**API Documentation**

**BookController**

**1. Get All Books**

* **Endpoint:** GET /books
* **Description:** Retrieves a list of all books in the library.
* **Example Request:** GET /books
* **Example Response:**

[

{

"id": 1,

"title": "Book Title",

"author": "Author Name",

"publicationYear": 2023,

"isbn": "123-456-789-0123"

},

{

"id": 2,

"title": "Another Book Title",

"author": "Another Author",

"publicationYear": 2021,

"isbn": "987-654-321-0987"

}

]

**2. Get Book by ID**

* **Endpoint:** GET /books/{id}
* **Description:** Retrieves details of a specific book by its ID.
* **Example Request:** GET /books/1
* **Example Response:**

{

"id": 1,

"title": "Book Title",

"author": "Author Name",

"publicationYear": 2023,

"isbn": "123-456-789-0123"

}

**3. Add a New Book**

* **Endpoint:** POST /books
* **Description:** Creates a new book entry in the library.
* **Example Request:**

POST /books

{

"title": "New Book",

"author": "New Author",

"publicationYear": 2022,

"isbn": "112-233-445-6677"

}

Example Response:

{

"id": 3,

"title": "New Book",

"author": "New Author",

"publicationYear": 2022,

"isbn": "112-233-445-6677"

}

**4. Update a Book**

* **Endpoint:** PUT /books/{id}
* **Description:** Updates details of an existing book by its ID.
* **Example Request:**

PUT /books/1

{

"title": "Updated Book Title",

"author": "Updated Author",

"publicationYear": 2023,

"isbn": "123-456-789-0123"

}

Example Response:

{

"id": 1,

"title": "Updated Book Title",

"author": "Updated Author",

"publicationYear": 2023,

"isbn": "123-456-789-0123"

}

**Delete a Book**

* **Endpoint:** DELETE /books/{id}
* **Description:** Deletes a book from the library by its ID.
* **Example Request:** DELETE /books/1
* **Example Response:** HTTP/1.1 204 No Content

**PatronController**

**1. Get All Patrons**

* **Endpoint:** GET /patrons
* **Description:** Retrieves a list of all library patrons.
* **Example Request:** GET /patrons
* **Example Response:**

[

{

"id": 1,

"name": "John Doe",

"contactInformation": "john.doe@example.com"

},

{

"id": 2,

"name": "Jane Smith",

"contactInformation": "jane.smith@example.com"

}

]

**2. Get Patron by ID**

* **Endpoint:** GET /patrons/{id}
* **Description:** Retrieves details of a specific patron by their ID.
* **Example Request:** GET /patrons/1
* **Example Response:**

{

"id": 1,

"name": "John Doe",

"contactInformation": "john.doe@example.com"

}

**Add a New Patron**

* **Endpoint:** POST /patrons
* **Description:** Creates a new patron entry in the library.
* **Example Request:**

POST /patrons

{

"name": "New Patron",

"contactInformation": "new.patron@example.com"

}

Example Response:

{

"id": 3,

"name": "New Patron",

"contactInformation": "new.patron@example.com"

}

**4. Update a Patron**

* **Endpoint:** PUT /patrons/{id}
* **Description:** Updates details of an existing patron by their ID.
* **Example Request:**

PUT /patrons/1

{

"name": "Updated Patron Name",

"contactInformation": "updated.contactInformation@example.com"

}

Example Response:

{

"id": 1,

"name": "Updated Patron Name",

"contactInformation": "updated.contactInformation@example.com"

}

**5. Delete a Patron**

* **Endpoint:** DELETE /patrons/{id}
* **Description:** Deletes a patron from the library by their ID.
* **Example Request:** DELETE /patrons/1
* **Example Response:** HTTP/1.1 204 No Content

**BorrowingRecordController**

**1. Borrow a Book**

* **Endpoint:** POST /borrow/{bookId}/patron/{patronId}
* **Description:** Records the borrowing of a book by a patron.
* **Example Request:**

POST /borrow/1/patron/1

{

"borrowingDate": "2024-08-09T10:00:00"

}

Example Response:

{

"id": 1,

"borrowingDate": "2024-08-09T10:00:00",

"returnDate": null,

"bookId": 1,

"patronId": 1

}

**2. Return a Book**

* **Endpoint:** PUT /return/{bookId}/patron/{patronId}
* **Description:** Records the return of a borrowed book by a patron.
* **Example Request:**

PUT /return/1/patron/1

{

"returnDate": "2024-08-10T10:00:00"

}

Example Response:

{

"id": 1,

"borrowingDate": "2024-08-09T10:00:00",

"returnDate": "2024-08-10T10:00:00",

"bookId": 1,

"patronId": 1

}