PRD - Product Requirement Document

Title: Library Management System

# Overview:

This project is a web-based Library Management System built using Django, a popular Python web framework. The system is designed to streamline and automate the core operations of a library, making it easier for administrators to manage books, members, loans, and fines.

# Goals & Objectives:

* Streamline Library Operations
* Enhance User Experience
* Dashboard & Reporting
* Management, Authentication & Security

# Target User

* Librarians and Library Staff
* Library Administrators
* IT Support Personnel

# Features

| Feature | Description | Priority |
| --- | --- | --- |
| User Registration | Allow new users to register and create library accounts | High |
| Book Management | Add, edit, delete, and view books in the library | High |
| Member Management | Add, view, and delete library members | High |
| Loan Management | Borrow and return books, track loan status | High |
| Fine Management | Calculate, display, and mark fines for overdue returns | High |

# Functional Requirements

## Book Management

* Data: Title, Author, ISBN, Category, Total Copies, Available Copies, Cover Image
* SQLite for data storage

## Member Management

* Data: Name, Email, Membership Type, User Account Link
* Add, view, and delete members

## Loan Management

* Borrow and return books
* Track loan date, due date, and return date
* Prevent borrowing if no copies are available

Fine Management

* Calculate fines for overdue returns
* Mark fines as paid/unpaid

Authentication

* User registration, login, and logout
* Access control for staff/admin

# UI/UX Requirements

* Clean, user-friendly, mobile-first design
* 3 main screens:
  + Dashboard (stats overview)
  + Book List & Details
  + Member & Loan Management

# Tech Stack

* Frontend: HTML, Tailwind, CSS
* Backend: Django, Postgres/MongoDB/SQLite
* Notification: In-app messages (Django messages framework)

# Timeline

| Task | Deadline |
| --- | --- |
| Requirement Finalization | Day 1 |
| UI Wireframes | Day 2 |
| Build Book & Member Views | Day 3 |
| Add Loan & Fine Features | Day 4 |
| Testing | Day 5 |
| Final Touches & Report | Day 6 |

# Success Criteria

* App loads and displays at least 5 books and 3 membersUser can set at least one reminder
* User can borrow and return a book
* Fine is calculated for overdue returns
* Mobile responsive layout
* No major bugs during testing

# Deliverables

* [Working app (deployed or locally runnable)](https://lms-tn6r.onrender.com/login/)
* [Code (GitHub)](https://github.com/Akash-raj-INT/LMS)
* Short demo video (2-3 minutes)
* Final Report (PDF with screenshots and features)

**Result**

A fully functional Library Management System that streamlines book, member, loan, and fine management for library staff, with a clean and responsive user interface.

Let me know if you want to adjust or expand any section!