DATABASE SYSTEMS & WEB LAB (15B17CI372)

Library Management System

By:
CHIRAG SHARMA (LATG10024)
PRAKHAR JAIN (LATG10025)
ARYAN GARG (LATG10046)
BATCH: B10

Library Management System

A PROJECT REPORT

Under the guidance of

INDU CHAWLA MAM

Submitted by

CHIRAG SHARMA
PRAKHAR JAIN
ARYAN GARG

In partial fulfillment of the final project

Of

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CERTIFICATE

It is certified that this is a bonafide record of the project work titled

LIBRARY MANAGEMENT SYSTEM

Done by

Chirag Sharma
Prakhar Jain
Aryan Garg

of 3rd semester Computer Science & Engineering in the year 2021 in partial fulfillment of the requirements for the award of Degree of Bachelor of Technology in Computer Science & Engineering of Jaypee Institute of Information & Technology

INDU CHAWLA
PROJECT GUIDE

ACKNOWLEDGEMENT

We take this occasion to thank God, almighty for blessing us with his grace and taking our endeavour to a successful culmination. We extend our sincere and heartfelt thanks to our esteemed guide, **INDU CHAWLA MAM**, for providing us with the right guidance and advice at the crucial junctures and for showing me the right way. We also take this opportunity to express a deep sense of gratitude to our lecture faculty, **MEGHA RATHI MAM** For their cordial support, valuable suggestions and guidance. We extend our sincere thanks to our respected **Head of the department (CSE) PROF. VIKAS SAXENA**, for allowing us to use the facilities available. We would like to thank the other faculty members also, at this occasion. Last but not the least, we would like to thank our friends and family for the support and encouragement they have given us during the course of our work.

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ABSTRACT

Library management system is a project which aims in developing a computerized system to maintain all the daily work of library .This project has many features which are generally not available in normal library management systems like facility of user login and a facility of teachers login .It also has a facility of admin login through which the admin can monitor the whole system. It has also a facility where student after logging in their accounts can see list of books issued and its issue date and return date and also the students can request the librarian to add new books by filling the book request form. The librarian after logging into his account i.e. admin account can generate various reports such as student report, issue report, teacher report and book report.

Overall this project of ours is being developed to help the students as well as staff of library to maintain the library in the best way possible and also reduce the human efforts.

CHAPTER 1

INTRODUCTION

This chapter gives an overview about the aim, objectives, background and operation environment of the system.

1.1 PROJECT AIMS AND OBJECTIVES

The project aims and objectives that will be achieved after completion of this project are discussed in this subchapter. The aims and objectives are as follows:

- Online book issue
- An Admin login page where admin can add books
- Request column for librarian for providing new books
- Student login page where student can find books issued by him/her and date of return.
- A search column to search availability of books
- Facility to download required books
- Librarian can block/unblock Student
- A teacher login where teacher can issue & request books
- Fine for late returned books

1.2 BACKGROUND OF PROJECT

Library Management System is an application which refers to library systems which are generally small or medium in size. It is used by librarian to manage the library using a computerized system where he/she can record various transactions like issue of books, return of books, addition of new books, addition of new students, addition of new teachers etc.

Books and student maintenance modules are also included in this system which would keep track of the students using the library and also a detailed description about the books a library contains. With this computerized system there will be no loss of book record or member record which generally happens when a non-computerized system is used.

In addition, report module is also included in Library Management System. If user's position is admin, the user is able to generate different kinds of reports like lists of students registered, list of books, issue and return reports.

All these modules are able to help librarian to manage the library with more convenience and in a more efficient way as compared to library systems which are not computerized.

1.3 OPERATION ENVIRONMENT

PROCESSOR	INTEL CORE PROCESSOR OR BETTER PERFORMANCE
OPERATING SYSTEM	WINDOWS , UBUNTU
MEMORY	1GB RAM OR MORE
HARD DISK SPACE	MINIMUM 3 GB FOR DATABASE USAGE FOR FUTURE
DATABASE	MY SQL

CHAPTER 2

SYSTEM ANALYSIS

In this chapter, we will discuss and analyze about the developing process of Library Management System including software requirement specification (SRS) and comparison between existing and proposed system. The functional and non-functional requirements are included in SRS part to provide complete description and overview of system requirement before the developing process is carried out. Besides that, existing vs proposed provides a view of how the proposed system will be more efficient than the existing one.

2.1 SOFTWARE REQUIREMENT SPECIFICATION

2.1.1 GENERAL DESCRIPTION

PRODUCT DESCRIPTION:

Library Management System is a computerized system which helps user (librarian) to manage the library daily activity in electronic format. It reduces the risk of paper work such as file lost, file damaged and time consuming.

It can help user to manage the transaction or record more effectively and time-saving.

PROBLEM STATEMENT:

The problem occurred before having computerized system includes:

- File lost

  When computerized system is not implemented file is always lost because of human environment. Sometimes due to some human error there may be a loss of records.

- File damaged when a computerized system is not there file is always lost due to some accident like spilling of water by some member on file accidentally. Besides some natural disaster like floods or fires may also damage the files. Difficult to search record

When there is no computerized system there is always a difficulty in searching of records if the records are large in number.

- Space consuming

  After the number of records become large the space for physical storage of file and records also increases if no computerized system is implemented.

- Cost consuming

  As there is no computerized system then to add each record paper will be needed which will increase the cost for the management of library.

2.1.2 SYSTEM OBJECTIVES

- Improvement in control and performance

  The system is developed to cope up with the current issues and problems of library .The system can add user, validate user and is also bug free.

- Save cost

  After computerized system is implemented less human force will be required to maintain the library thus reducing the overall cost.

- Save time

  Librarian is able to search record by using few clicks of mouse and few search keywords thus saving his valuable time.

- Option of sending message

  Librarian will be able to send messages separately to each student or teacher about anything.

- Fine zone
  Librarian can check for fines for not returned books.

2.1.3 SYSTEM REQUIREMENTS

2.1.3.1 NON FUNCTIONAL REQUIREMENTS

- Product Requirements

EFFICIENCY REQUIREMENT

When a library management system will be implemented librarian and user will easily access library as searching and book transaction will be very faster.

RELIABILITY REQUIREMENT

The system should accurately performs member registration, member validation, report generation, book transaction and search

USABILITY REQUIREMENT

The system is designed for a user friendly environment so that student and staff of library can perform the various tasks easily and in an effective way.

ORGANIZATIONAL REQUIREMENT

IMPLEMENTATION REQUIREMNTS

In implementing whole system it uses html in front end with php as server side scripting language which will be used for database connectivity and the backend i.e. the database part is developed using MySQL.

DELIVERY REQUIREMENTS

The whole system is expected to be delivered in six months of time with a weekly evaluation by the project guide.

2.1.3.2 FUNCTIONAL REQUIREMENTS

1. NORMAL USER

1.1 USER LOGIN

Description of feature

This feature used by the user to login into system. They are required to enter username and password before they are allowed to enter the system .The username and password will be verified and if invalid id is there user is allowed to not enter the system.

Functional requirements

-username is provided when they register
-The system must only allow user with valid username and password to enter the system
-The system performs authorization process which decides what user level can access to.
-The user must be able to logout after they finished using system.

1.2 REGISTER NEW USER

Description of feature

This feature can be performed by all users to register new user to create account.

Functional requirements

-System must be able to verify information

-System must be able to delete information if information is wrong

1.3 REGISTER NEW BOOK

Description of feature

This feature allows to add new books to the library

Functional requirements

-System must be able to verify information

-System must be able to enter number of copies into table.

- System must be able to not allow two books having same book id.

1.4 SEARCH BOOK

DESCRIPTION OF FEATURE

This feature is found in book maintenance part. We can search book based on book name or by author name.

Functional requirements

-System must be able to search the database based on select search type

-System must be able to filter book based on keyword entered

-System must be able to show the filtered book in table view

1.5 ISSUE BOOKS AND RETURN BOOKS

DESCRIPTION OF FEATURE

This feature allows to issue and return books and also view reports of book issued.

Functional requirements

-System must be able to enter issue information in database.

-System must be able to update number of books.

-System must be able to search if book is available or not before issuing books

-System should be able to enter issue and return date information

2.1.4 SOFTWARE AND HARDWARE REQUIREMENTS

This section describes the software and hardware requirements of the system

2.1.4.1 SOFTWARE REQUIREMENTS

- Operating system- Windows 10 is used as the operating system as it is stable and supports more features and is more user friendly
- Database MYSQL-MYSQL is used as database as it easy to maintain and retrieve records by simple queries which are in English language which are easy to understand and easy to write.
- Development tools and Programming language- HTML is used to write the whole code and develop webpages with css, java script for styling work and php for sever side scripting.

