A

DISSERTATION

ON

Library Management System

UNDERTAKEN AT

Balkavi Bairagee College

By

Abdul Tayyeb

SUBMITTED TO

Vikram University, Ujjain

In

Partial fulfilment of the Requirements for the Award of the Degree of Bachelor of Computer Application (B. C. A)

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Guided By

Prof. Hitesh Patidar.

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Balkavi Bairagee College

Certificate of the Principal/Director

Reference No.: Date:

Project Completion Certificate

This is to certify that Mr. Abdul Tayyeb , student of BCA (final semester) of Balkavi Bairagee College , has successfully completed the project Work entitled "**Library Management System**" under the guidance of Hitesh Patidar is a bonafide piece of work carried out at Balkavi Bairagee College.

The project entitled "**Library Management System**" developed by Mr. Abdul Tayyeb in the college and he has put at least 200 hours of laboratory work during the tenure of the project with the guide to complete this project. All the prescribed certificates are attached after the completion of all the formalities of the project work as per scheduled, including internal examination.

Place: Signature of Principal:

Date: Seal of the Institute

Reference No.: Date:

Certificate of Attendance

This is to certify that Mr. Abdul Tayyeb student of BCA (final semester) of Balkavi Bairagee College has put at least 200 hours of laboratory work with the guide to complete this project during the stipulated period of the project at Balkavi Bairagee College.

Signature of guide:

Place: Signature of Principal:

Date: Seal of the Institute

Reference No.: Date:

Dissertation Approval Certificate

This is to certify that Mr. Abdul Tayyeb student of BCA (final semester) of Balkavi Bairagee College has successfully completed the project work entitled "**Library Management System**" under my guidance. I have regularly assessed the progress of the work and suggested the correction wherever required. The student has incorporated all title suggestions provided by me in this dissertation. This dissertation is bonafide piece of work of the standard of BCA project work carried out by the student under my supervision. Internal examination has been completed in my presence and student's performance was satisfactory and hence this dissertation is approved for the submission and valuation thereof.

Signature of guide:

Place: Signature of Principal

Date: Seal of the Institute

DECLARATION

I, Abdul Tayyeb of Balkavi Bairagee College declare that the dissertation/project report submitted by me under the guidance of Hitesh Patidar is a bonafide work for the partial fulfilment of the requirement of the BCA final semester project work. I have incorporated all the suggestions provided by my guide time to time.

I further declare that to the best of my knowledge this dissertation contains my original work and does not contain any part of any work which has been submitted for the award of any degree either in this university or in any other university/Deemed university/Institute etc. without proper citation and I shall be fully responsible for any plagiarism found at any stage.

Name & Signature of the guide

Name & Signature of the student

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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. It also has a facility of admin login through which the admin can monitor the whole system. It has facility to maintain the stock of the books as well as the student data can also be stored and maintain. The Records of the students are further filtered with stream and semester wise for better management of the data. The librarian after logging into his account i.e. admin account can manage various data such as student data, issued book data, Authors data, Publishers Data, Book Data, Transaction handling and User management.

Overall this project of ours is being developed to help the staff of library to maintain the library in the best way possible and 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.
- Storing of Student Records.
- Management of Books.
- Management of Users.
- Management of Daily Transaction.
- Management of student with class and semester wise filtration.
- Summary of Library data.

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 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, transaction module is also included in Library Management System. If user's position is admin, the user will able to record monetary transaction on day to day basis.

All these modules will 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 i5 processor
Operating System	Windows 8, Windows 8.1, Windows 10
Memory	6Gb RAM or More
Hard Disk	Minimum 100GB
Database	My SQL

Chapter 2

System Analysis

In this chapter, we will discuss and analyse 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 the 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.
- Better Management of the records of the student and books available in library.

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 acess library as searching and book transaction will be very faster.

Reliability Requirement

The system should accurately perform member registration, member validation, book transaction, Book issue 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 Requirements

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 user id and password before they are allowed to enter the system. The user id and password will be verified and if invalid id is there user is allowed to not enter the system.

Functional requirements

-user id is provided when they register

-The system must only allow user with valid id 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 admin to register new user.

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 Issued Book

Description of feature

This feature is found in Issue Book part. we can search book based on student Name or by Library Card Number.

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 and Bootstrap, java script for styling work, JQuery for implementation of ajax and php for sever side scripting.

2.1.4.2 HARDWARE REQUIREMENTS

- Intel core i5 7th generation is used as a processor because it is fast than other processors an provide reliable and stable performance and we can operate on our system for longer time. By using this processor, we can keep on developing our project hassle-free.
- Ram 6 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 teachers login or student login where as 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 of online notice board where description of workshops happening in our college as well as nearby colleges is being provided.
IV. Existing system does not have any option of lectures notes uploaded by teachers whereas proposed system will have this facility.
V. 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.
VI. Existing system does not have 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, JavaScript, JQuery, Bootstrap.

- **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 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 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 behaviour 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, colours, 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 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 an interpreted language but just-in-time compilation is now performed by recent (post-2012) browsers.

2.3.2 BACK END-

The back end is designed using MySQL which is used to design the databases and PHP for server-side scripting.

- **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 Pre-processor, 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, 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.

