

IBM-NJ-LIBRARY BOOK MANAGEMENT

Phase 5 : Project Demonstration & Documentation

1.FINAL DEMO WALKTHROUGH :

Objective :

- To develop a simple Library Book Management System that allows users to:
 - ⇒ Add, issue, return, and delete books.
 - ⇒ Manage the status of each book (Available/Issued).
 - ⇒ Search for books by name or author.

Walk-through Steps :

1. Home Page

- Title: "Library Book Management System"
- Displays an input form to enter:

Book Name.

Author Name.

[Add Book] button.

2. Book List Table

- Columns: Book Name | Author | Status | Actions
- Preloaded books such as The Great Gatsby, 1984, To Kill a Mockingbird, The Alchemist.

3. Actions

- Issue: Changes status from Available → Issued.
- Return: Changes status from Issued → Available.

- Delete: Removes the book entry from the list.

4. Search Bar

- Allows searching books by title or author dynamically.

5. Result

- The system updates instantly without page reload (using JavaScript DOM manipulation).

2.PROJECT REPORT :

(1) Introduction :

The Library Book Management System is a simple web-based application designed to help manage books in a library. It allows the librarian or user to add, issue, return, and delete books efficiently. This system helps reduce manual work and maintains records in an organized manner using a digital interface.

(2)Objectives :

- To maintain a digital record of books in the library.
- To simplify the process of issuing and returning books.

- To make searching for books by name or author quick and easy.
- To provide a user-friendly interface for book management.

(3) System Overview :

⇒ The system is developed using HTML, CSS, and JavaScript.

It provides basic functionalities such as:

- Adding new books with book name and author details.
- Viewing a list of all available and issued books.
- Updating book status (Available / Issued).
- Searching for books by name or author.
- Deleting books from the system.

(4)Features :

- **Add Book:**

Users can add new books by entering the book name and Author name.

- **Search Option:**

A search bar allows filtering of books based on name or author.

- **Issue Book:**

The book status changes to "Issued" when the book is given out.

- **Return Book:**

The status changes back to "Available" once the book is returned.

- **Delete Book:**

Allows removal of books that are no longer available in the library.

(5)Technologies Used :

- Frontend: HTML, CSS, JavaScript
- Browser: Any modern web browser (e.g., Chrome, Edge, Firefox)
- Storage (if implemented): Local Storage or JSON objects

(6) User Interface Description :

- The interface consists of:
 - ⇒ Input fields for Book Name and Author Name
 - ⇒ An Add Book button to save new books
 - ⇒ A Search bar to find books quickly.

(7)Advantages :

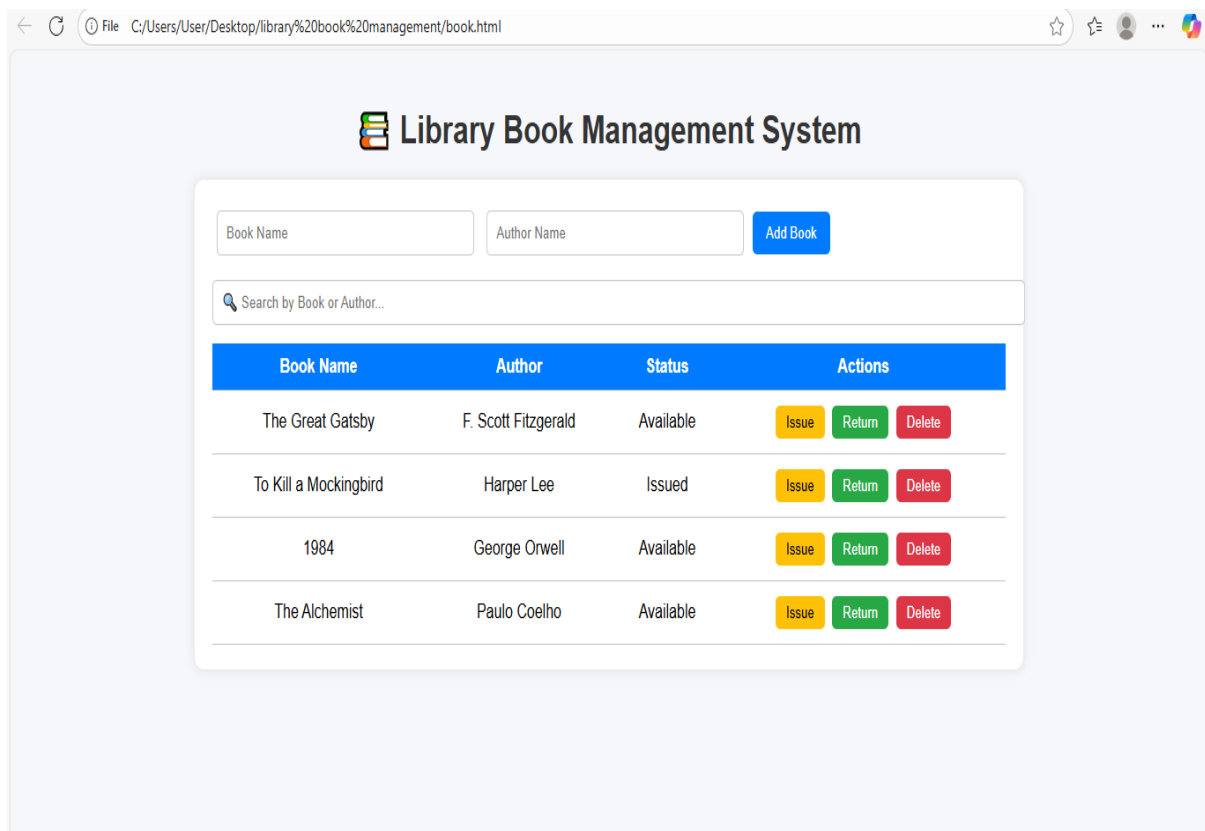
- Easy to use and maintain.

- Reduces paperwork and manual errors.
- Improves speed in managing book records.
- Provides real-time status of books (issued or available).

(8) Future Enhancements :

- Integration with an online database (MySQL, Firebase).
- Adding user login and authentication features.
- Generating reports on issued and returned books.
- Including due date tracking and fine calculation system.

3. SCREENSHOTS / API DOCUMENTATION :



4. CHALLENGES & SOLUTIONS :

1. Challenge: Difficult to manage and track many book records.

Solution: System displays books in a table with add, issue, return, and delete options.

2. Challenge: Hard to know which books are issued or available.

Solution: Status updates automatically when books are issued or returned.

3. Challenge: Searching for books takes time.

Solution: Search bar helps find books quickly by name or author.

4. Challenge: Complicated user interface in manual systems.

Solution: Simple and colorful buttons make it easy to use.

5. Challenge: Risk of data errors while updating or deleting.

Solution: Proper validation ensures accurate and consistent records.

5. GitHub README & Setup Guide:

GitHub README:

How it is work ?

- ⇒ User adds a book → it appears in the table.
- ⇒ Clicking Issue changes status to Issued.
- ⇒ Clicking Return sets it back to Available.
- ⇒ Delete removes a book.
- ⇒ Search filters books by name or author.

Technologies Used

- ⇒ HTML5 – Page structure.
- ⇒ CSS3 – Styling and layout.
- ⇒ JavaScript (ES6) – Functionality and interactivity.

SETUP GUIDE:

- 1.Clone the Repository.
- 2.Navigate to the Project Folder.
- 3.Open the Project.
- 4.Start using the project.

6.FINAL SUBMISSION :

Repository Link:

<https://github.com/JothikaDeva/library-book-management.git>

