

LIBRARY **MANAGEMENT SYSTEM**

BY ARYAN KATHPAL
ID - 1911985021

INTRODUCTION

Managing a library manually is labor intensive and an immense amount of paperwork is involved. An automated system reduces the need for manpower and stationery.

The best way to maintain, organize, and handle countless books systematically is to implement a library management system software.

It tracks the records of the number of books in the library, how many books are issued, or how many books have been returned or late fine charges, etc.

PROJECT

AIM AND

OBJECTIVE

- To make the existing system more efficient.
- To provide a user friendly environment where user can be serviced better.
- Make functioning of library faster.
- Organize the books systematically by author and title.

FUNCTIONAL REQUIREMENTS

USER:

- Sign-Up
- Login
- Books Catalogue
- Search a book by title or author
- Issue Book
- Request a new book
- Return a book
- View status of requested books

ADMIN:

- Login
- Search a book
- Add a new book
- Delete a book
- Update book details
- Approve/Reject a book request

TECHNOLOGIES USED -

Frontend - React

React (also known as React.js or ReactJS) is a free and open-source front-end JavaScript library for building user interfaces based on UI components

Middleware - Express Api

Express is a popular framework for Node.js, intended for use in building web applications and APIs

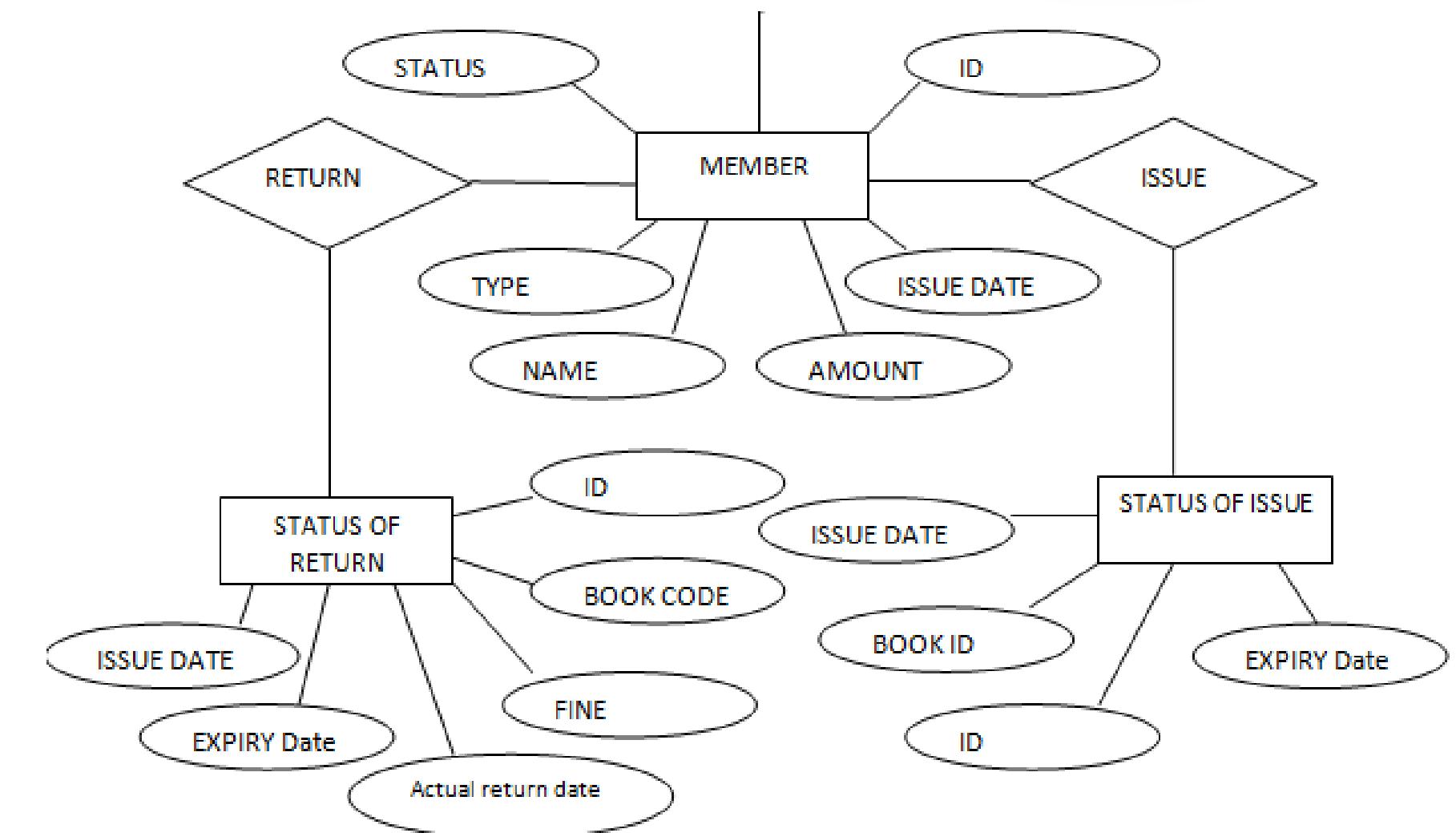
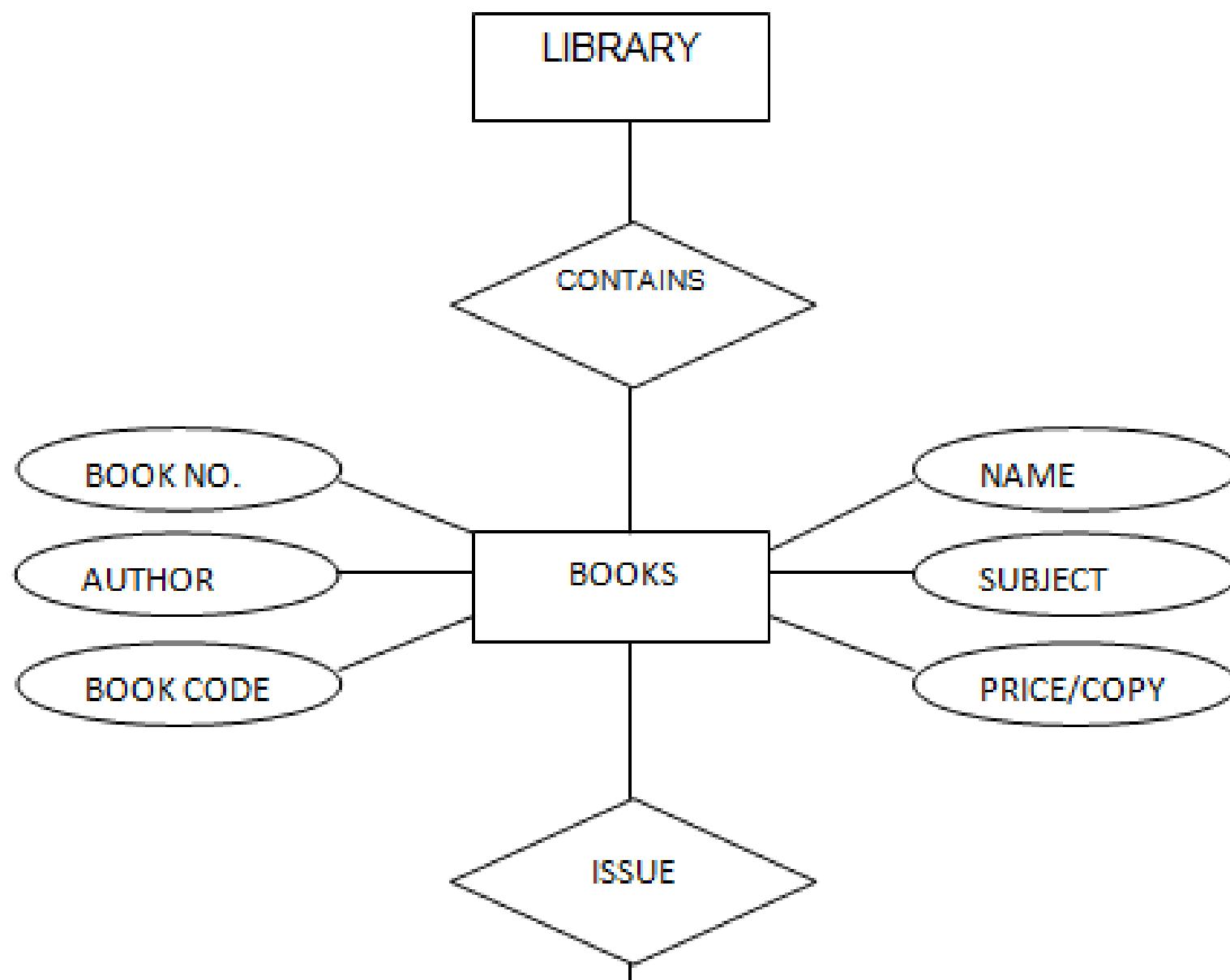
Database - MongoDB

