

# Library Management System

## FINAL REPORT

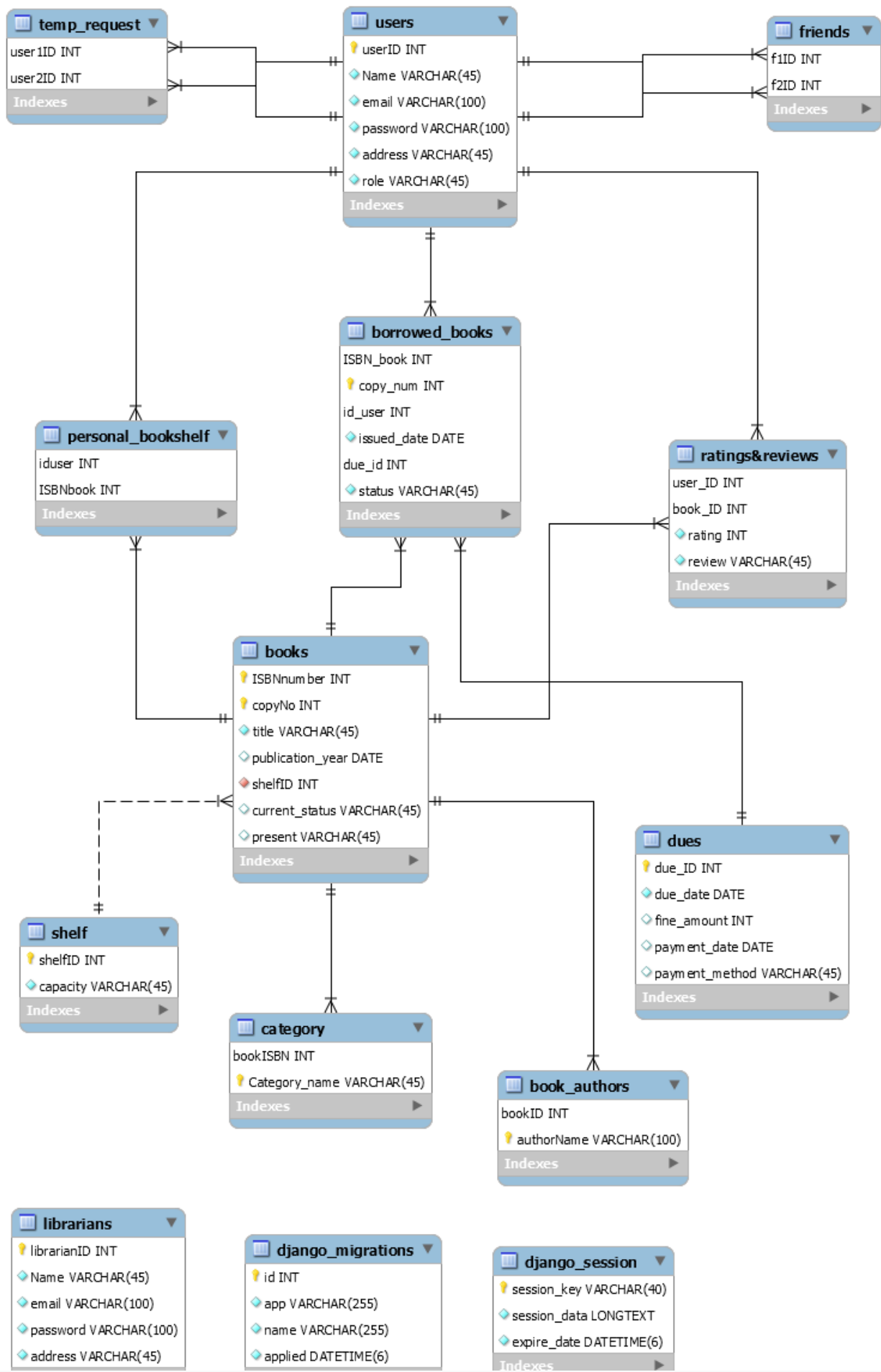
By:-

- Avinash Kumar Humansu
- Lavanya Danduprolu

This report states all the implementations or functionalities of the online library management system developed by us which is similar to the contemporary website being used in our IIT-Indore campus.

