**Library Management System Documentation**

**Introduction**

The Library Management System (LMS) is a software application built on Spring Boot, designed to automate library management tasks such as book cataloging, patron management, and borrowing records.

**Requirements**

- Java Development Kit (JDK) 8 or higher

-IntelliJ editor.

- install workbench or xampp for MySQL database

-in my .rar file you will find file called “SQL script”, you must run this file in workbench or xampp server.

-the name of database schema is LMS.

# Database connection properties

spring.datasource.url=jdbc:mysql://${MYSQL\_HOST:localhost}:3306/LMS  
spring.datasource.username=root4  
spring.datasource.password=root4  
spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver

The Library Management System provides the following API endpoints:

-Books Endpoints:

-GET /api/books:\*\* Retrieve a list of all books.

- GET /api/books/{id}:\*\* Retrieve details of a specific book by ID.

- POST /api/books:\*\* Add a new book to the library.

- PUT /api/books/{id}:\*\* Update an existing book's information.

- DELETE /api/books/{id}:\*\* Remove a book from the library.

-Patron Management Endpoints:

- GET /api/patrons:\*\* Retrieve a list of all patrons.

- GET /api/patrons/{id}:\*\* Retrieve details of a specific patron by ID.

- POST /api/patrons:\*\* Add a new patron to the system.

- PUT /api/patrons/{id}:\*\* Update an existing patron's information.

- DELETE /api/patrons/{id}:\*\* Remove a patron from the system.

- Borrowing Endpoints:

- POST /api/borrow/{bookId}/patron/{patronId}:\*\* Allow a patron to borrow a book.

- PUT /api/return/{bookId}/patron/{patronId}:\*\* Record the return of a borrowed book by a patron.

Some snapshot for testing API:

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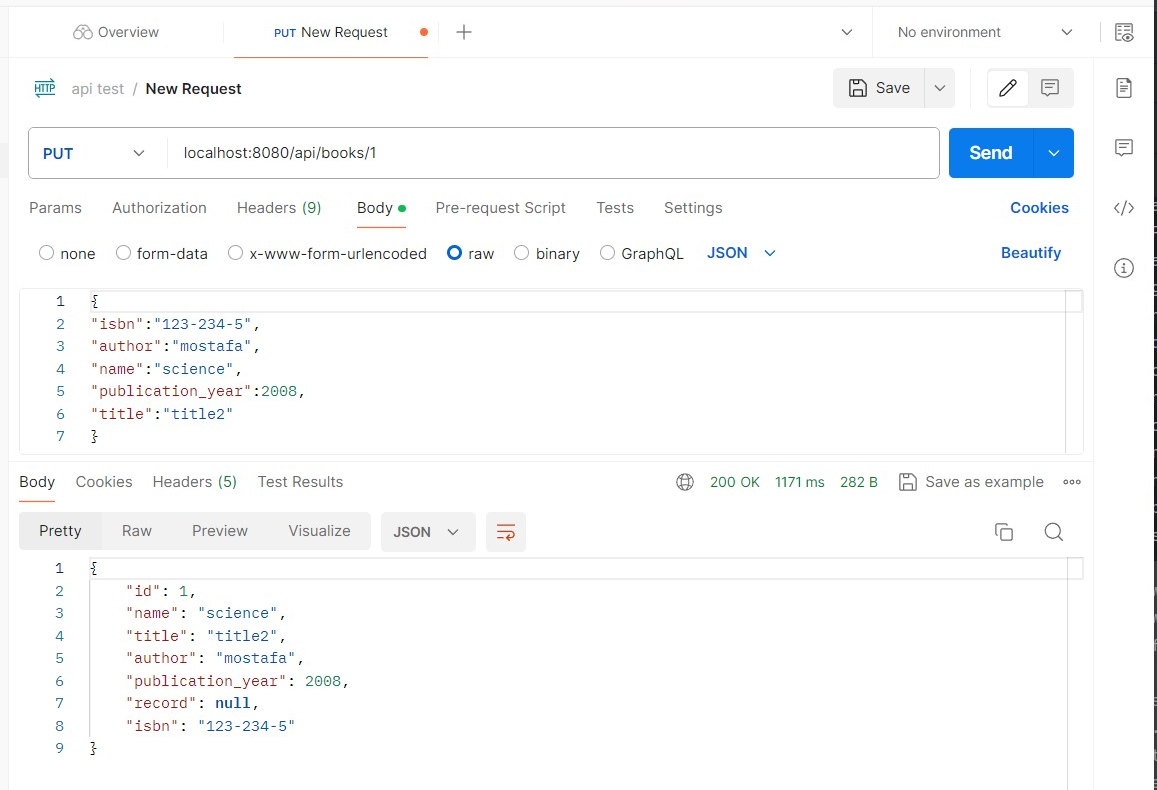
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