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Wap Institute

AN INTERNATIONAL BRAND OF SOFTWARE ENGINEERING EDUCATION

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INTERNSHIP ACCEPTANCE LETTER

This is to certify that Mr./Miss/Mrs ..... Rajkumari Vishwakarma.....

S/o, D/o, W/o ..Vibhuti Prashad Vishwakarma..... **has started**

industrial Internship as a WEb Developer Intern from the date of ..10.01.2021.

in out Organization. Your futies and assignments for this position are as

developer on project titled .... Online Library Management System..

Reg/No : .....WP46265426..... ....

S/No : .....WP_SE_WD/230.....

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Monthly Report

Start Date	**Class/Task**	Completion	Task Status	Remark
15 jan	What is PHP?, What do I need?, installation instruction on windows, online compiler tools, enabled first page	Yes	done	
16-19 jan	Basic syntax, variables, constants, Data-types (Arithmetic, Assignment, Comparison)	Yes	done	
21-22 jan	Operators, Control Structure if, else, elseif	Yes	done	
25 jan	HTML introduction and tags	Yes	done	
27-30 jan	HTML Other tags	Yes	done	
1-5 Feb	HTML Tags with CSS style	Yes	done	
8-11 Feb	HTML form controls	Yes	done	
12-17 Feb	HTML tags and HTML Forms with PHP	Yes	done	
18-20 Feb	Example of HTML form with php	Yes	done	
20-26 Feb	Control Structures: Looping statements	Yes	done	
1-4 March	Array, and Foreach loop	Yes	done	
5-9 March	Break, continue, require, include, require_once, include_once	Yes	done	
10-12 Marc	Switch case statement and php with html code embedded.	Yes	done	
15-17 Marc	File handling	Yes	done	
18-22 Marc	Functions User defined function, Function argument, Return values	Yes	done	
23-25 Marc	,Internal function	Yes	done	
26 Marc	Other internal function like date time etc.	Yes	done	
27 Marc	Random function and other predefined php function	Yes	done	

Date	**Class/Task**	Completion	Task Status	Remark
29-31 Mar	Random function and other predefined php function	Yes	done	
01-6 April	CSS all basic properties and values	Yes	done	
7 April	Bootstrap	Yes	done	
8 April	Bootstrap	Yes	done	
9-13 April	Bootstrap	Yes	done	
15 April	Bootstrap with Js	Yes	done	
16-21 April	Dynamic Programming concept	Yes	done	
22 April	GUI MySQL	Yes	done	
23-24 April	GUI MySQL	Yes	done	
26 April	MySQL with PHP (connection and Create)	Yes	done	
27 April	MySQL records table operation with GUI Insert, Read, Update, Delete	Yes	done	
28-30 April	MySQL records table operation with GUI Insert, Read, Update, Delete	Yes	done	
03 May	Session, Cryptography Sha1	Yes	done	
04 May	php functions	Yes	done	
0510 May	Explain pages (Sign up, Sign in, List, View)	Yes	done	
11-13 May	Explain Access control modifier user and admin	Yes	done	
14-24 May	JavaScript basic and Advance (Data-Tables)	Yes	done	
25 May	SDLC	Yes	done	
26 May	Project Demo	Yes	done	
27-31 May	Project Basci Page	Yes	done	
01-13 May	Pages with CUIRD Operation	Yes	done	
14-15 May	Simple Login Registration Papge	Yes	done	

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CERTIFICATION IN SHORT TERM COURSE

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S/o, D/o, W/o .....Vibhuti Prashad Vishwakarma..... has successfully

completed & passed the online training entitled .....PHP with project.....

.....Online Library Management System..... conducted from ...10.01.2021...

to ... 10-06-2021 ..... his/her per[illegible] has been grade .....A.....

Reg/No : .....WP46265426.....

S/No : .....WP_SE_WD/230.....

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bihar 842001 cell : +91 8889426143

JABALPUR ENGINEERING COLLEGE

A SYNOPSIS ON

Online Library Management

(Web Based System)

Submitted to the

RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA
(UNIVERSITY OF MADHYA PRADESH), BHOPAL

In partial fulfillment of the requirement for the award of the Degree of

MASTER OF COMPUTER APPLICATION

Submitted to

JABALPUR ENGINEERING COLLEGE

Jabalpur (M.P.)

Submitted To

Dr. Samar Upadhyay
Head of Department

Submitted by

Rajkumari Vishwakarma
0201CA181026

MCA SIXTH SEMESTER
SESSION 2021

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About the Project

Online Library Management System is a system which maintains the information about the books present in the library, their authors, the members of library to whom books are issued, library staff and all. This is very difficult to organize manually. Maintenance of all this information manually is a very complex task. Owing to the advancement of technology, organization of an Online Library becomes much simple.

The **Online Library Management System** has been designed to computerize and automate the operations performed over the information about the members, book issues and returns and all other operations. This computerization of library helps in many instances of its maintenances. It reduces the workload of management as most of the manual work done is reduced

Objectives the Project

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:

- The product provides a framework, which is error free. We know a Online library management system is actually a critical process having many calculations and operations. So each simple error laid to big problem. So it should be error free and our objective is to build error free software.
- Online book reading.
- A search column to search availability of books.
- Facility to download required book.
- Video tutorial for students.

1) An Admin login page where admin can add books, videos or page sources

2) Open link for Learning Websites

Module

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.

- 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 acess 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

2. ADMIN

2.1 ADMIN LOGIN

Description of feature

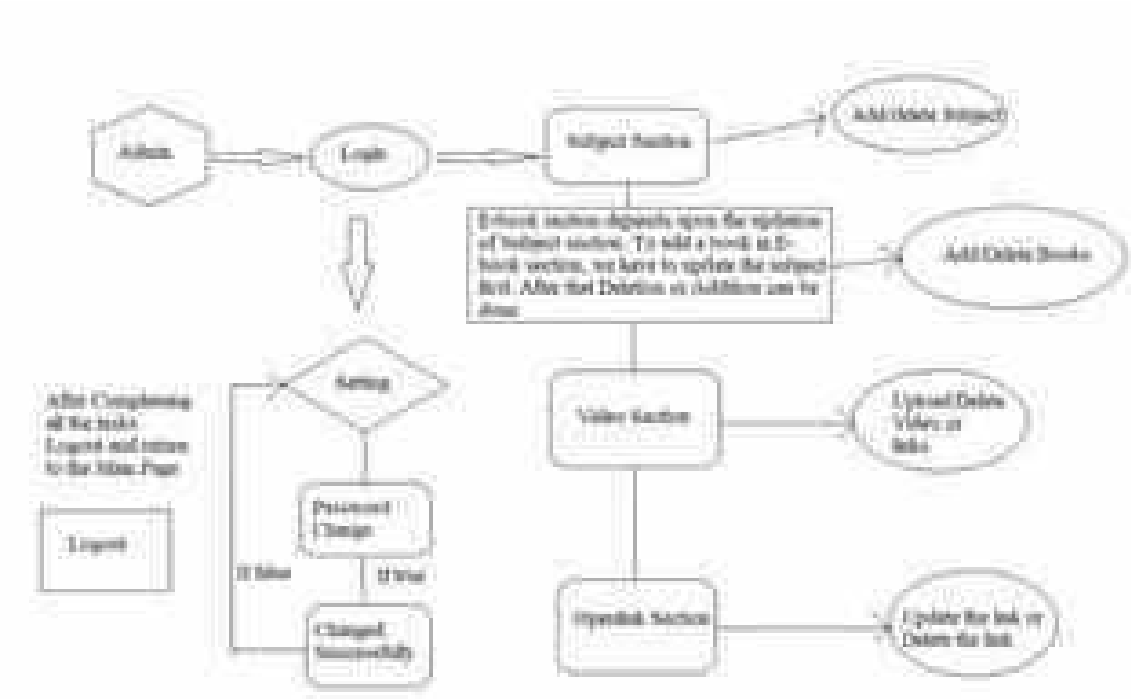
This feature used by the user to login into system. They are required to enter user id and password before they are allowed to enter the system .

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

- 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 acess to.
- The user must be able to logout after they finished using system.

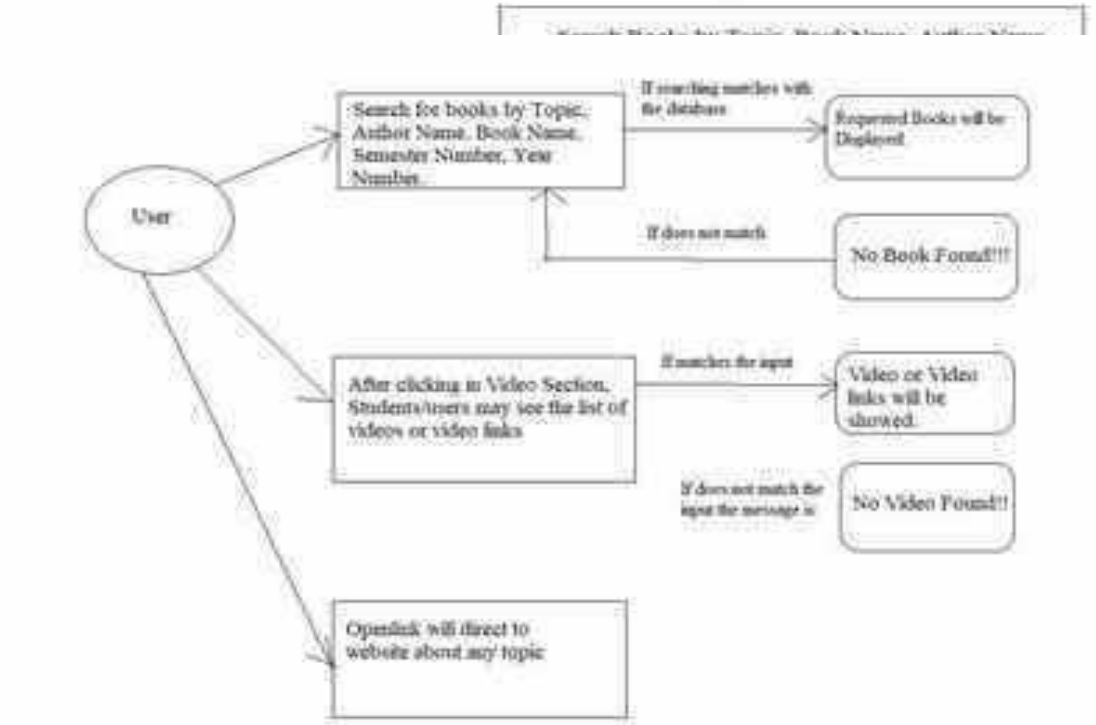
DFD

1. DATA FLOW DIAGRAM FOR ADMIN LOGIN

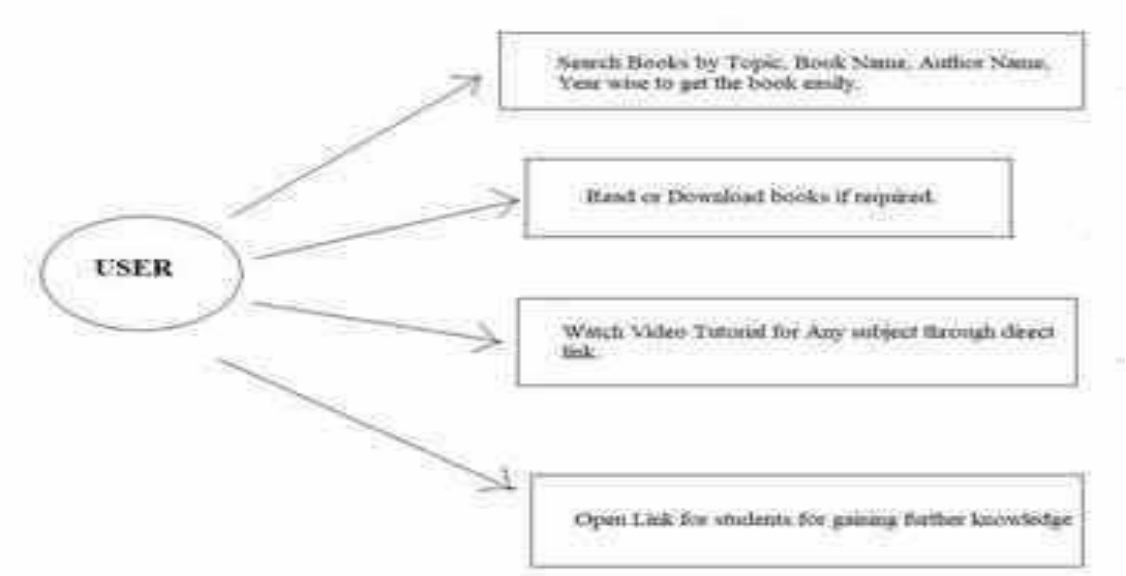


After entering to the home page of the website, Admin can choose the Admin Login option where they are asked to enter username & password, and if he/she is a valid user then a teacher login page will be displayed.

3. USE CAESE DIAGRAM FOR USER



2. USE CAESE DIAGRAM FOR USER



After entering to the home page of the website , student can choose the USER LOGIN option where they are asked to enter username & password , and if he/she is a valid user then a student login page will be displayed.

Hardware Requirement

Client Side

RAM	64 MB (Recommended)	
Fixed disk	200 MB free Space	
Pointing Device	Mouse or Compatible	
Connecting device	Modem or Phone(Recommended)	

Server Side

Computer	Intel® or Compatible Any Pentium Processor	
Memory (RAM)	1GB RAM minimum	
Hard Disk Space	Minimum Space for Software 80 GB Actual requirements will vary based on System configuration and the applications and features chosen to install as well as SQL Server Space Allocation	
External Stroage Device (Pen Drive)	Required for Installation	

Software Requirement

Client Side

Browser	Any Browser	

Server Side

Operating System	Windows XP SP2 or Above	
Front end	PHP 5.2.5 or Above	
Development Platform (IDE)	Visual Studio Code	
Backend	MySQL 5.0.51 or Above	
Server API	Apache/2.2.8 (Win32) DAV	

About Technology

The front end is designed using of html , Php ,css, Java script

- **HTML- Hyper Text Markup Languageis**
  the main markuplanguage 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 behavior of HTML web pages.

- **CSS- Cascading Style Sheets**
  is a style sheet language used fordescribing 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, 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 (when14 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.

- **js- JavaScript**

is a dynamic computer programminglanguage. 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.

- ## PHP – Hypertext PreProcessor

PHP a server-side scripting language designed for webdevelopment 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, 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: HypertextPreprocessor, a recursive backronym.PHP code is interpreted by a webserver 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 DataBase

("My S-Q-L", officially, but also called "My Sequel") is (as ofJuly 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

Online Library Management System

Online Library Management

(Web Based System)

A Major Project Report submitted to

Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal

in partial fulfillment of the requirements for the award of

Degree of

MASTER OF COMPUTER APPLICATION

in

JABALPUR ENGINEERING COLLEGE

by

Rajkumari Vishwakarma (0201CA181026)

Under the guidance of

Mr. Rajkumar Parihar

(WAP Institute)

MCA Sixth Semester

Session: 2020-2021

Department of Computer Science & Engineering

Jabalpur Engineering College, Jabalpur

(Madhya Pradesh)

JABALPUR ENGINEERING COLLEGE

DECLARATION

Student is by declare that this Project Report tittled

Online Library Management

(Web Based System)

Submitted in partial fulfillment for the award of "MASTER of COMPUTER APPLICATION" is a result of authentic analysis and the research undertaken by us. This same will be used only and only for the academic purpose and noting other than this.

Rajkumari Vishwakarma
0201CA181026

JABALPUR ENGINEERING COLLEGE

ACKNOWLEDGEMENT

The completion of any interdisciplinary project depends upon co-operation, co-ordination and combined effort of several sources of knowledge, energy and time. Hence we approach this matter of acknowledgement through these lines trying our best to give credit wherever it is due.

We are extremely thankful to Dr. Samar Upadhyay [HOD] it would be impossible for us to carry out this project without their continuous guidance and support.

We should also like to extend our thanks to other teachers for helping us to understand the basic system.

It is our proud privilege to express our hear full gratitude and renewable, regard for their abounding and aable guidance inspiration and contractive criticism the tenure of project work,

Submitted by:
Rajkumari Vishwakarma
0201CA181026

JABALPUR ENGINEERING COLLEGE

CERTIFICATE

This is to certify that student of Master of Computer Application at **JABALPUR ENGINEERING COLLEGE** as has completed the project entitled.