We have normalised our relational schema to 3rd Normal form since ,higher the normal form we can reduce the chances of anomalies of updation,insertion,deletion.For example,In the users table the userid is the primary key and there are no partial ,transitive dependencies.Third Normal form is when the schema is in Second Normal form and no transitive dependency.

The attached is the ER-diagram :



Some of the tech stack we deployed includes Django as web framework, Python as programming language, Mysql for database, HTML, CSS for front-end.

Let's get started with the functioning of the website:

## Login as Admin

IIT INDORE Library

Login as Admin

Email address

Password



SIGN IN

Page for admin to login...

# Login as User

IIT INDORE Library

## Login as User

Email address	
Password	

[SIGN IN](#)



Don't have an account? [Click here to create an account](#)

Page for user to login

# Sign Up

IIT INDORE Library

## Signup

User Name	
Email address	
Address	
Password	

[SIGN UP](#)

already have an account? [Click here to login](#)

Page for user to create a new account

# OTP Verification

OTP sent to your email please check your inbox!!

IIT INDORE Library

OTP

SUBMIT

Don't have an account? [Click here to Resend OTP](#)

## Home Page

The attached snap depicts the home page of the website where we have different options like book search by author or title names, to view the issued or on hold list of books with the user, to view personal favorites of the user, to hold books if not available, to pay fines, contact information. These will be explained in detailed below.

IIT INDORE Library

mouni

HOMEBOOKSISSUED BOOKSFAVORITESWITHDRAW/HOLD BOOKSFINESCONTACT

Knowledge is wealth  
and this wealth increases by sharing and never stop it

# Books Search

In the home page we have books button and when we click on it, we get drop down menu of author search and title search. When a user selects one of them they get the option to search the books either by author's name or title name of the book based on the option selected. After the user enters required information in the search box and clicks on search button, the results will be displayed accordingly.

The image shows two screenshots of the IIT Indore Library website. The top screenshot shows the homepage with a navigation bar and a dropdown menu for 'BOOKS' containing 'AUTHOR SEARCH' and 'TITLE SEARCH'. A banner with the text 'Knowledge is wealth' and a 'LEARN MORE' button is also visible. The bottom screenshot shows the 'SEARCH BOOKS' page with a search input field containing 'dsamanta' and a 'SEARCH' button.

IIT INDORE Library

mouni

HOME BOOKS ISSUED BOOKS FAVORITES WITHDRAW/HOLD BOOKS FINES CONTACT

AUTHOR SEARCH

TITLE SEARCH

Knowledge is wealth

and this wealth increases by sharing and never stop it

LEARN MORE

127.0.0.1:8000/#

IIT INDORE Library

mouni

HOME BOOKS ISSUED BOOKS FAVORITES WITHDRAW/HOLD BOOKS FINES CONTACT

SEARCH BOOKS

dsamanta SEARCH

Suppose an user enters author names as “dsamanta”, the following results are fetched from the database and displayed:

IIT INDORE Library

mouni

HOME
BOOKS
ISSUED BOOKS
FAVORITES
WITHDRAW/HOLD BOOKS
FINES
CONTACT

Results

BOOK NAME:DATABASE

ISBNNumber:1122  
copy\_Number:1  
Availability:available

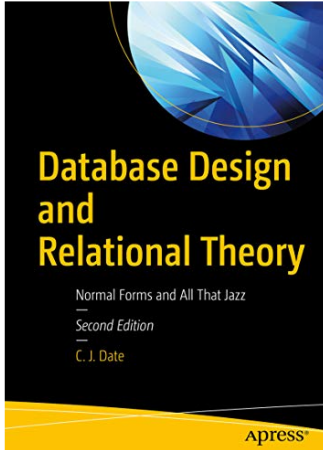
BOOK NAME:DATABASE

ISBNNumber:1123  
copy\_Number:1  
Availability:available

BOOK NAME:DATABASES AND SYSTEMS

ISBNNumber:5234  
copy\_Number:3  
Availability:available

HOME
BOOKS
ISSUED BOOKS
FAVORITES
WITHDRAW/HOLD BOOKS
FINES
CONTACT



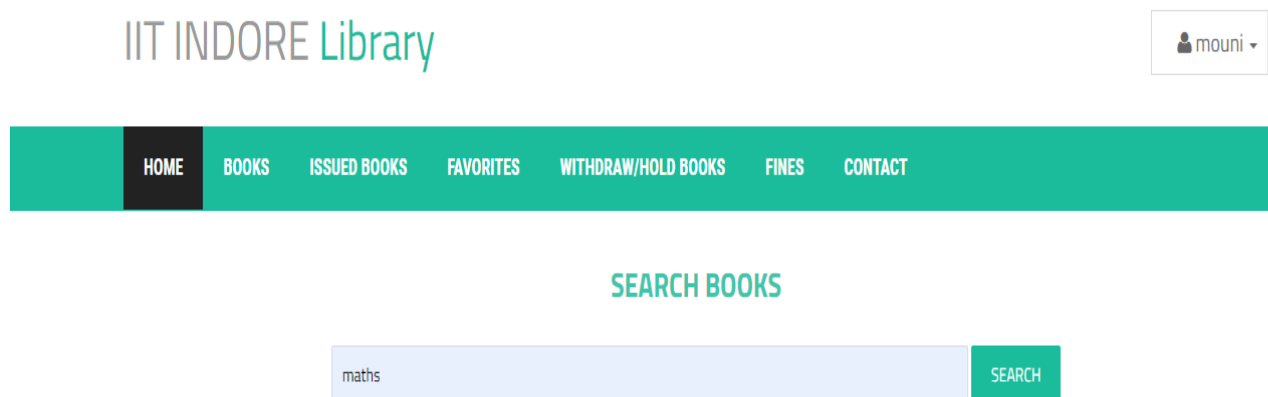
this is a very standard book and this book is very useful to gain knowledge about databse and information systems

ADD TO FAVORITES

When an user clicks on any of the result the book details will be displayed along with add to favorites option as follows:



Suppose an user chooses search by title option and enters title as “maths”





[HOME](#)
[BOOKS](#)
[ISSUED BOOKS](#)
[FAVORITES](#)
[WITHDRAW/HOLD BOOKS](#)
[FINES](#)
[CONTACT](#)

## Results

BOOK NAME:MATHS

ISBNnumber:12340  
Availability:available

BOOK NAME:MATHS

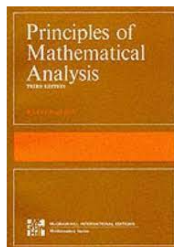
ISBNnumber:12341  
Availability:available

BOOK NAME:MATHS

ISBNnumber:12342  
Availability:not\_available

[HOME](#)
[BOOKS](#)
[ISSUED BOOKS](#)
[FAVORITES](#)
[WITHDRAW/HOLD BOOKS](#)
[FINES](#)
[CONTACT](#)

