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Project Report

Online Library Management System

CSE2004 – Database Management Systems

Submitted by

TEAM MEMBERS:

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in partial fulfilment for the award of the degree of

Bachelor of Technology in Computer Science and Engineering

Under the guidance of

Prof. Gopinath M.P

School of Computing Science and Engineering

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School of Computer Science and Engineering

DECLARATION

I hereby declare that the J Component report entitled "Online Library Management System" submitted by us to Vellore Institute of Technology, Vellore in partial fulfilment of the requirement for the award of the degree of B.Tech in Computer science and engineering is a record of Bonafede undertaken by us under the supervision of Prof. Gopinath M.P I further declare that the work reported in this report has not been submitted and will not be submitted, either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university.

Signature
Rathnam Sasidhar Achari
Vikas Pallanti

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1. Abstract

This paper describes the library management system. We have implemented such a system for monitoring and controlling all the transactions that are happening regarding the books and library. We have implemented some basic functions with specific functionality like adding new books and members, updating information related to books and members, searching books, borrowing and returning books, etc. We have divided it into various segments so that it is easy to update the current system and add new features and debug the system for any error or issues related to this system. We have implemented the backend using MySQL and frontend using HTML, CSS, PHP and JS. We have created an internet based graphical user interface which can be accessed remotely by the user from anywhere on the globe

Keywords: Library management, frontend, backend, MySQL, GUI, internet services

2. Introduction

Managing library details for every student and the management team is very difficult if its offline or its not set up properly. We are having troubles if we are not able to renew our library books by siting at our homes or hostel blocks. We need to go to the library to renew our books which is very disgusting. Even for searching a particular book in a big library is a tedious task.

The objectives of our project is

- Implement an online library system which can be used by the students, teachers and the staff members for maintaining the records and issuing book from the library
- Renewal of books by students and teachers can be done right from their homes or hostels and coming to the library for renewing is not at all required
- Searching of books is made very easy by assigning them the fixed place in the library. So we can just go to that shelf instead of searching all the categories that book belongs to

3. Literature Survey

Development of cloud computing in integrated library management and retrieval system

This paper describes the different aspects of cloud computing and how it serves as a platform, service and infrastructure for the library needs. It implies a model for accessing cloud computing. It developed an integrated library management system and retrieval system based on global recommendation. Cloud system is the most comprehensive open source software for developing and designing internet based services.

4. Tools and methodologies

Softwares that we have used:

1) XAMPP
2) Visual Studio
3) phpmyadmin

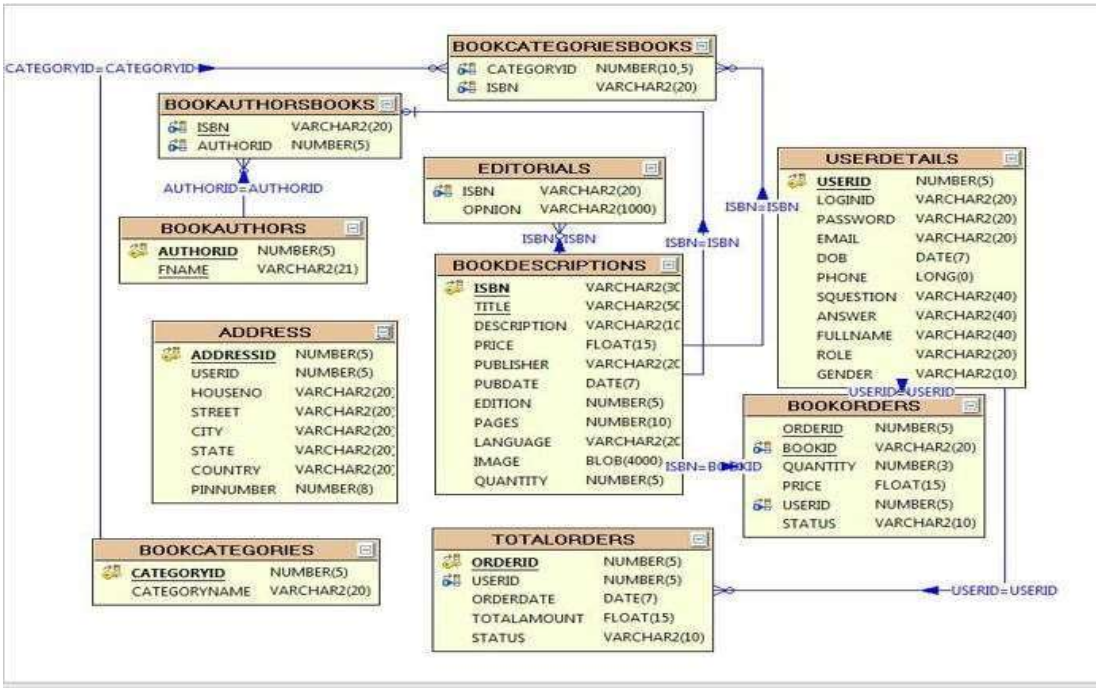
Steps:

- Connecting the mysql and apache using xampp software.
- phpMyAdmin for all database purposes.
- Notepad++ for making php and html file.
- Inserting, updating and deleting data from database is possible using query from the php file and also from the phpMyAdmin.

Languages used:

1) mysql
2) html
3) php
4) css
5) javascript

- Table is created using phpMyAdmin, and all the other queries are given by php commands.
- HTML, CSS and javascript is used to making userinterface.



Tables:

Table	Action	Rows	Type	Collation	Size	Overhead
admin	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 KiB	-
tblauthors	Browse Structure Search Insert Empty Drop	6	InnoDB	latin1_swedish_ci	16 KiB	-
tblbooks	Browse Structure Search Insert Empty Drop	4	InnoDB	latin1_swedish_ci	16 KiB	-
tblcategory	Browse Structure Search Insert Empty Drop	4	InnoDB	latin1_swedish_ci	16 KiB	-
tblissuedbookdetails	Browse Structure Search Insert Empty Drop	9	InnoDB	latin1_swedish_ci	16 KiB	-
tblstudents	Browse Structure Search Insert Empty Drop	7	InnoDB	latin1_swedish_ci	32 KiB	-
6 tables	Sum	31	InnoDB	latin1_swedish_ci	112 KiB	0 B

Structure of admin table:

#	Name	Type
1	id	int(11)
2	FullName	varchar(100)
3	AdminEmail	varchar(120)
4	UserName	varchar(100)
5	Password	varchar(100)
6	updationDate	timestamp

Structure of tblauthors table:

#	Name	Type
1	id	int(11)
2	AuthorName	varchar(159)
3	creationDate	timestamp
4	UpdationDate	timestamp

Structure of tblbooks table:

#	Name	Type
1	id	int(11)
2	BookName	varchar(255)
3	CatId	int(11)
4	AuthorId	int(11)
5	ISBNNumber	int(11)
6	BookPrice	int(11)
7	RegDate	timestamp
8	UpdationDate	timestamp

Structure of tblcatergory table:

#	Name	Type
1	id	int(11)
2	CategoryName	varchar(150)
3	Status	int(1)
4	CreationDate	timestamp
5	UpdationDate	timestamp

Structure of tblissuedbookdetails table:

#	Name	Type
1	id	int(11)
2	BookId	int(11)
3	StudentID	varchar(150)
4	IssuesDate	timestamp
5	ReturnDate	timestamp
6	RetrunStatus	int(1)
7	fine	int(11)

Structure of tblstudents table:

	#	Name	Type
☐	1	id	int(11)
☐	2	StudentId	varchar(100)
☐	3	FullName	varchar(120)
☐	4	EmailId	varchar(120)
☐	5	MobileNumber	char(11)
☐	6	Password	varchar(120)
☐	7	Status	int(1)
☐	8	RegDate	timestamp
☐	9	UpdationDate	timestamp