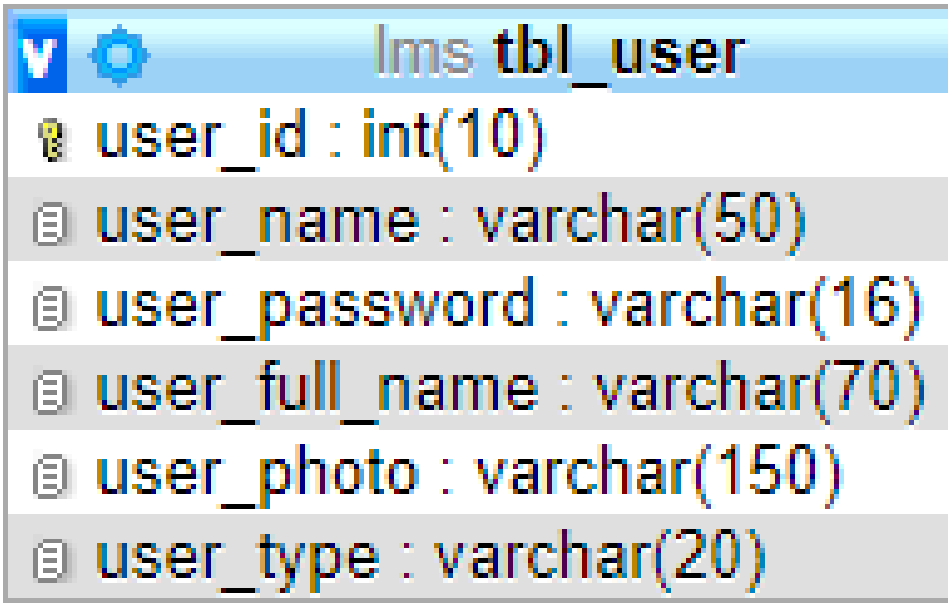
Chapter 3

System Design

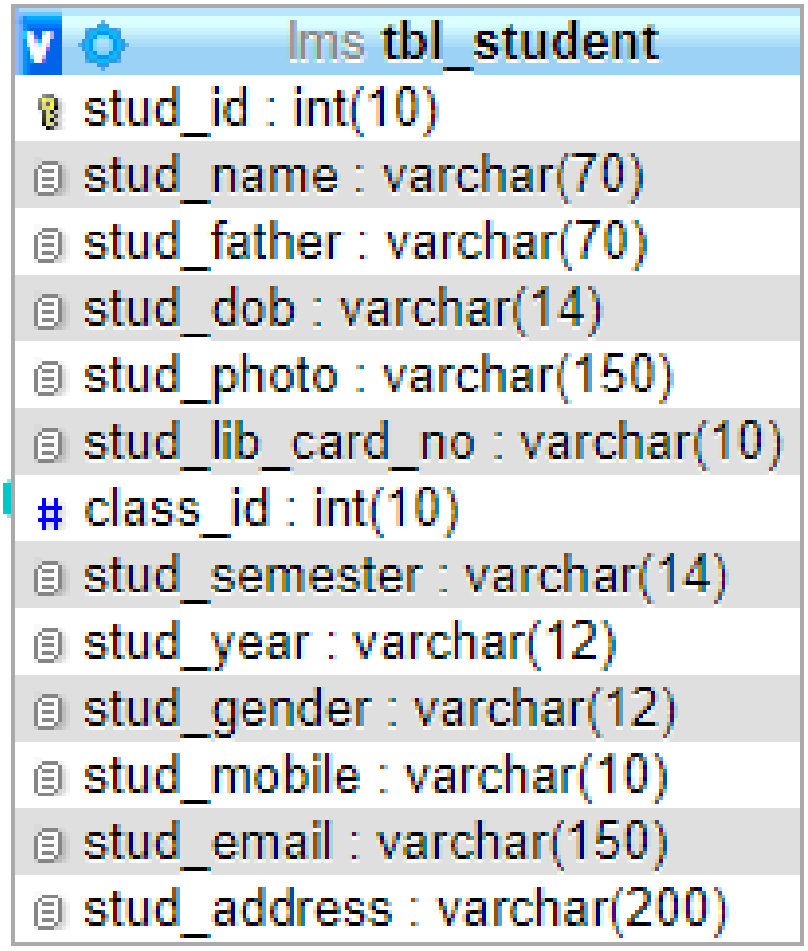
3.1 Table Design

Various Table to Maintain Information

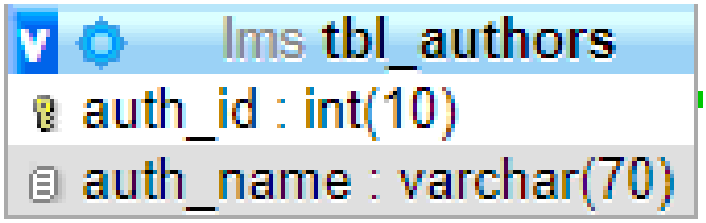
- **User Table for store user record**



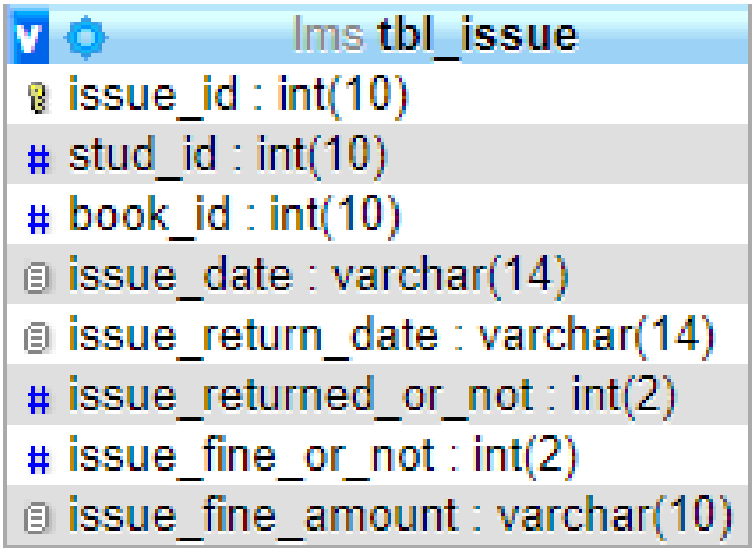
- **Student Table for Student Information**



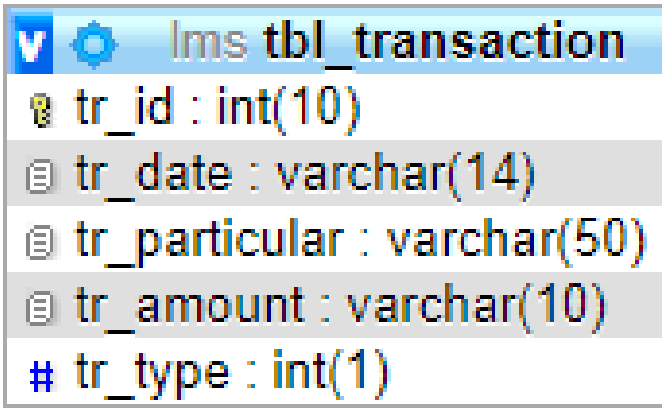
- **Author table to keep Author Information**



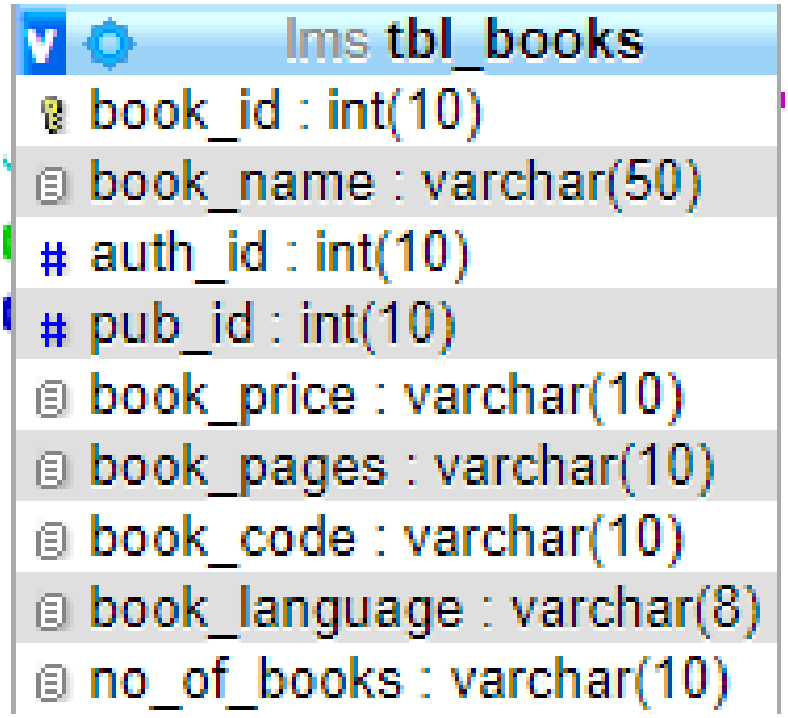
- **Issue table to keep track of books issued**



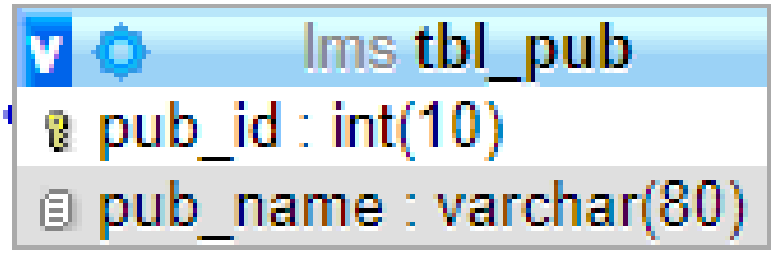
- **Transaction table to keeping track of transaction**



- **Books Table for storing Books records**

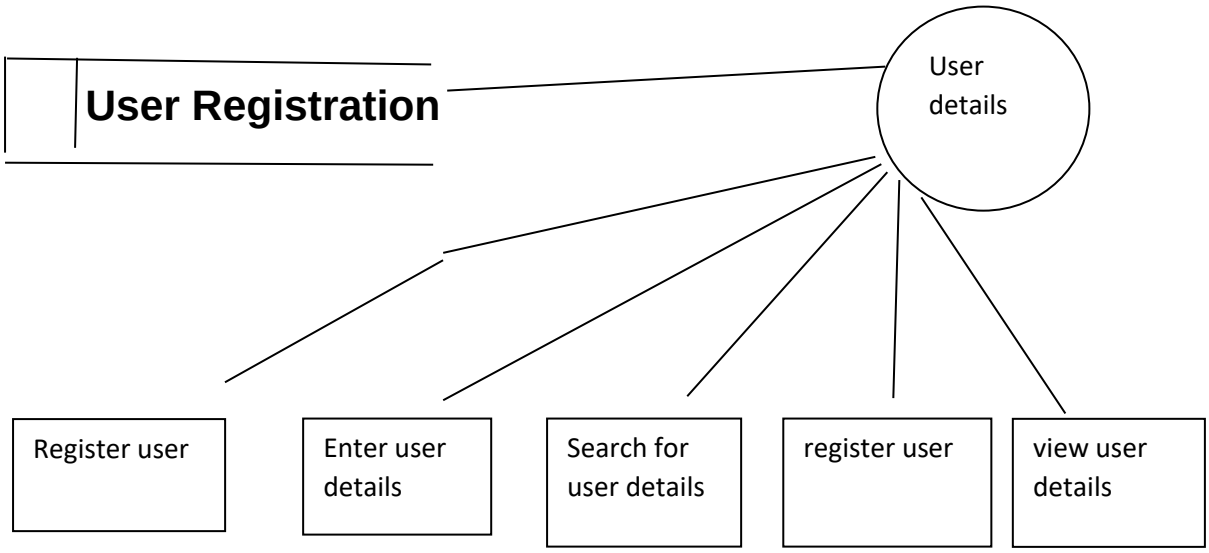


- **Publisher Table for Storing various publisher**



3.2 Data Flow Diagram

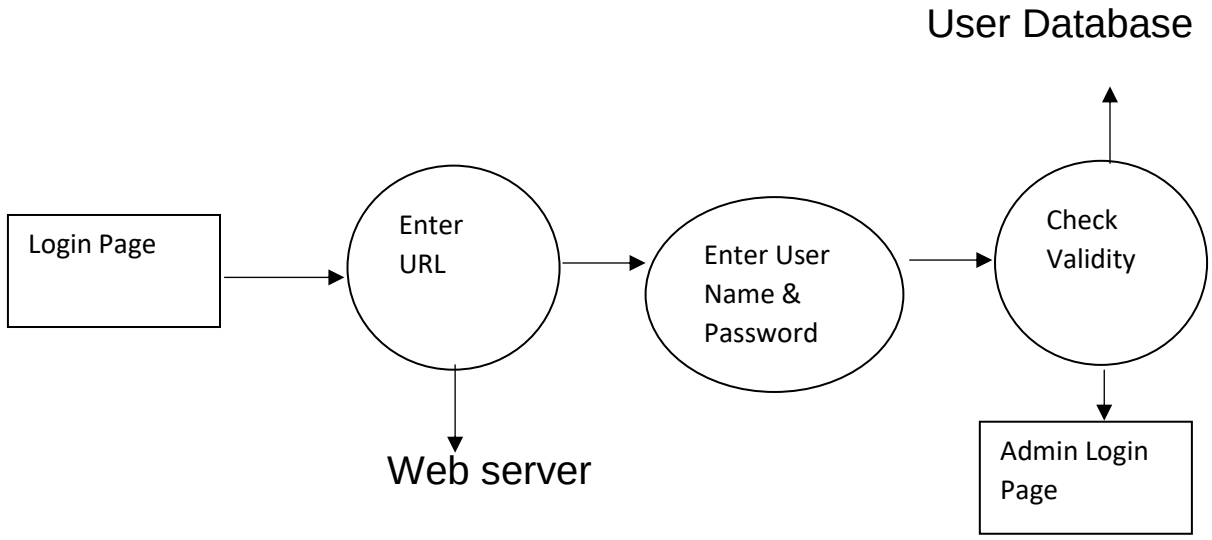
Data Flow Diagram for User Registration



After login as Administrator in system the admin can add user through user module available in the side navbar.

