

Library Management System (MERN)

A full-stack **Library Management Web Application** built using the **MERN stack**.

This system allows librarians to manage all library operations digitally while members can browse books and manage their own borrowings through a simple, user-friendly interface.

About the Project

This Library Management System is designed to replace manual library operations with a modern web-based platform.

The application supports two user roles:

- **Librarian (Admin)**
- **Member (User)**

Librarians can manage books, authors, genres, users, and borrowing records, while members can explore the library catalog and track their own borrowals.

User Roles

Librarian

Librarians have full control over the system. They can:

- Create and manage user accounts
- Add, update, or remove books
- Manage authors and genres
- Track book borrowals and returns

Member

Members have limited access and can:

- View books, authors, and genres
 - Borrow books
 - View their own borrowing history
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Features

Authentication & Authorization

- Secure login system for Librarians and Members
- Role-based access control

Book Management

- Add, update, delete, and view books
- Assign authors and genres to books

Author & Genre Management

- Create, edit, delete, and view authors
- Create, edit, delete, and view genres

Borrowal Management

- Issue books to members
- Track borrowed and returned books
- View borrowal history

User Management

- Librarians can create and manage user accounts
- Members can view only their own data

Search & Browse

- Browse books by author or genre
- View book availability

Tech Stack

Frontend

- React.js
- HTML5
- CSS3
- JavaScript

Backend

- Node.js
- Express.js

Database

- MongoDB

Tools & Platforms

- Git
 - GitHub
 - VS Code
 - NPM
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📁 Project Structure

Library-Management-App/

```
|  
|   └── client/      # React frontend  
|   └── server/      # Node & Express backend  
|   └── models/      # MongoDB models  
|   └── routes/      # API routes  
|   └── controllers/ # Business logic  
└── README.md
```