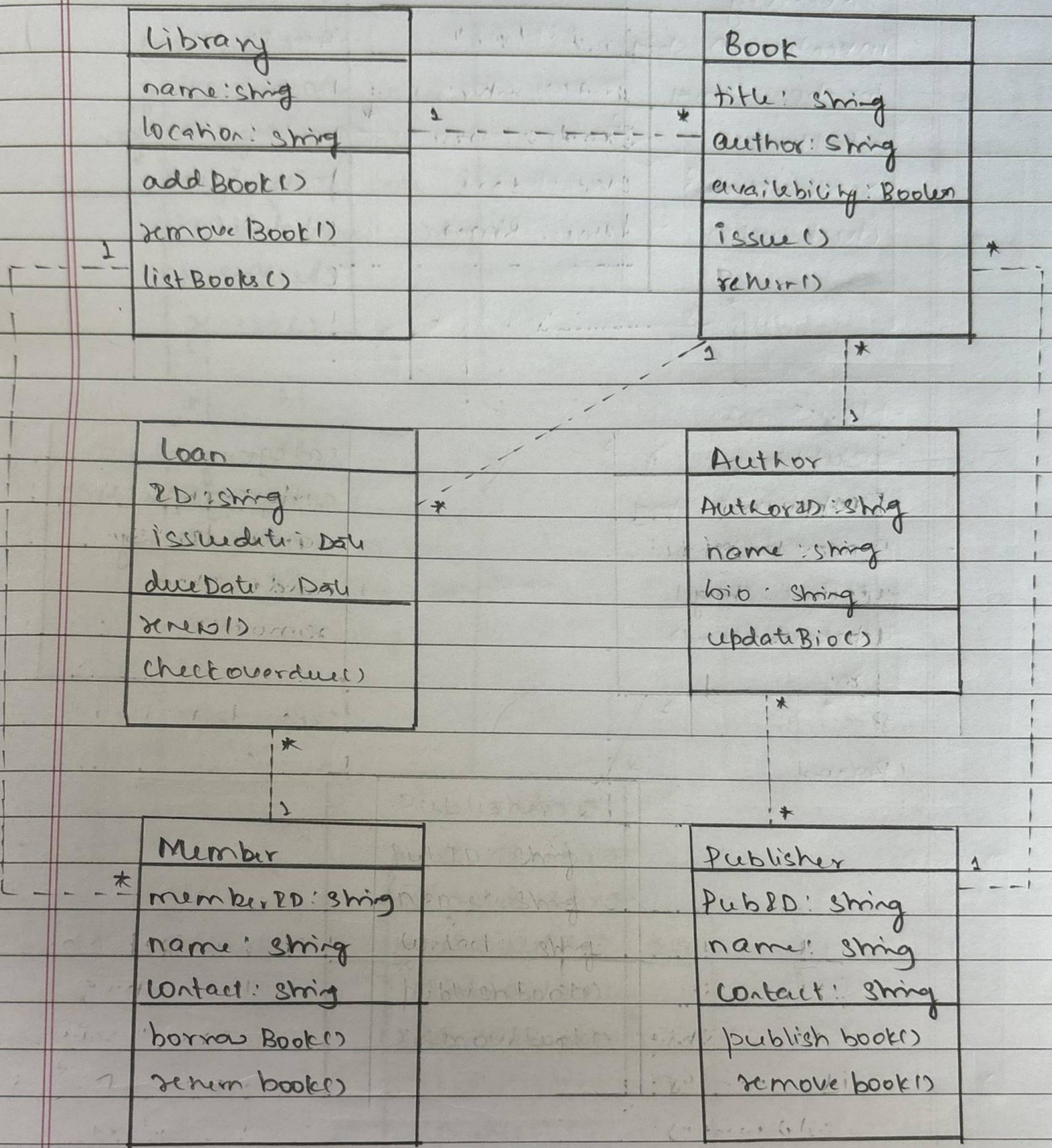
6. Design constraints:
   - system must integrate with the existing software
   - should be modular ~~and~~ to facilitate future updates.

