

# Library Management System

## Problem Statement

The problem that a library management system aims to solve is the efficient management of library operations including Cataloging and organizing books.

## 1. Introduction

### 1.1 Purpose of this document

To outline the requirements and specifications for the development.

### 1.2 Scope of this document

This document defines the overall functional and non-functional requirements, performance expectations and non-functional attributes.

### 1.3 Overview

Designs to automate and streamline various operations within a library including Cataloging, Circulation, membership management and reporting. It aims to improve efficiency, reduce cost, expenses and facilitate library services.

## 1. General description

The LMS will cater to the needs of librarians and members. It will feature intuitive interfaces and robust search capabilities.

## 2. Functional requirements

Functional Requirements describe the specific functions or capabilities that the library management system must perform. These requirements are listed in C ranked on importance to system functionality.

## 3. Interface Requirements

The LMS will interact with users through:

- o Graphical User Interface (GUI) for library staff
- o Web based interface for online catalog search and member services.

## 4. Performance Requirements

- Response time for Catalog search & book checkout
- System uptime
- Data processing speed: Real-time updates for book availability & member transaction.

## 6. Design Constraints

- Integration with existing library system & database for data migration.
- Compatibility with different operating systems and browsers.
- Compliance with library Standards & practices for cataloging &

## 7 Non functional Attribute

• Security : Encryption of sensitive data, role based access control for staff and members

• Availability : Accessibility across different devices and platforms

• Reliability : Minimal downtime, data backup & recovery mechanisms

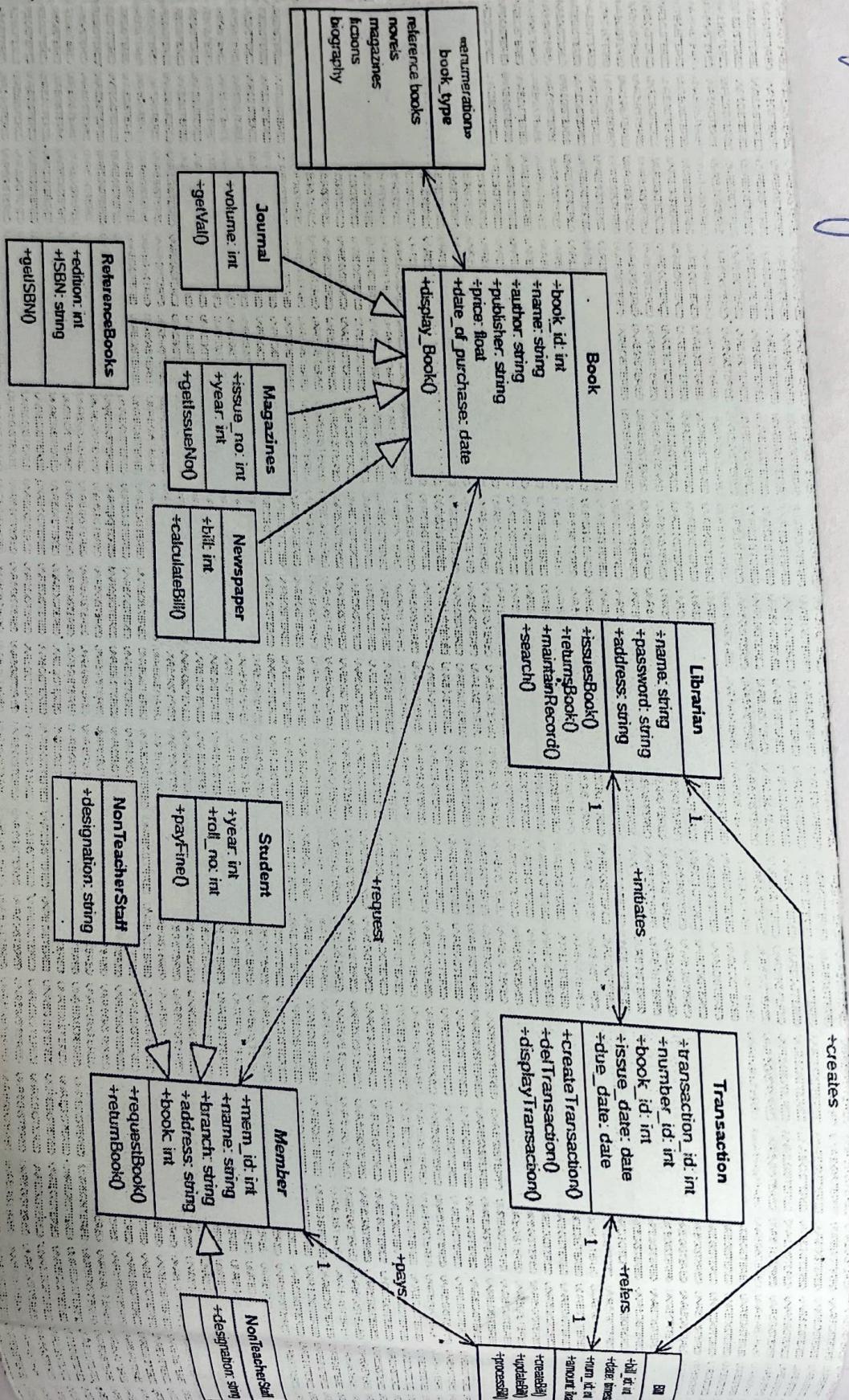
• Scalability : Ability to accommodate growing library collections and user base.

## • Preliminary Schedule and Budget :

The development of the library management system is estimated to take 6 months with a budget of this includes analysis,

2)

# Library



CashPayments  
CardPayments

printBill()

+printBill()