Online Library Management

(Web Based System)

We are submitting the project in partial fulfillment of the Degree of MASTER OF COMPUTER APPLICATION from **JABALPUR ENGINEERING COLLEGE** for academic year **2020-21.**

_____ _____

(Internal Examiner) (External Examiner)

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_____

Dr. Samar Upadhayay
(Head of the Department)

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Abstract

Online Library Management System is a system which maintains the information about the books present in the library, their authors, the members of library to whom books are issued, library staff and all. This is very difficult to organize manually. Maintenance of all this information manually is a very complex task. Owing to the advancement of technology, organization of an Online Library becomes much simple.

The **Online Library Management System** has been designed to computerize and automate the operations performed over the information about the members, book issues and returns and all other operations. This computerization of library helps in many instances of its maintenances. It reduces the workload of management as most of the manual work done is reduced

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 reading.
- A search column to search availability of books.
- Facility to download required book.
- Video tutorial for students.
  1) An Admin login page where admin can add books, videos or page sources
  2) Open link for Learning Websites

1.2 BACKGROUND OF PROJECT

E-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 add new books, videos and Page sources.

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.

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	Windoes Vista, Windows 7, Windows 10, Ubuntu
Memory	1 GB RAM or More
Hard Disk Space	Minimum 3 GB for DataBase Usages for Future
DataBase	MySQL

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.Some times 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 accdent like spilling of water by some member on file accidentally. Besides some natural disaster like floods or fires may also damage the files.

- Diffcult to search records

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

- 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.

- Const 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.

- **Option of online Notice board**

Librarian will be able to provide a detailed description of workshops going in the college as well as in nearby colleges

- **Lecture Notes**

Teacher have a facility to upload lectures notes in a pdf file having size not more than 10mb

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 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 ie: 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.

-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 acess 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.

1.5 SEARCH BOOK

DESCRIPTION OF FEATURE

This feature is found in book maintenance part . we can search book based on book id, book name , publication 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 enterd
- System must be able to show the filtered book in table view

Functional requirements

-System should be able to add detailed information about events .
-System should be able to display information on notice board available in of site the homepage

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 7 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 an 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.

Existing System:

- Early days Libraries are managed manually. It required lot of time to record or to retrieve the details. The employees who have to record the details must perform their job very carefully. Even a small mistake would create a lot of problems. Security of information is very less. Report generations of all the information is very tough task.
- Maintenance of Library catalogue and arrangement of the books to the catalogue is very complex task. In addition to its maintenance of member details, issue dates and return dates etc. manually is a complex task.
- All the operations must be a in perfect manner for the maintenance of the library with out any degradation which may finally result in the failure of the entire system.

Proposed System:

To solve the inconveniences as mentioned in the existing system, an **Online Library** is proposed. The proposed system contains the following features:

- The students will register them through Online
- Individually each member will have his account through which he can access the information he needs.
- Book details like authors, number of copies totally maintained by library, present available number of books, reference books, non-reference books etc. all this information can be made handy.
- Regarding the members designation, number of books was issued.
- Issue dates and returns of each member is maintained separately and fine charged if there is any delay in returning the book.
- Administrator can add, update the books.
- Time consuming is low, gives accurate results, reliability can be improved with the help of security.

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 , Php ,css, Java script

- **HTML- Hyper Text Markup Languageis**

  the main markuplanguage 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 behavior of HTML web pages.

- **CSS- Cascading Style Sheets**

  is a style sheet language used fordescribing 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, 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 (when14 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.

- **js- JavaScript**

  is a dynamic computer programminglanguage. 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.

- **PHP – Hypertext PreProcessor**

  PHP a server-side scripting language designed for webdevelopment 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, 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: HypertextPreprocessor, a recursive backronym.PHP code is interpreted by a webserver 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 DataBase**

  ("My S-Q-L", officially, but also called "My Sequel") is (as ofJuly 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

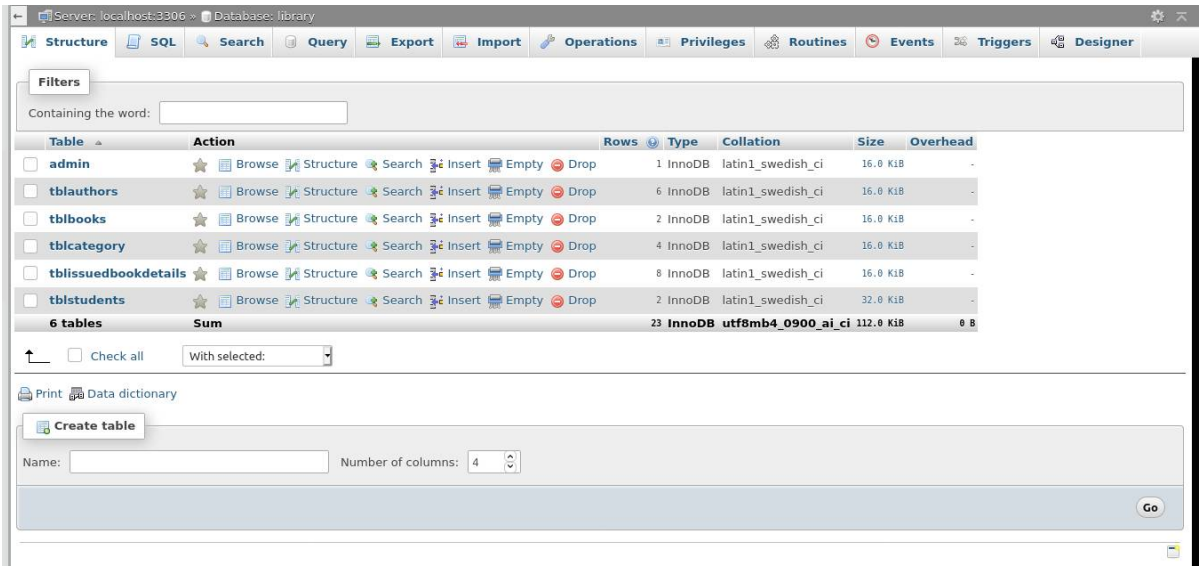
CHAPTER 3

SYSTEM DESIGN

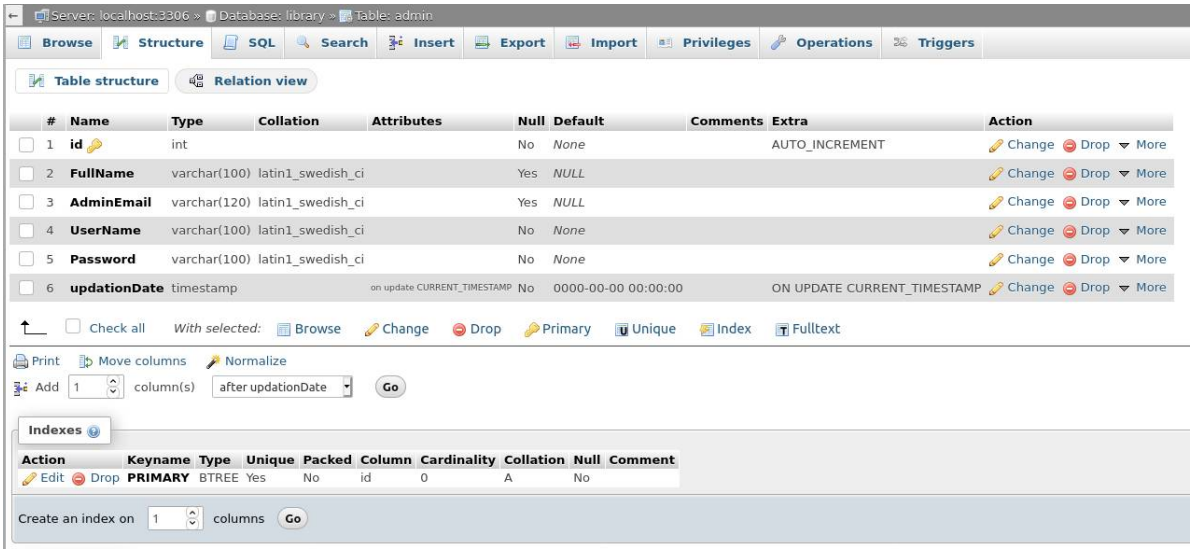
3.1 TABLE DESIGN

VARIOUS TABELS TO MAINTAIN INFORMATION

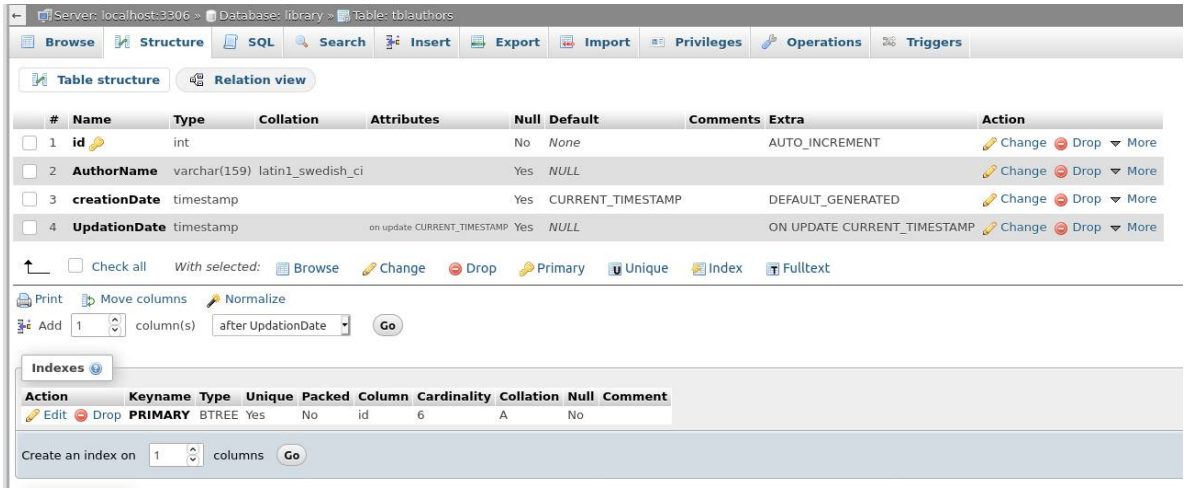
- admin
- tblauthors
- tblbooks
- tblcategory
- tblissuedbookdetails
- tblstudents