MongoDB is a document database with the scalability and flexibility that you want with the querying and indexing that you need

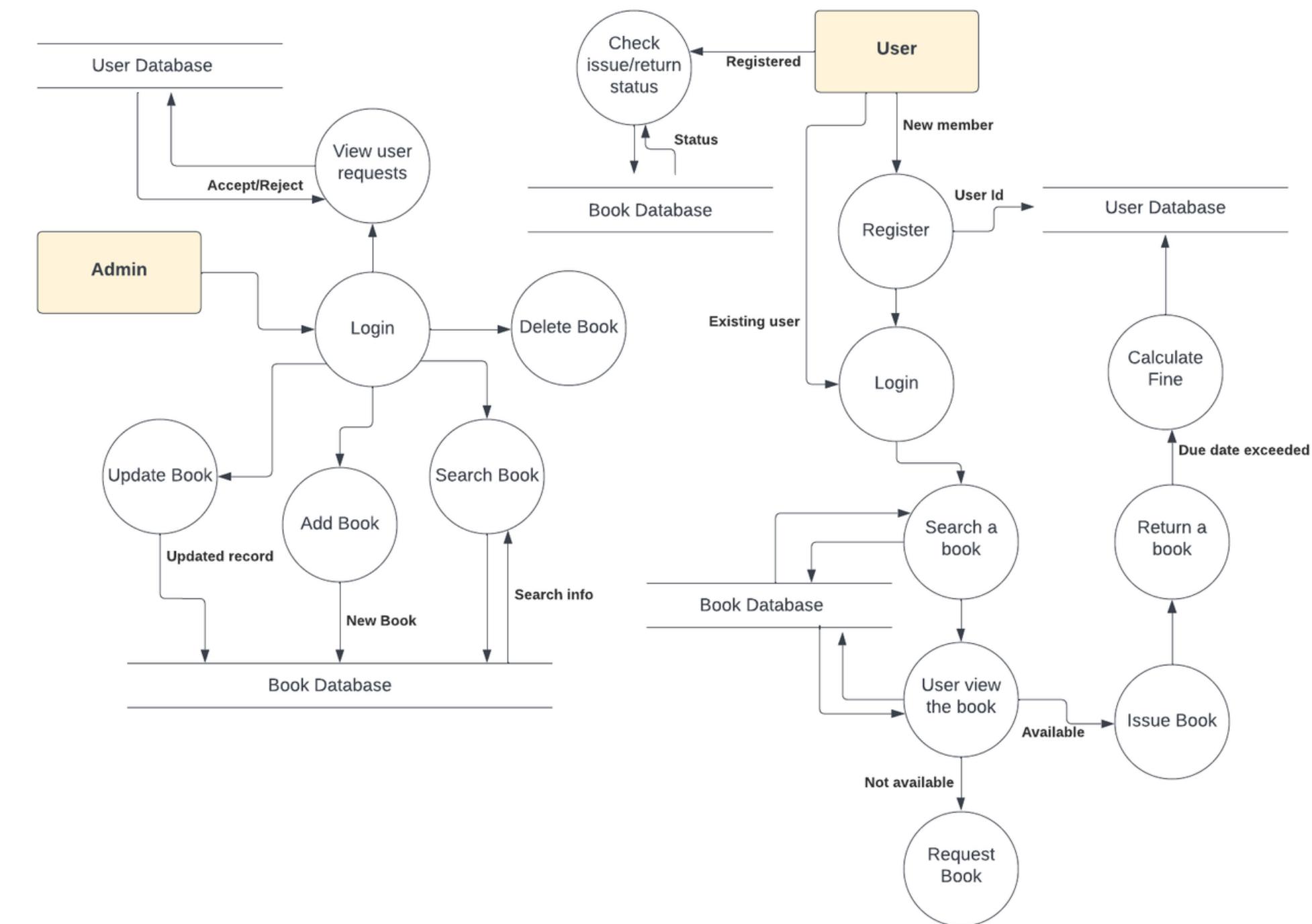
Backend - Node.js

Node.js is an open-source, cross-platform, back-end JavaScript runtime environment that runs on the V8 engine and executes JavaScript code outside a web browser

ENTITY RELATION DIAGRAM



DATA FLOW DIAGRAM



USER MODEL

Field Name	Type Name
name	String
email	String
password	String
role	String



BOOKS MODEL

Field Name	Type Name
name	String
image	String
author	String
book_depository_stars	Integer
isbn	Integer
category	String
copies	Integer



ISSUED-BOOKS

MODEL

Field Name	Type Name
userId	String
Name	String
image	String
author	String
isbn	Integer
IssuedOn	String
returnDate	String



RETURNED-BOOKS

MODEL

Field Name	Type Name
userId	ObjectId
Name	String
author	String
isbn	Integer
IssuedOn	String
returnedOn	String
dueDate	String
fine	Integer



REQUESTED-BOOKS

MODEL

Field Name	Type Name
name	String
author	String
username	String
status	String



FINE MODEL

Field Name	Type Name
userId	ObjectId
fine	Integer





SCREENSHOTS

Homepage

LIBRARY

[Login](#) [Signup](#)