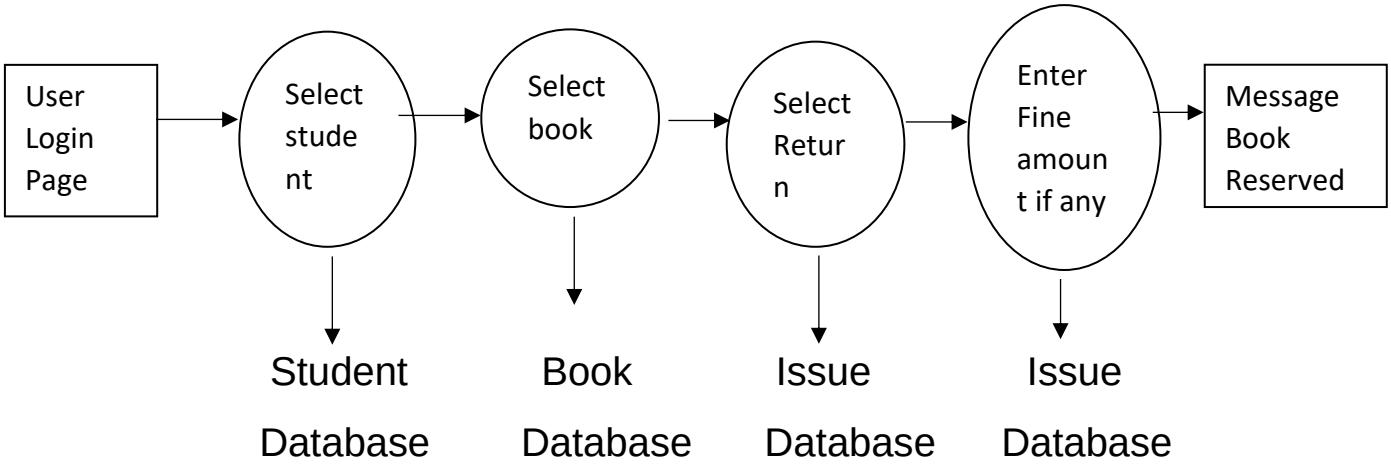
The Admin has to fill the user registration form and has to select user type following user id and user password.

Data Flow Diagram for Admin Login



After entering to the Login page of the website, Admin can enter username & password , and if username & password is valid then a Admin dashboard page will be displayed

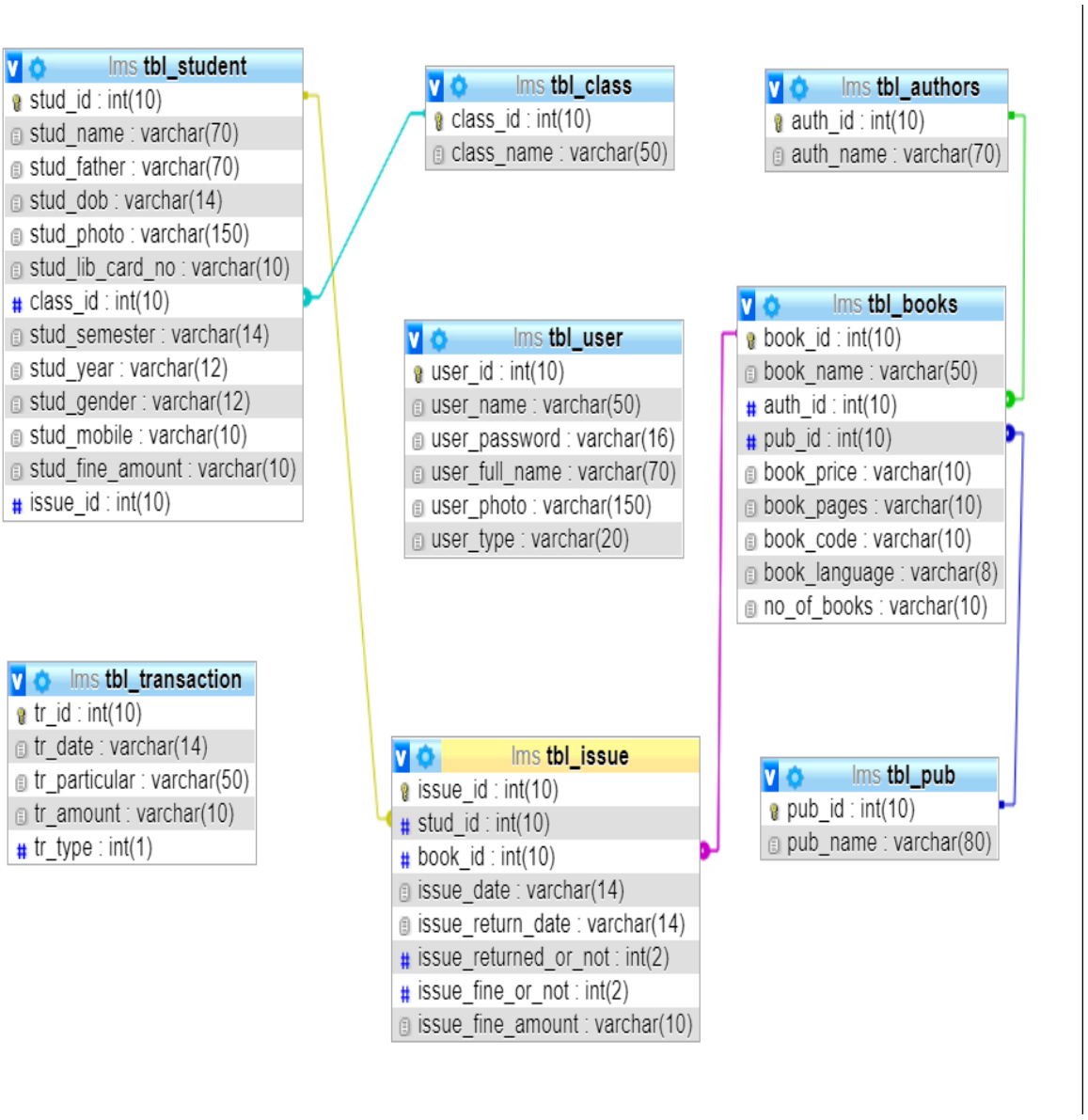
Data Flow Diagram for Book Issue



it is a 2nd level Data Flow Diagram where after entering STUDENT LOGIN page he/she can select a book issue option where after entering the book detail, he/she can select the book issue option and if the maximum no of books issued limit is not crossed then a request will be sent to the librarian who will approve the book issue

E-R Diagram

The E-R diagram of the Library Management System are as follows:



An Entity Relationship (ER) Diagram is a type of flowchart that illustrates how “entities” such as people, objects or concepts relate to each other within a system. ER Diagrams are most often used to design or debug relational databases in the fields of software engineering, business information systems, education and research. Also known as ERDs or ER Models, they use a defined set of symbols such as rectangles, diamonds, ovals and connecting lines to depict the interconnectedness of entities, relationships and their attributes. They mirror grammatical structure, with entities as nouns and relationships as verbs. ER diagrams are related to data structure diagrams (DSDs), which focus on the relationships of elements within entities instead of relationships between entities themselves. ER diagrams also are often used in conjunction with data flow diagrams (DFDs), which map out the flow of information for processes or systems.