7. Non-functional Attributes:
   - security: Personal information of the members must be secured
   - scalability: should be able to integrate multiple libraries
   - Reliability: Should be 99% reliable

8. Preliminary schedule and budget.

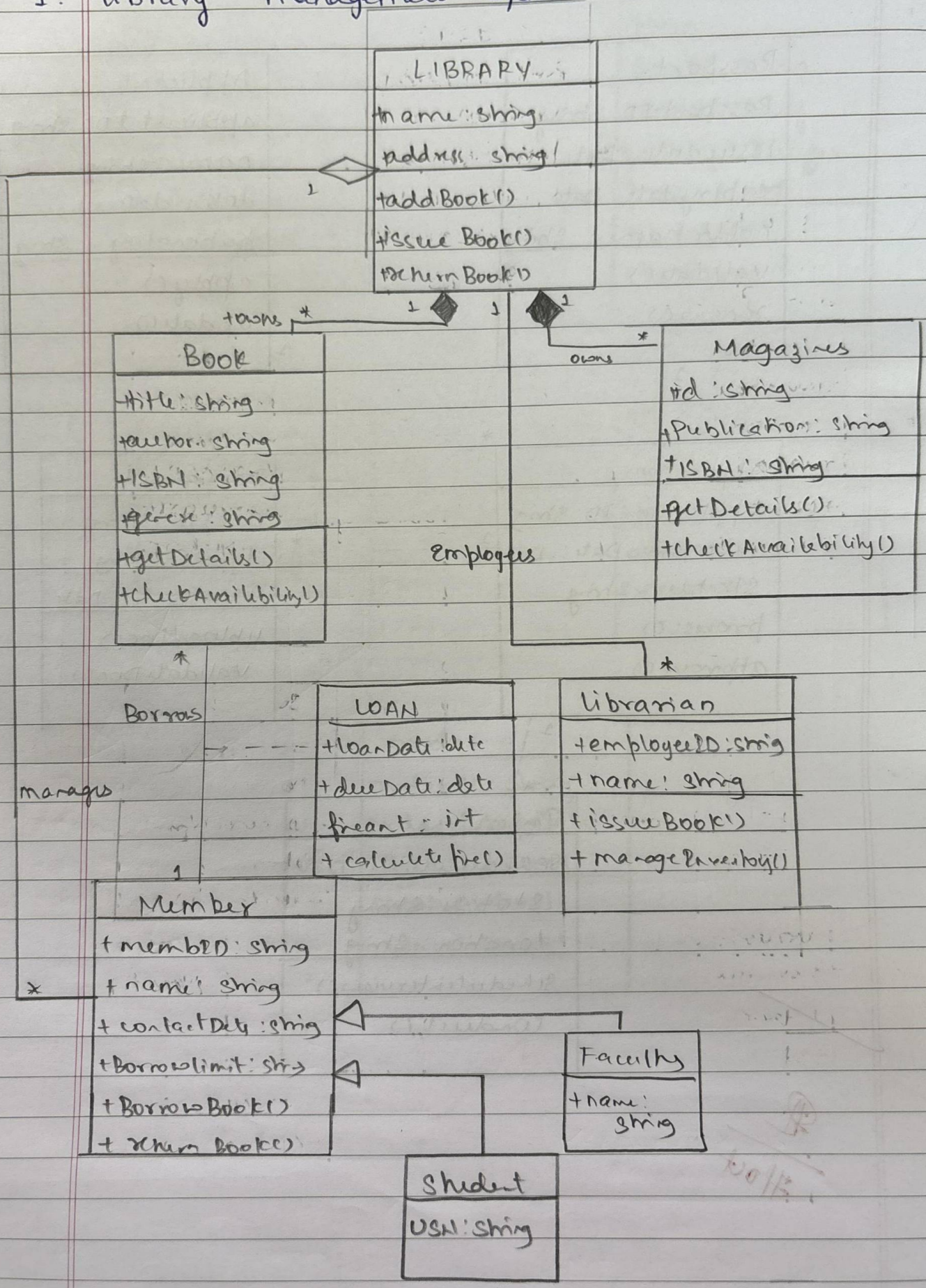