## NEVER STOP LEARNING!!

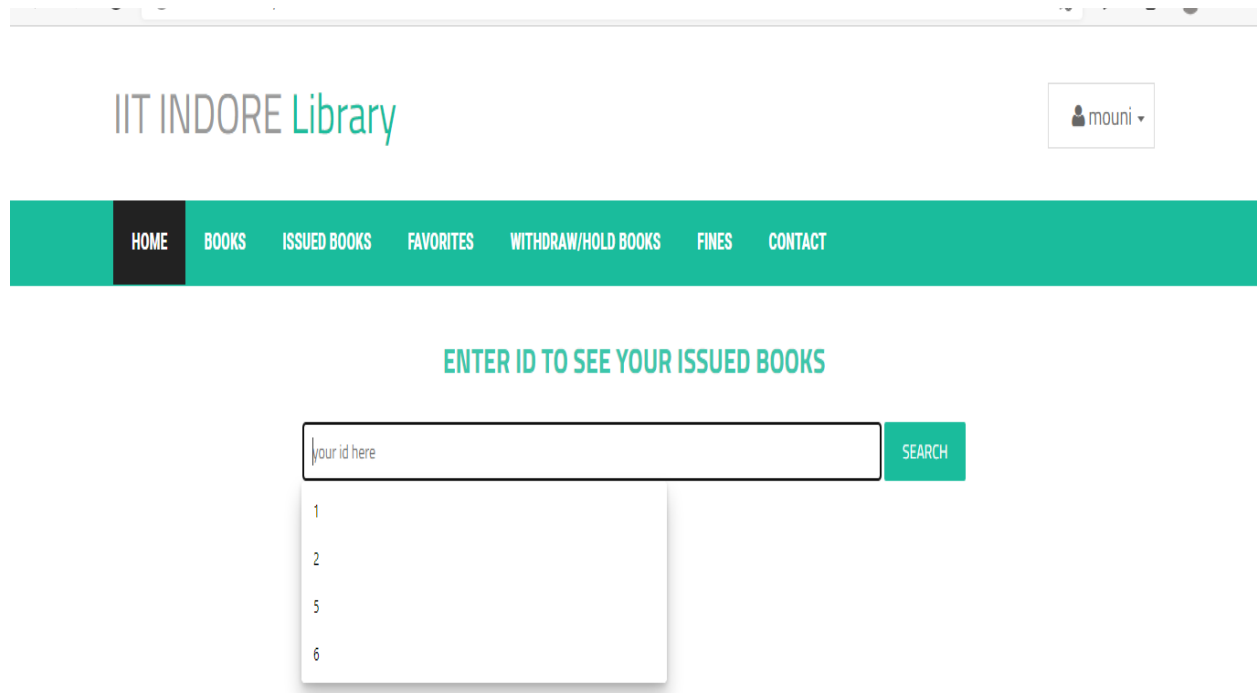


this is a very standard book and this book is very useful to gain knowledge about mathematics

ADD TO FAVORITES

# Issued Books

This option allows the user to check the books he/she has either taken or put on hold after they enter their user ID.



IIT INDORE Library

mouni

HOME BOOKS ISSUED BOOKS FAVORITES WITHDRAW/HOLD BOOKS FINES CONTACT

ENTER ID TO SEE YOUR ISSUED BOOKS

your id here SEARCH

1  
2  
5  
6

Suppose user with userID 1 enters ID:

## Results

1)ISBNNumber:9154  
2)copy\_Number:1  
3)status\_of\_the\_book:issued  
4)Date\_of\_issue:April 9,  
2021

1)ISBNNumber:6950  
2)copy\_Number:3  
3)status\_of\_the\_book:issued  
4)Date\_of\_issue:April 9,  
2021

1)ISBNNumber:17  
2)copy\_Number:5  
3)status\_of\_the\_book:issued  
4)Date\_of\_issue:April 9,  
2021

The issued or on hold books of the user will be displayed with ISBN number, copy number and status like issued/on hold as such.

## Hold books

When the user searches for a book ,the availability of the book is also shown.If the book is not available the user can use this hold books button to hold a book.

This option asks the user to enter their id,book id,copy no,role and stores in the database with status of the book 'on hold'.This can be viewed again in the issued books list and the respective book status will be displayed as on hold .

