

# Library Management API

## Objective

Create an API for a library management system that allows for managing books, users, and book borrowings with appropriate access control.

## Requirements

### 1. User Roles:

- **Admin:** Can manage all books, users, and borrow records.
- **Librarian:** Can add new books, update book details, and manage book availability.
- **Member:** Can borrow and return books, view borrowed book history.

### 2. Ownership and Access Control:

- **Members** can only borrow books if they are available and not borrowed by others.
- **Librarians** can mark books as available or unavailable.
- Only **Admins** can view all borrowing records.

### 3. Authentication:

- Use JWT-based authentication with role validation.
- Ensure only authenticated users can perform actions based on their roles.

### 4. Database Structure:

- Define tables for `User`, `Book`, and `BorrowRecord` to track the relationship between users and books.

### 5. Expected Functionality:

- Track due dates and statuses of borrowed books.
- Allow members to view their borrowing history.
- Allow librarians to update book availability.

### 6. Bonus:

- Add an overdue notification system that alerts users when they have books overdue.