5. Experiment and Result

First page that opens is the login page

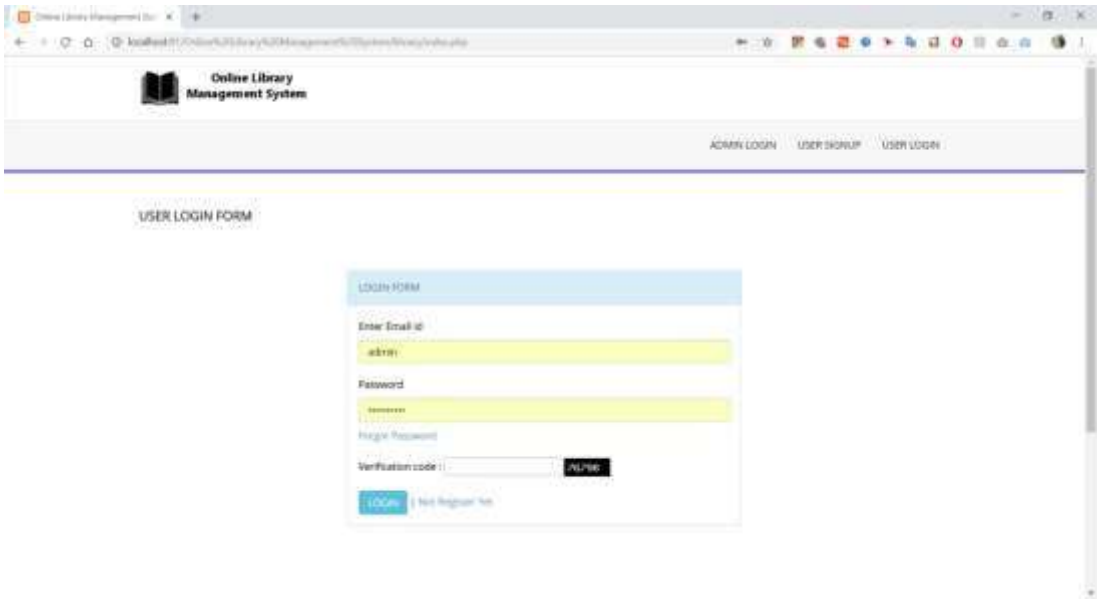


Fig 1

When we click on admin, admin