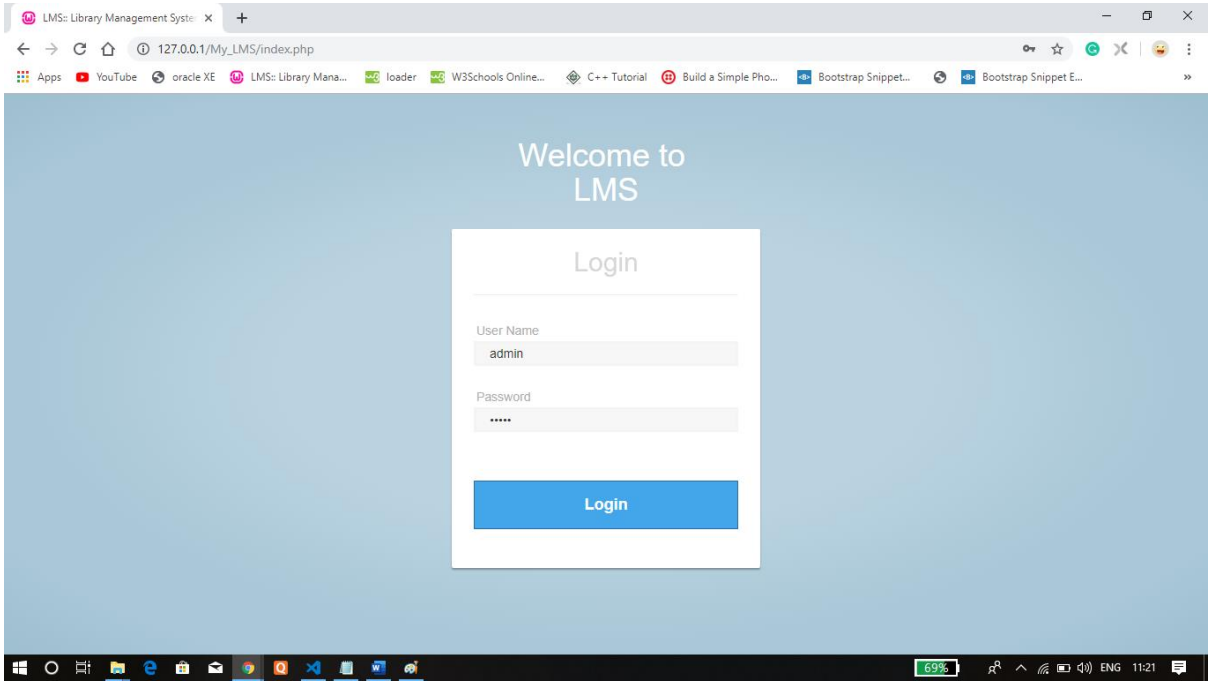
Chapter 4

System Implementation

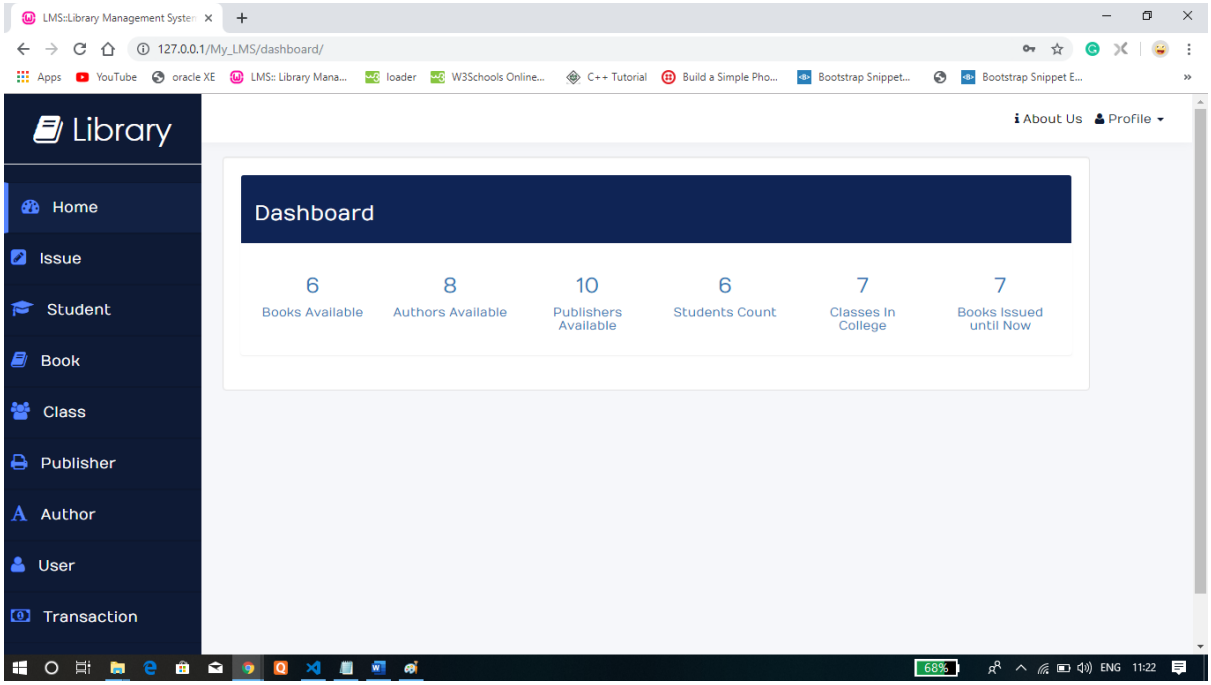
4.1 Screen Shots

4.1.1 Login Page

In this module the User can login with there user Id and Password. There are total two user are in this project one is admin and another is user. After login as administrator the user will be redirected to the admin dashboard.



4.1.2 Dashboard



Code for Dashboard

```
<!DOCTYPE html>
<html>
   <head>
      <style>
         #loader{
         position: absolute;
         left: 50%;
         top: 50%;
         z-index: 1;
         width: 150px;
         height: 150px;
         margin: -75px 0 0 -75px;
```

```
border: 16px solid #f3f3f3;
border-radius: 50%;
border-top: 16px solid #337AB7;
width: 120px;
height: 120px;
-webkit-animation: spin 2s linear infinite;
animation: spin 2s linear infinite;
}
@-webkit-keyframes spin {
0% { -webkit-transform: rotate(0deg); }
100% { -webkit-transform: rotate(360deg); }
}
@keyframes spin {
0% { transform: rotate(0deg); }
100% { transform: rotate(360deg); }
}
/* Add animation to "page content" */
.animate-bottom {
position: relative;
-webkit-animation-name: animatebottom;
-webkit-animation-duration: 1s;
animation-name: animatebottom;
animation-duration: 1s
}
@-webkit-keyframes animatebottom {
from { bottom:-100px; opacity:0 }
to { bottom:0px; opacity:1 }
}
@keyframes animatebottom {
from{ bottom:-100px; opacity:0 }
```

```
         to{ bottom:0; opacity:1 }
         }
         #main_content{
         margin-top:15px;
         }
         .addbtn{
         /* align:right; */
         float:right;
         }
      </style>
      <title>LMS::Library Management System</title>
      <?php
         include('../db/inc_db.php');
         include('../session_checker_inner.php');
         include('../inner_linking_files.php');
         ?>
         <meta name="viewport" content="width=device-width ,
initial-scale=1" />
         <meta name="charset" content="utf-8" />
   </head>
   <body onload="loader();" style="margin:0;" class="home">


      <div class="container-fluid display-table">
         <div class="row display-table-row">
            <div class="col-md-2 col-sm-1 hidden-xs display-table-
cell v-align box" id="navigation">
               <div class="logo">
                  <a hef="../dashboard/">
                     <h1 style="color:white; font-family:century
gothic"><i class="fa fa-book"></i> Library</h1>
                  </a>
```

```
                <hr/>
            </div>
            <div class="navi">
                <ul>
                    <li class="<?php echo
(($page=="dashboard")?'active':''); ?>"><a href="../dashboard/"><i
class="fa fa-tachometer" aria-hidden="true"></i><span class="hidden-
xs hidden-sm">Home</span></a></li>
                    <li class="<?php echo
(($page=="issue")?'active':''); ?>"><a href="../issue/"><i class="fa
fa-pencil-square" aria-hidden="true"></i><span class="hidden-xs
hidden-sm">Issue</span></a></li>
                    <li class="<?php echo
(($page=="student")?'active':''); ?>"><a href="../student/"><i
class="fa fa-graduation-cap" aria-hidden="true"></i><span
class="hidden-xs hidden-sm">Student</span></a></li>
                    <li class="<?php echo
(($page=="book")?'active':''); ?>"><a href="../book/"><i class="fa
fa-book" aria-hidden="true"></i><span class="hidden-xs hidden-
sm">Book</span></a></li>
                    <li class="<?php echo
(($page=="class")?'active':''); ?>"><a href="../class/"><i class="fa
fa-users" aria-hidden="true"></i><span class="hidden-xs hidden-
sm">Class</span></a></li>
                    <li class="<?php echo
(($page=="publisher")?'active':''); ?>"><a href="../publisher/"><i
class="fa fa-print" aria-hidden="true"></i><span class="hidden-xs
hidden-sm">Publisher</span></a></li>
                    <li class="<?php echo
(($page=="author")?'active':''); ?>"><a href="../author/"><i
class="fa fa-font" aria-hidden="true"></i><span class="hidden-xs
hidden-sm">Author</span></a></li>
                    <li class="<?php echo
(($page=="user")?'active':''); ?>" <?php echo
(($_SESSION['user_type']!="administrator")?'hidden':''); ?>><a
href="../user/"><i class="fa fa-user" aria-hidden="true"></i><span
class="hidden-xs hidden-sm">User</span></a></li>
                    <li class="<?php echo
(($page=="transaction")?'active':''); ?>" <?php echo
```

```
(($_SESSION['user_type']!="administrator")?'hidden':''); ?>><a
href="../transaction/"><i class="fa fa-money" aria-
hidden="true"></i><span class="hidden-xs hidden-
sm">Transaction</span></a></li>
                  </ul>
               </div>
            </div>
            <div class="col-md-10 col-sm-11 display-table-cell v-
align">
               <!--<button type="button" class="slide-toggle">Slide
Toggle</button> -->
               <div class="row">
                  <header>
                     <div class="col-md-7">
                        <nav class="navbar-default pull-left">
                           <div class="navbar-header">
                              <button type="button" class="navbar-
toggle collapsed" data-toggle="offcanvas" data-target="#side-menu"
aria-expanded="false">
                              <span class="sr-only">Toggle
navigation</span>
                              <span class="icon-bar"></span>
                              <span class="icon-bar"></span>
                              <span class="icon-bar"></span>
                              </button>
                           </div>
                        </nav>
                     </div>
                     <div class="col-md-5">
                        <div class="header-rightside">
                           <ul class="list-inline header-top pull-
right">
```

```
                            <li><a href="../aboutus/" class="nav-
link"><i class="fa fa-info" aria-hidden="true"></i> About
Us</a></li>
                            <li class="dropdown">
                               <a href="#" class="dropdown-toggle
nav-link" data-toggle="dropdown"><i class="fa fa-user"></i> Profile
                               <b class="caret"></b></a>
                               <ul class="dropdown-menu">
                                  <li>
                                     <div class="navbar-content">
                                        <span><?php echo
$_SESSION['user_full_name']; ?></span>
                                        <p class="text-muted
small">
                                           <?php echo
$_SESSION['user_name']; ?>
                                        </p>
                                        <div class="divider">
                                        </div>
                                        <a href="../logout.php"
class="view btn-sm active"><i class="fa fa-sign-out" aria-
hidden="true" style="color:white;"></i> Log Out</a>
                                     </div>
                                  </li>
                               </ul>
                            </li>
                         </ul>
                      </div>
                   </div>
                </header>
             </div>
             <div id="loader"></div>
             <div id="main_content" class="animate-bottom">
```

```
                  <div class="col-md-11" id="alert_msg"
name="alert_msg"></div>
                  <!--for alert message -->
                  <div class="col-lg-11">
                     <div class= "content-box well"
style="background-color:white;" >
                        <div class="panel">
                           <div class="panel-heading">
                              <h3><?php echo ucfirst($page); ?></h3>
                           </div>
                           <div class="panel-body">
                              <div class='row'>
                                 <div class="modal fade"
id="myModal" role="dialog">
                                    <div class="modal-dialog">
                                       <!--Input form Modal content-
->
                                       <div class="modal-content">
                                          <div class="modal-header">
                                             <button type="button"
class="close" data-dismiss="modal">&times;</button>
                                             <h4 class="modal-
title"><?php echo ucfirst($page); ?></h4>
                                          </div>
                                          <div class="modal-body"
id="modal-body">
                                          </div>
                                          <!-- <div class="modal-
footer">
                                             <button type="button"
class="btn btn-warning" data-dismiss="modal">Close</button>
                                                   </div> -->
                                       </div>
```

```
                                    </div>
                                </div>
                                <!-- Delete confirmation Modal --
><!-- failed experiment :) -->
                                <div class="modal fade"
id="confirmModal" role="dialog">
                                    <div class="modal-dialog modal-
sm">
                                        <div class="modal-content">
                                            <div class="modal-header">
                                                <button type="button"
class="close" data-dismiss="modal">&times;</button>
                                                <h4 class="modal-
title">Confirm</h4>
                                            </div>
                                            <div class="modal-body"
id="modal-body"><strong>Do You Really Want To Delete The
Record?</strong>
                                            </div>
                                            <div class="modal-footer">
                                                <button type="button"
id="yes" name="yes" class="btn btn-danger"
onClick="delete_data();">Yes</button>
                                                <button type="button"
id="No" name="no" class="btn btn-info" data-
dismiss="modal">No</button>
                                            </div>
                                        </div>
                                    </div>
                                </div>
                                <!-- Warining Modal for empty
fields -->
                                <div class="modal fade"
id="warningModal" role="dialog">
```

```
                                    <div class="modal-dialog modal-
sm">
                                        <div class="modal-content">
                                            <div class="modal-header">
                                                <button type="button"
class="close" data-dismiss="modal">&times;</button>
                                                <h4 class="modal-
title">Warning</h4>
                                            </div>
                                            <div class="modal-body"
id="modal-body"><strong>Please fill out all the fields</strong>
                                            </div>
                                            <div class="modal-footer">
                                                <button type="button"
id="yes" name="yes" class="btn btn-add" data-
dismiss="modal">Ok</button>
                                            </div>
                                        </div>
                                    </div>
                                </div>
                                <div id="content">    </div>
                            </div>
                        </div>
                    </div>
                </div>
            </div>
        </div>
    </div>
    <!-- Footer Area -->
    <div class="footer-bottom">
```

```
         <div class="container">
            <div class="row">
               <div class="col-sm-12 text-center ">
                  <div class="copyright-text"
style="color:grey;font-family:century gothic">
                     <p>CopyRight &copy; 2018 LMS :: Library
Management System</p>
                     <p>Made And Developed By :: Abdul Tayyeb
Bohra</p>
                  </div>
               </div>
               <!-- End Col -->
            </div>
         </div>
      </div>
      <!-- Modal -->
   </body>
</html>
<script>
   /*$(document).ready(function(){   // alternate way to toggle the
modal
               $("#data-toggle").click(function(){
           $("#myModal").modal();
               });
              load_input_table();
   });*/
   $(document).ready(function(){
      $('[data-toggle="offcanvas"]').click(function(){
          $("#navigation").toggleClass("hidden-xs");
      });
   });
```

```
   function loader()
   {
              $(document).ready(function(){
              load_data();
              });
   }
   function load_input_table()
   {
              $.ajax({
                type:"POST",
                url:"back_operation.php",
                data:{operation:"input"},
                success:function(response){
                      $("#modal-body").html(response)
                }
              });
   }
   function load_data()
   {

              document.getElementById("loader").style.display="none"
;

              document.getElementById("main_content").style.display=
"block";
              $.ajax({
                type:"POST",
                url:"back_operation.php",
                data:{operation:"r"},
                success:function(response){
```