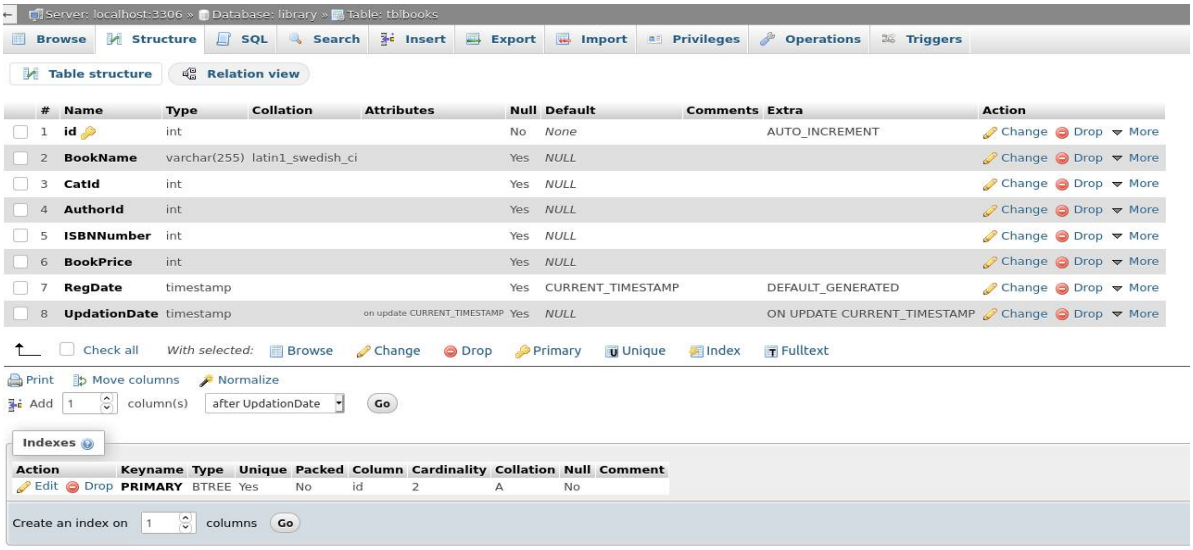
- **Admin** Table from Database



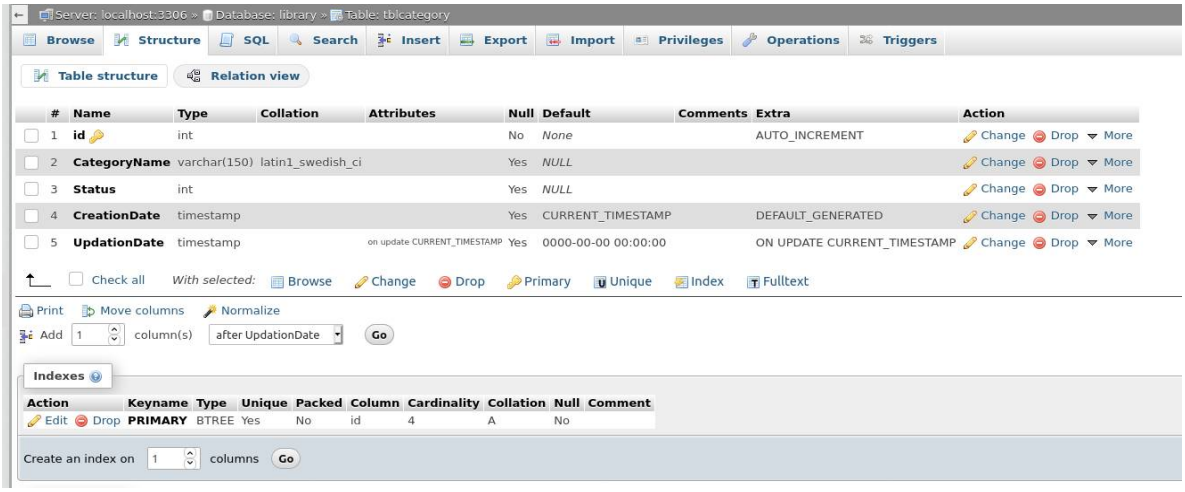
- **Authors** from Database



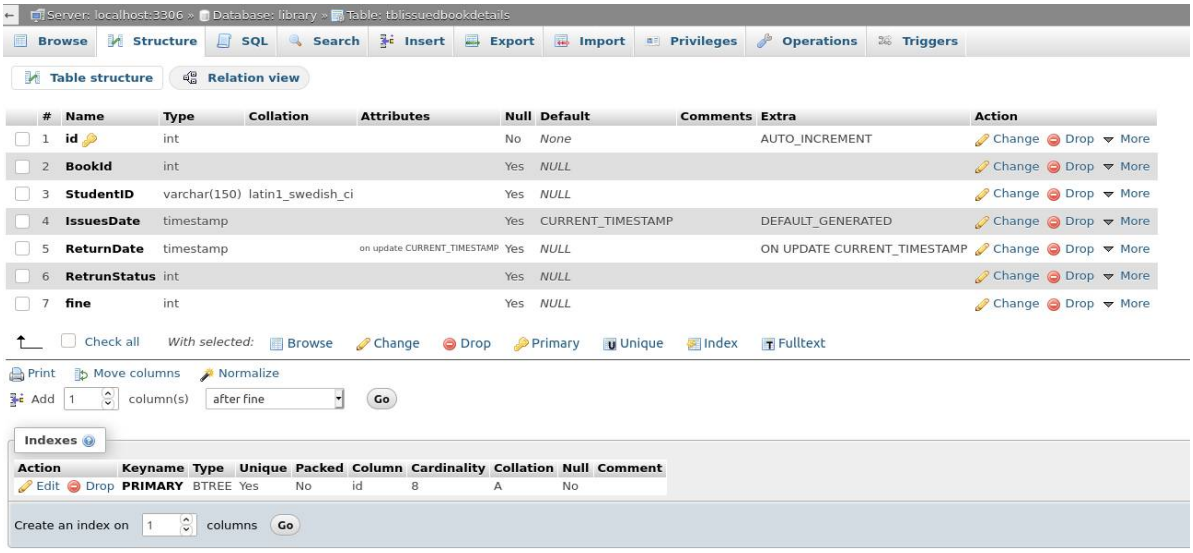
- **Books** Table from Database



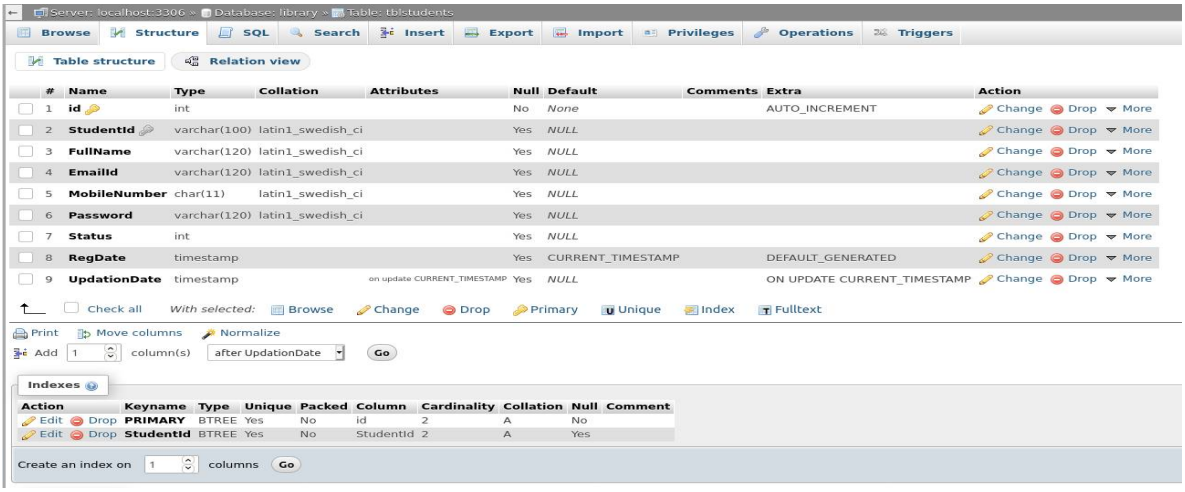
- **Category** from Database



- **Issue Book Details** Table from Database

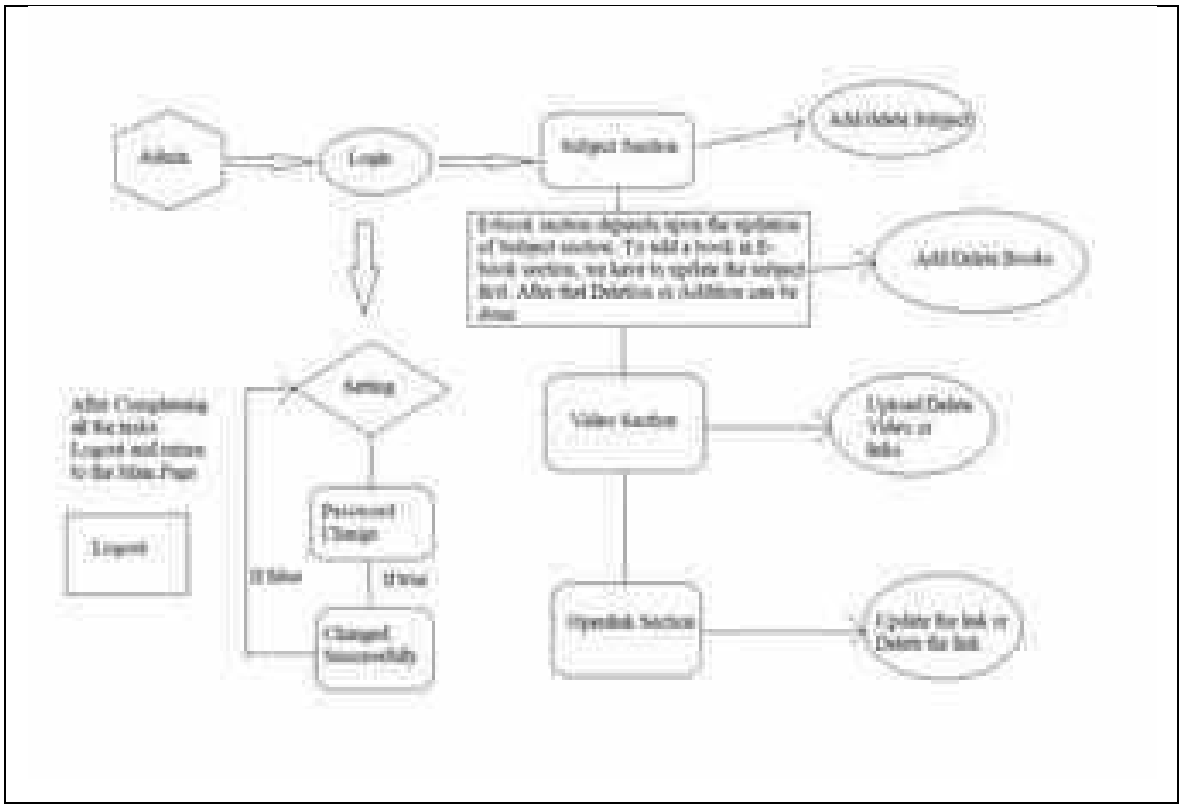


- **Studetns** from Database



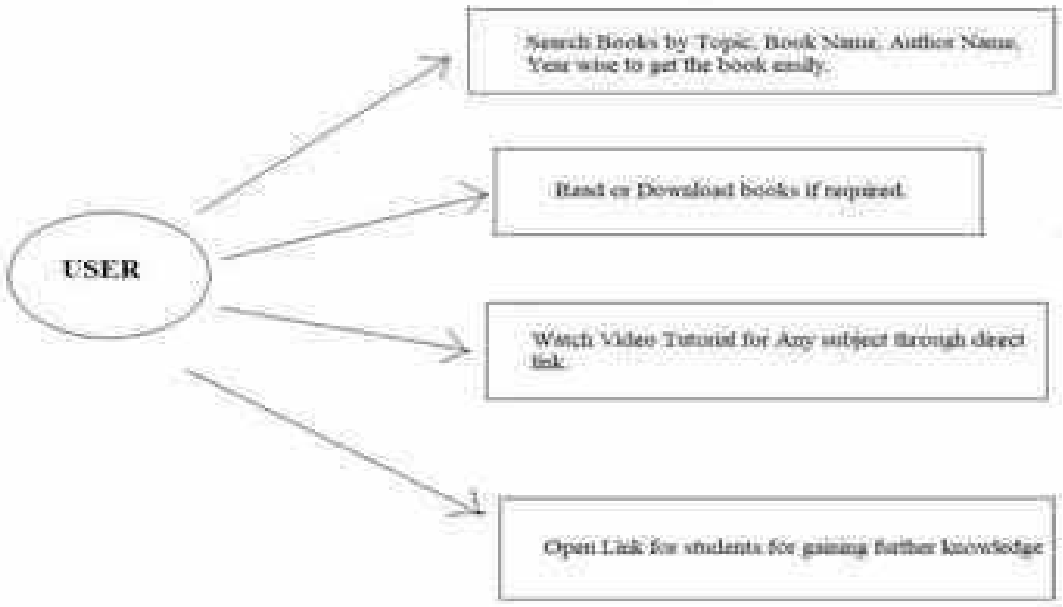
3.2 DATA FLOW DIAGRAMS

DATA FLOW DIAGRAM FOR ADMIN LOGIN



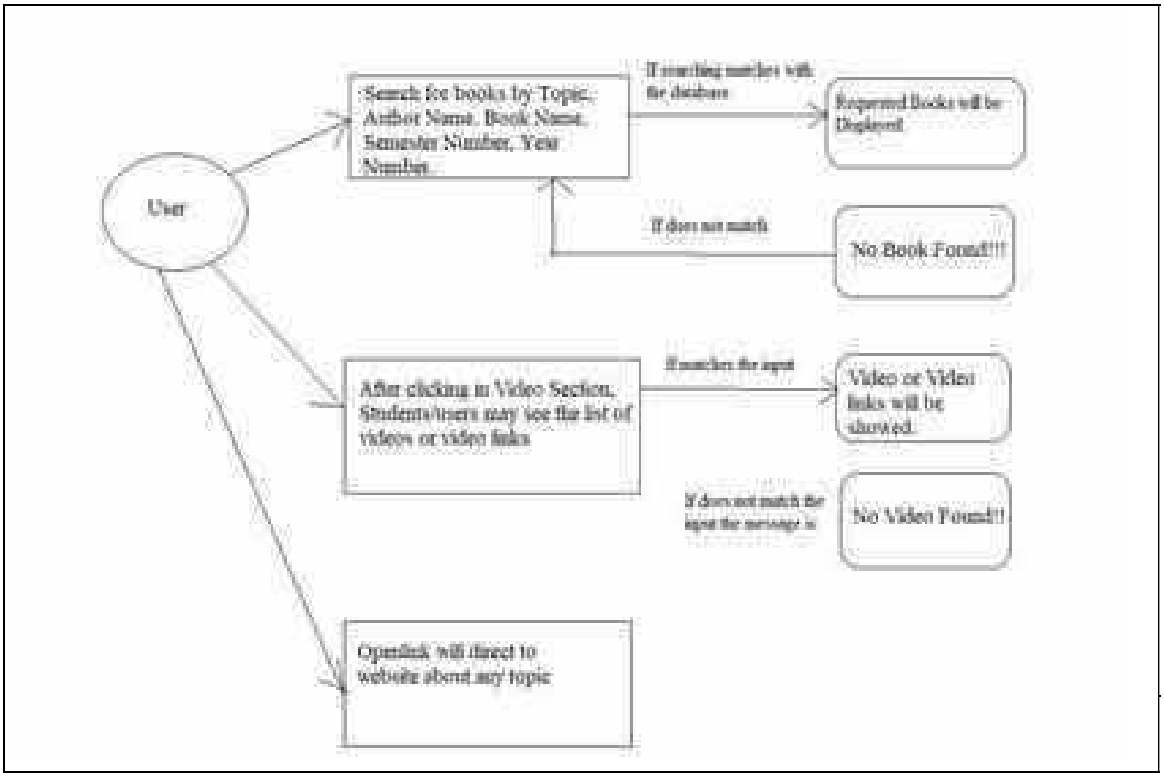
After entering to the home page of the website, Admin can choose the Admin Login option where they are asked to enter username & password, and if he/she is a valid user then a teacher login page will be displayed.

USE CAESE DIAGRAM FOR USER

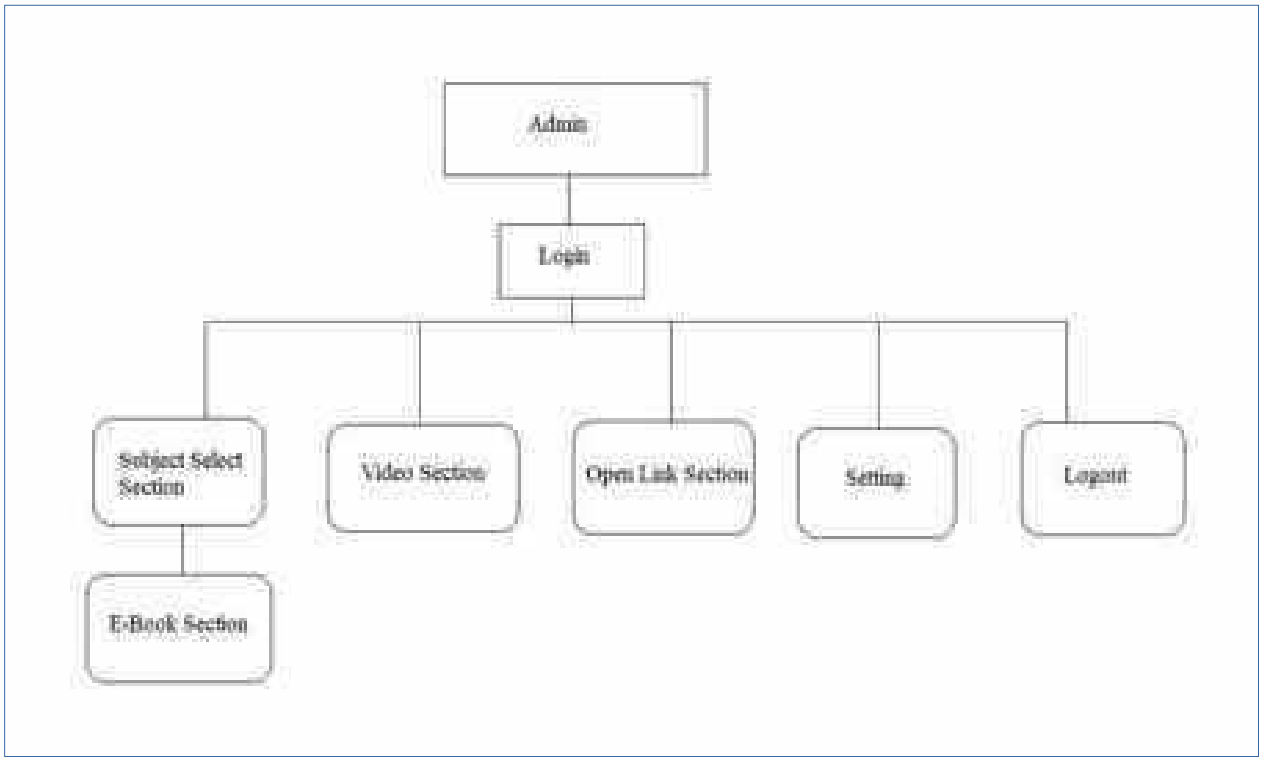


After entering to the home page of the website , student can choose the USER LOGIN option where they are asked to enter username & password , and if he/she is a valid user then a student login page will be displayed.

