Vision of Bookify – Smart Library Management System

1. To replace manual library operations with a fully digital system.
2. To allow books to be easily issued, returned, and tracked online.
3. To help librarians manage book records without paperwork.
4. To keep students informed automatically through email notifications about:

\* Book issue date

\* Due (submission) date

\* Fines or reminders

1. To save time and reduce human errors in daily library tasks.
2. To improve communication between librarians and students.
3. To provide smart features like QR-based fine payment and reminder alerts.
4. To make the library system more efficient, modern, and user-friendly

\*\*Bookify – Smart Library Management System\*\*

\*\*Phase 1: Core Library Operations\*\*

1. Objective

To design and implement the core functionalities of the Bookify system, including book management, book assignment, automated notifications, penalty handling, and digital fine payment integration.

2. Functional Module

Step 1: Book Database Management.

|  |  |  |  |
| --- | --- | --- | --- |
| S.NO | Task Description | Status | Updated Status |
| 1 | Store Details of Book such as Book Id Title, Category, Author , Total Quantity , Assigned Quantity | Created | In Progress |
| 2 | Enable the Admin to add , update, delete, and view book easily | Pending | Not Started |

Step 2: Book Assignment by Admin

|  |  |  |  |
| --- | --- | --- | --- |
| S.NO | Task Description | Status | Updated Status |
| 1 | Admin can Assign the book to a specific student from the admin panel | Pending | Not Started |
| 2 | During assignment, the system records Student ID , Book ID , Issue Date , Submission Date , Returned Date | Pending | Not Started |
| 3 | Once assigned, the book’s status is updated to Issued, and the transaction is saved in the database. | Pending | Not Started |
|  |  |  |  |

Step 3: Automated Notification System

\* The system automatically sends email notifications to students on the following occasions:

|  |  |  |  |
| --- | --- | --- | --- |
| S.NO | Task Description | Status | Updated Status |
| 1 | On Book Issue Day – confirms book assignment with due date details | Pending | Not Started |
| 2 | . Three Days Before Due Date – reminds students to return/renew the book. | Pending | Not Started |
| 3 | On Submission Day – alerts students that the book is due today. | Pending | Not Started |

Step 4: Overdue and Penalty Notification

\* If a student fails to return the book on time, the system:

|  |  |  |  |
| --- | --- | --- | --- |
| S.NO | Task Description | Status | Updated Status |
| 401 | Calculates the penalty (fine) based on overdue days. | Pending | Not Started |
| 402 | Sends repeated email notifications informing the student about their pending fine | Pending | Not Started |
| 403 | Keeps sending reminders until the fine is cleared or the book is returned | Pending | Not Started |

Step 5: Digital Fine Payment

\* Students can pay their fines digitally through:

|  |  |  |  |
| --- | --- | --- | --- |
| S.NO | Task Description | Status | Updated Status |
| 501 | QR Code generated by the system, UPI ID provided by the library | created |  |
| 502 | \* Payment details are recorded in the system for verification | created |  |

Step 6: Automatic Record Update

\* Once the penalty is paid successfully:

|  |  |  |  |
| --- | --- | --- | --- |
| S.NO | Task Description | Status | Updated Status |
| 1 | The system automatically updates the student’s record | pending | Not Started |
| 2 | The penalty entry is removed or marked as cleared | Pending | Not Started |
| 3 | The book’s status is reset to Available for future borrowing | Pending | Not Started |

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