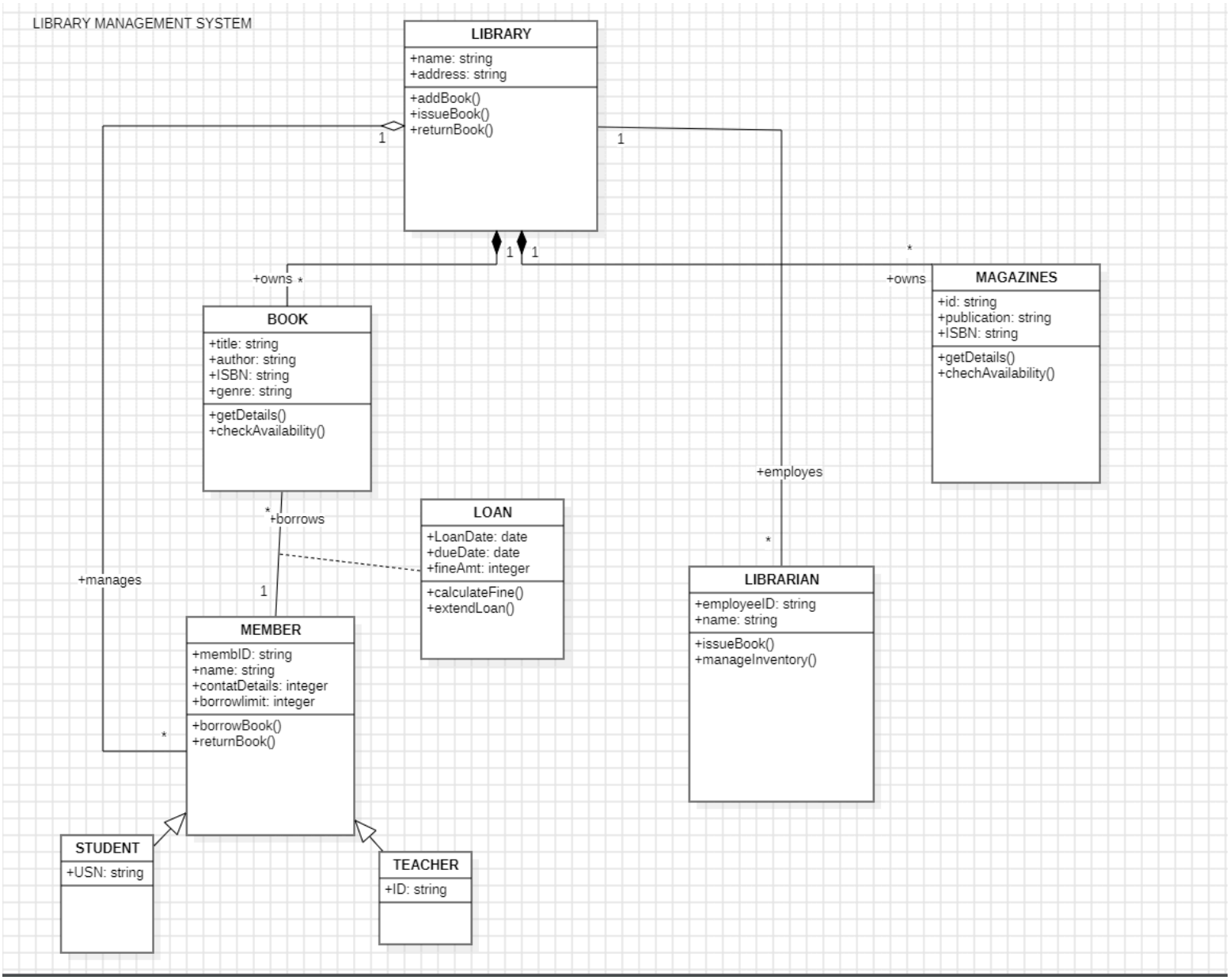
- Development Timeline: Approximately 5 months.
- Estimated budget: $20000 for initial development.

3. Library management system.



Advanced class diagram

1. library management system: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