LIBRARY MANAGEMENT SYSTEM

GROUP-1

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AIM:

The main objective of the Library Management System is to manage the minuscule print of Address, Member, Issues, Books, Student. The project purports to engender an application to scale back the manual work for managing the Address, Member, Librarian, Issues. It tracks all the details about the Issues, Books, Student.

TECHNOLOGIES USED :

Operating system – Windows
Back end – PHP
Utilizer interface (Front end) – Html, CSS
Localhost – Mysql
Accommodations – Localhost
Web applications – servlets, jsp

FUNCTIONAL REQUIREMENTS:

USER LOGIN

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

Functional requirements:
-user id is provided when they register
-The system must only allow a user with a valid id and password to enter the system

-The system performs an authorization process that decides what user level can access.
-The user must be able to logout after they finished using the system.

REGISTER NEW USER :
Description of feature:
This feature can be performed by all users to register new users to create accounts.
Functional requirements:
-System must be able to verify information
-System must be able to delete information if the information is wrong.

REGISTER NEW BOOK:
Description of feature:
This feature allows adding new books to the library
Functional requirements:
-System must be able to verify information
-System must be able to enter the number of copies into the table.
- System must be able to not allow two books having the same book id.

SOFTWARE TOOLS USED:
The whole project is divided into two parts the front end and the back end.
Front end
The front end is designed using HTML, Php, CSS, Java script

HTML-
HTML
or
HyperText 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 into 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 forms 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 are written in HTML and XHTML, the language can be applied to any kind of an 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, enable multiple pages to share formatting, and reduce complexity and repetition in the structural content (such as by allowing for tableless 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
The 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.

JAVASCRIPT-
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
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.
BACK END- The back end is designed using MySQL which is used to design the databases

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's 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, 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.

POSITS TAKEN :

1. The library management system sanctions the utilizer to store book details and customer details.
2. It tracks books, their cost, status, and the total number of books available in the library. The utilizer will find it more facile in an automated system than in utilizing a manual inscribing system.
3. System has a database where all information is stored securely.
4. This system may be software built to handle the first housekeeping functions of a library.

5. The system avails libraries to keep track of the books, and their checkouts, withal as members, subscriptions, and profiles.

DETAILS HANDLED:

1. In this project we have a web page sanctioning utilizer to authenticate or register.
2. After authenticate, we have to engender a database table that consists of details like the system property and value.

Then we require to engender a borrower table, department, book details like account number, designation, au-thor.
and transactions.

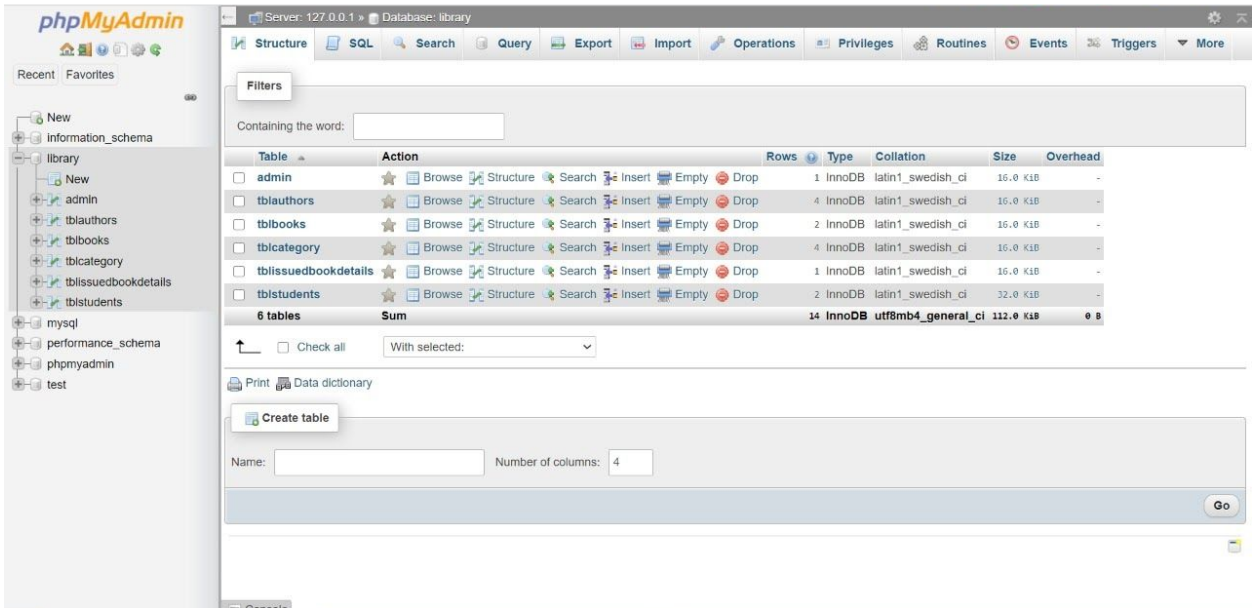
3.This additionally presents a menu for maintaining returned book records that contain integrated return book records and edit return book records.