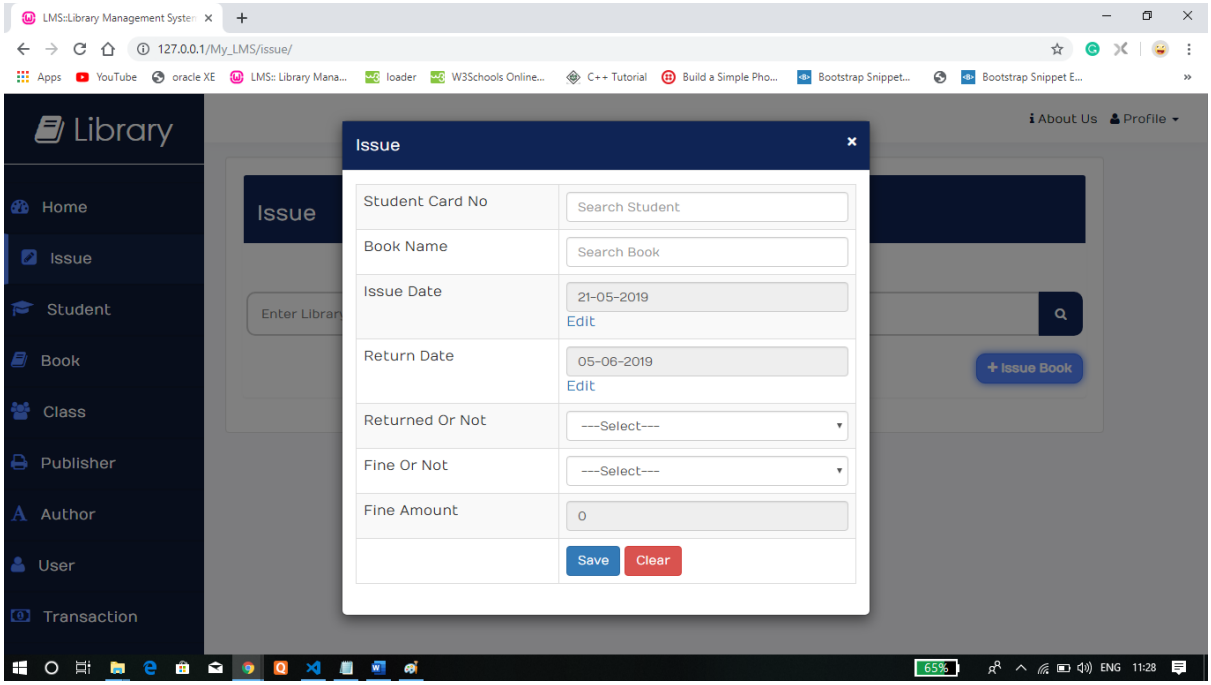
```
                    //alert(response);
                    $("#content").html(response);
                }
            });
    }
    /* alert calling function */
    var myVar;
    function success_insert_alert()
    {
            $("#alert_msg").html("<div class='alert alert-success
alert-dismissible fade in'><a href='#' class='close' data-
dismiss='alert'>&times;</a>Succcessfully Data Inserted </div>");
    }
    function fail_insert_alert()
    {
            $("#alert_msg").html("<div class='alert alert-warning
alert-dismissible fade in'><a href='#' class='close' data-
dismiss='alert'>&times;</a>Failed to Insert Data </div>");
    }
    function success_update_alert()
    {
            $("#alert_msg").html("<div class='alert alert-info
alert-dismissible fade in'><a href='#' class='close' data-
dismiss='alert'>&times;</a>Updated Data Succcessfully </div>");
    }
    function fail_update_alert(response)
    {
            $("#alert_msg").html("<div class='alert alert-warning
alert-dismissible fade in'><a href='#' class='close' data-
dismiss='alert'>&times;</a>Failed to Update
Data"+response+"</div>");
    }
    function success_delete_alert()
```

```
   {
            $("#alert_msg").html("<div class='alert alert-danger
alert-dismissible fade in'><a href='#' class='close' data-
dismiss='alert'>&times;</a>Data Deleted Succcessfully </div>");
   }
   function fail_delete_alert()
   {
            $("#alert_msg").html("<div class='alert alert-warning
alert-dismissible fade in'><a href='#' class='close' data-
dismiss='alert'>&times;</a>Cannot delete the Data. Data is in use.
</div>");
   }
</script>
```

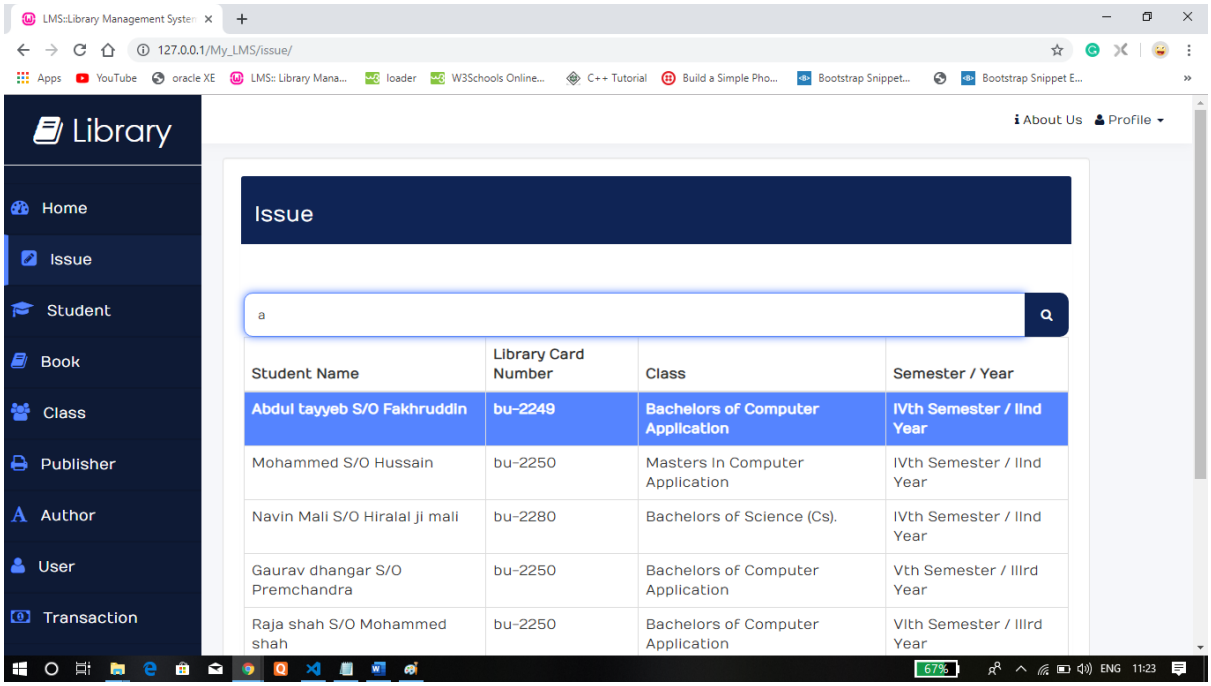
4.1.3 Issue Page

In this page the user can issue the book to the student after filling the issue form. In this module the user can see the book issued to the student on searching the student record from search bar.

