Library Management API (1.0.0)

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API documentation for the Library Management System

Books

Book management

Add a new book

REQUEST BODY SCHEMA: application/json

title required	string
author required	string
isbn required	string
quantity	integer
shelf_location	string

Responses

— **201** Book created successfully

— **400** Invalid request

POST   /books

Request samples

Payload

Content type
application/json

Copy

```
{
    "title": "string",
    "author": "string",
    "isbn": "string",
    "quantity": 0,
    "shelf_location": "string"
}
```

Get all books

Responses

— **200** List of books

GET   /books

Search for books by title, author, or ISBN

QUERY PARAMETERS

`q`
required

string
Search term (title, author, or ISBN)

Responses

— **200** Matching books

— **429** Too many requests (rate limited)

GET   /books/search

Get a book by ID

PATH PARAMETERS

`id`
required

integer
Book ID

Responses

— **200** Book details

— **404** Book not found

GET   /books/{id}

Update a book by ID

PATH PARAMETERS

id required	integer **Book ID**

REQUEST BODY SCHEMA: application/json

title	string
author	string
isbn	string
quantity	integer
shelf_location	string

Responses

— **200** Book updated successfully

— **404** Book not found

`PUT`   `/books/{id}`

Request samples

> **Payload**

Content type
application/json

Copy

```
{
    "title": "string",
    "author": "string",
    "isbn": "string",
    "quantity": 0,
    "shelf_location": "string"
}
```

Delete a book by ID

PATH PARAMETERS

id required	integer Book ID

Responses

— **200** Book deleted successfully

— **404** Book not found

`DELETE`   `/books/{id}`

BorrowedBooks

Borrowing process management

Borrow a book for a borrower

PATH PARAMETERS

`id` required	integer Borrower ID

REQUEST BODY SCHEMA: application/json

`book_id` required	integer
`due_date` required	string <date>

Responses

— **201** Book borrowed successfully

— **400** Invalid request

— **404** Borrower or book not found

— **429** Too many requests (rate limited)

POST   /borrowed-books/borrowers/{id}/borrow

Request samples

[**Payload**]

Content type
application/json

Copy

```
{
    "book_id": 0,
    "due_date": "2019-08-24"
}
```

Return a borrowed book

PATH PARAMETERS

id required	integer Borrower ID

REQUEST BODY SCHEMA: application/json

book_id required	integer

Responses

— **200** Book returned successfully

— **400** Invalid request

— **404** Loan record not found

PUT   /borrowed-books/borrowers/{id}/return

Request samples

Payload

Content type
application/json

Copy

```
{
    "book_id": 0
}
```

List all books currently borrowed by a borrower

PATH PARAMETERS

id
required

integer
Borrower ID

Responses

— **200** List of borrowed books for the borrower

— **404** Borrower not found

`GET    /borrowed-books/borrowers/{id}/loans`

List all overdue borrowed books

Responses

— **200** List of overdue loans

`GET    /borrowed-books/loans/overdue`

Borrowers

Borrower management

Get all borrowers

Responses

— **200** List of borrowers

GET   /borrowers

Add a new borrower

REQUEST BODY SCHEMA: **application/json**

name required	string

email required	string <email>

Responses

— **201** Borrower created successfully

— **400** Invalid request

POST   /borrowers

Request samples

Payload

Content type
application/json

Copy

```
{
    "name": "string",
    "email": "user@example.com"
}
```

Get a borrower by ID

PATH PARAMETERS

id
required

integer

Borrower ID

Responses

— **200** Borrower details

— **404** Borrower not found

GET   /borrowers/{id}

Update a borrower by ID

PATH PARAMETERS

id
required

integer

Borrower ID

REQUEST BODY SCHEMA: application/json

name	string
email	string <email>

Responses

— **200** Borrower updated successfully

— **404** Borrower not found

PUT   /borrowers/{id}

Request samples

[**Payload**]

Content type
application/json

Copy

```
{
    "name": "string",
    "email": "user@example.com"
}
```

Delete a borrower by ID

PATH PARAMETERS

id required	integer Borrower ID

Responses

— **200** Borrower deleted successfully

— **404** Borrower not found

DELETE   /borrowers/{id}

Reports

Analytical and export reports for borrowing process

Get borrowing process within a specific period (CSV)

QUERY PARAMETERS

start_date required	string <date> Start date in YYYY-MM-DD format
end_date required	string <date> End date in YYYY-MM-DD format

Responses

> **200** CSV file containing borrowing records

Export all overdue borrows from the last month (CSV)

Responses

> **200** CSV file containing overdue borrow records

GET   /reports/overdue-last-month

Export all borrowing processes from the last month (CSV)

Responses

> **200** CSV file containing borrowing records

GET   /reports/borrows-last-month