2.1.4.2 HARDWARE REQUIREMENTS

Intel core i5 2nd generation is used as a processor because it is fast than other processors and provide reliable and stable and we can run our pc for longtime. By using this processor we can keep on developing our project without any worries.

Ram 1 GB is used as it will provide fast reading and writing capabilities and will in turn support in processing.

2.2 EXISTING VS PROPOSED SYSTEM

i. Existing system does not have any facility of teacher's login or student login whereas proposed system will have a facility of student login as well as teacher's login.
ii. Existing system does not have a facility of online reservation of books whereas proposed system has a facility of online reservation of books.
iii. Existing system does not have any facility to generate student reports as well book issue reports whereas proposed system provides librarian with a tool to generate reports.
iv. Existing system does not has any facility for book request and suggestions where as in proposed system after logging in to their accounts student can request books as well as provide suggestions to improve library.

2.3 SOFTWARE TOOLS USED

The whole Project is divided in two parts the front end and the back end.

2.3.1 FRONT END

The front end is designed using of HTML, CSS, Java script

- HTML - **HTML** or **Hyper Text Markup Language** is the main markup language for creating Web pages and other information that can be displayed in a web browser.HTML is Written in the form of HTML elements consisting of *tags* enclosed in angle brackets (Like `<html>`), within the web page content. HTML tags most commonly come in Pairs like `<h1>` and `</h1>`, although some tags represent *empty elements* and so are Unpaired, for example `<img>`. The first tag in a pair is the *start tag*, and the second tag is the *end tag* (they are also called *opening tags* and *closing tags*). In between these tags web designers can add text, further tags, comments and other types of text-based content. The purpose of a web browser is to read HTML documents and compose them visible or audible web pages. The browser does not display the HTML tags, but uses the tags to interpret the content of the page.HTML elements form the building blocks of all websites. HTML allows images and objects to be embedded and can be used to create interactive forms. It provides a means to create structured documents by Denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. It can embed scripts written in languages such as JavaScript which affect the behavior of HTML web pages.

- CSS - **Cascading Style Sheets** (**CSS**) is a style sheet language used for describing the look and formatting of a document written in a markup language. While most often used to style web pages and interfaces written in HTML and XHTML, the language can be applied to any kind of XML document, including plain XML, SVG and XUL. CSS is a cornerstone specification of the web and almost all web pages use CSS style sheets to describe their presentation.CSS is designed primarily to enable the separation of document content from document presentation, including elements such as the layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, and enable multiple pages to share formatting,

and reduce complexity and repetition in the structural content (such as by allowing for table less web design).CSS can also allow the same markup page to be presented in different styles for different rendering methods, such as on-screen, in print, by voice (when read out by a speech-based browser or screen reader) and on Braille-based, tactile devices. It can also be used to allow the web page to display differently depending on the screen size or device on which it is being viewed. While the author of a document typically links that document to a CSS file, readers can use a different style sheet, perhaps one on their own computer, to override the one the author has specified. However if the author or the reader did not link the document to a specific style sheet the default style of the browser will be applied.CSS specifies a priority scheme to determine which style rules apply if more than one rule matches against a particular element. In this so-called cascade, priorities or weights are calculated and assigned to rules, so that the results are predictable.

- JAVA SCRIPT- **JavaScript** (**JS**) is a dynamic computer programming language. It is most commonly used as part of web browsers, whose implementations allow client-side scripts to interact with the user, control the browser, communicate asynchronously, and alter the document content that is displayed. It is also being used in server-side programming, game development and the creation of desktop and mobile applications. JavaScript is a prototype-based scripting language with dynamic typing and has first- class functions. Its syntax was influenced by C. JavaScript copies many names and naming conventions from Java, but the two languages are otherwise unrelated and have very different semantics. The key design principles within JavaScript are taken from the self and Scheme programming languages. It is a multi- paradigm language, supporting object-oriented, imperative, and functional programming styles. The application of JavaScript to use outside of web pages—for example, in PDF documents, site-specific browsers, and desktop widgets— is also significant. Newer and faster JavaScript VMs and platforms built upon them (notably Node.js) have also increased the popularity of JavaScript for server-side web applications. On the client side, JavaScript was traditionally implemented as an interpreted language but just-in-time compilation is now performed by recent (post-2012) browsers.

2.3.1 **BACK END**

The back end is designed using PHP & MySQL which is used to design the databases

- PHP- **PHP** is a server-side scripting language designed for web development but also used as a general-purpose programming language. PHP is now installed on more than 244 million websites and 2.1 million web servers. Originally created by Rasmus Lerdorf in 1995, the reference implementation of PHP is now produced by The PHP Group. While PHP originally stood for Personal Home Page, it now stands for PHP: Hypertext Preprocessor, a recursive backronym. PHP code is interpreted by a web server with a PHP processor module, which generates the resulting web page: PHP commands can be embedded directly into an HTML source document rather than calling an external file to process data. It has also evolved to include a command-line interface capability and can be used in standalone graphical applications. PHP is free software released under the PHP License. PHP can be deployed on most web servers and also as a standalone shell on almost every operating system and platform, free of charge.

    - MYSQL- **MySQL** ("My S-Q-L", officially, but also called "My Sequel") is (as of July 2013) the world's second most widely used open-source relational database management system (RDBMS). It is named after co-founder Michael Widenius Daughter, My. The SQL phrase stands for Structured Query Language. The MySQL development project has made its source code available under the terms of the GNU General Public License, as well as under a variety of proprietary agreements. MySQL was owned and sponsored by a single for- profit firm, the Swedish company MySQL AB, now owned by Oracle Corporation MySQL is a popular choice of database for use in web applications, and is a central component of the widely used LAMP open source web application software stack (and other 'AMP' stacks). LAMP is an acronym for "Linux, Apache, MySQL, and Perl/PHP/Python." Free-software-open source projects that require a full-featured database management system often use MySQL. For commercial use, several paid editions are available, and offer additional functionality. Applications which use MySQL databases include: TYPO3, MODx, Joomla, WordPress, phpBB, MyBB, Drupal and other software. MySQL is also used in many high-profile, large-scale websites, including Wikipedia, Google (though not for searches), Facebook, Twitter, Flickr, and YouTube.

CHAPTER 3

SYSTEM DESIGN

3.1 TABLE DESIGN

VARIOUS TABELS TO MAINTAIN INFORMATION

- **BOOK TABLE FOR MANAGING BOOK RECORDS (add_book)**

Field	Data type	Default	Key	Extra
id	INT(10)	Not Null	Primary	Auto increment
books_name	VARCHAR(50)	Not Null		
books_image	VARCHAR(5000)	Not Null		
books_author_name	VARCHAR(50)	Not Null		
books_publication_name	VARCHAR(50)	Not Null		
books_purchase_date	VARCHAR(20)	Not Null		
books_price	VARCHAR(10)	Not Null		
books_quantity	VARCHAR(20)	Not Null		
books_availability	VARCHAR(20)	Not Null		
librarian_username	VARCHAR(20)	Not Null		
books_file	VARCHAR(5000)	Not Null		

- **FINEZONE TABLE FOR FINE INFORMATION(finezone)**

Field	Data type	Default	Key	Extra
id	INT(10)	Not Null	Primary	Auto increment
username	VARCHAR(50)	Not Null		
utype	VARCHAR(10)	Not Null		
email	VARCHAR(50)	Not Null		
booksname	VARCHAR(50)	Not Null		
fine	VARCHAR(50)	Not Null		

- **ISSUE BOOK TABLE TO KEEP TRACK OF ISSUED BOOKS(issue_book)**

Field	Data type	Default	Key	Extra
id	INT(10)	Not Null	Primary	Auto increment
utype	VARCHAR(10)	Not Null		
regno	VARCHAR(20)	Not Null		
name	VARCHAR(50)	Not Null		
sem	VARCHAR(10)	Not Null		
session	VARCHAR(10)	Not Null		
dept	VARCHAR(10)	Not Null		
phone	VARCHAR(20)	Not Null		
email	VARCHAR(20)	Not Null		
booksname	VARCHAR(50)	Not Null		
booksissuedate	VARCHAR(10)	Not Null		
booksreturndate	VARCHAR(10)	Not Null		
username	VARCHAR(20)	Not Null		

- **LIBRARIAN REGISTRATION TABLE (lib_registration)**

Field	Data type	Default	Key	Extra
id name	INT(2) VARCHAR(50)	Not Null	Primary	Auto increment
username	VARCHAR(20)	Not Null		
password	VARCHAR(20)	Not Null		
email	VARCHAR(50)	Not Null		
phone	VARCHAR(20)	Not Null		
address	VARCHAR(100)	Not Null		
photo	VARCHAR(500)	Not Null		
status	VARCHAR(7)	Not Null		