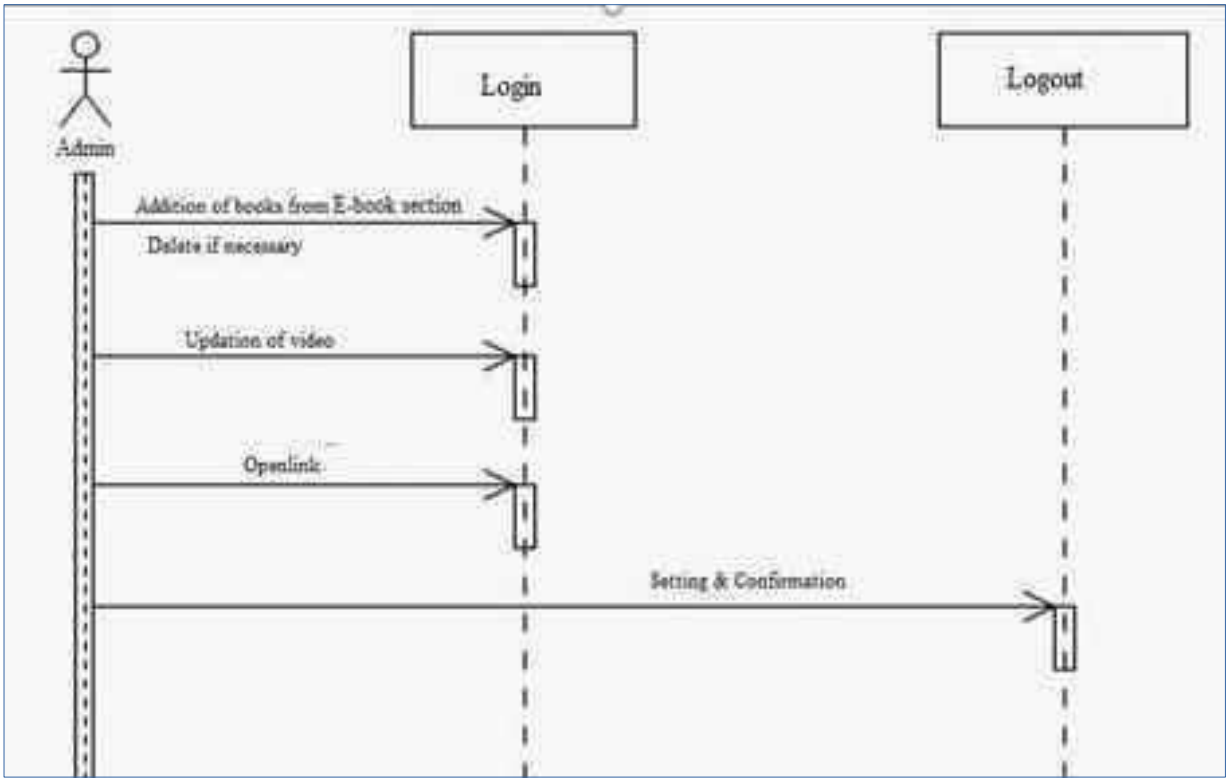
DATA FLOW DIAGRAM FOR USER



USER CASE DIAGRAM FOR ADMIN



SEQUENCE DIAGRAM



CHAPTER 4
SYSTEM IMPLEMENTATION

4.1 MODULE DESCRIPTION

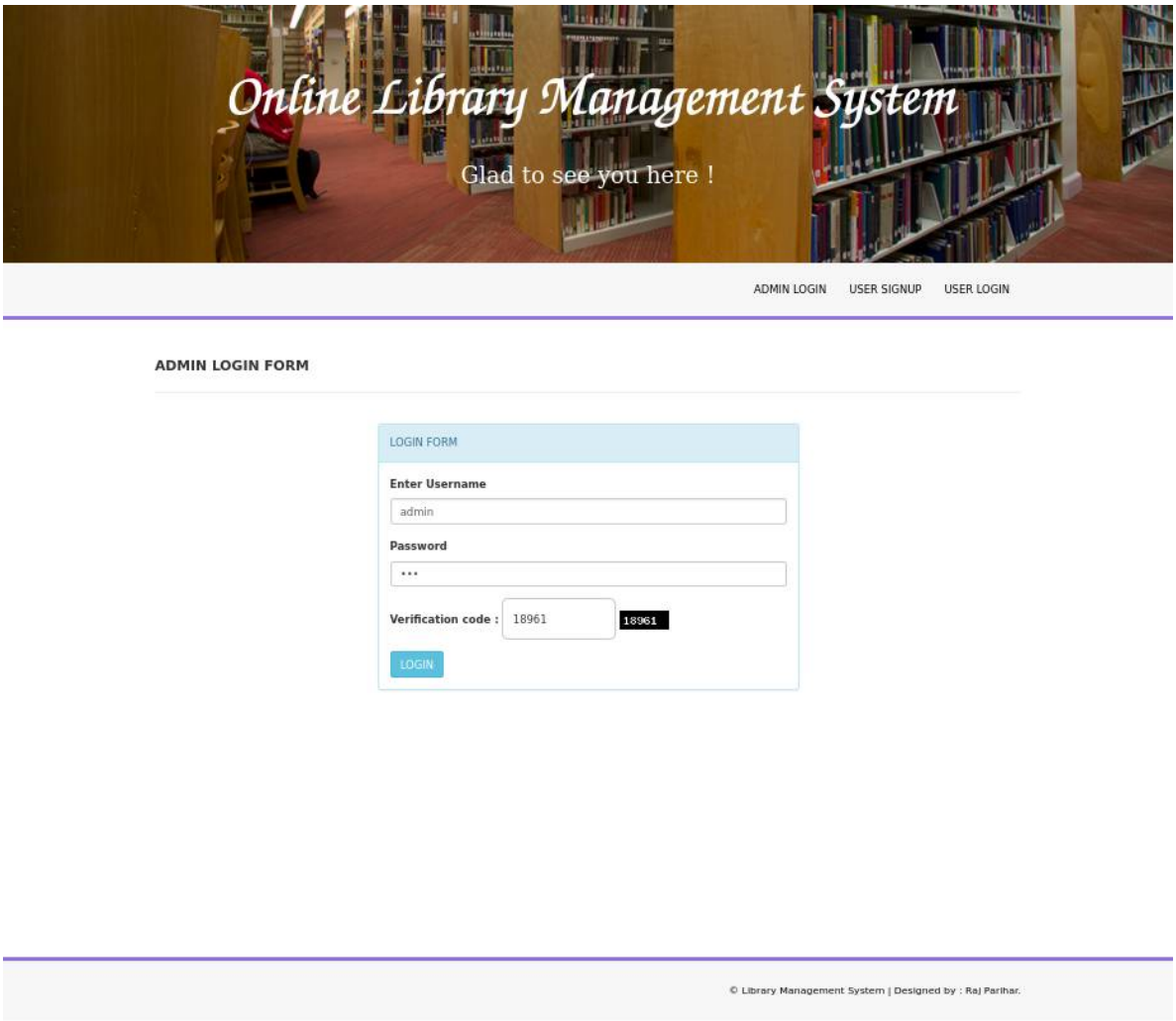
For Library Management System it is divided into the following Modules:

- **admin**
  - ➔ http://localhost/lib-management/adminlogin.php

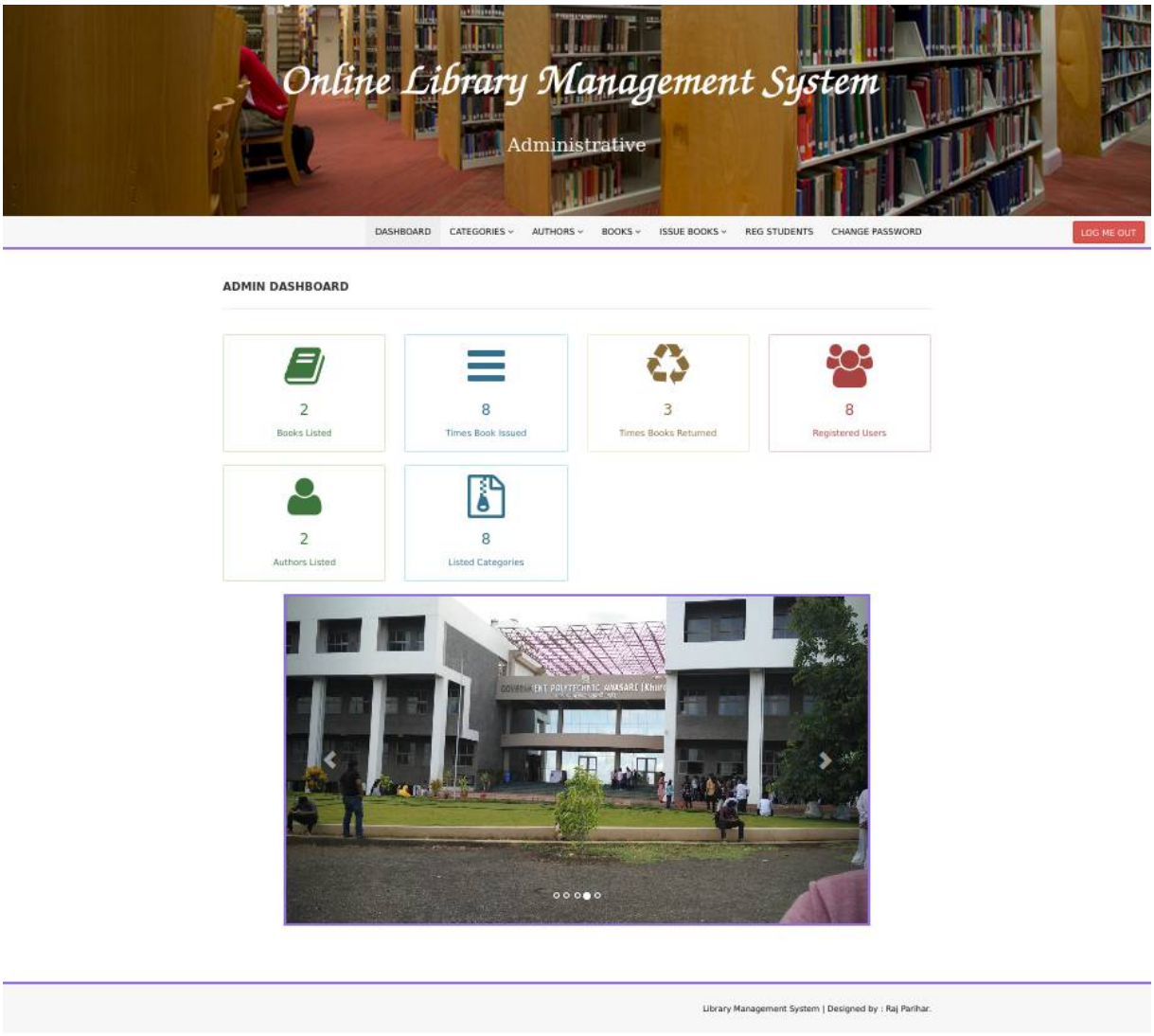
- **Students (**User**)**
  - ➔ http://localhost/lib-management/index.php

4.2 SCREEN SHOTS

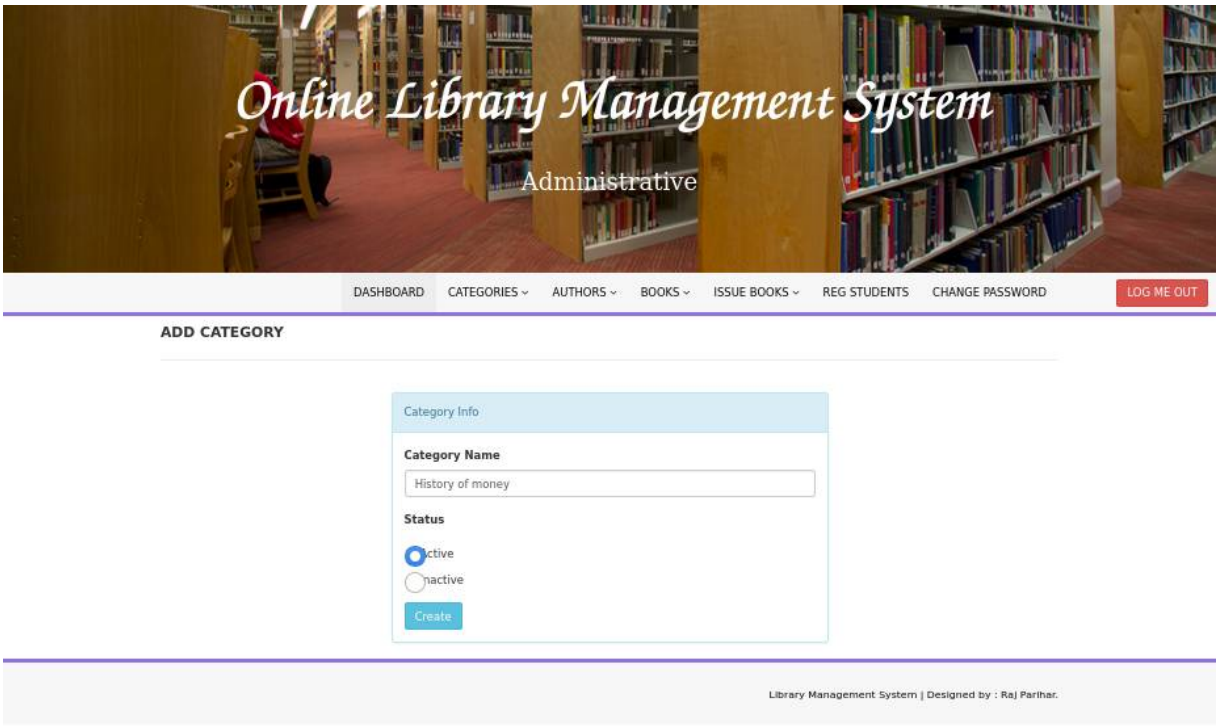
4.1 Screenshot for **login** (admin)



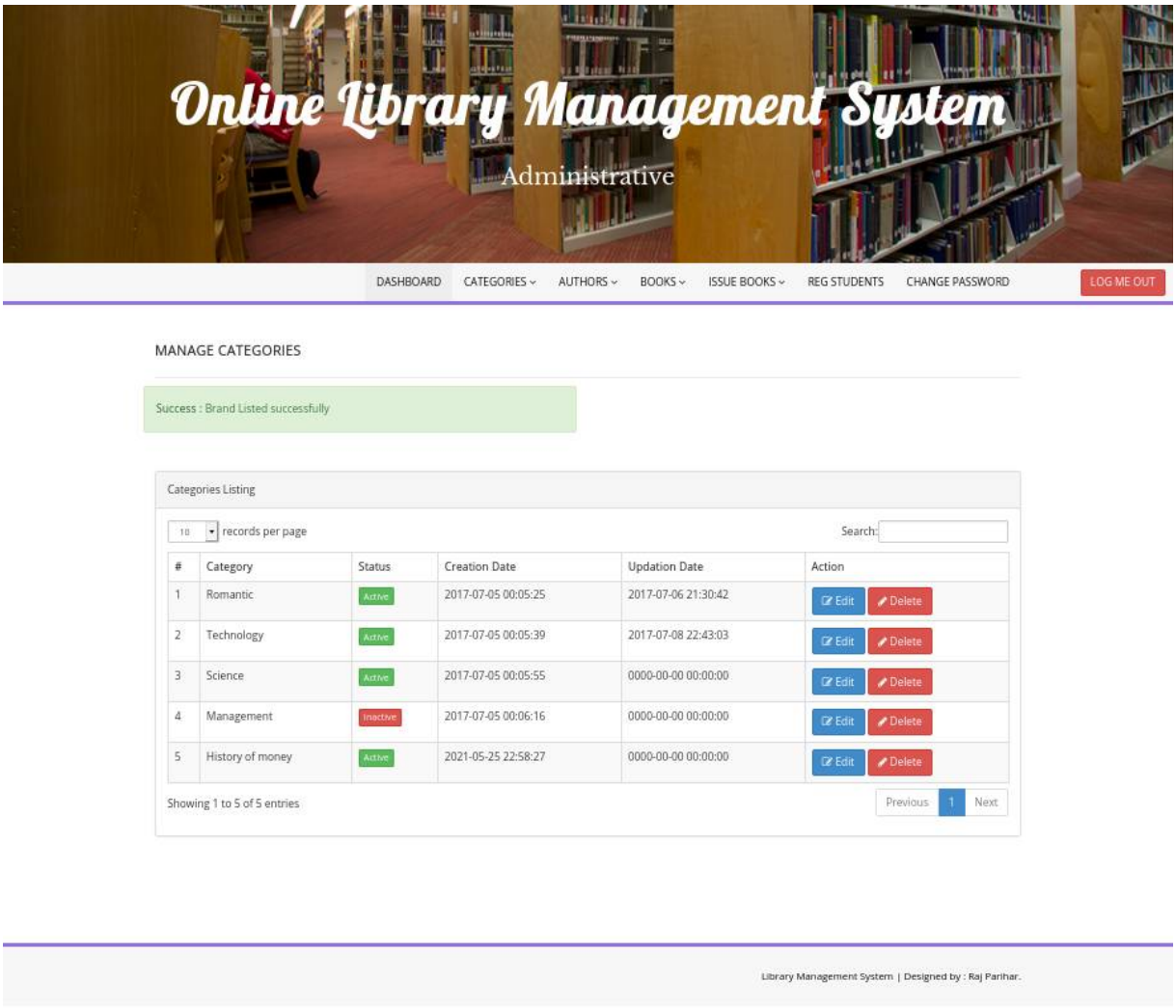
4.1 Screenshot for **Dashboard** (admin)



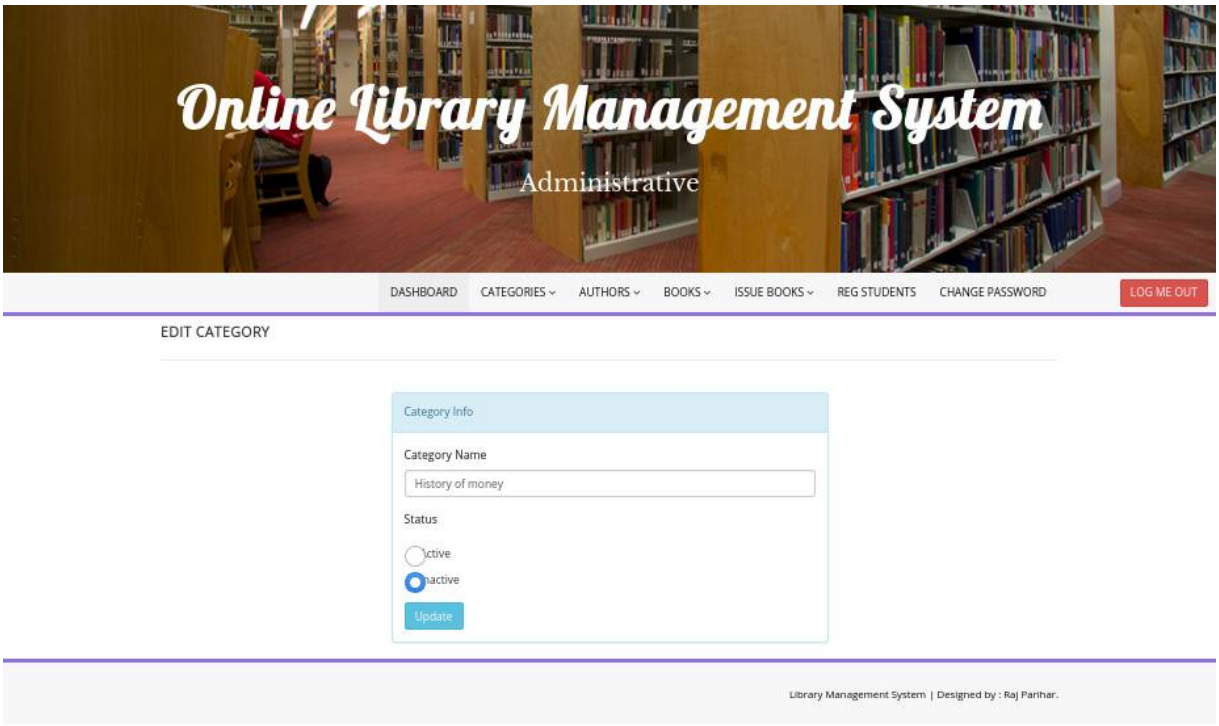
4.1 Screenshot for **add category** (admin)