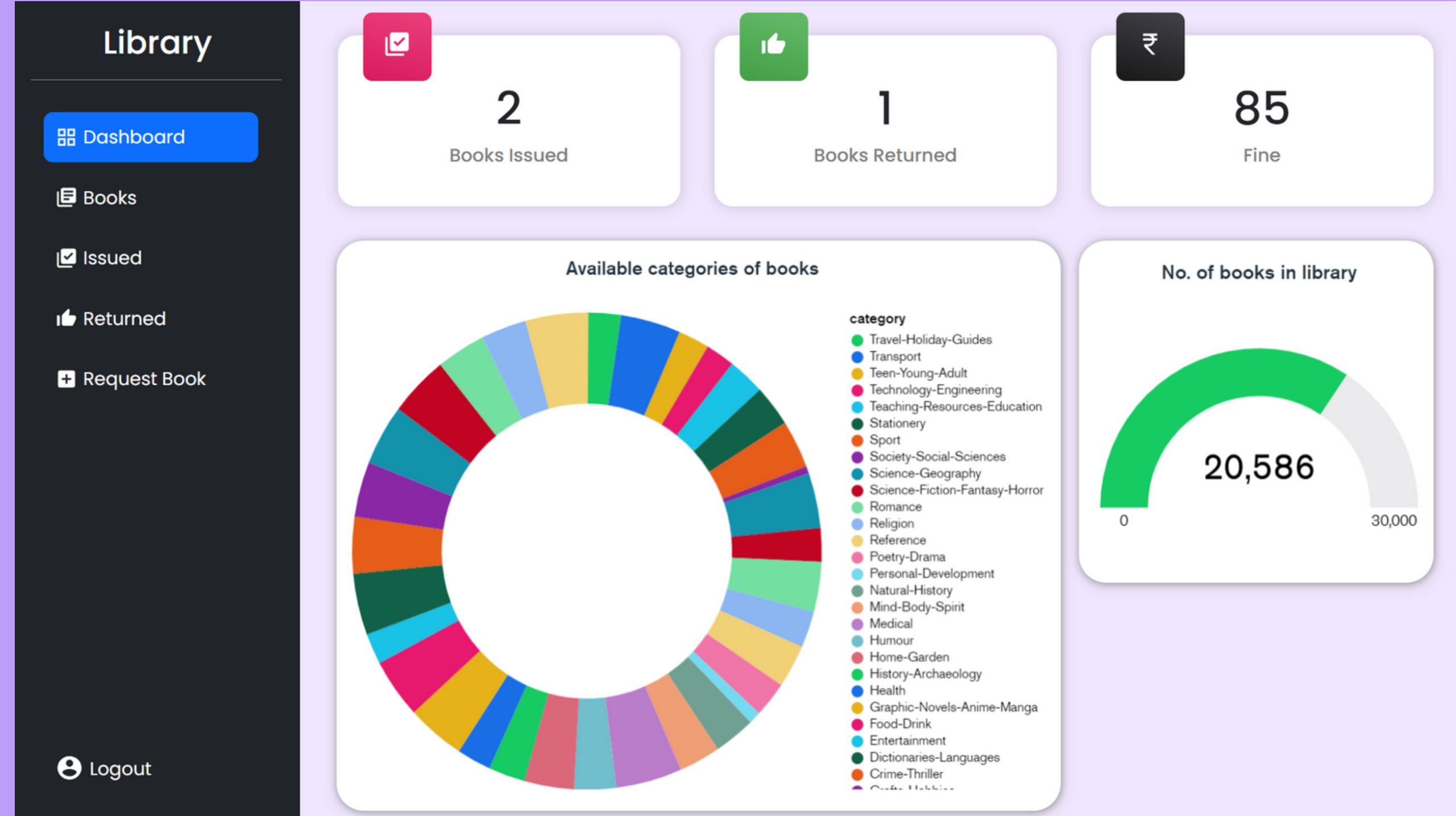


Library Management System

"Libraries store the energy that fuels the imagination. They open up windows to the world and inspire us to explore and achieve, and contribute to improving our quality of life."

[Read now](#)

USER DASHBOARD



BOOKS

Library

- Dashboard
- Books**
- Issued
- Returned
- Request Book

Logout

Books

Search By ▾ Search Search

Entertainment

My Third Music Th...
Lina Ng

G.F. Handel
George Frideric H...