- **MESSAGE TABLE FOR RECORD OF MESSAGES SEND BY LIBRARIAN(message)**

Field	Data type	Default	Key	Extra
id	INT(10)	Not Null	Primary	Auto increment
susername	VARCHAR(50)	Not Null		
rusername	VARCHAR(50)	Not Null		
title	VARCHAR(100)	Not Null		
msg	VARCHAR(300)	Not Null		
read1	VARCHAR(10)	Not Null		
time	VARCHAR(100)	Not Null		

- **REQUEST BOOK TABLE TO KEEP RECORD OF REQUESTED BOOKS(request_book)**

Field	Data type	Default	Key	Extra
id	INT(10)	Not Null	Primary	Auto increment
name	VARCHAR(50)	Not Null		
username	VARCHAR(50)	Not Null		
email	VARCHAR(50)	Not Null		
utype	VARCHAR(10)	Not Null		
bname	VARCHAR(50)	Not Null		
burl	VARCHAR(500)	Not Null		
read1	VARCHAR(3)			

- **STUDENT REGISTRATION TABLE (std_registration)**

Field	Data type	Default	Key	Extra
id	INT(10)	Not Null	Primary	Auto increment
name	VARCHAR(50)	Not Null		
username	VARCHAR(50)	Not Null		
password	VARCHAR(50)	Not Null		
email	VARCHAR(50)	Not Null		
phone	VARCHAR(50)	Not Null		
sem	VARCHAR(10)	Not Null		
dept	VARCHAR(10)	Not Null		
session	VARCHAR(5)	Not Null		
regno	VARCHAR(20)	Not Null		
address	VARCHAR(100)	Not Null		
utype	VARCHAR(7)	Not Null		
photo	VARCHAR(500)	Not Null		
status	VARCHAR(7)	Not Null		

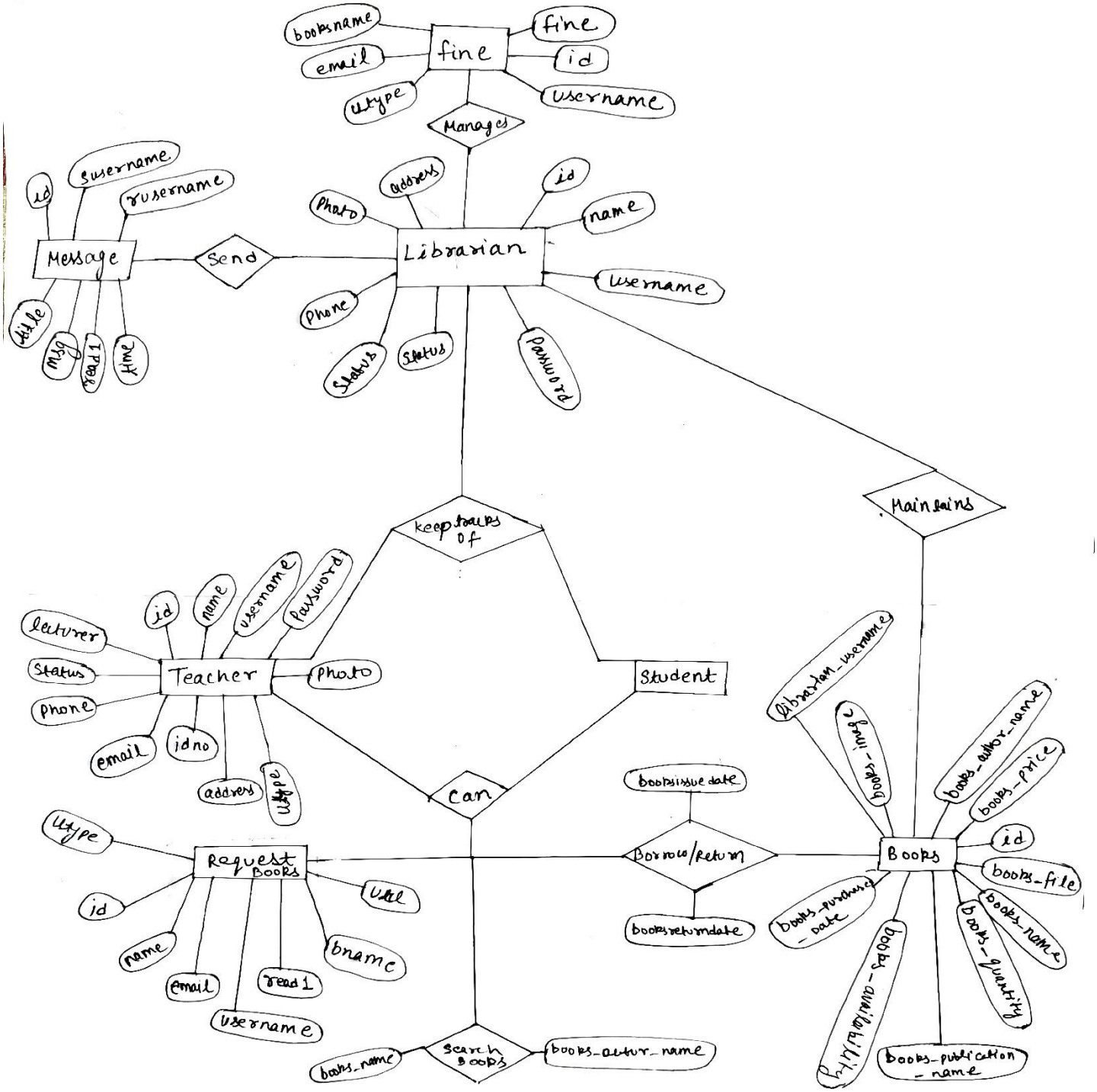
- TEACHER BOOK ISSUE TABLE FOR RECORD OF ISSUED BOOKS BY TEACHER (t_issuebook)

Field	Data type	Default	Key	Extra
id	INT(10)	Not Null	Primary	Auto increment
utype	VARCHAR(20)	Not Null		
idno	VARCHAR(20)	Not Null		
name	VARCHAR(50)	Not Null		
lecturer	VARCHAR(20)	Not Null		
phone	VARCHAR(20)	Not Null		
email	VARCHAR(50)	Not Null		
booksname	VARCHAR(50)	Not Null		
booksissuedate	VARCHAR(20)	Not Null		
booksreturndate	VARCHAR(20)	Not Null		
username	VARCHAR(20)	Not Null		

- **TEACHER REGISTRATION TABLE (t_registration)**

Field	Data type	Default	Key	Extra
id	INT(10)	Not Null	Primary	Auto increment
name	VARCHAR(50)	Not Null		
username	VARCHAR(50)	Not Null		
password	VARCHAR(50)	Not Null		
lecturer	VARCHAR(50)	Not Null		
email	VARCHAR(50)	Not Null		
phone	VARCHAR(20)	Not Null		
idno	VARCHAR(20)	Not Null		
address	VARCHAR(100)	Not Null		
utype	VARCHAR(7)	Not Null		
photo	VARCHAR(500)	Not Null		
status	VARCHAR(7)	Not Null		