SAMPLE SCENARIOS:

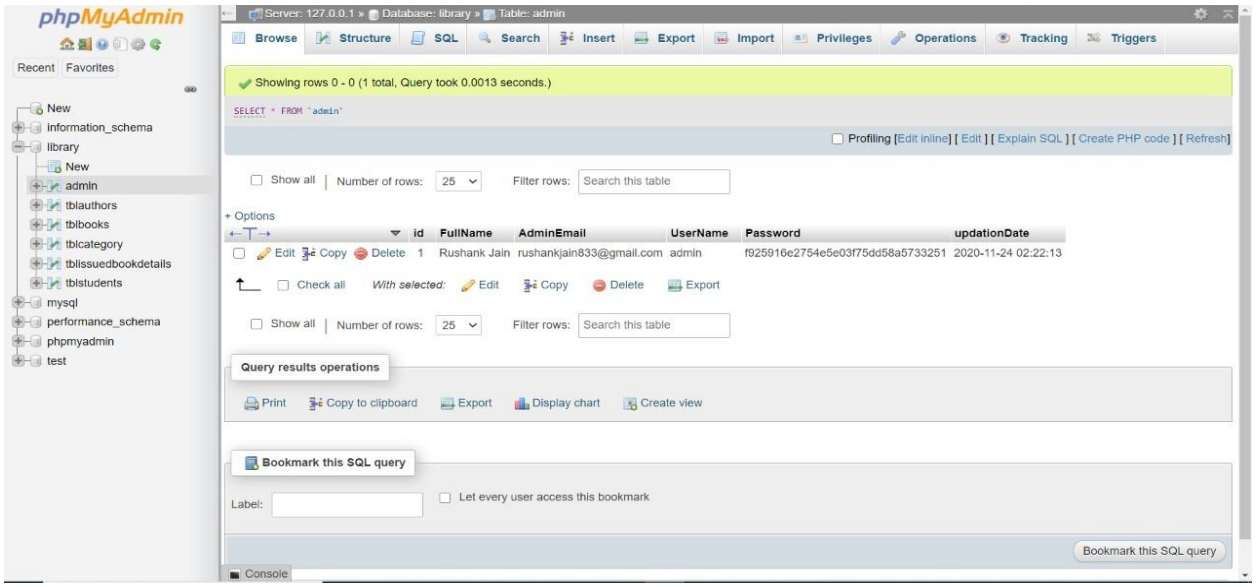
The administrator culls the menu option to integrate records of the different books. Administrator enters the denomination, au-thors name and editions or he/she can utilize bar code.

The record of the books, updating of the antecedent record, and assign a number to each book has been done. Who can utilize this application in authentic life: These days schools, colleges, private libraries, and other institutions need a library management system a lot. They may utilize this software for the purport of issuing books and returning for renovation. In integration, the software avails the librarian maintains information about the book's issuance and return of the book afore the due date.

