

- 5 CPB library management system
- 7.1 Introduction
- 1.1 Purpose of this document
- The purpose of this document is to outline the requirements and specification for the development of a library management system (CLMS).
- 1.2 Scope of this document
- This document defines the overall working and main objectives of the CLMS. It includes a brief of the estimated development cost and time required for the project.
- 1.3 Overview
- The CLMS is a software solution designed to streamline library operations. It will include functionalities such as catalog management, member registration, books borrowing and returning.

### General Description

The CLMS will cater to the needs of library staff, student and family members providing features such as book search, reservation, digital catalog, fine management and usage reporting. It will be accessible to users with varying levels of technical expertise...

## functional requirement

- 3.1 Book and catalog management
  - add, update and delete book record
  - maintain digital catalog with search functionality
- 3.2 member management
  - register new member
  - maintain user profiles with borrowing history membership details
- 3.3 borrowing and returning
  - allow users to borrow and return books with a due date selection
  - generate reminder and notifications for overdue books
  - calculate an overdue fine for late returns

## c) Interface Requirement

### 4.1 User Interface

- ↳ Accessible via web browser, mobile device and desktop

#### ~~application~~

- ↳ intuitive and user-friendly
- ↳ interface for librarians and members

### 4.2 Integration interface

- integration with barcode/RFID scanner for book tracking
- integration with online database
- supports for e-lib system and payment gateways

## 5 Performance Requirements:

- 5.1 Response Time : The system should respond to user action within reasonable time.
- 5.2 Scalability : Handle a minimum of 50 concurrent users during peak hours.
- 5.3 Data Integrity : Ensure consistency and accuracy of book inventory and member records.

## 6. Design Constraints:

### 6.1 Hardware Limitations

- The system should be compatible with standard library hardware.

### 6.2 Software Dependencies

- Utilize a relational database management system for data storage.

## 7 Non functional attributes:

### 7.1 Security : Implement authentication

- and authorization to protect user's staff data.

### 7.2 Reliability : Ensure high availability and fault tolerance to minimize downtime.

### 7.3 Scalability : Design the system to support future growth.

### 7.4 Portability : supports deployment on multiple platforms.

### 7.5 Usability : Provide a simple user interface with easy navigation for all users.

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- 7.6 Reusability: use modular code design for easy maintenance and future enhancements
- 7.7 Data Integrity: generate accurate and consistent storage retrieval and reporting of library data

8 Preliminary Scheduling and Budget

- The development of the library system will take 6 months within a budget of \$20,000. This includes Project Planning, development, testing and deployment phases.

## (4) Stock Management System

### 1 Introduction

- 1.1 Purpose of Document
- The purpose of this document is to define the requirements and specifications for the development of a stock management system.
- 1.2 Scope of this Document
- This document defines the overall working and main objectives of the stock management system. It includes:
- the development
  - estimated cost and time required for the project