Great British Bake...
Linda Collister

Music Theory for Y...
Ying Ying Ng

I'LL Be There For
Kelsey Miller

Biography

I Know Why the Caged Bird Sings
Maya Angelou
Foreword by Oprah Winfrey

TREVOR NOAH BORN A CRIME
Trevor Noah
Foreword by Trevor Noah

Good Night Stories for Rebel Girls 2
Elena Favilli and Francesca Cavallo

Educated
Tara Westover
Foreword by Oprah Winfrey

CAN'T HURRY ME
David Goggins

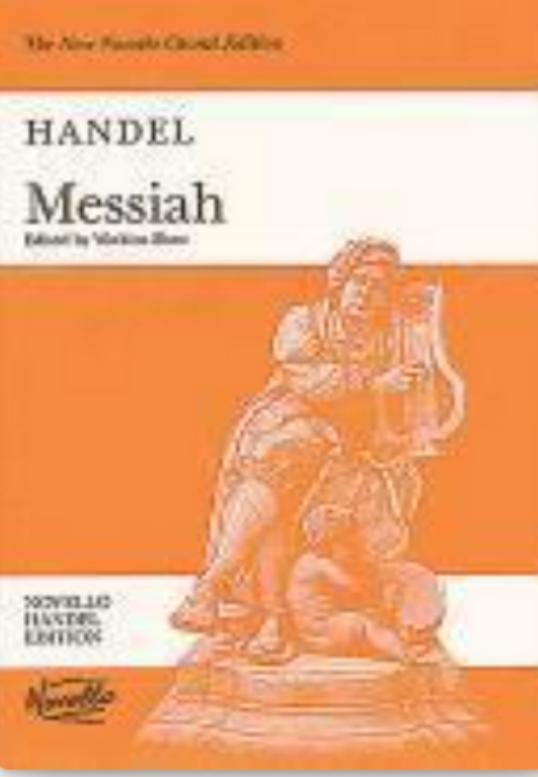
BOOKS DETAILS

Library

- Dashboard
- Books
- Issued
- Returned
- Request Book

Logout

Book details

The book cover for "Messiah" by George Frideric Handel. It features an orange background with a white horizontal band in the center containing the title "HANDEL" and "Messiah". Below this is a black and white illustration of a person, likely Jesus, sitting on a rock. At the bottom, it says "Novelette HANDEL EDITION".