login page opens where admin can login

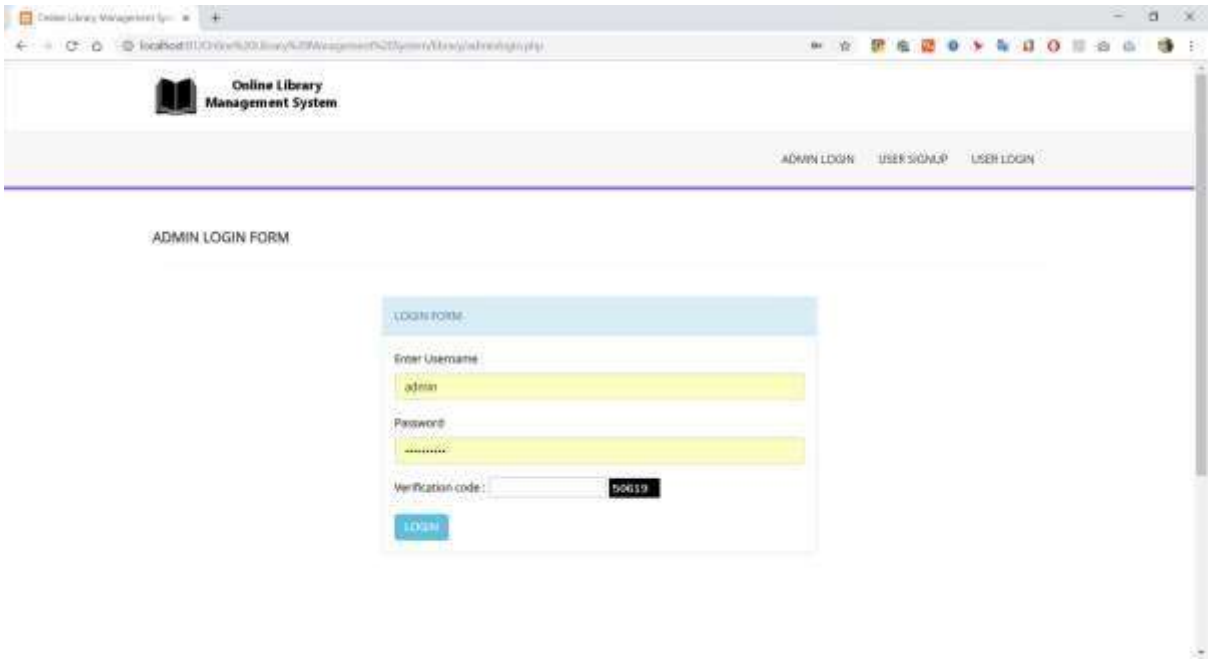


Fig 2

New users can sign up under user signup

