Library Management System API Documentation

This document provides instructions for running the Library Management System API, interacting with its endpoints, and using authentication if implemented.

Running the Application

Prerequisites

- Java Development Kit (JDK) version 8 or higher

- Maven or Gradle installed

Steps

1. Clone the repository to your local machine:

Bash

```
git clone https://github.com/your-username/library-management-system.git
```

2. Navigate to the project directory:

Bash

```
cd library-management-system
```

3. Build the project using Maven or Gradle:

For Maven:

Bash

```
mvn clean package
```

For Gradle:

Bash

```
./gradlew build
```

4. Run the application:

Bash

```
java -jar target/library-management-system.jar
```

Replace **library-management-system.jar** with the actual name of the generated JAR file.

Interacting with API Endpoints

Base URL

The base URL for accessing the API endpoints is:

bash

http://localhost:8080/api

Available Endpoints

Book Management

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

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

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

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

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

Patron Management

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

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

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

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

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

Borrowing Management

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

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