G.F. Handel
George Frideric Handel

[Details](#)

Language - English

Publisher - Berkley Books

ISBN - 9780853602118

Rating - 2

category - Entertainment

[Issued](#)

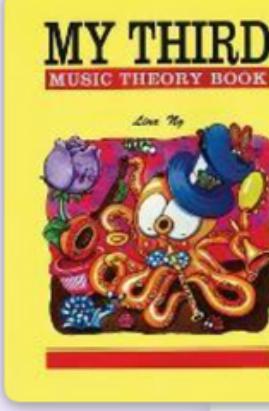
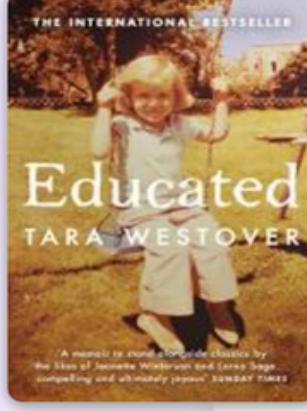
ISSUED BOOKS

Library

- Dashboard
- Books
- Issued**
- Returned
- Request Book

Logout

Issued Books

 <p>My Third Music ... LINA NG</p> <p>Isbn - 9789679856071 Issued on - 30/4/2022 Return Date - 14/5/2022</p> <p>RETURN</p>	 <p>Educated TARA WESTOVER</p> <p>Isbn - 9780099511021 Issued on - 5/5/2022 Return Date - 19/5/2022</p> <p>RETURN</p>
---	--

RETURNED BOOKS

Library

- Dashboard
- Books
- Issued
- Returned**
- + Request Book

Issued On
10/5/2022

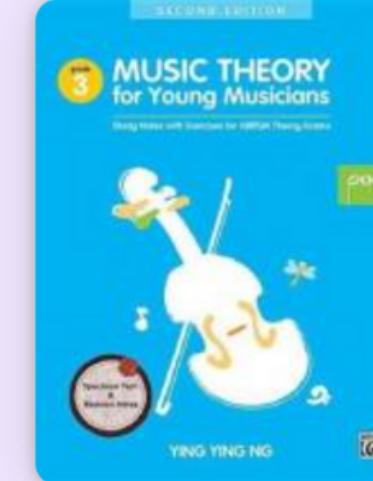
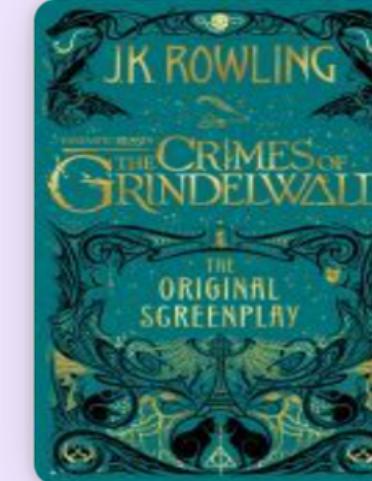
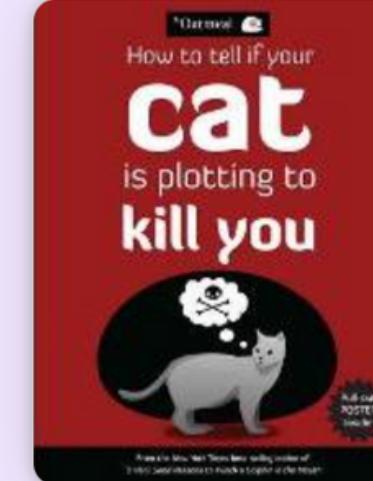
Due Date
24/5/2022