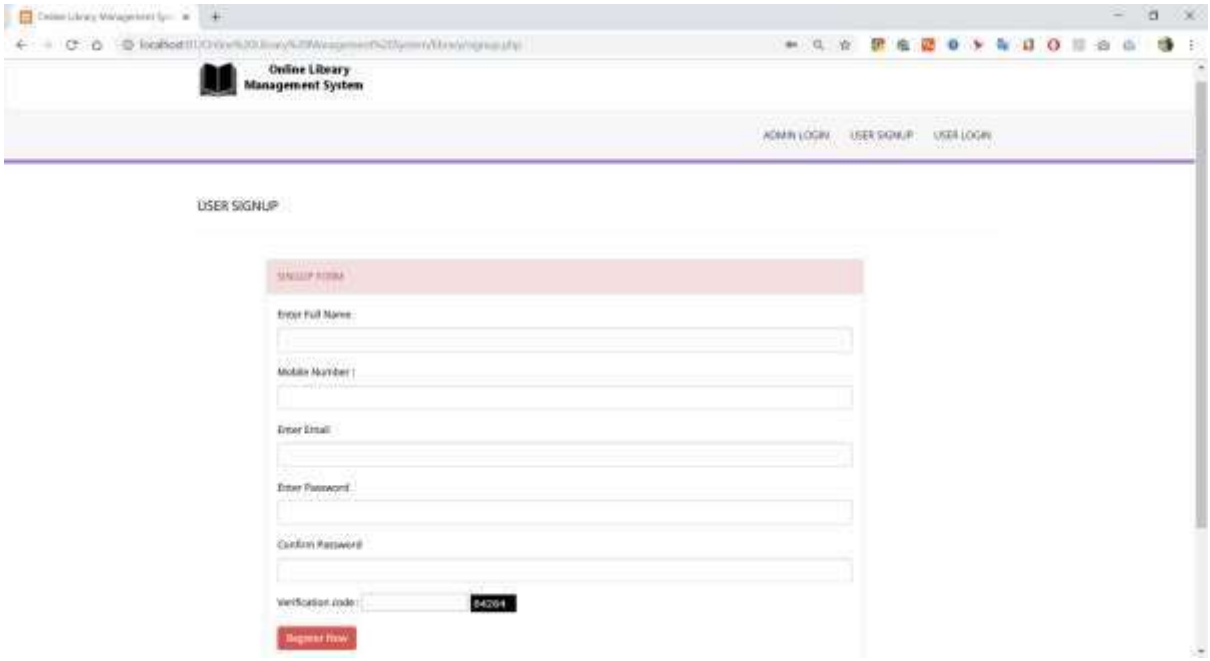


Fig 3

User Dashboard

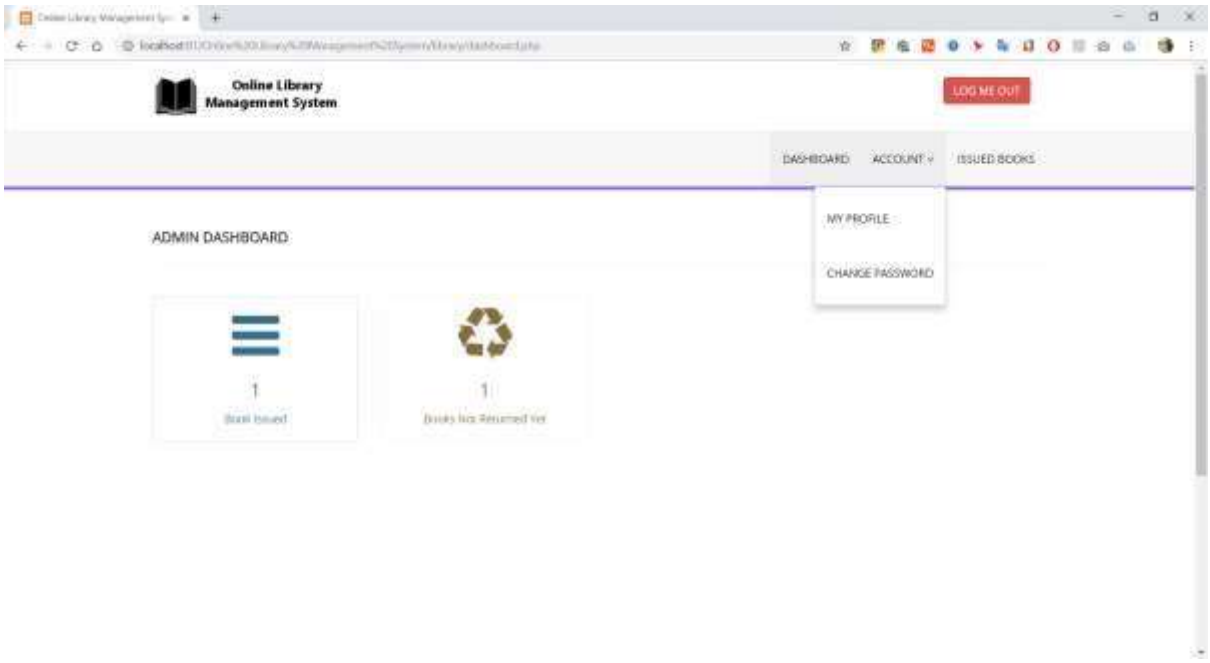


Fig 4

User profile