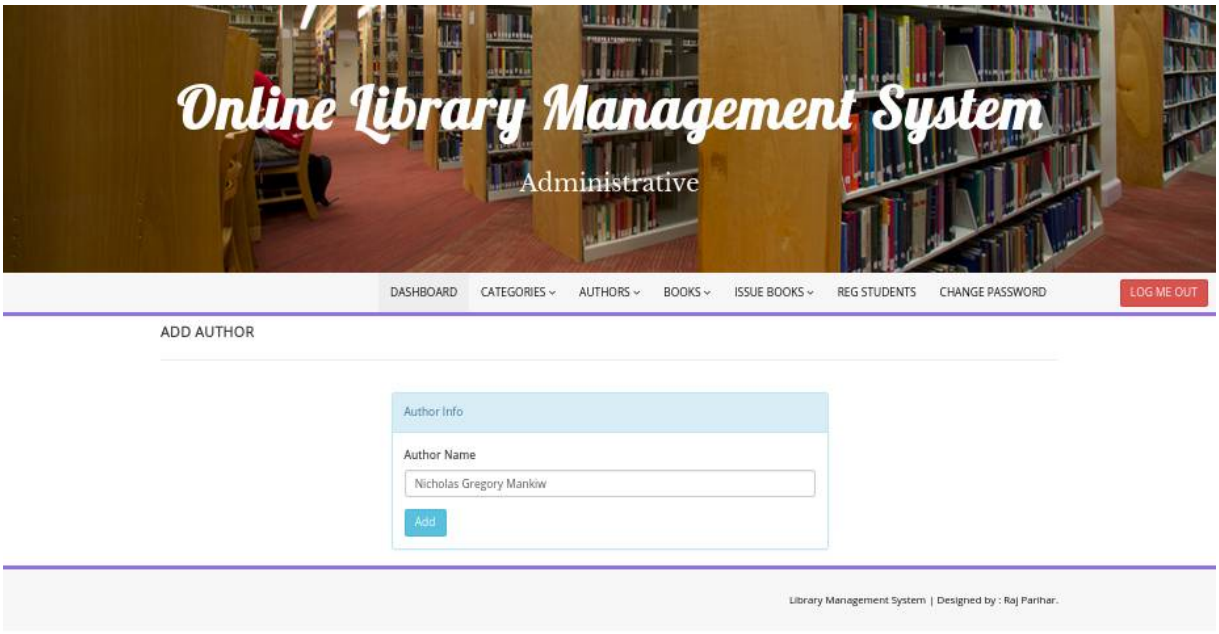
4.1 Screenshot for **manage categories** (admin)



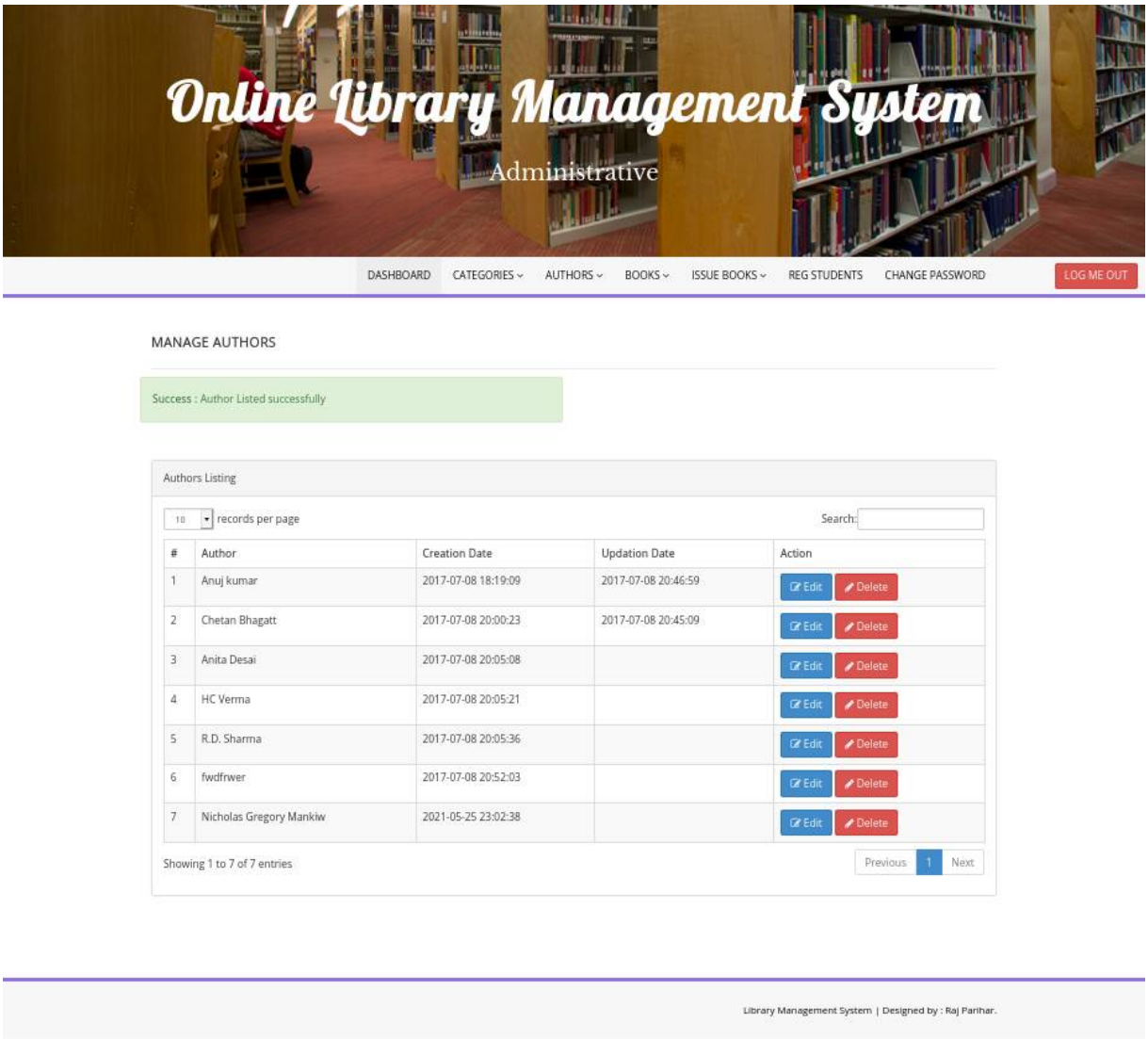
4.1 Screenshot for **edit category** (admin)



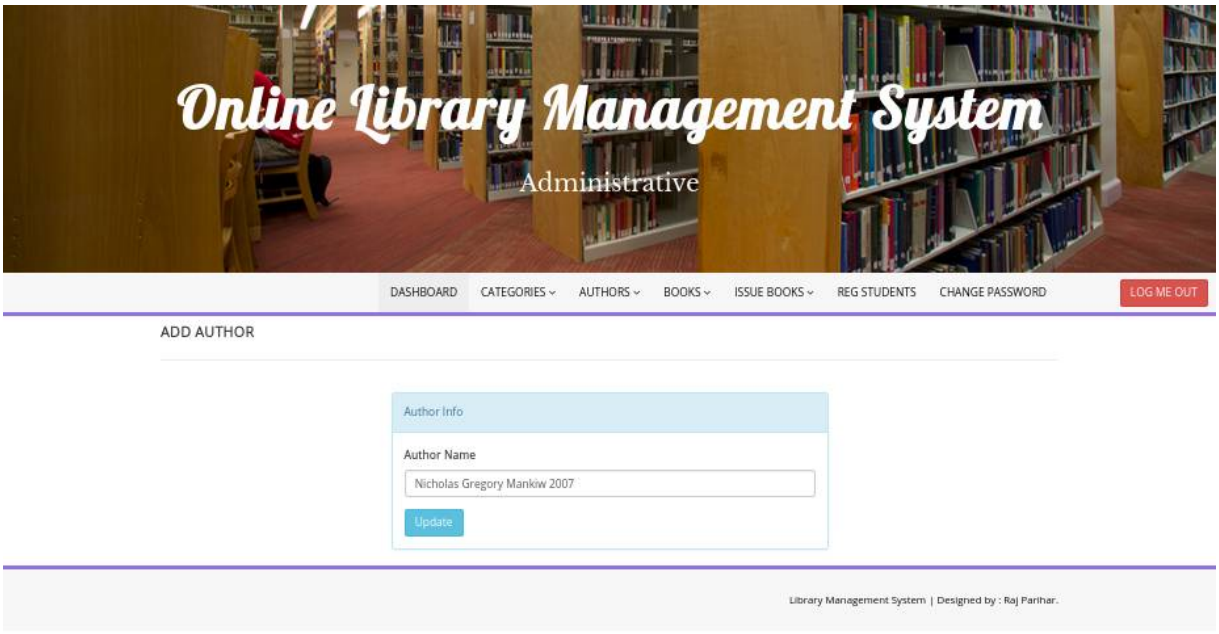
4.1 Screenshot for **add author** (admin)



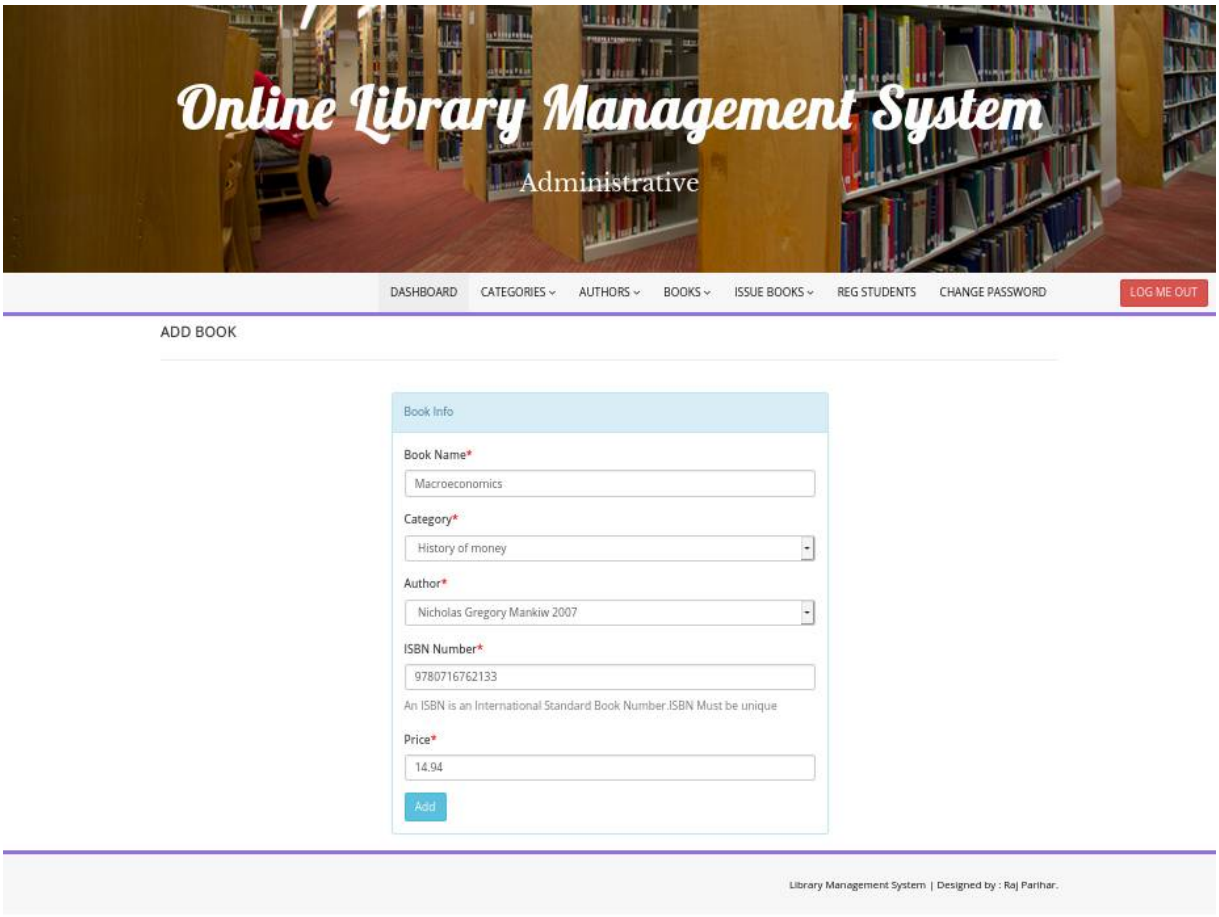
4.1 Screenshot for **manage authors** (admin)



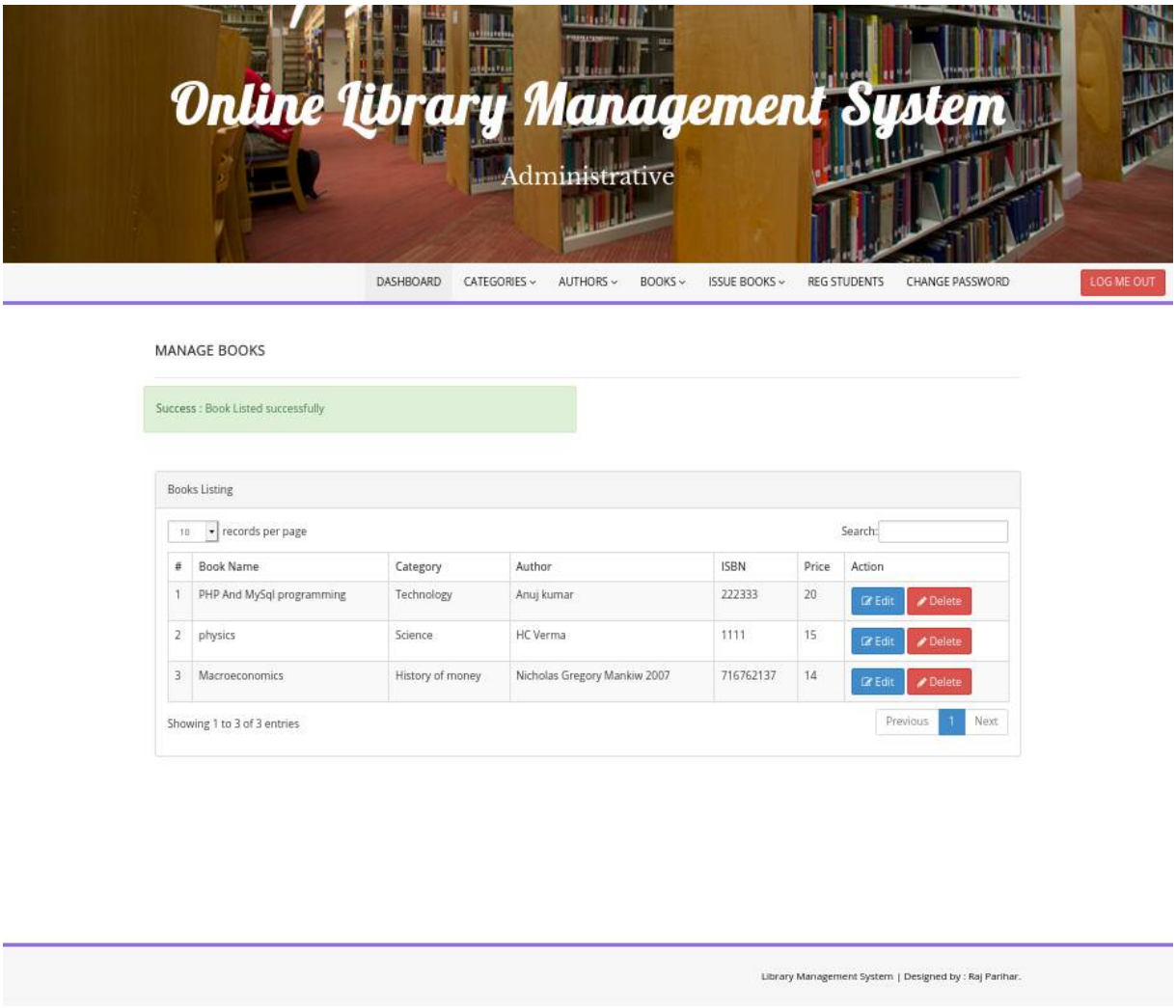
4.1 Screenshot for **edit author** (admin)