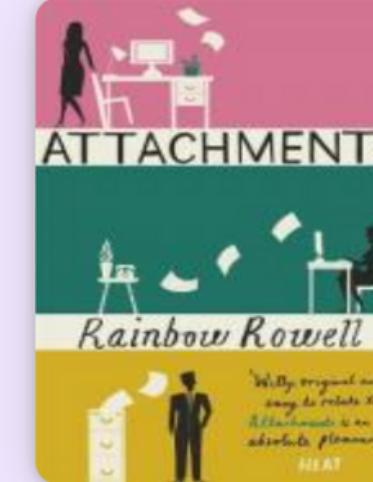
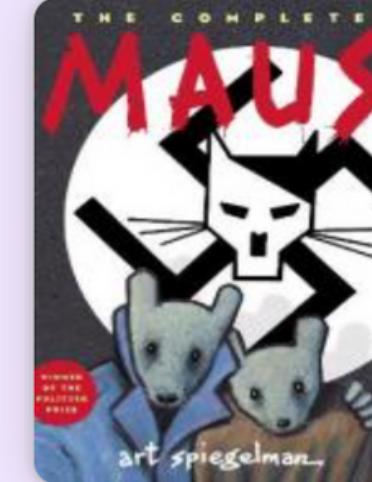
Returned on
10/5/2022

Fine - \$0

Logout

Returned Books





REQUEST BOOK

Library

- Dashboard
- Books
- Issued
- Returned
- Request Book**

Logout

Request Book

Book Name

Author's Name

Submit



Requested books

#	Book Name	Author	Status
1	hatty	niniinii	Rejected
2	hello	moany	Approved

ADMIN - ADD BOOK

Library

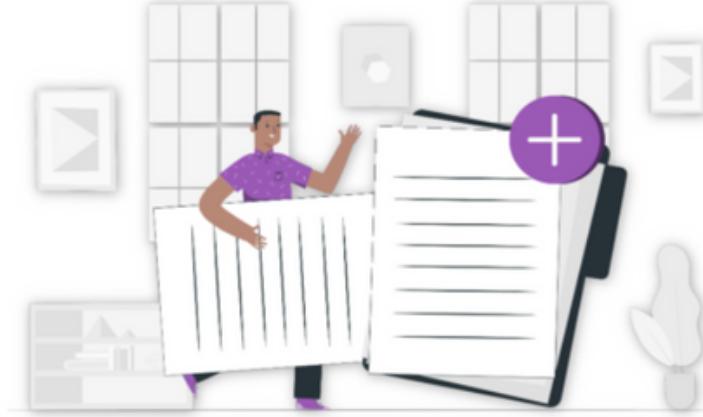
₹ Books

₹ Add Book

₹ Requested Books

 Logout

Book details



Book Name	Author
<input type="text"/>	<input type="text"/>
Isbn	Category
<input type="text"/>	<input type="text"/>
Rating	Book Image
<input type="text"/>	<input type="file"/>

Submit

ADMIN - REQUESTED BOOKS

Library

₹ Books

₹ Add Book

₹ Requested Books

Logout

Requested Books

#	Book Title	Author	User	
1	yellow stars	steven	kathpal	<button>Accept</button> <button>Reject</button>

FUTURE SCOPE

- **Online fine payment**
As a future endeavor this LMS will also serve as a platform for people who want to pay their fine via online payment.
- **Book Maintenance**
Expand on providing an online book status by adding status for trash books or books under maintenance.



THANK YOU