3.2 ER DIAGRAM



CHAPTER 4

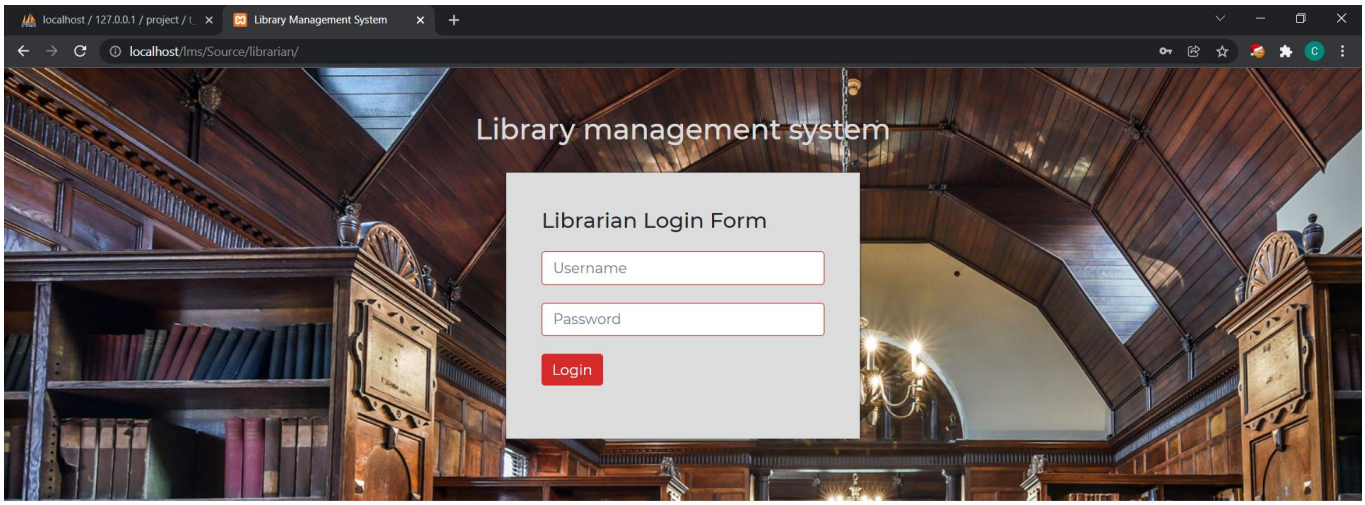
SYSTEM IMPLEMENTATION

4.1 MODULE DESCRIPTION

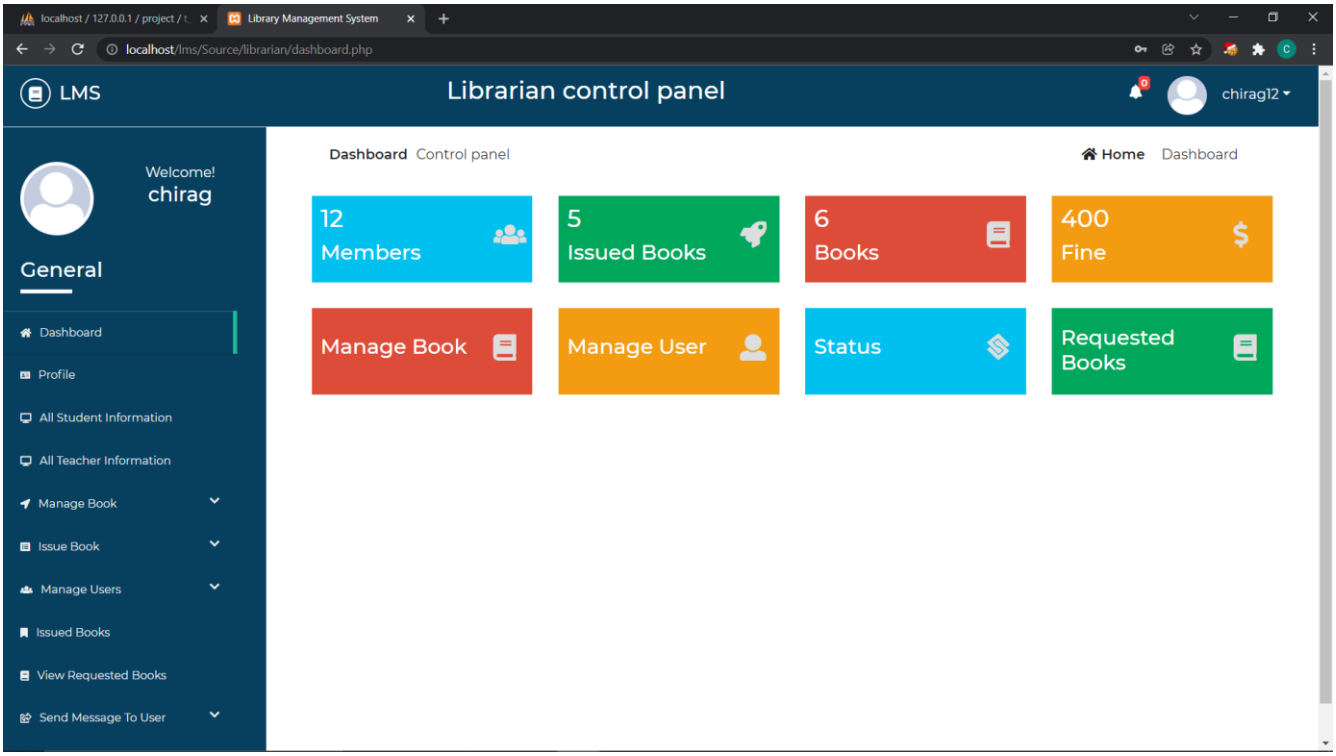
4.1.1 LIBRARIAN MODULE

SOME OF THE FUNCTIONS OF LIBRARIAN MODULES ARE DISPLAYED BELOW:

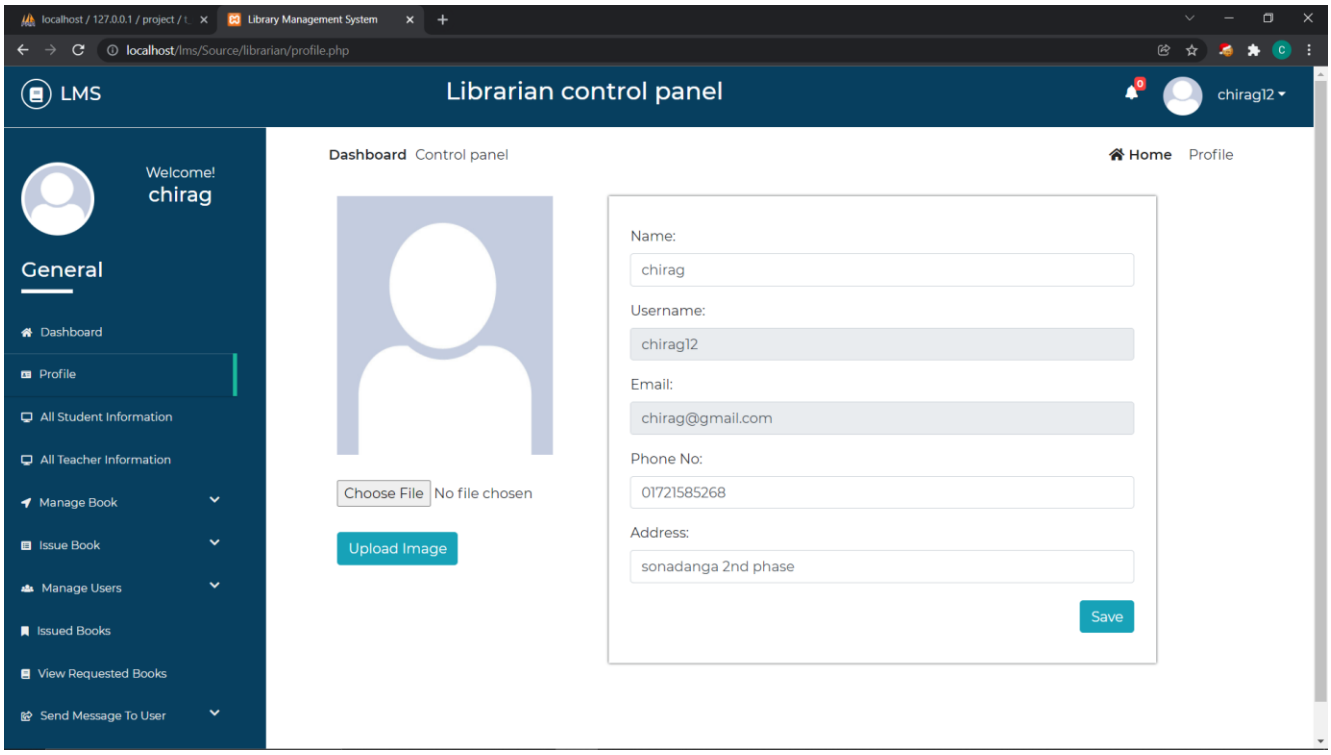
- LIBRARIAN LOGIN PAGE



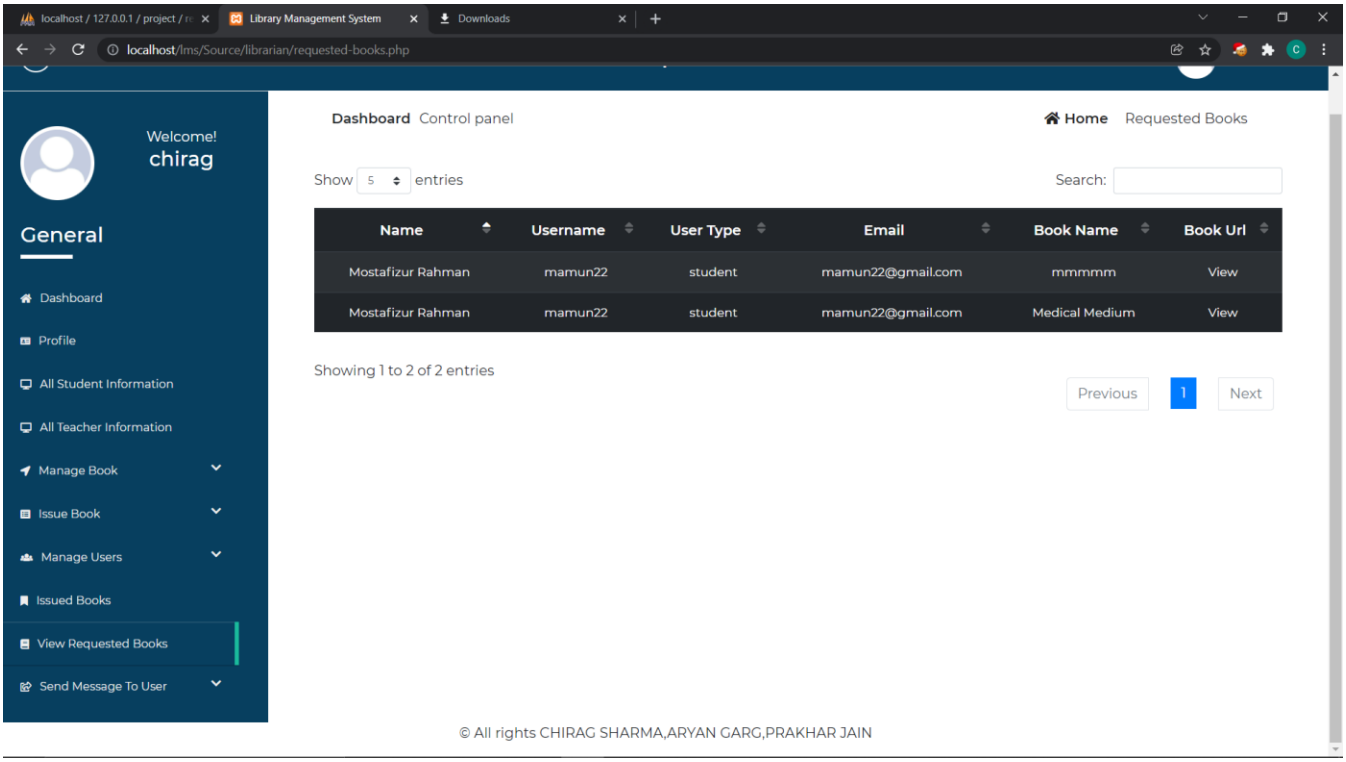
❖ LIBRARIAN HOMEPAGE (DASHBOARD)



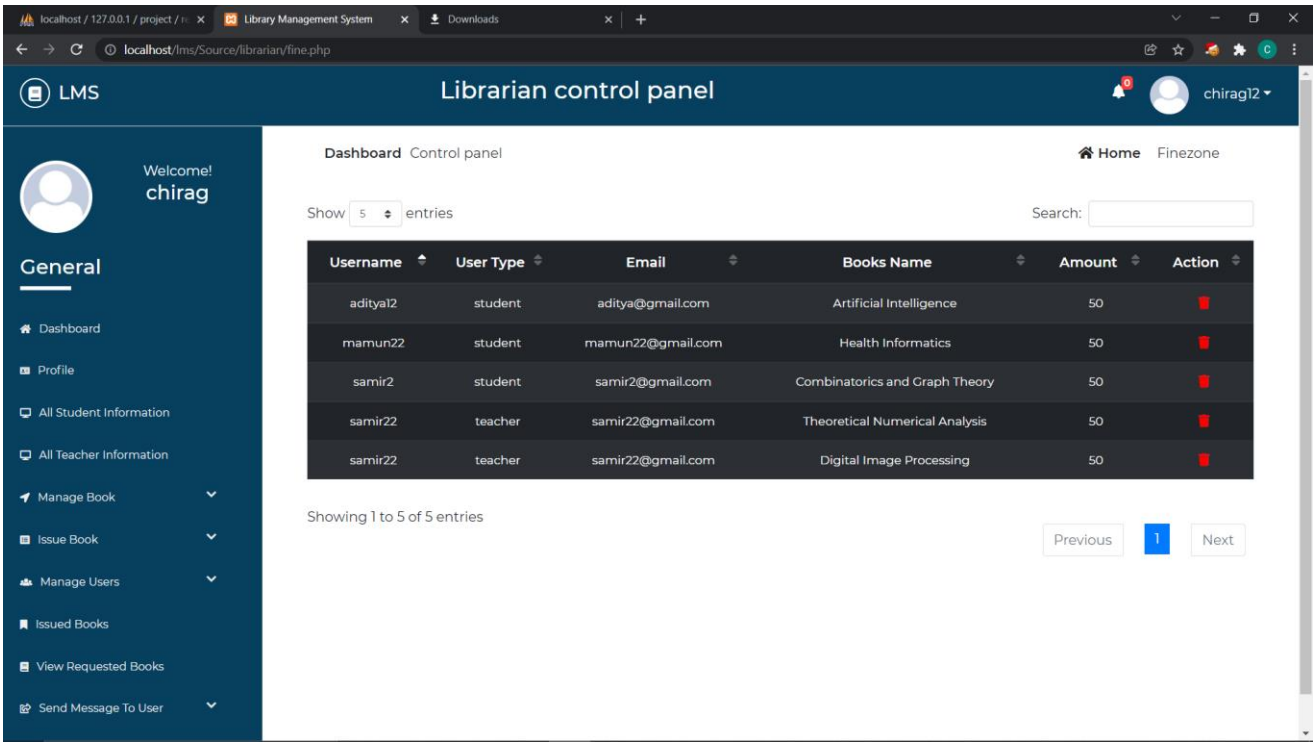
❖ LIBRARIAN PROFILE PAGE



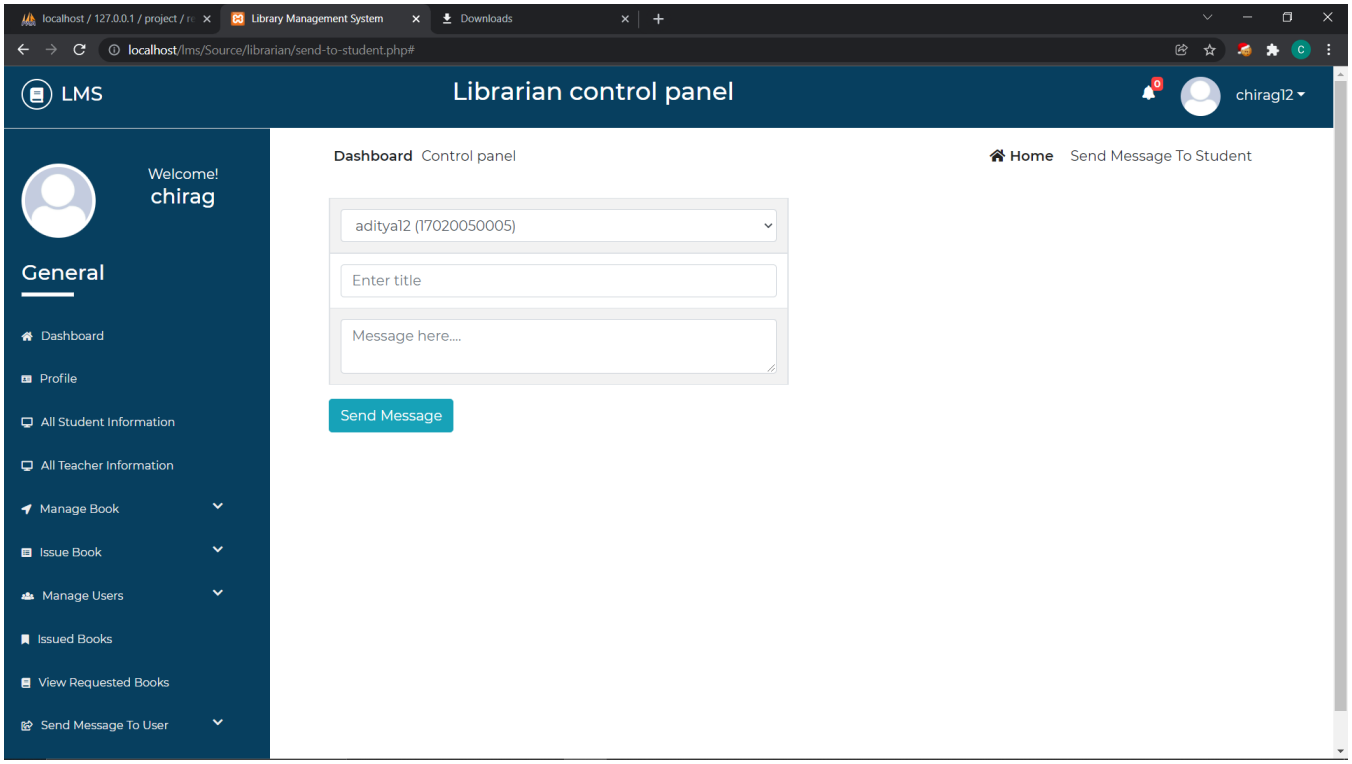
❖ VIEW REQUESTED BOOKS PAGE FOR LIBRARIAN