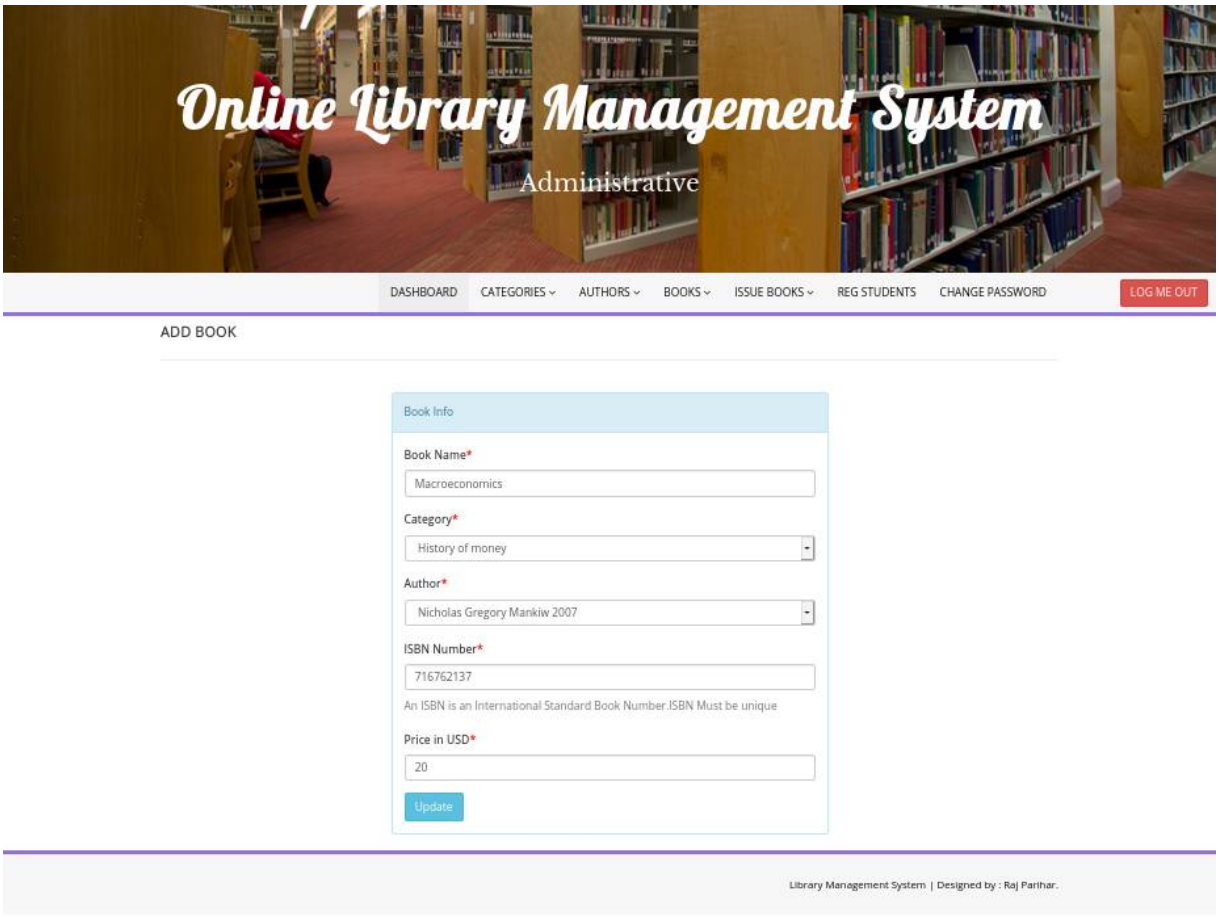
4.1 Screenshot for **add book** (admin)



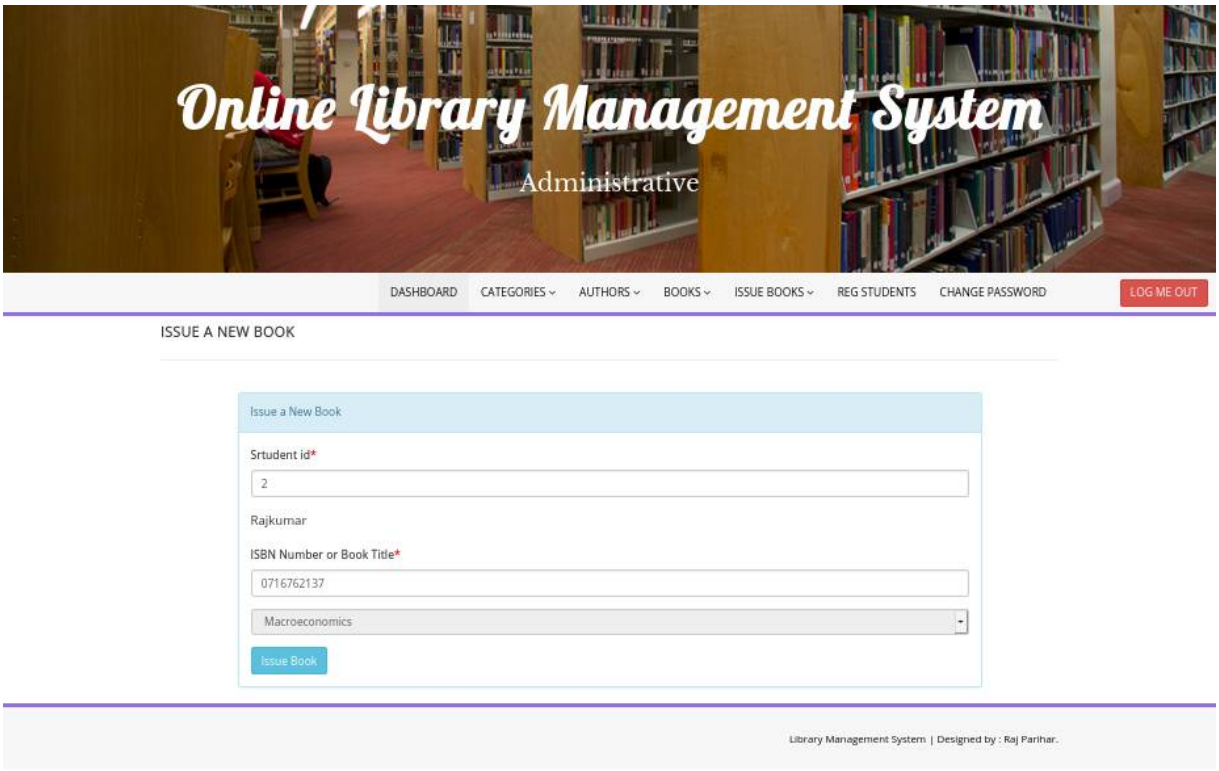
4.1 Screenshot for **manage book** (admin)



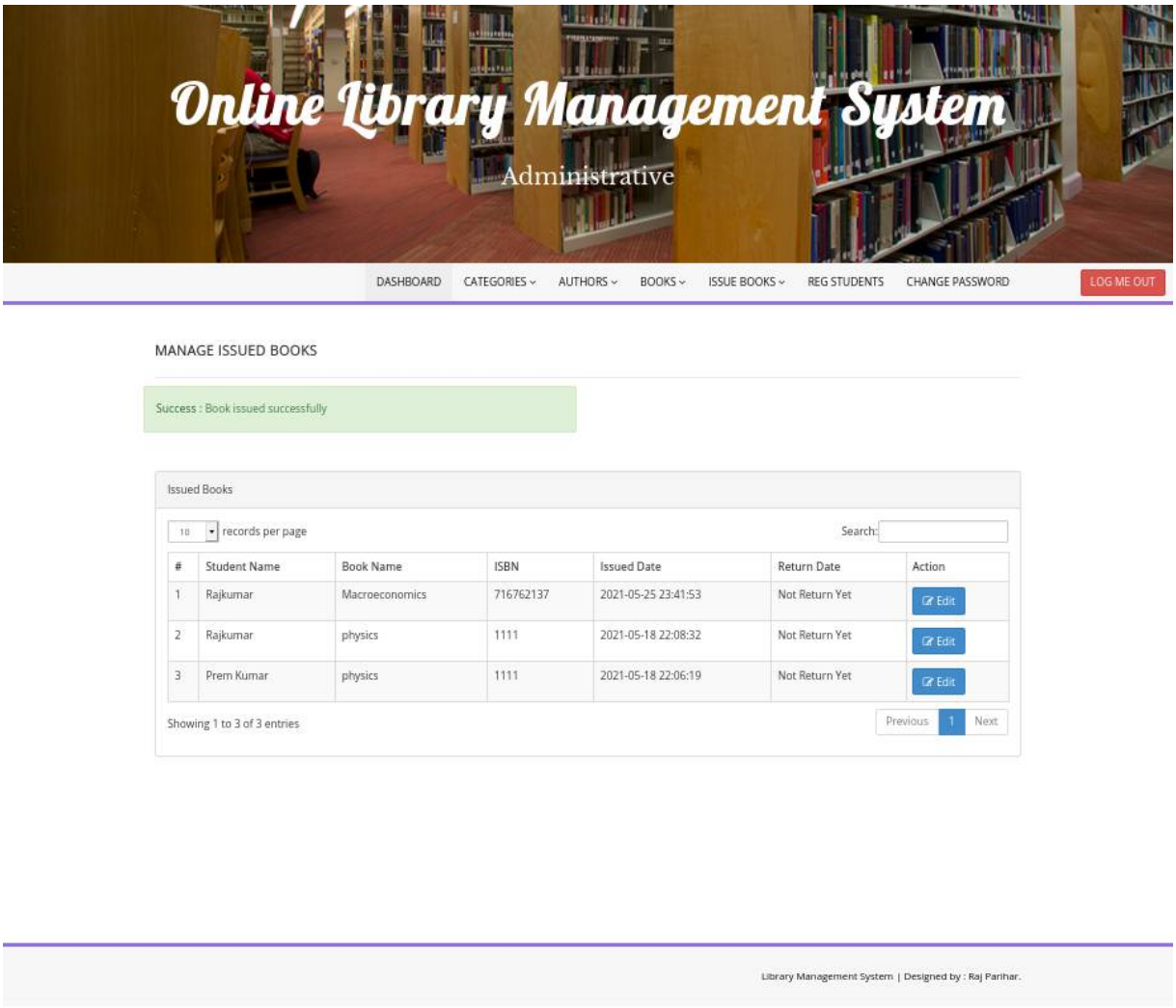
4.1 Screenshot for **edit book** (admin)



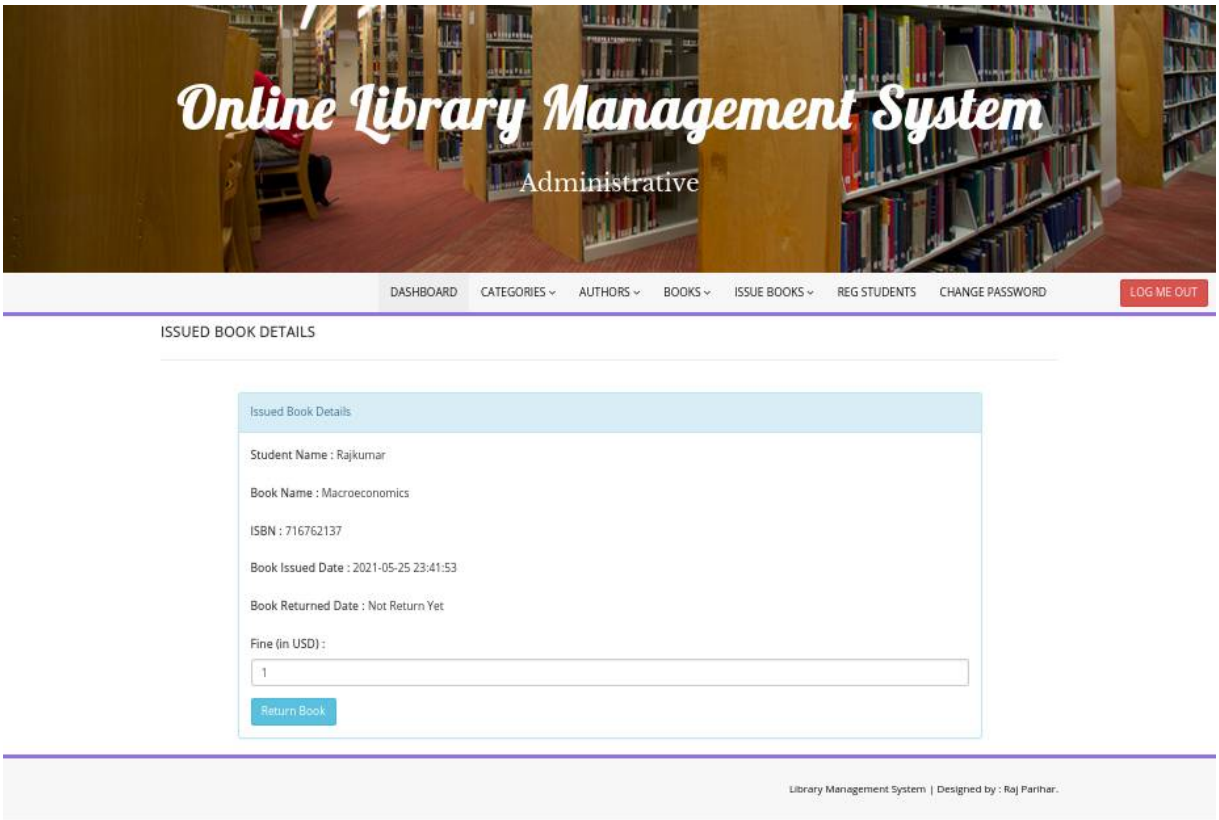
4.1 Screenshot for **issue a new book** (admin)



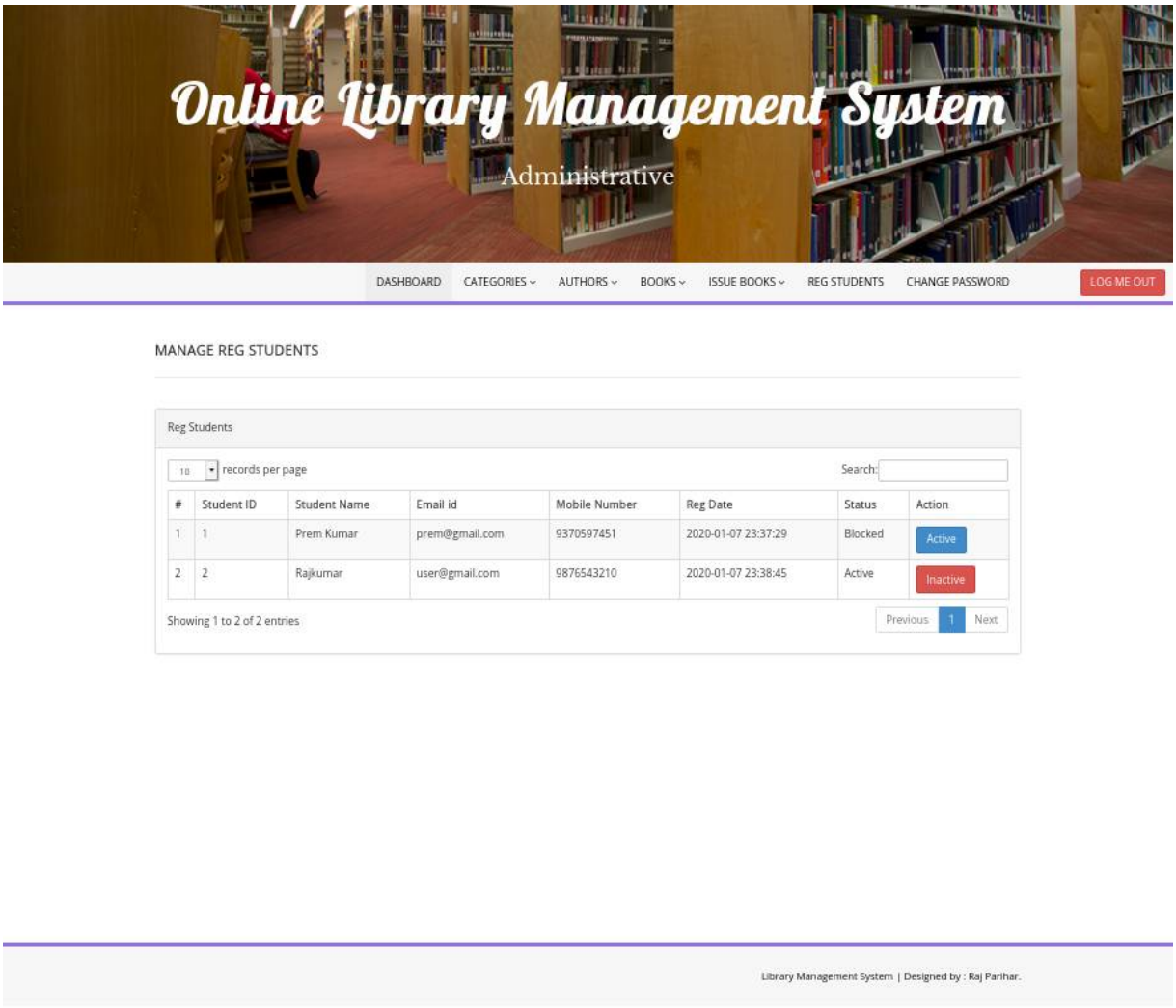
4.1 Screenshot for **manage issued books** (admin)