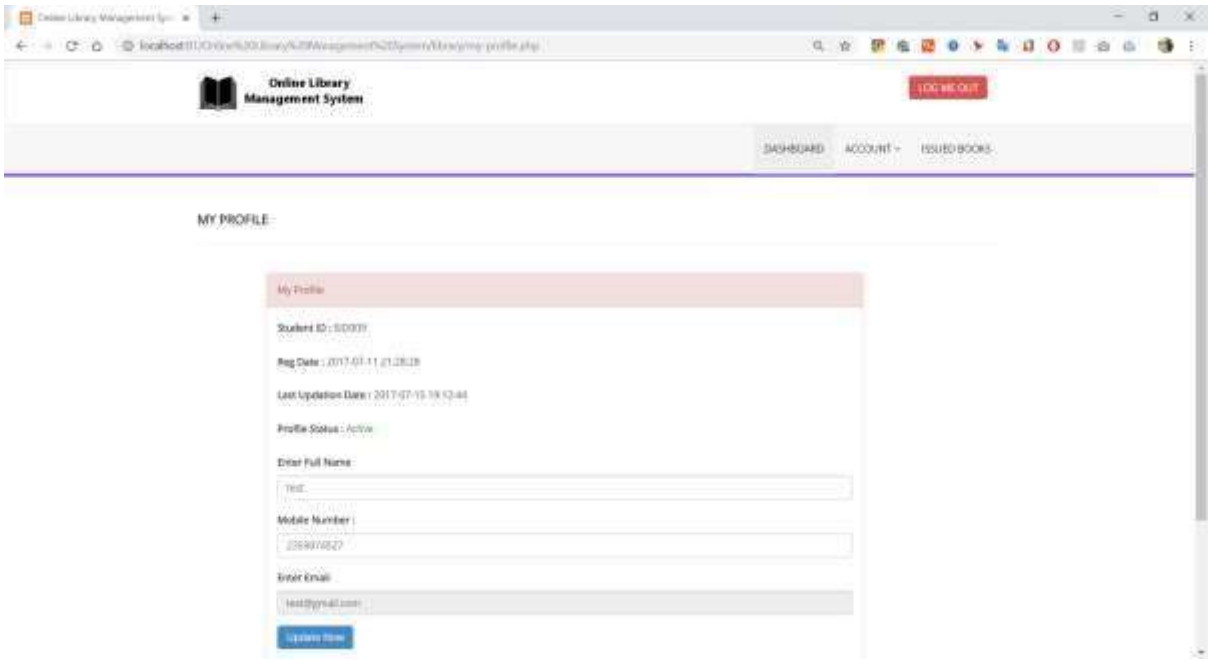


Fig 5

User can change their password if they want

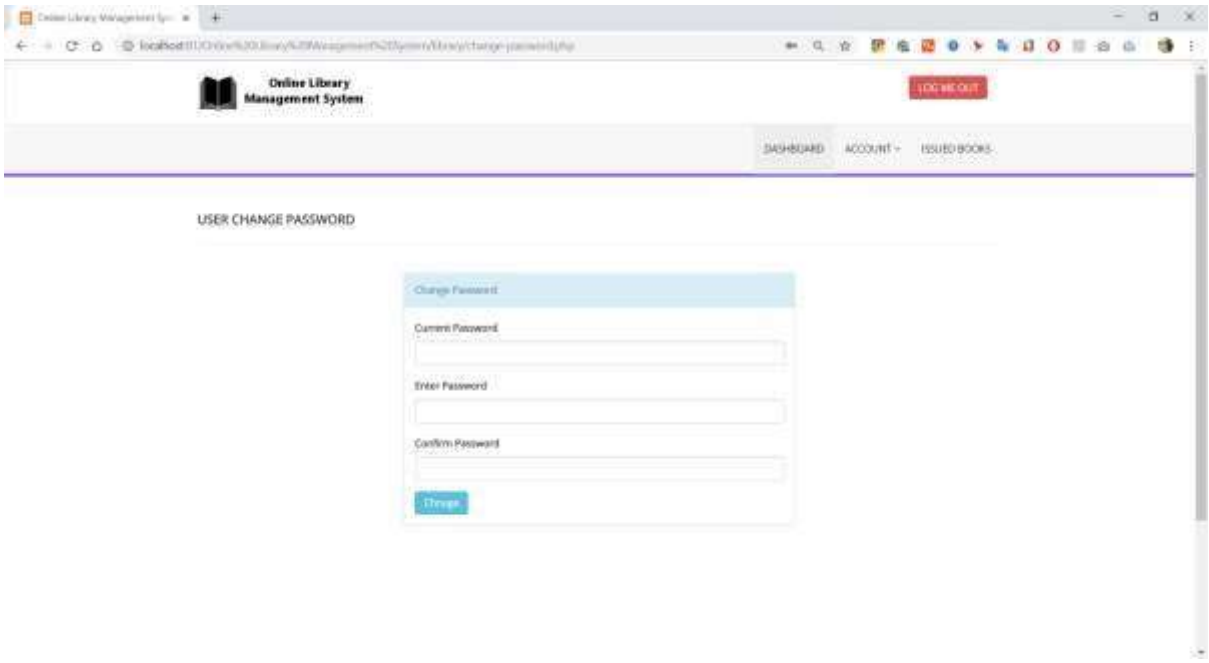


Fig 6