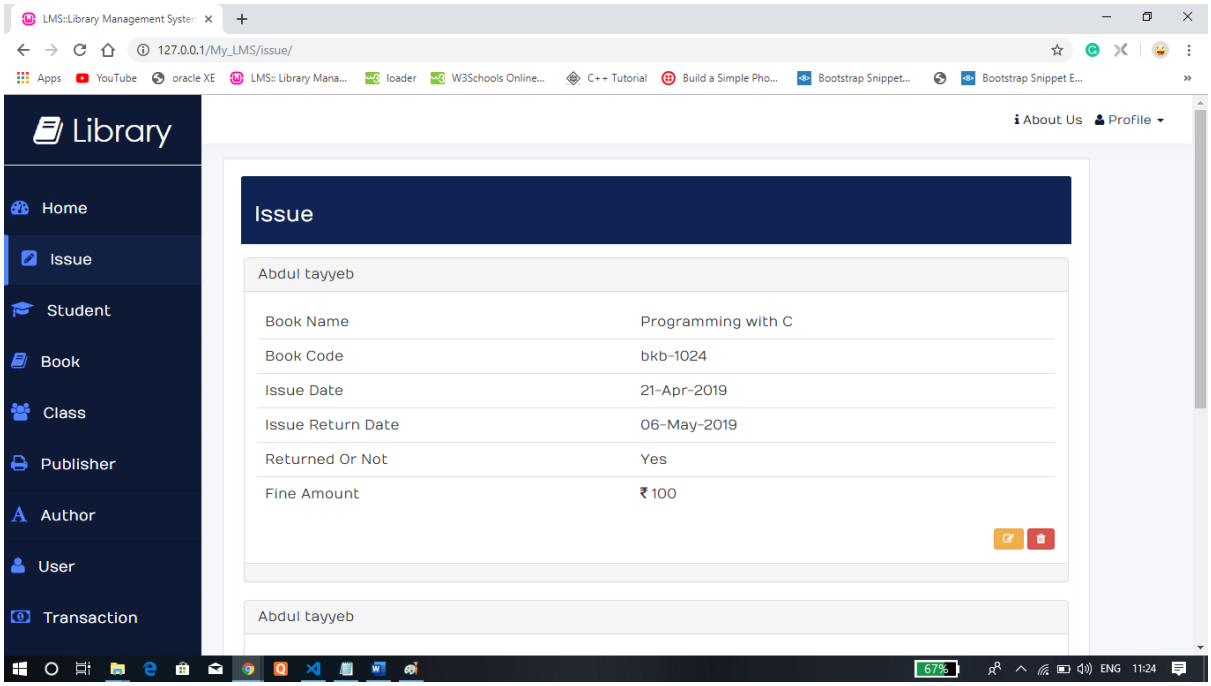
4.1.3.1 Issue Form



4.1.3.2 Issue Student Search



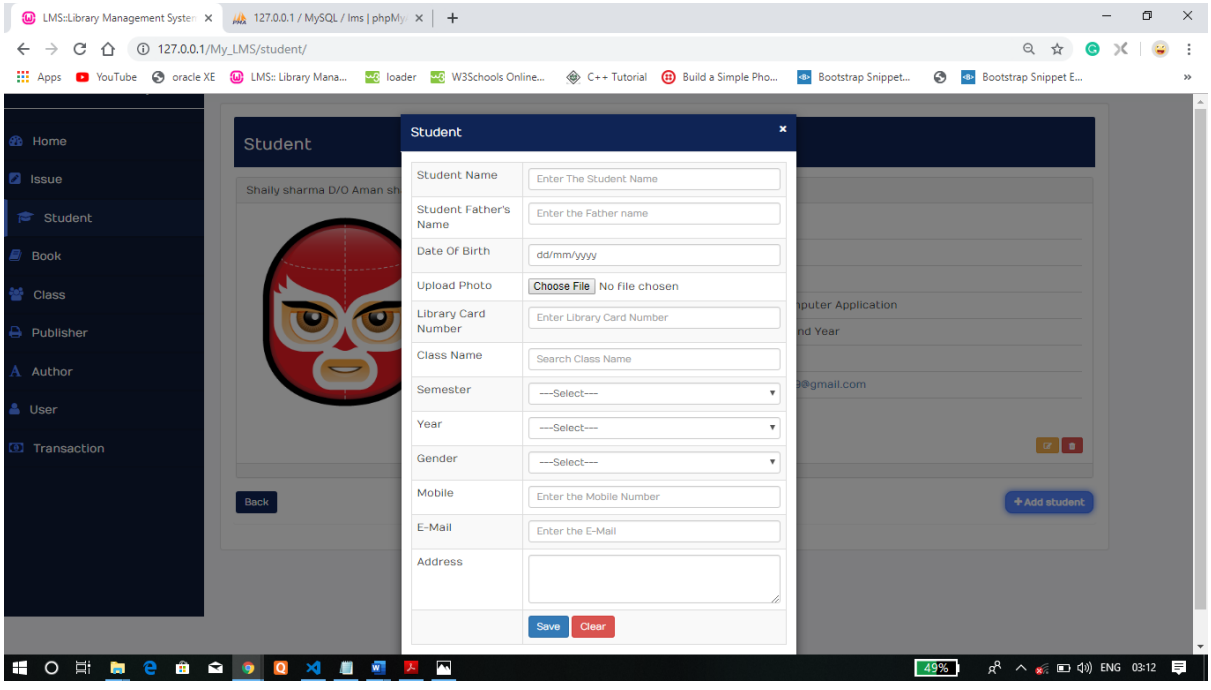
4.1.3.3 Issued Book Description



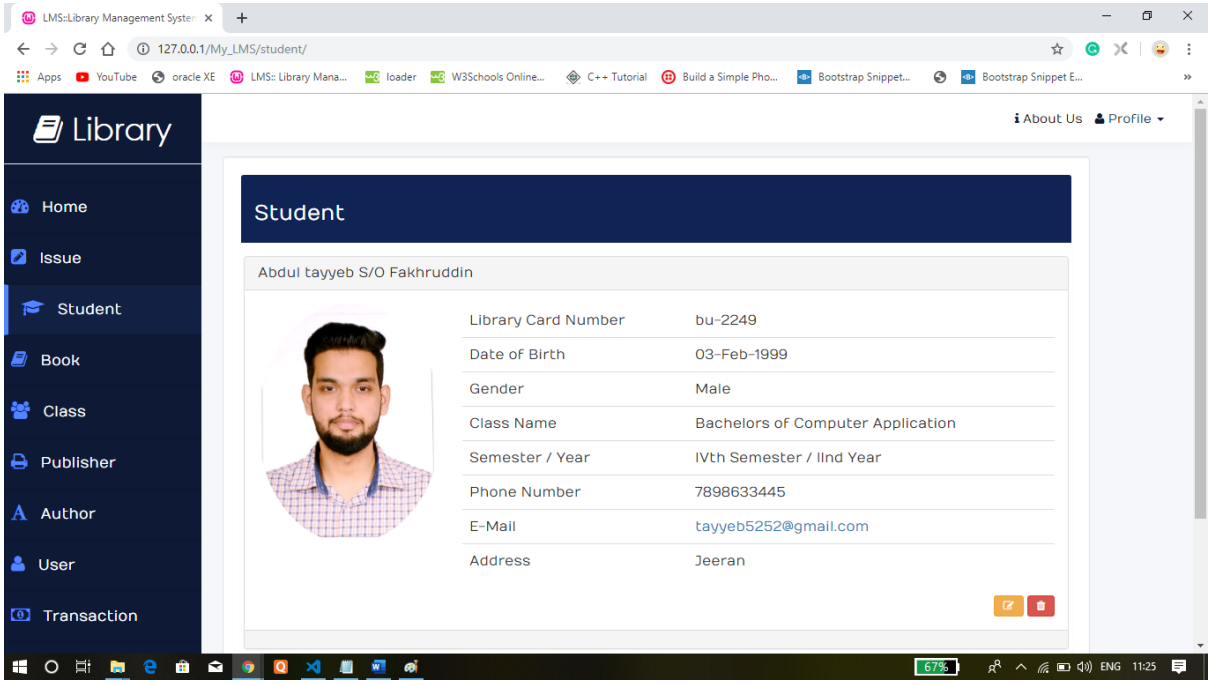
4.1.4 Student Pages

In this module the user can add and manage the student records. The user can add student after filling up the student form. The user can edit and delete the student record by clicking edit and delete button.