HOME

BOOKS

ISSUED BOOKS

FAVORITES

WITHDRAW/HOLD BOOKS

FINES

CONTACT

## ENTER REQUIRED CREDENTIALS TO HOLD BOOK

1

YOUR USERID

1122

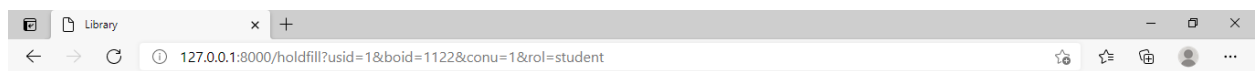
ISBN NUMBER

1

COPY NUMBER

student

YOUR ROLE



HOME

BOOKS

ISSUED BOOKS

FAVORITES

WITHDRAW/HOLD BOOKS

FINES

CONTACT

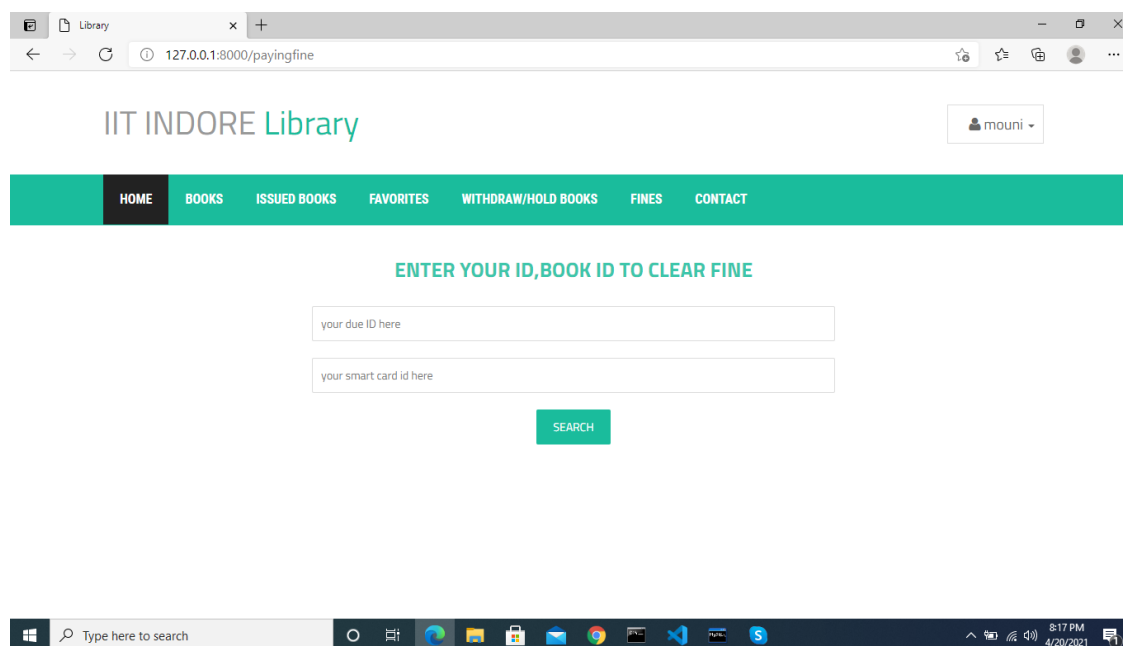
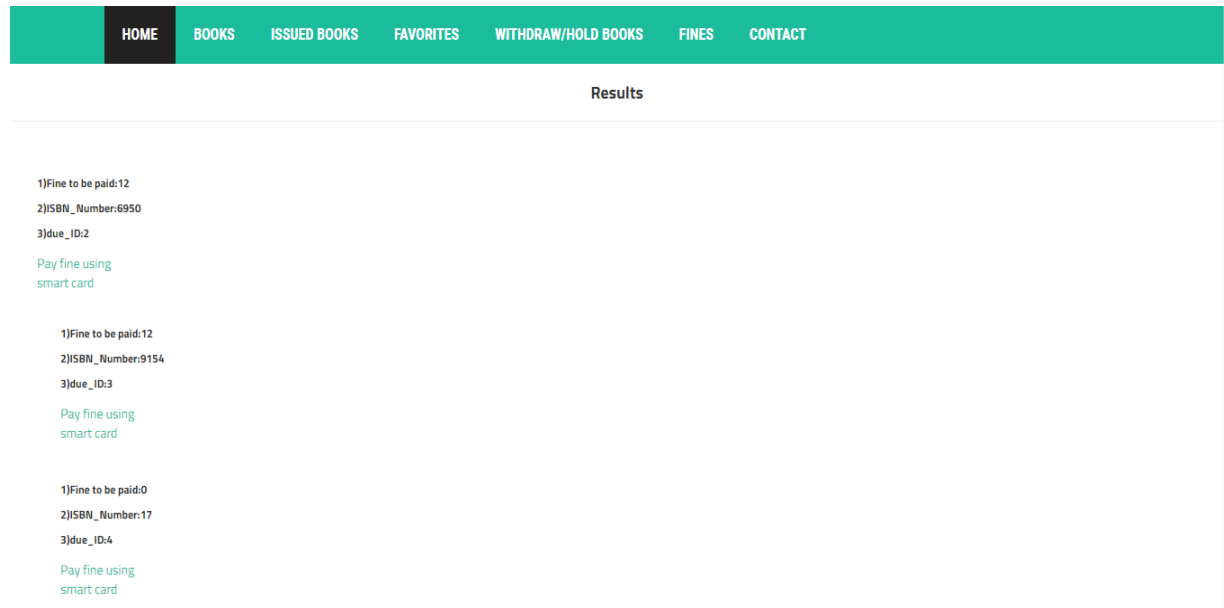
Successful !!!

