Documentation for Library Management System API

Overview

This is the API for managing library resources, including books, patrons, and borrowing records. The API supports basic CRUD operations, user authentication, and borrowing/returning books.

Base URL

http://localhost:8080/api

Endpoints

Books Management

Get All Books

- **URL:** /books
- **Method:** GET
- **Auth:** Bearer Token
- **Description:** Fetches a list of all books in the library.
- **Response Example:**

```
[
 {
    "id": 1,
    "title": "1984",
    "author": "George Orwell",
    "publicationYear": 1949,
    "isbn": "9780451524935"
  }
]
```

Add a Book

- **URL:** /books
- **Method:** POST
- **Auth:** Bearer Token
- **Body:**

```
{
"title": "1950",
"author": "George Orwell",
"publicationYear": 1950,
"isbn": "9780451524935"
}
```

- **Description:** Adds a new book to the library.

Get Book by ID

- **URL:** /books/{id}
- **Method:** GET
- **Auth:** Bearer Token
- **Description:** Fetches the details of a specific book by its ID.

Update a Book

- **URL:** /books/{id}
- **Method:** PUT
- **Auth:** Bearer Token
- **Body:**

```
{
  "title": "1955",
  "author": "George Orwell",
  "publicationYear": 1955,
  "isbn": "9780451524950"
}
```

- **Description:** Updates the details of a specific book.

Delete a Book

- **URL:** /books/{id}
- **Method:** DELETE
- **Auth:** Bearer Token
- **Description:** Deletes a specific book by its ID.

2. Patrons Management

Get All Patrons

- **URL:** /patrons
- **Method:** GET
- **Auth:** Bearer Token
- **Description:** Fetches a list of all patrons in the library.

Add a Patron

- **URL:** /patrons
- **Method:** POST
- **Auth:** Bearer Token

- **Body:**

```
{
   "name": "Alice Brown",
   "email": "alice.brown@example.com",
   "phoneNumber": "+112233445544"
}
```

- **Description:** Adds a new patron to the library.

Get Patron by ID

- **URL:** /patrons/{id}
- **Method:** GET
- **Auth:** Bearer Token
- **Description:** Fetches the details of a specific patron by ID.

Update a Patron

- **URL:** /patrons/{id}
- **Method:** PUT
- **Auth:** Bearer Token
- **Body:**

```
{
   "name": "Alice Brownies",
   "email": "alice.brown@example.com",
   "phoneNumber": "+112233445544"
}
```

- **Description:** Updates the details of a specific patron.

Delete a Patron

- **URL:** /patrons/{id}
- **Method:** DELETE
- **Auth:** Bearer Token
- **Description:** Deletes a specific patron by ID.

3. Borrowing Records

Borrow a Book

- **URL:** /borrow/{bookId}/patron/{patronId}
- **Method:** POST
- **Auth:** Bearer Token
- **Description:** Creates a borrowing record for a patron.

Return a Book

- **URL:** /borrow/{bookId}/patron/{patronId}
- **Method:** PUT
- **Auth:** Bearer Token
- **Description:** Updates the borrowing record to indicate that the book has been returned.

4. Authentication

Login

- **URL:** /auth/login
- **Method:** POST

- **Body:**

```
{
  "username": "ZAINA",
  "password": "123456"
}
```

- **Description:** Authenticates a user and provides a JWT token for accessing secured endpoints.

Notes

- All secured endpoints require a **Bearer Token** for authentication.
- Replace {id}, {bookId}, and {patronId} with the appropriate IDs.