4.1.4.1 Student Form

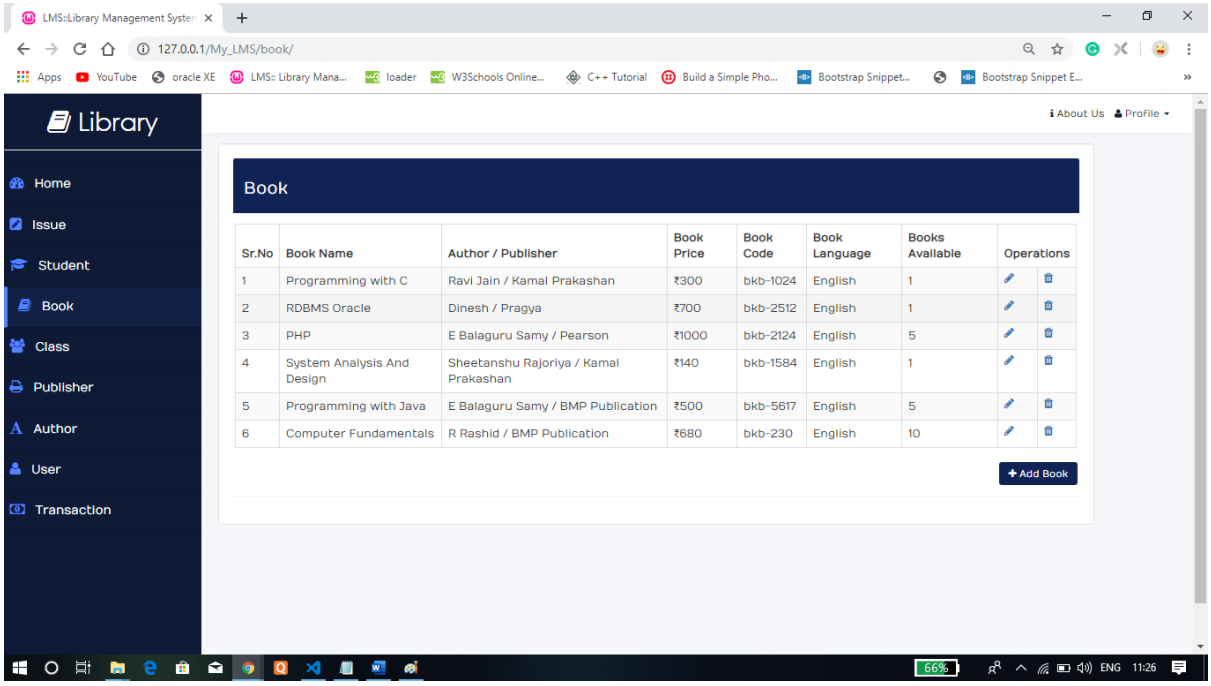


4.1.4.2 Student Description

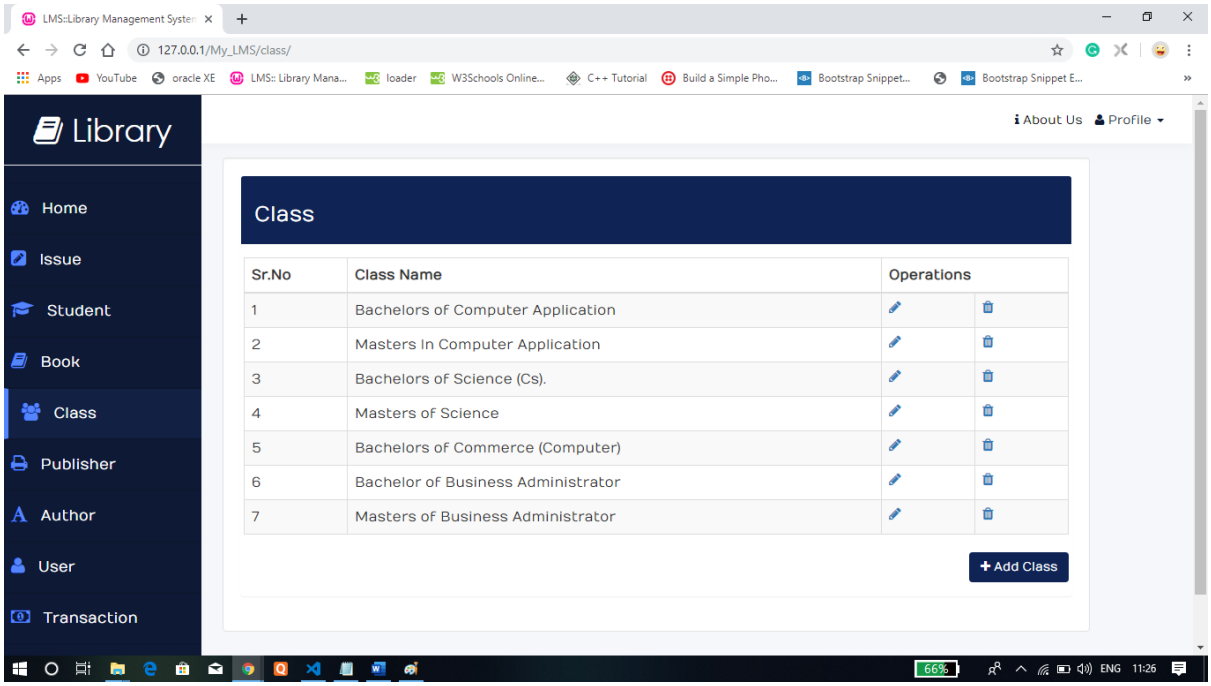


4.1.5 Book Page

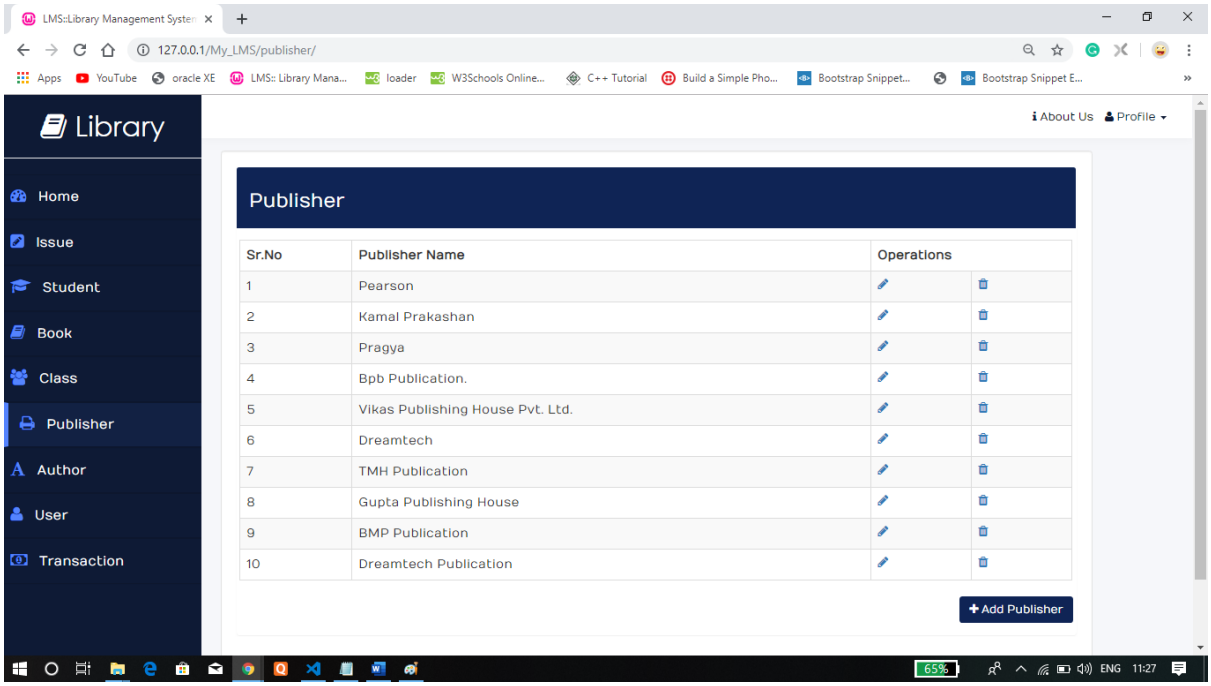
In this module the user can add, update, manage and delete the book records.