The screenshot shows a web browser window with a single tab titled 'Library'. The address bar displays '127.0.0.1:8000/isslist?iss=1'. Below the browser window is a green navigation bar with the following menu items: HOME, BOOKS, ISSUED BOOKS, FAVORITES, WITHDRAW/HOLD BOOKS, FINES, and CONTACT. The 'HOME' item is currently selected. Below the navigation bar, the word 'Results' is centered. The main content area displays four search results, each with the following fields: 1)ISBNnumber, 2)copy\_Number, 3)status\_of\_the\_book, and 4)Date\_of\_issue.

1)ISBNnumber	2)copy_Number	3)status_of_the_book	4)Date_of_issue
1122	1	on hold	April 20, 2021
9154	1	issued	April 9, 2021
6950	3	issued	April 9, 2021
17	5	issued	April 9, 2021

## 6)FINES:

This button is used to help users to pay fines online if they are not interested in paying physically. The user is prompted to enter ID and all the respective books with the user ID will be displayed along with fine amount, due ID. Fine is charged after a month of issue date which is considered as overdue and user is charged RS.2 per day if he/she still holds the book after a month and he/she is student but not teacher. They have a option to pay using smart cards for individual books using their due IDs.



If the credentials are correct ,a success message is shown and the fine will be set to zero in the database.

## 7)CONTACT:

This page is simple yet informative. Holds the contact information like contact number and email address at which any person can contact the library in case of any queries.

CONTACT US AT:- +91-6563913404

EMAIL US AT:- ELIBRARY@IITLAC.IN

**ADMIN PART:**

Admins(librarians) can login using their username and password then they will be directed to a different home page.

**HOME PAGE:**

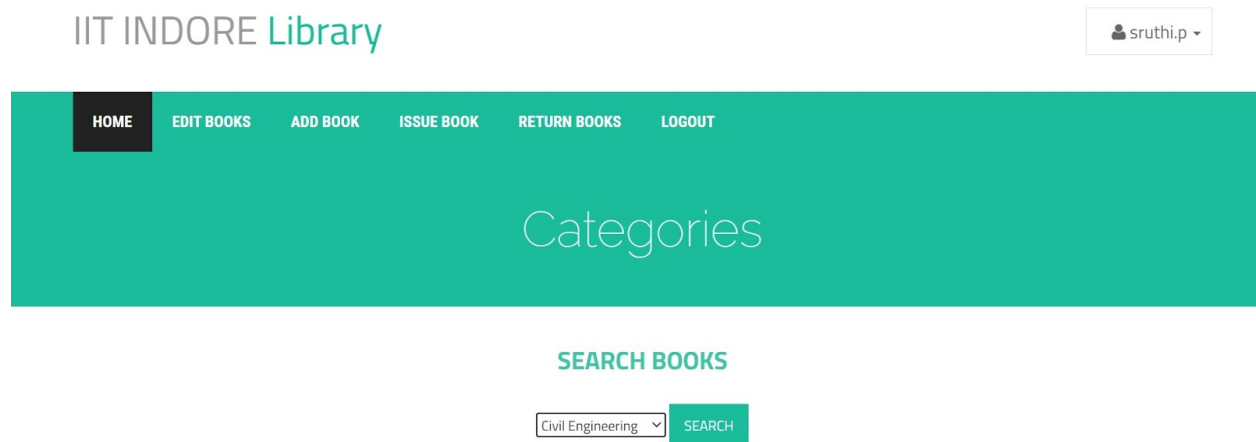
This is the header of the home page.

**EDIT BOOKS:**

Edit books means when the admin wants to search a book and wants to delete that specific book or change the shelf.

