

Here is the specific content you can copy and paste into your project documents for the “**Library Management System.**”

## **Phase 1: Planning**

### **1. Problem Statement**

"The current manual system for managing the community library relies on paper-based index cards. This process is inefficient, leading to frequent errors in tracking borrowed books, difficulty in locating specific titles, and a lack of real-time inventory visibility. Librarians spend excessive time manually writing loan records, and members often face delays during checkout."

### **2. Objectives**

- \* To develop a computerized Library Management System (LMS) that automates the borrowing and returning of books.
- \* To reduce the time spent on transaction recording by 50%.
- \* To provide a search facility for librarians to quickly locate books by title or author.

### **3. Scope**

In-Scope:

Book Management: Add, update, and delete book records (Title, Author, ISBN, Category).

Member Management: Register new members and update member details.

Transaction Management: Issue books to members and process book returns.

Search: Allow librarians to search the catalog.

Out-of-Scope:

Online reservation system for members.

Barcode scanning integration (manual entry only).

Inter-library loan processing.

### **4. Assumptions & Constraints**

- Assumption: The library has a Windows PC capable of running Python/Java applications.
- Constraint: The project must be completed within 14 days.
- Constraint: The team is limited to three developers.