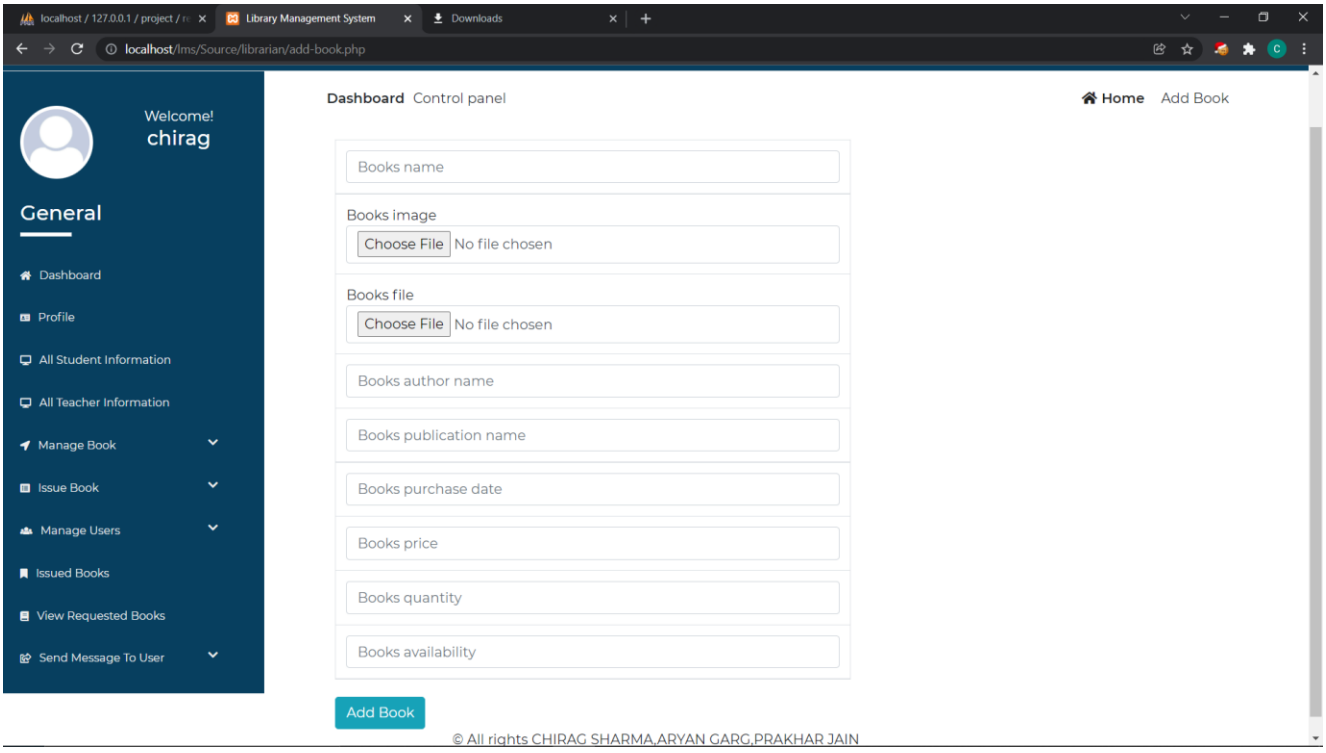
❖ FINE PAGE TO CHECK FINE



❖ SEND MESSAGE TO USER PAGE



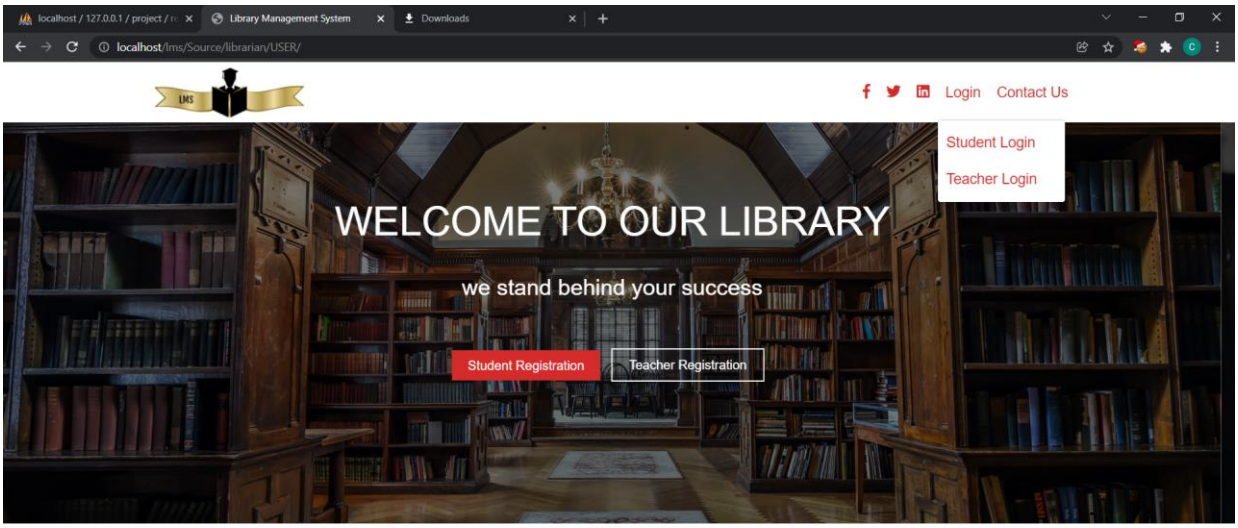
❖ ADD BOOKS PAGE



4.1.2 USER MODULE (INCLUDES STUDENT AND TEACHER)

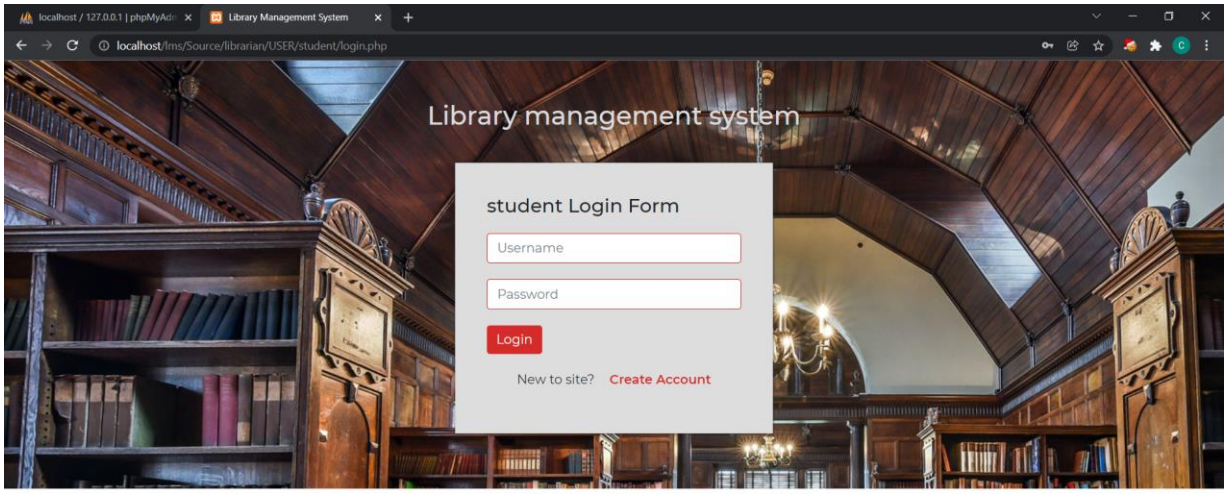
SOME OF THE USER MODULE FUNCTIONS ARE DISPLAYED BELOW:

- ❖ USER HOMEPAGE

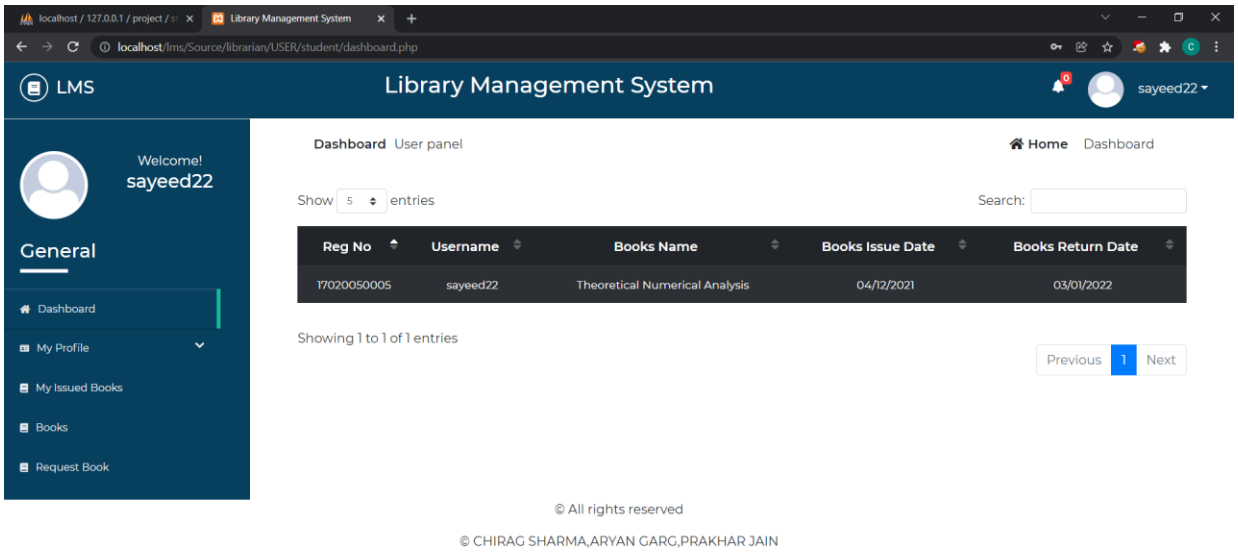


localhost/lms/Source/librarian/USER/#

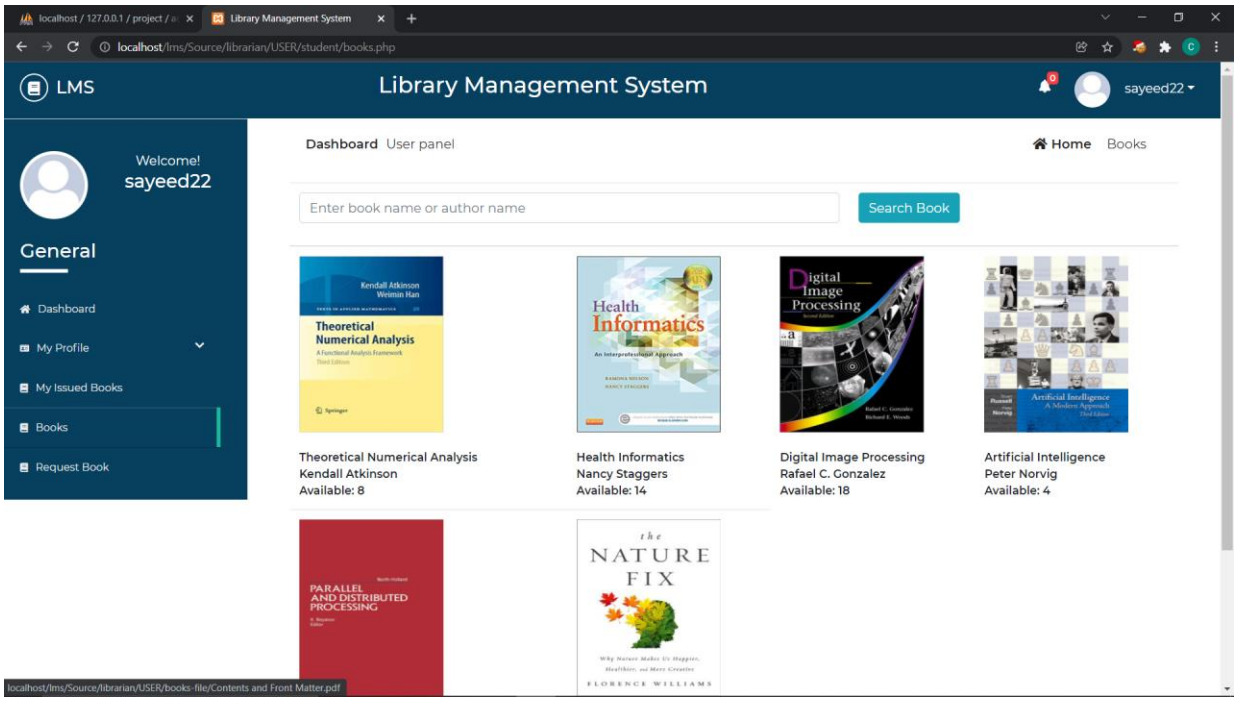
- ❖ STUDENT LOGIN PAGE



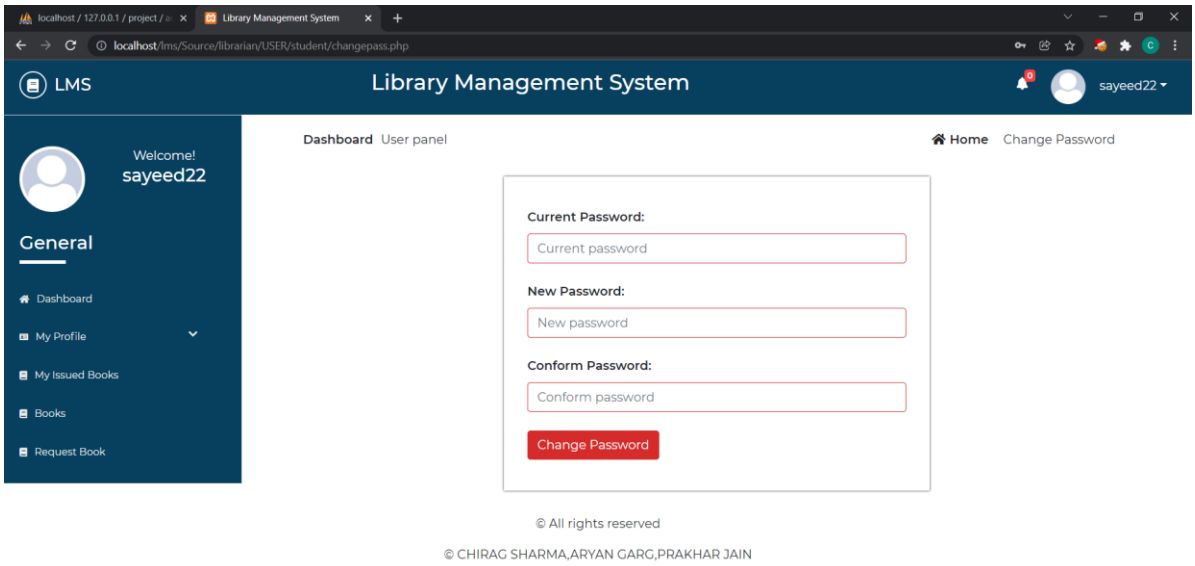
❖ STUDENT DASHBOARD



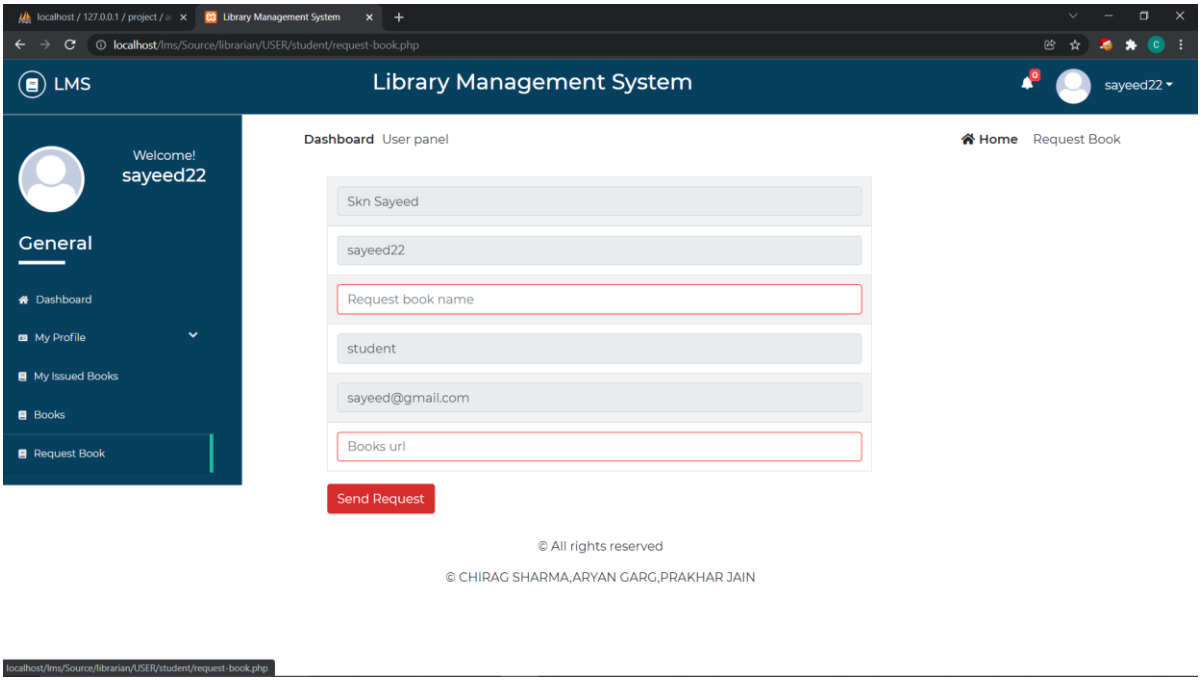
❖ DISPLAY ALL BOOKS DASHBOARD



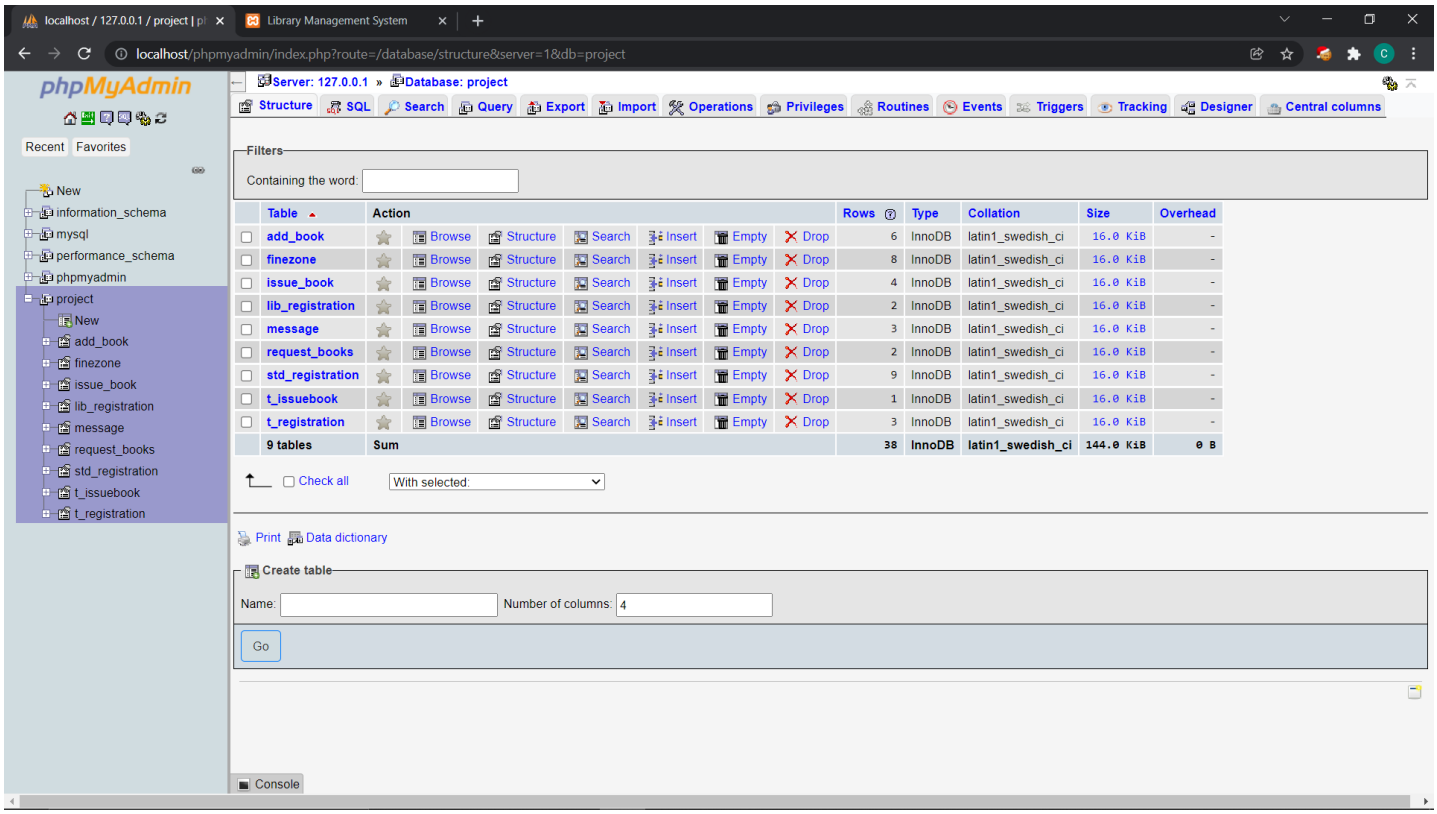
❖ CHANGE PASSWORD PAGE



❖ REQUEST BOOKS PAGE



4.2 DATABASE


localhost / 127.0.0.1 / project | ph
Library Management System
localhost/phpmyadmin/index.php?route=/database/structure&server=1&db=project
phpMyAdmin
Recent
Favorites
New
information_schema
mysql
performance_schema
phpmyadmin
project
New
add_book
finezone
issue_book
lib_registration
message
request_books
std_registration
t_issuebook
t_registration
Server: 127.0.0.1 » Database: project
Structure
SQL
Search
Query
Export
Import
Operations
Privileges
Routines
Events
Triggers
Tracking
Designer
Central columns
Filters
Containing the word:
Table
Action
Rows
Type
Collation
Size
Overhead
add_book Browse Structure Search Insert Empty Drop 6 InnoDB latin1_swedish_ci 16.0 KiB -
finezone Browse Structure Search Insert Empty Drop 8 InnoDB latin1_swedish_ci 16.0 KiB -
issue_book Browse Structure Search Insert Empty Drop 4 InnoDB latin1_swedish_ci 16.0 KiB -
lib_registration Browse Structure Search Insert Empty Drop 2 InnoDB latin1_swedish_ci 16.0 KiB -
message Browse Structure Search Insert Empty Drop 3 InnoDB latin1_swedish_ci 16.0 KiB -
request_books Browse Structure Search Insert Empty Drop 2 InnoDB latin1_swedish_ci 16.0 KiB -
std_registration Browse Structure Search Insert Empty Drop 9 InnoDB latin1_swedish_ci 16.0 KiB -
t_issuebook Browse Structure Search Insert Empty Drop 1 InnoDB latin1_swedish_ci 16.0 KiB -
t_registration Browse Structure Search Insert Empty Drop 3 InnoDB latin1_swedish_ci 16.0 KiB -
9 tables Sum 38 InnoDB latin1_swedish_ci 144.0 KiB 0 B
Check all
With selected:
Print
Data dictionary
Create table
Name:
Number of columns: 4
Go
Console

CHAPTER 5

SYSTEM TESTING

The aim of the system testing process was to determine all defects in our project .The program was subjected to a set of test inputs and various observations were made and based on these observations it will be decided whether the program behaves as expected or not.

Our Project went through two levels of testing

1.Unit testing

2.integration testing

UNIT TESTING

Unit testing is undertaken when a module has been created and successfully reviewed .In order to test a single module we need to provide a complete environment i.e. besides the module we would require

- The procedures belonging to other modules that the module under test calls
- Non local data structures that module accesses
    - A procedure to call the functions of the module under test with appropriate parameters