### Search by categories:

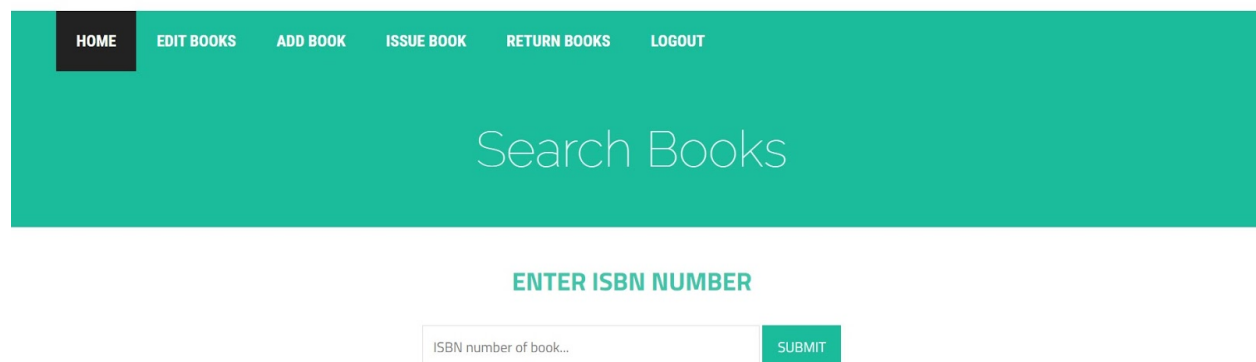
This shows us different categories available in the library and the admin can choose a category and then all the books from that category are displayed on screen.



The screenshot shows the 'Categories' page of the IIT Indore Library. At the top, the header includes 'IIT INDORE Library' and a user profile 'sruthi.p'. A navigation bar contains links: HOME, EDIT BOOKS, ADD BOOK, ISSUE BOOK, RETURN BOOKS, and LOGOUT. The main heading is 'Categories'. Below it, there is a section titled 'SEARCH BOOKS' with a dropdown menu showing 'Civil Engineering' and a 'SEARCH' button.

### Search by ISBN number:

Here the admin can enter the ISBN number of the book and the book page opens with all the details.



The screenshot shows the 'Search Books' page of the IIT Indore Library. It features the same header and navigation bar as the previous page. The main heading is 'Search Books'. Below it, there is a section titled 'ENTER ISBN NUMBER' with a text input field labeled 'ISBN number of book...' and a 'SUBMIT' button.

### SINGLE BOOK PAGE:

This is the page to show the details of the specific book.

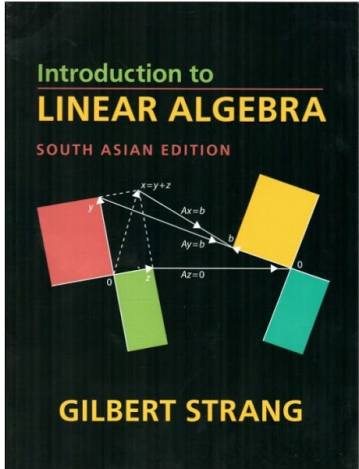
HERE, We have 2 options

**1.Change shelf:** With this admin can move the books to different shelves.

**2.Delete book:** Admin can delete this book by clicking on delete book.



[HOME](#)
[EDIT BOOKS](#)
[ADD BOOK](#)
[ISSUE BOOK](#)
[RETURN BOOKS](#)
[LOGOUT](#)



### Linear Algebra

Category:  
(('Maths'),)

Authors:  
d\_s a m a n t a

No. of copies:  
1

Shelf\_No.:  
4

#### Product Description

Perfect book to make your concepts clear

[CHANGE SHELF](#)
[DELETE BOOK](#)

## ADD BOOKS:

When the admin wants to add new books to the library, they can come to this page and can directly enter the details of the books in blanks provided. They can choose the specific category, shelf in which they want to place the book etc. Then the book will be added to the books table.

### ENTER BOOK DETAILS:

Title of the Book	
ISBN Number	
Civil Engineering ▾	
Author-1	
Author-2	
Author-3	
No. of copies	1 ▾

ENTER

### ISSUE BOOK:

Whenever the user wants to take a book on loan then it can be issued through this page by admin. Here we enter the user email address, ISBN and copy No. of the book.