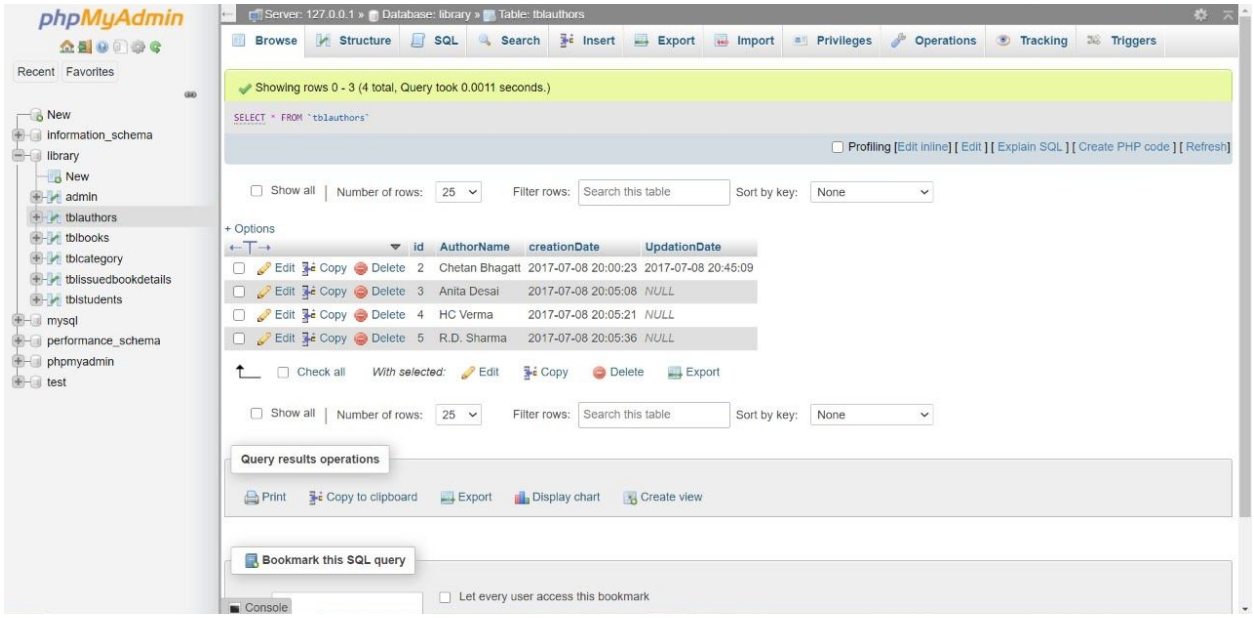
SYSTEM DESIGN:



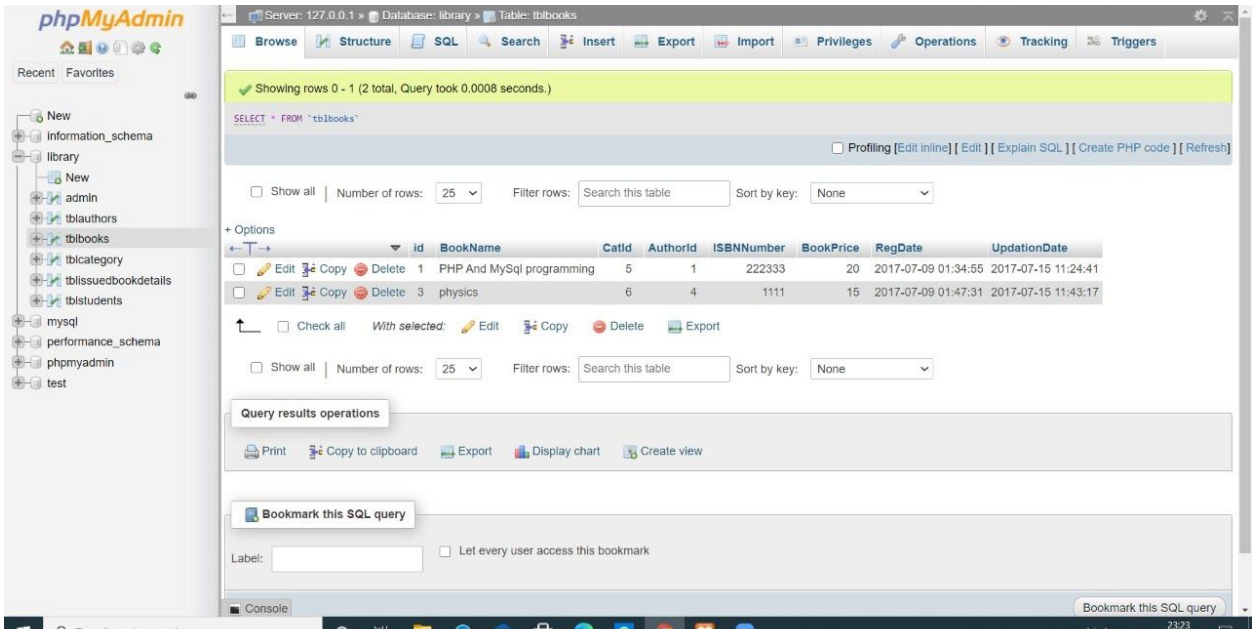
ADMIN TABLE:



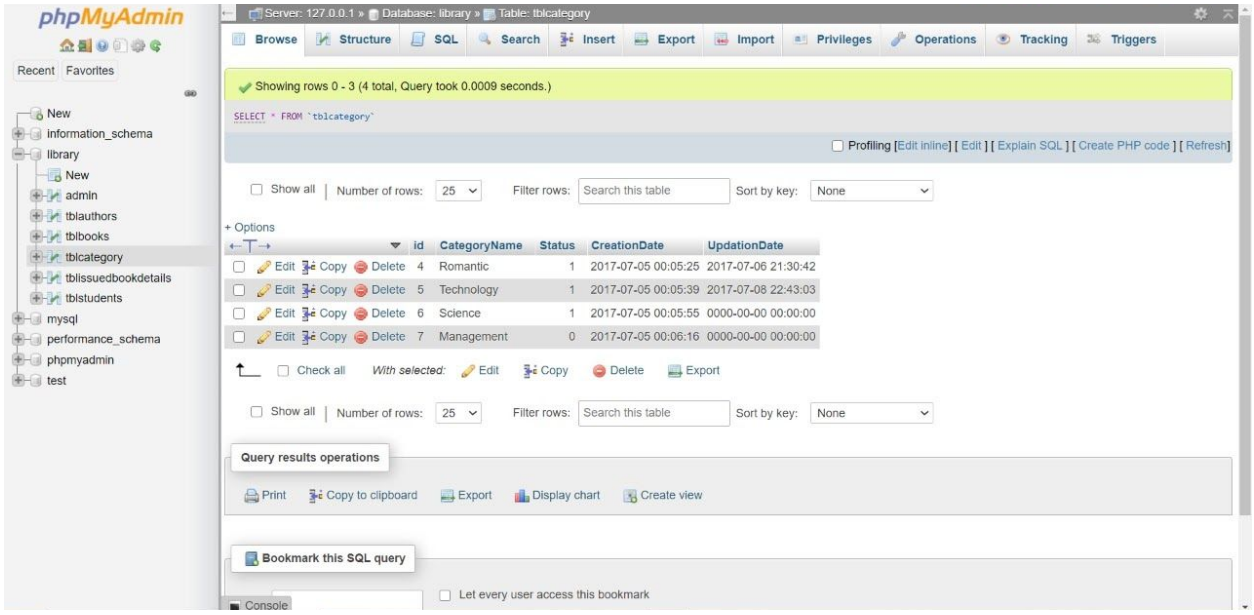
AUTHORS TABLE:



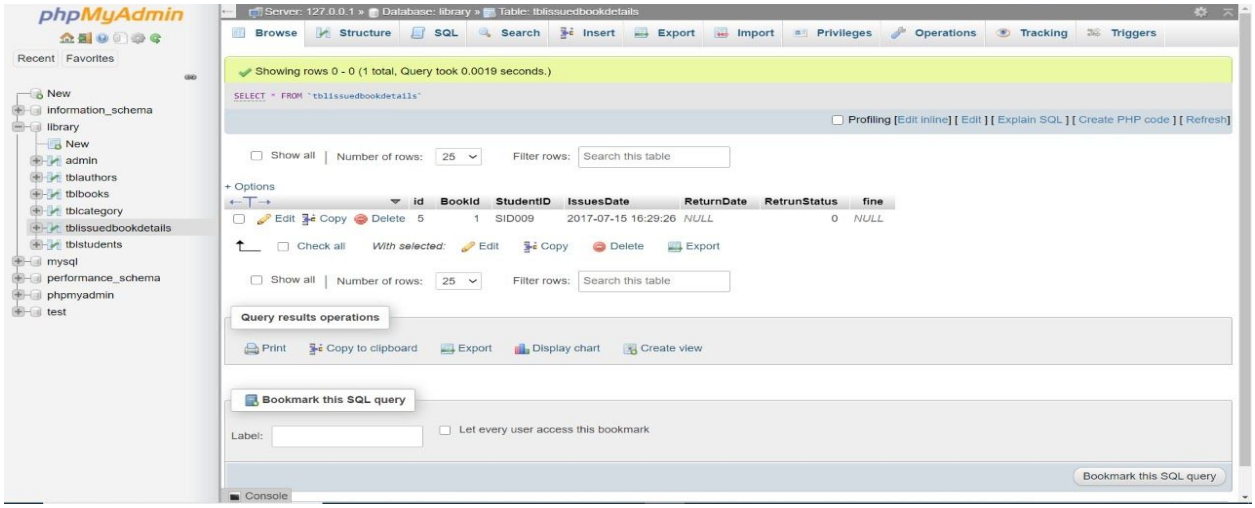
BOOKS TABLE:



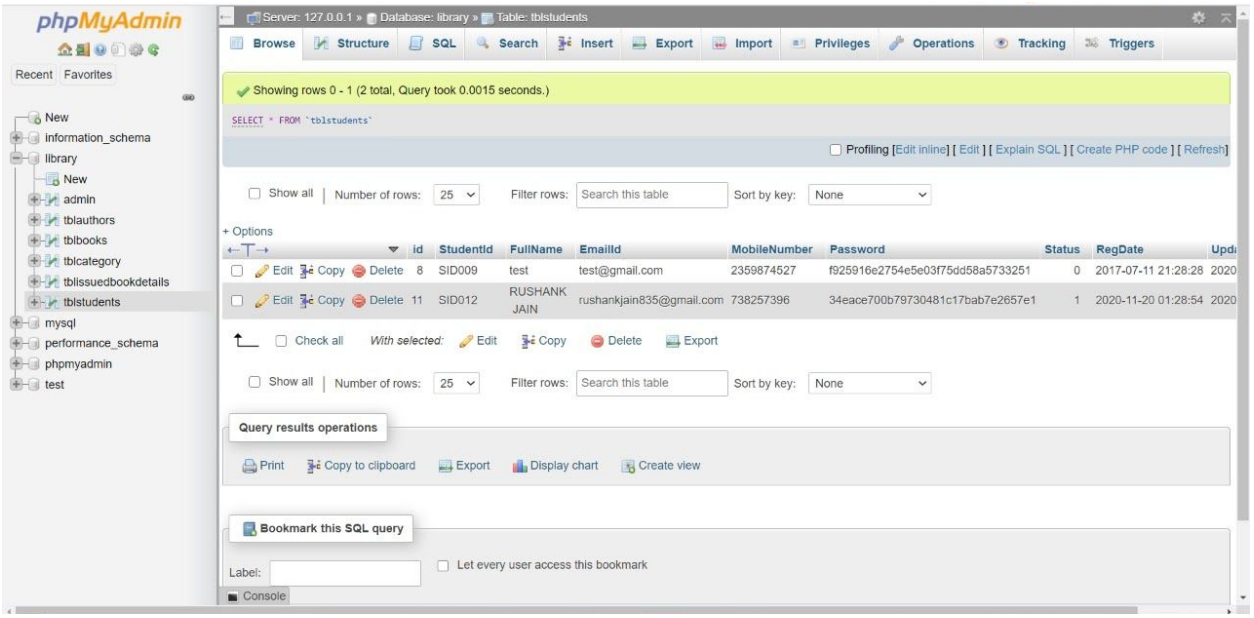
CATEGORY TABLE:



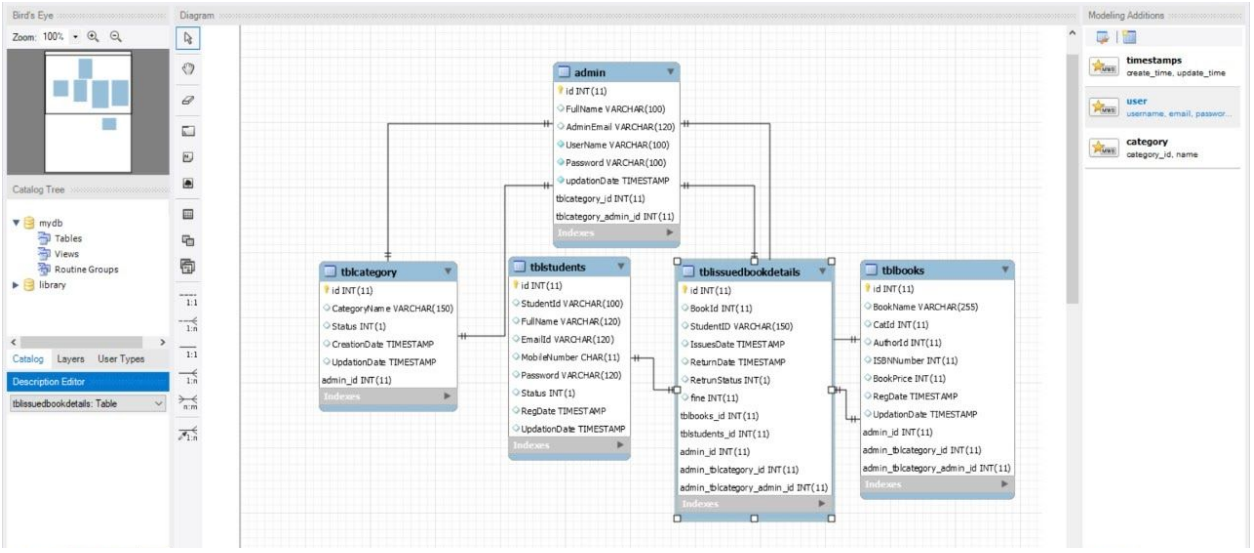
ISSUE BOOK DETAILS TABLE:



STUDENTS TABLE:

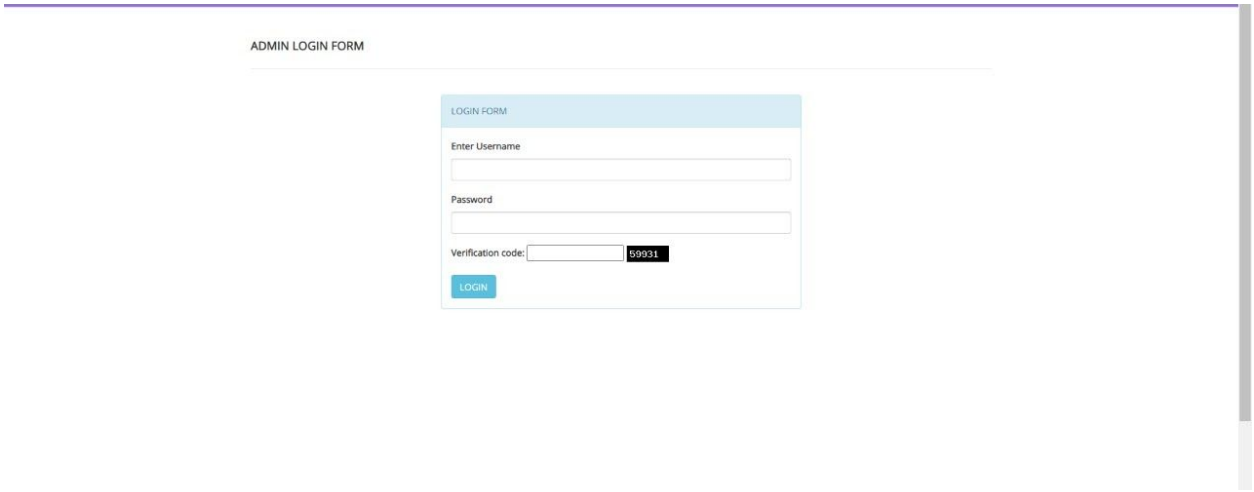


ER-DIAGRAM:



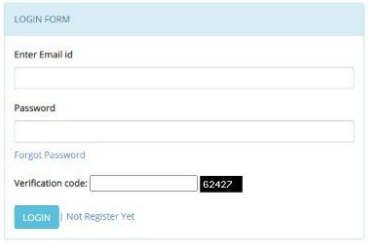
OUTPUTS:

SRM LIBRARY


ADMIN LOGIN FORM
LOGIN FORM
Enter Username
Password
Verification code:
59931
LOGIN

USER SIGNUP

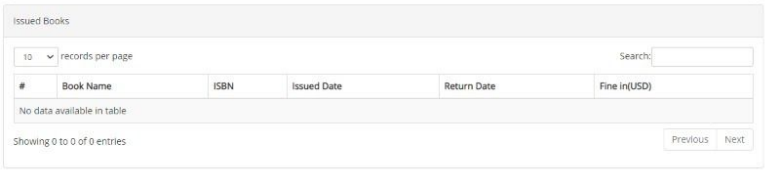
USER LOGIN FORM



ADMIN DASHBOARD

MY PROFILE

MANAGE ISSUED BOOKS

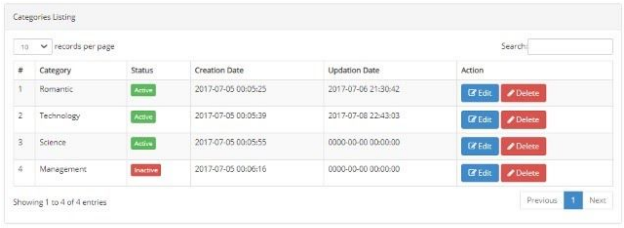


USER CHANGE PASSWORD

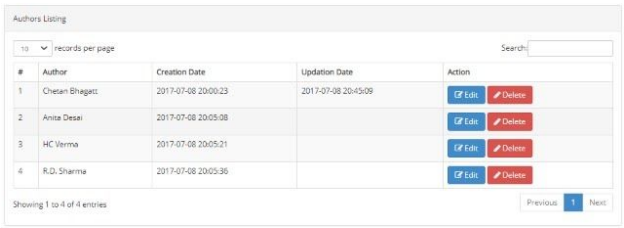
ADMIN DASHBOARD

ADD CATEGORY

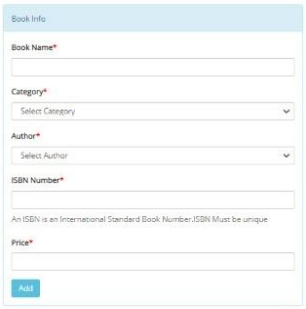
MANAGE CATEGORIES



MANAGE AUTHORS



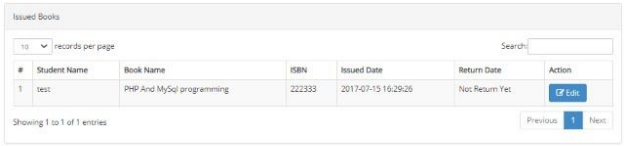
ADD BOOK



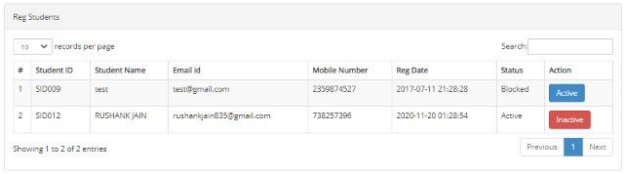
MANAGE BOOKS

ISSUE A NEW BOOK

MANAGE ISSUED BOOKS



MANAGE REG STUDENTS



USER CHANGE PASSWORD

Code for our project can be found here:
https://github.com/rushu570/Academic-projects/tree/main/library

CONCLUSION-

Our project is for computerizing is working in the library. The software takes care of all of the desiderata of the library and pro-vide facile and efficient storage of information- machines related to books and users.

This application is functioning felicitously and meeting all or any utilizer requisites. These components are often facilely plugged in many other systems.