User can see the list of books they have isssued

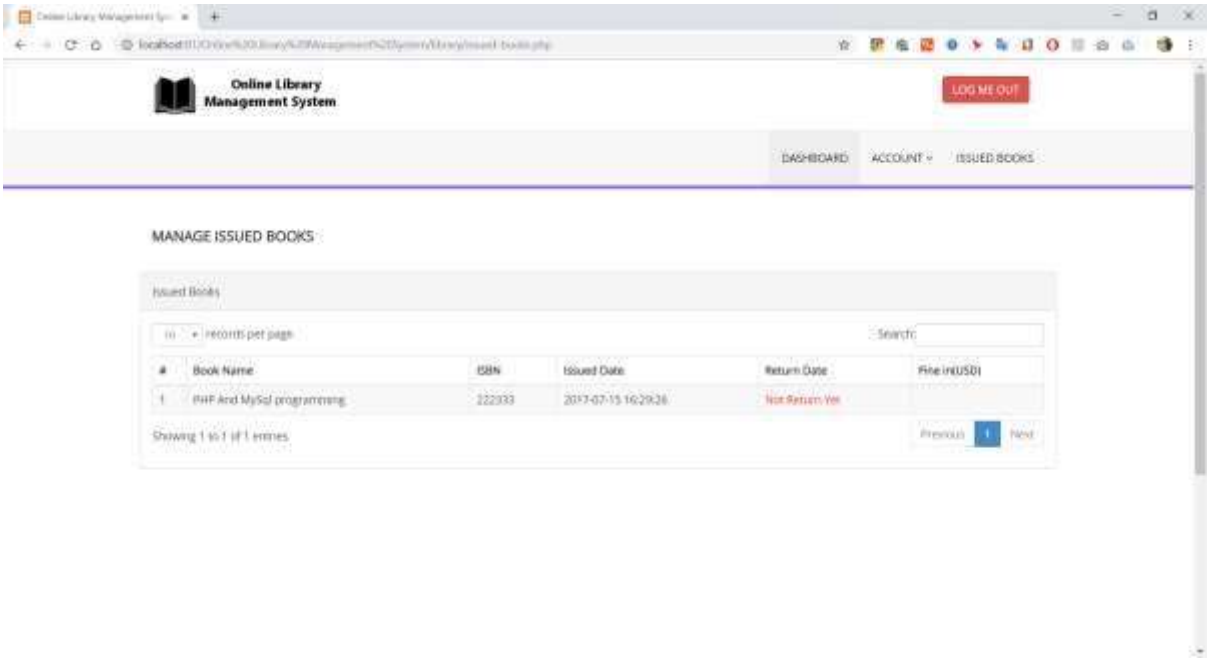


Fig 7

Admin Dashboard

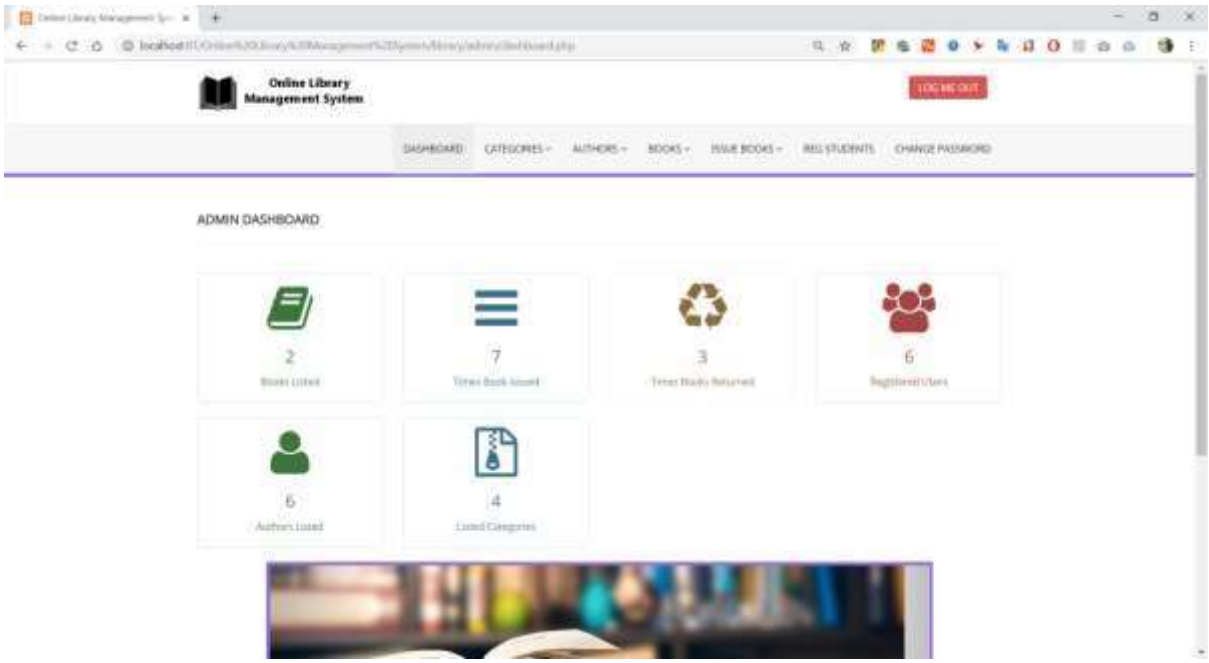