HOME EDIT BOOKS ADD BOOK ISSUE BOOK RETURN BOOKS LOGOUT

## Issue Books

### SEARCH USER

Enter User Email...	ISBN number of book...	Copy number of book...	SUBMIT
---------------------	------------------------	------------------------	--------

### Fine exceeds 1000:

While issuing the book we check the total fines of the user, if it exceeds more than 1000, the book cannot be issued. The user has to go to his library page and clear the dues.

Sorry!!

Your fine exceeds 1000

Your fine : 3685

**Number of books exceeds 3:**

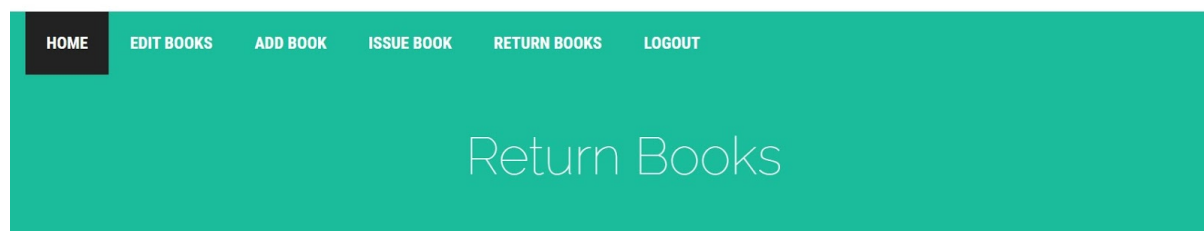
Next check is that if the user is a student and has already taken 3 books on loan then the book cannot be issued.

Sorry!!

3 books are already on loan

**RETURN BOOK:**

To return books back to the library admin should update it in the database through this page. We need to enter the email id of the user and the details of the book the user wants to return.

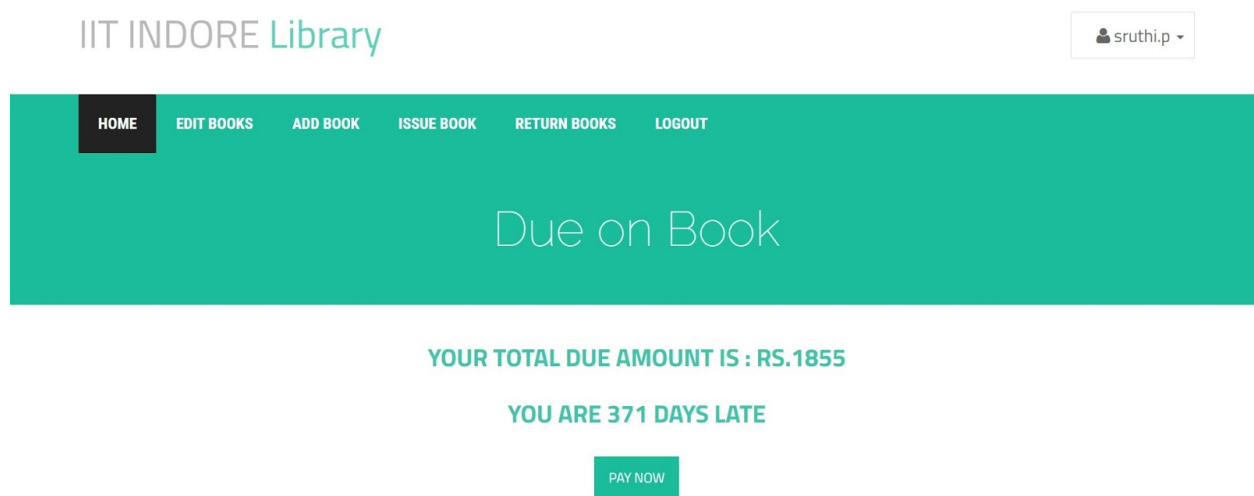


### SEARCH USER

<input type="text" value="Enter User Email..."/>	<input type="text" value="ISBN number of book..."/>	<input type="text" value="Copy number of book..."/>	<input type="button" value="SUBMIT"/>
--	---	---	---------------------------------------

### Due on book:

If the user has any dues on this book that will be displayed when we enter submit in the previous page. This also shows us the number of days the user is late.



### LOGOUT:

The admin can log out of the website whenever they want to by just clicking on logout.