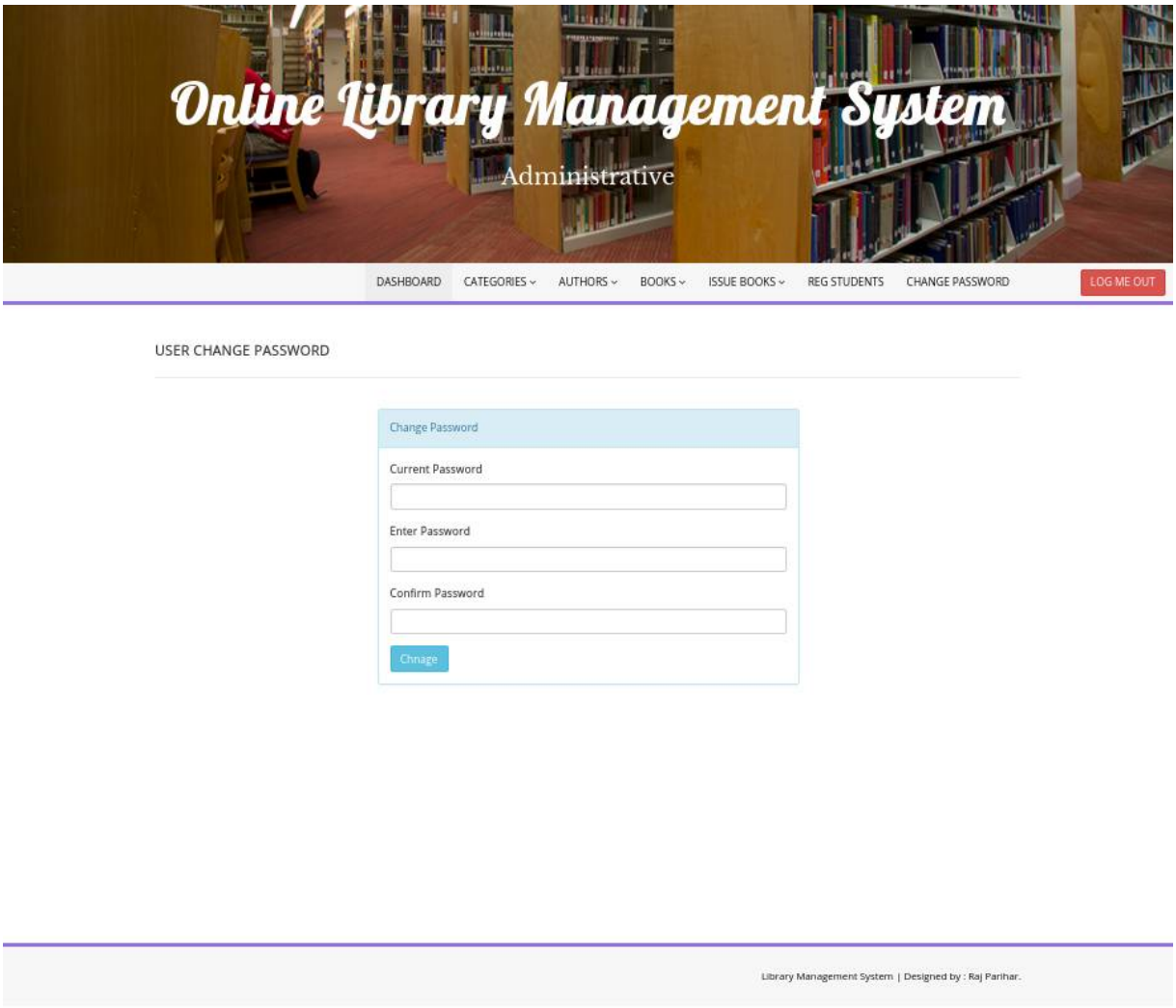
4.1 Screenshot for **view issued book details** (admin)



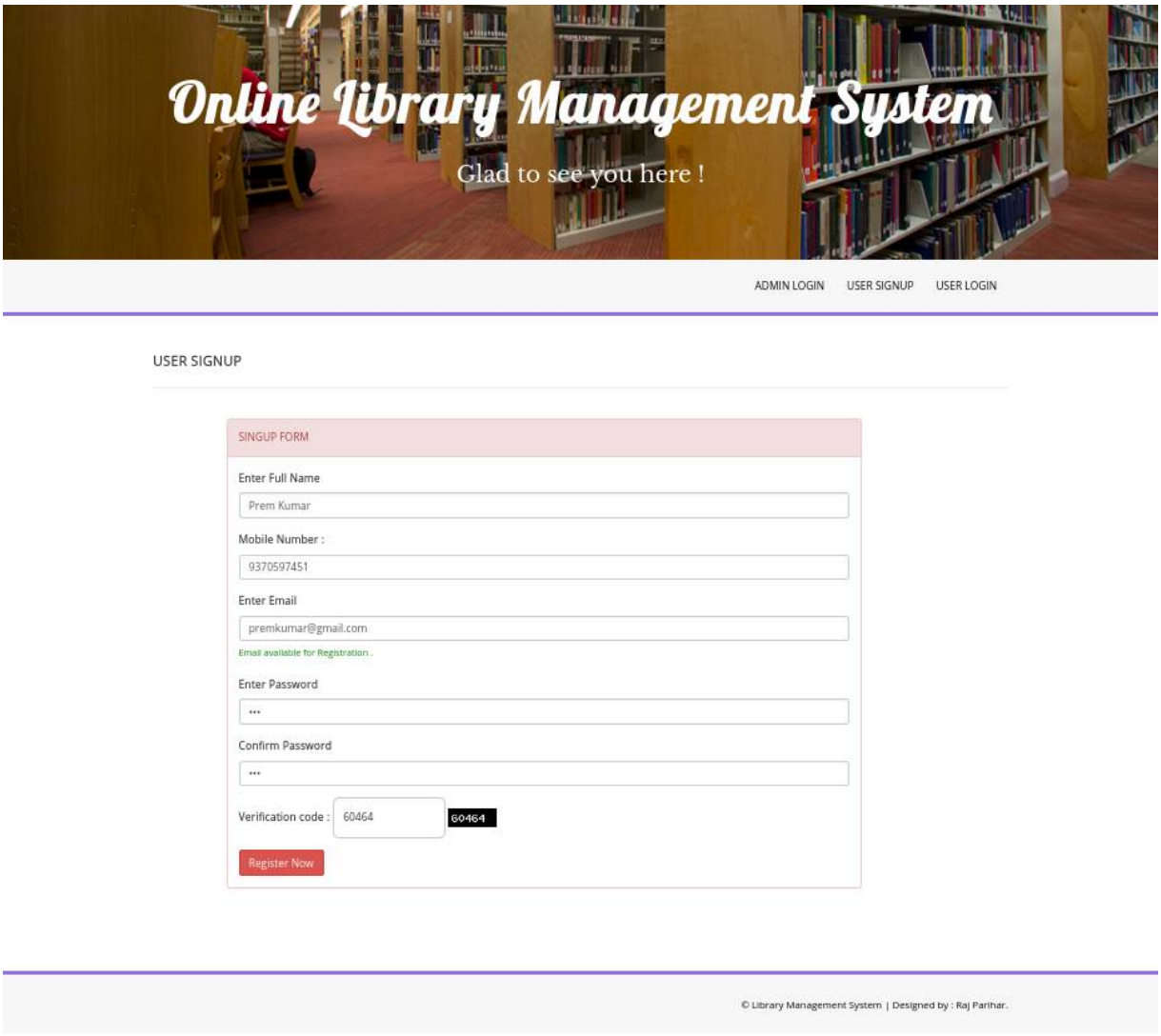
4.1 Screenshot for **manage registred students** (admin)



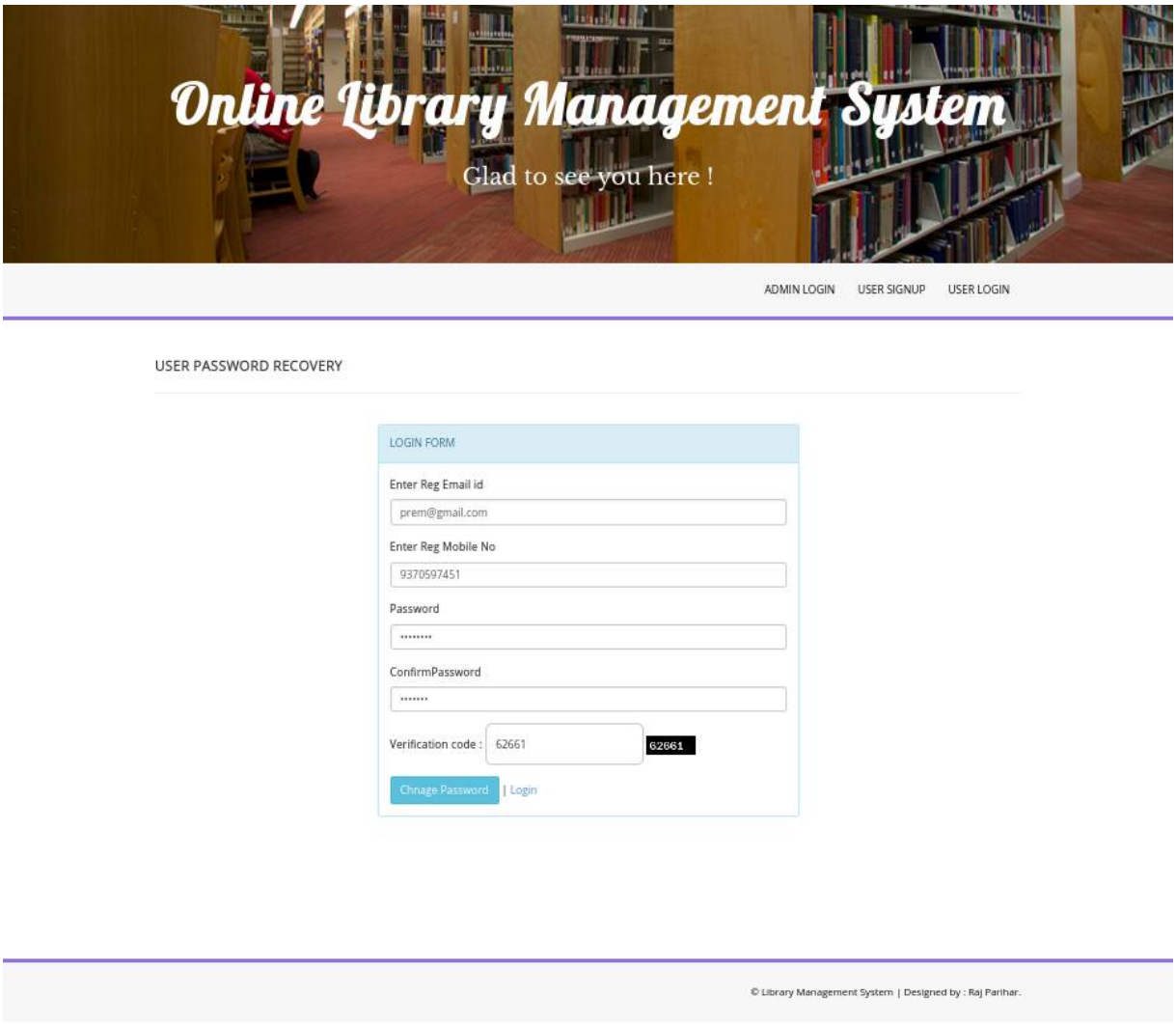
4.1 Screenshot for **change admin password** (admin)



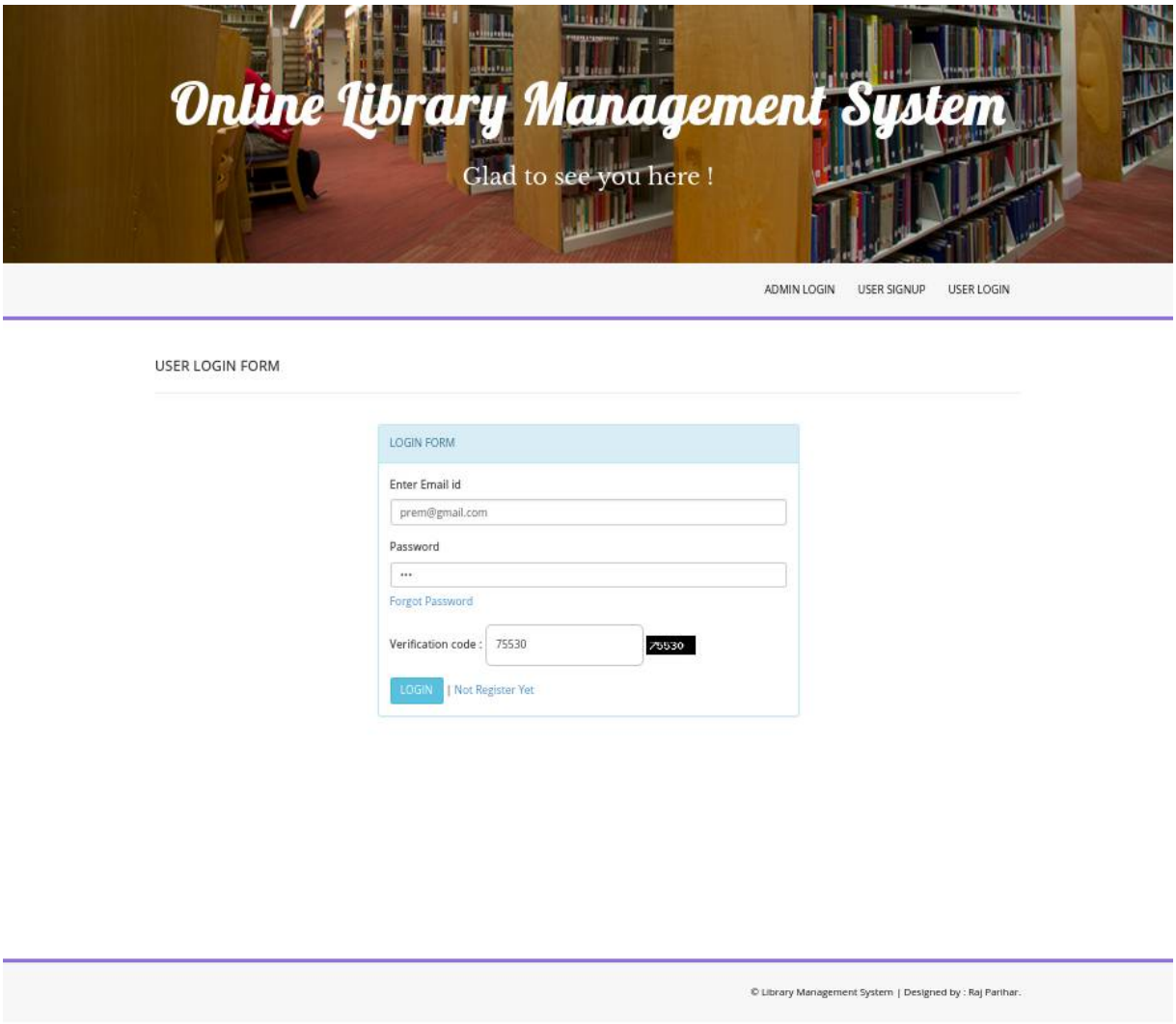
4.1 Screenshot for **user signup** (students)