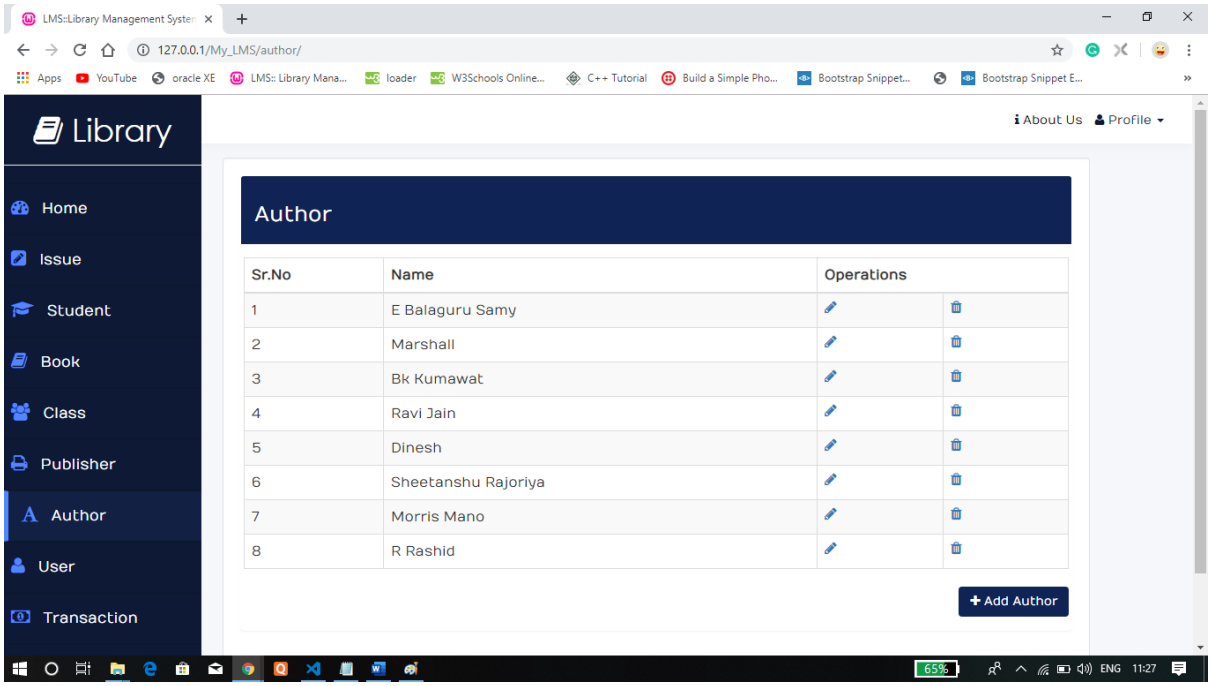
4.1.6 Class Page



4.1.7 Publisher Page

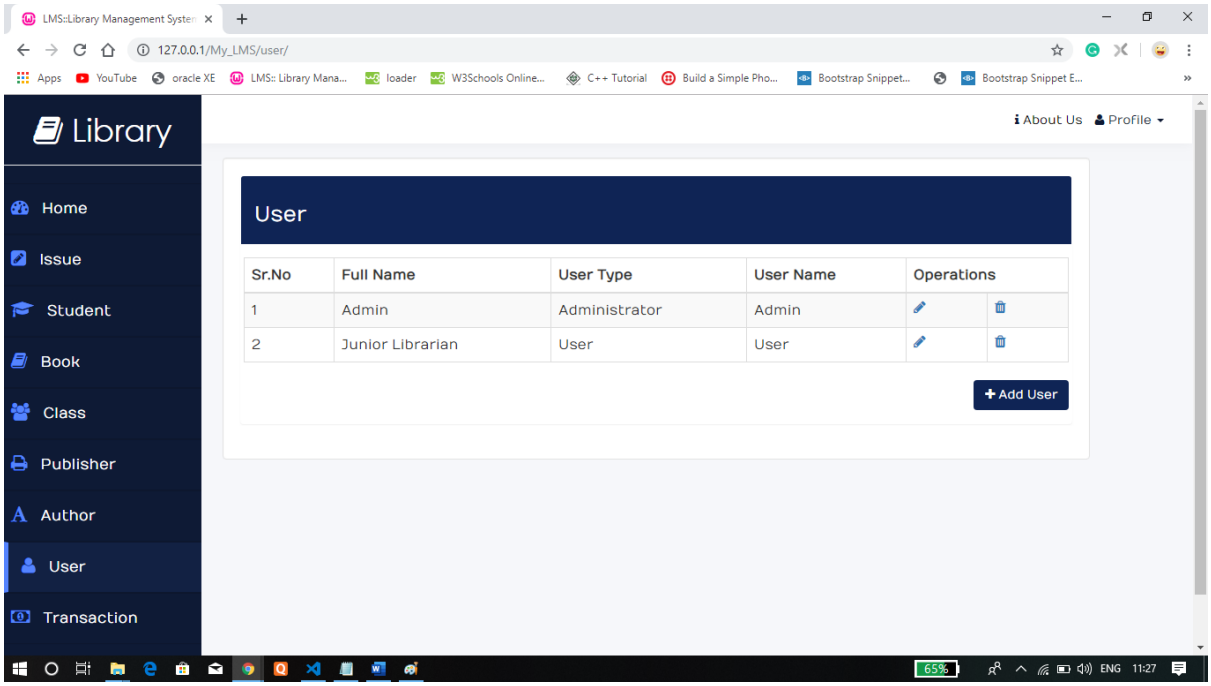


4.1.8 Author Page



4.1.9 User Page

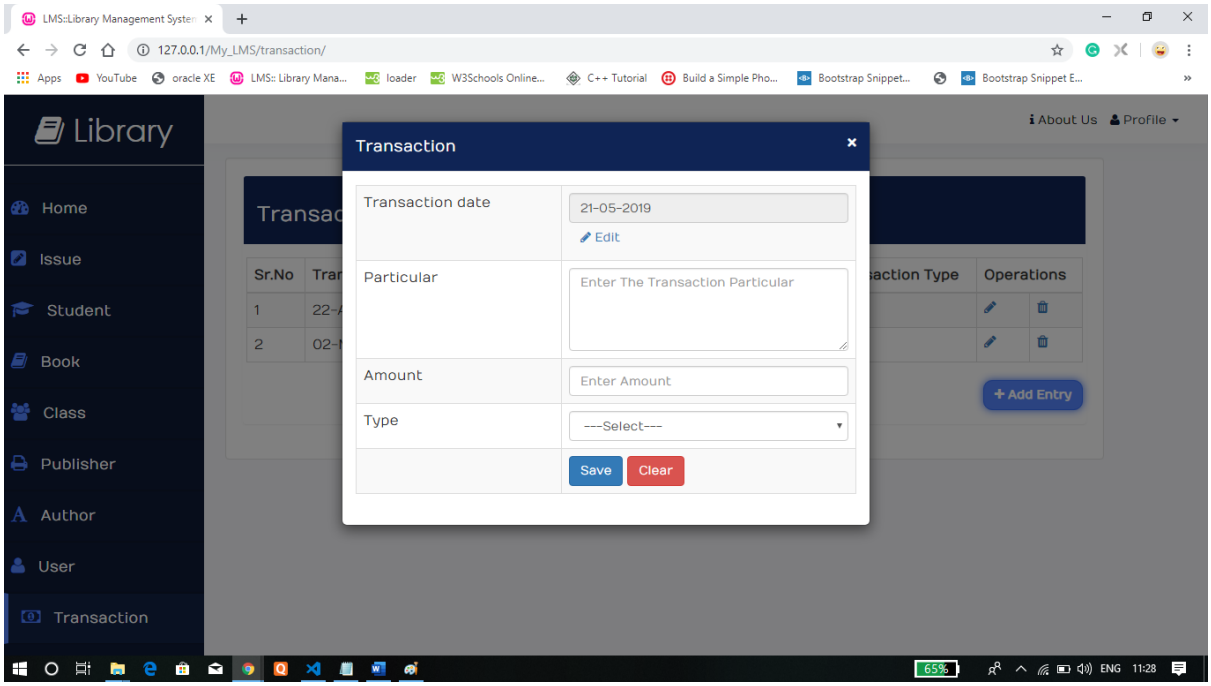
This module is only available for admin. With the help of this module the user can add and manage the user.



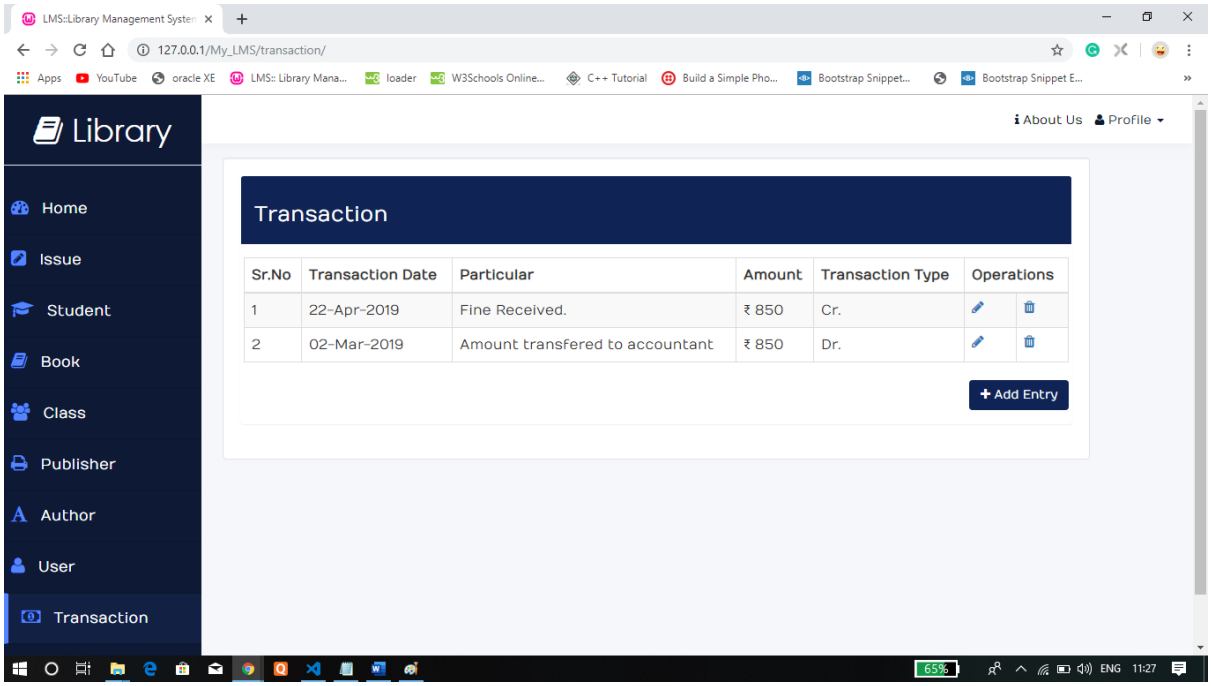
4.1.10 Transaction Page

With the help of this module the admin can record the day to day monetary transaction and can manage them.

4.1.10.1 Transaction Form



4.1.10.2 Transaction Data Table



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.

i. Login Form Testing

Test Case Id	***Test***	***Expected Input***	***Expected Output***	***Actual Input***	***Actual Output***
1.	*Login Form*	*Username, Password*	*dashboard*	*admin, admin*	*dashboard*

ii. Issue Book Form Testing

Test Case Id	***Test***	***Expected Input***	***Expected Output***	***Actual Input***	***Actual Output***
1.	*Add Issue*	*Issue Details*	*Message appears ("Successfully Data inserted*	*Issue Details*	*Message appears ("Data Saved Successful")*

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 staff of the library.

It makes entire process online where librarian can search student records. Issued book. It also has a facility for user login where user can login and can see status of books issued. It has a facility of admin login where admin can record the day to day monetary transaction and can manage the user of the system. There is a future scope of this facility that many more features such as student login and teacher login can be added so that teacher can upload the pdf or soft copy of there lectures notes. 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

Bibliography

The following books were referred during the analysis and execution phase of the project

- Introduction to PHP by Pearson.
- Introduction to MySQL.

Websites:

- *www.stackoverflow.com*
- *www.w3school.com*
- *www.bootstrap.com*
- *www.youtube.com*