Unit testing was done on each and every module that is described under module description of chapter 4

1. Test For the admin module
    - Testing admin login form-This form is used for log in of administrator of the system. In this we enter the username and password if both are correct administration page will open otherwise if any of data is wrong it will get redirected back to the login page and again ask for username and password
    - Student account addition- In this section the admin can verify student details from student academic info and then only add student details to main library database.
    - Book Addition- Admin can enter details of book and can add the details to the main book table also he can view the books requests.

2. Test for Student login module
    - Test for Student login Form-This form is used for log in of Student .In this we enter username and password if all these are correct student login page will open otherwise if any of data is wrong it will display wrong username and password.
    - Test for account creation- This form is used for new account creation when student does not fill the form completely it asks again to fill the whole form when he fill the form fully it gets redirected to page which show waiting for confirmation message as his data will be only added by administrator after verification.
3. Test for teacher login module-
    - Test for teacher login form- This form is used for login of teacher .In this we enter the username and password if all these are correct teacher login page will open otherwise if any of data is wrong it will display wrong username and password.

INTEGRATION TESTING

In this type of testing we test various integration of the project module by providing the input

- The primary objective is to test the module interfaces in order to ensure that no errors are occurring when one module invokes the other module.

CHAPTER 6

CONCLUSION & FUTURE SCOPE

This website provides a computerized version of library management system which will benefit the students as well as the staff of the library.

It makes entire process online where student can search books, staff can generate reports and do book transactions. It also has a facility for student login where student can login and can see status of books issued as well request for books. It has a facility of teacher's login where teachers can get books.

There is a future scope of this facility that many more features such as online lectures video tutorials can be added by teachers as well as online assignments submission facility, a feature Of group chat where students can discuss various issues of engineering can be added to this project thus making it more interactive more user friendly and project which fulfills each users need in the best way possible.

CHAPTER 7

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