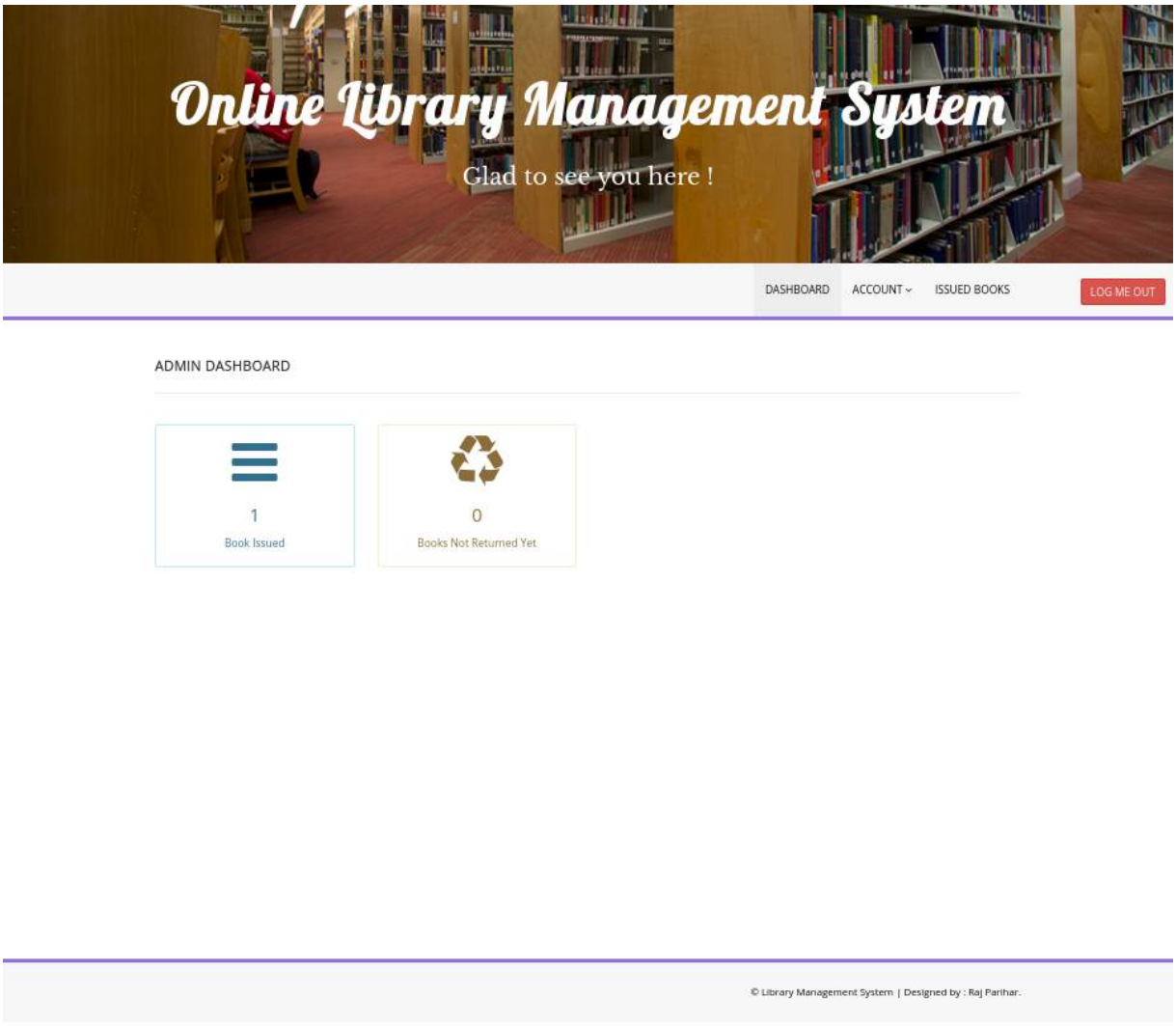
4.1 Screenshot for **user password recovery** (students)



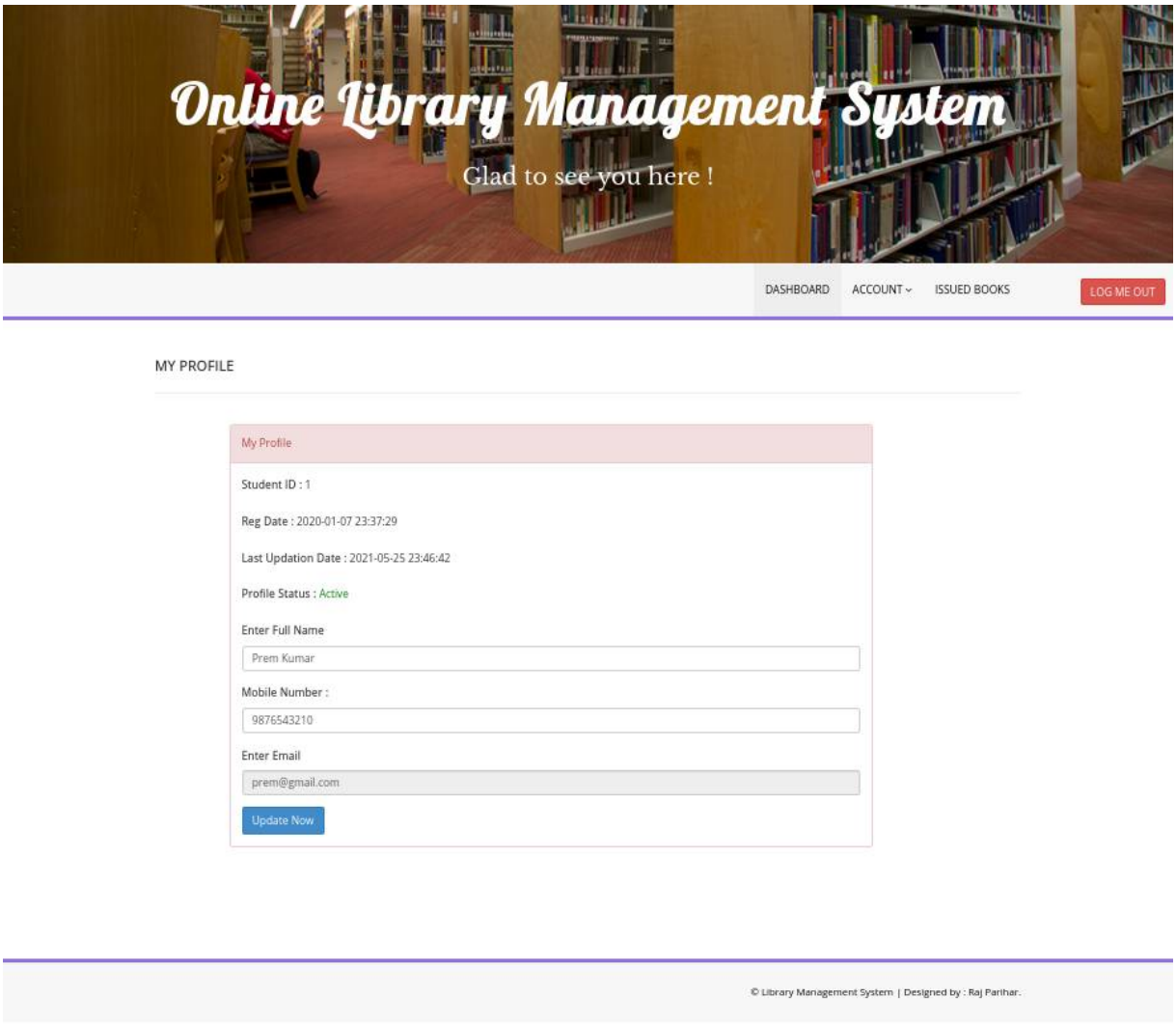
4.1 Screenshot for **user login** (students)



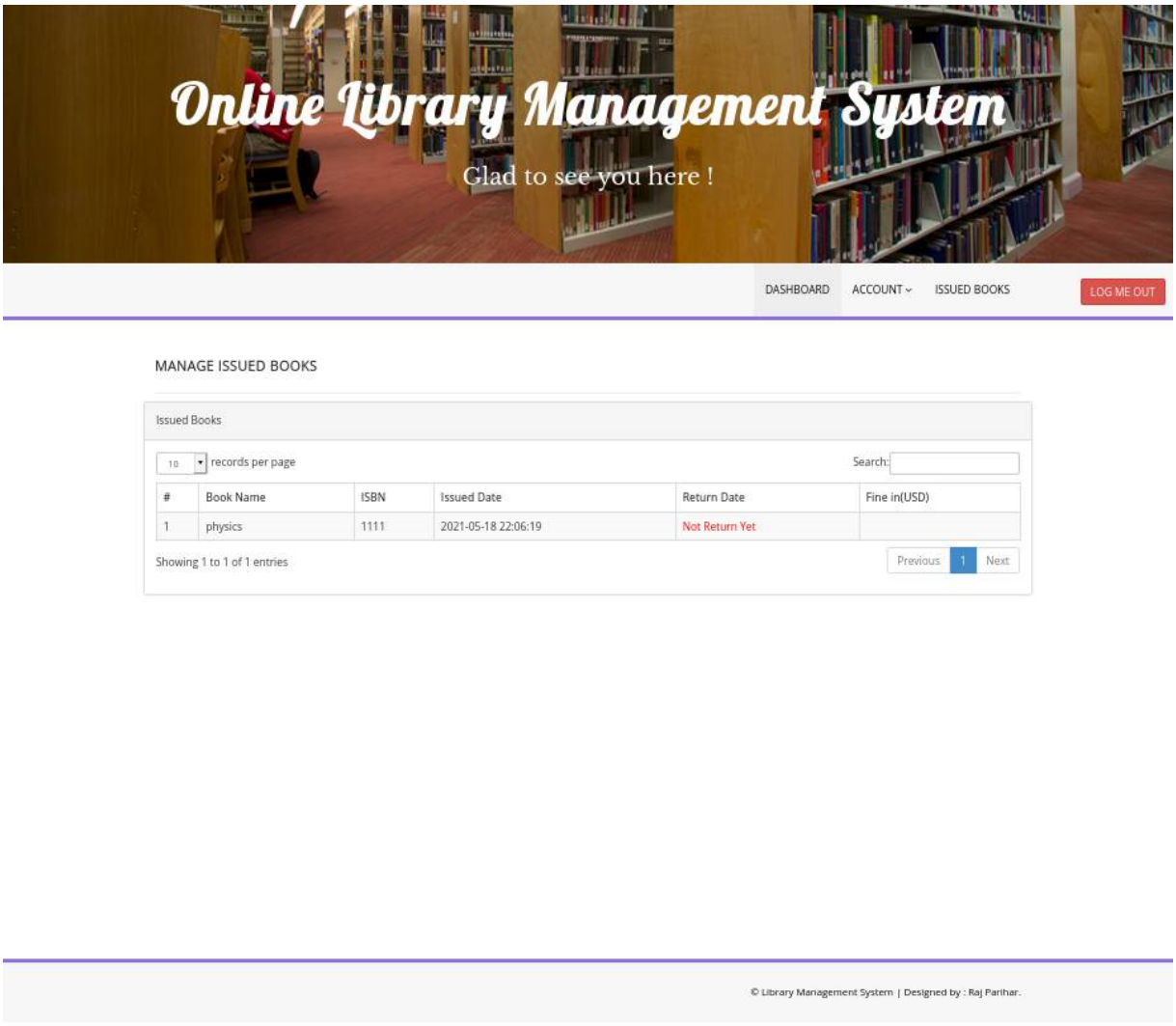
4.1 Screenshot for **users dashboard** (students)



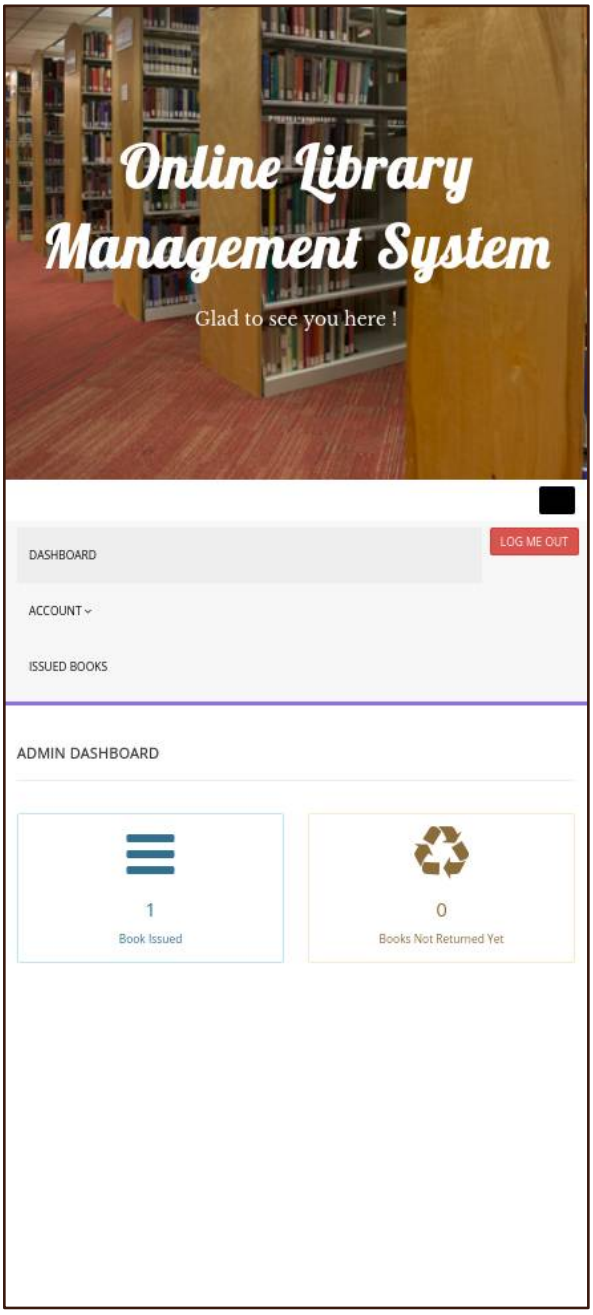
4.1 Screenshot for **my profile**(students)

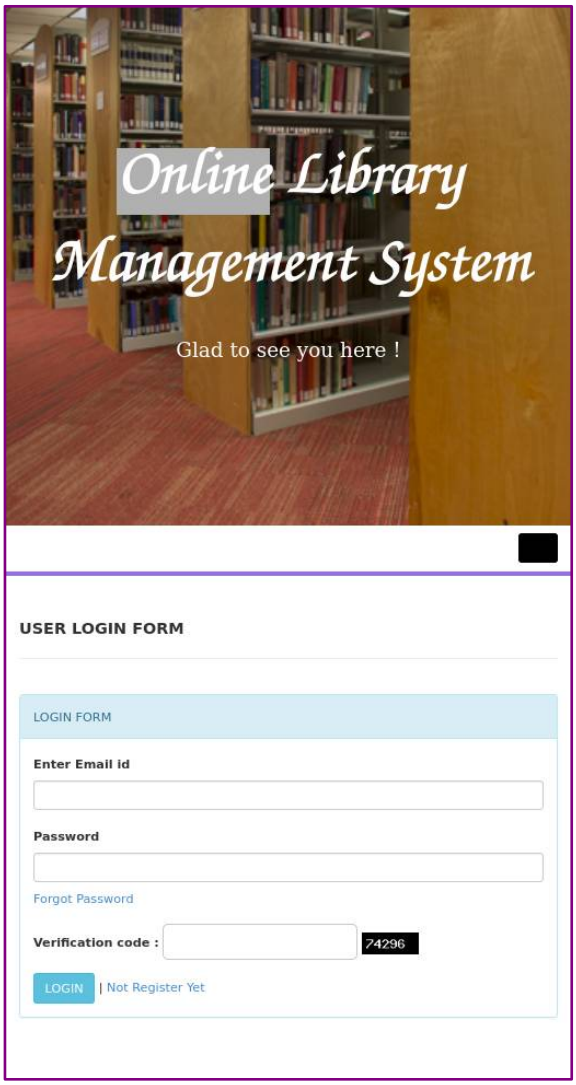


4.1 Screenshot for **view issued books** (students)



4.1 Screenshot for **mobile responsive view** (students)





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 succesfully reviewed .In order to test a single module we need to provide a complete environment ie besides the module we would requir

- 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 other wise 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 academinc info and then only add student details to main library database it contains add and delete buttons if user click add button data will be added to student database and if he clicks delete button the student data will be deleted.
- **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 thelibraryid, username and password if all these are correct student login page will open other wise if any of data is wrong it will get redirected back to the login page and again ask for libraryid, 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 conformation 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 logg in of teacher .In this we enter the username and password if all these are correct teacher login page will open other wise if any of data is wrong it will get redirected back to the login page and again ask for username and password.

5.2 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 book or give some suggestions. It has a facility of teacher's login where teachers can add lectures notes and also give necessary suggestion to library and also add info about workshops or events happening in our college or nearby college in the online notice board.

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

REFERENCES

- PHP Official
  https://php.net/manual/en/index.php
- PHP Tutorial by Tizag
  http://tizag.com/phpT/
- PHP full course in Hindi
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