Fig 8

Admin can add category of books

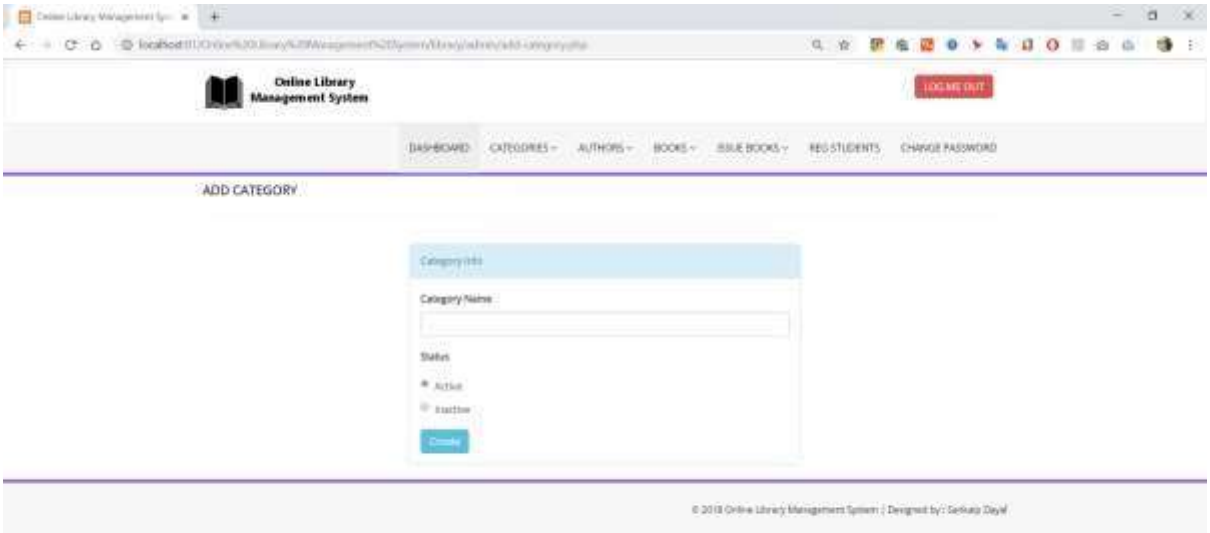


Fig 9

Admin can manage the existing categories

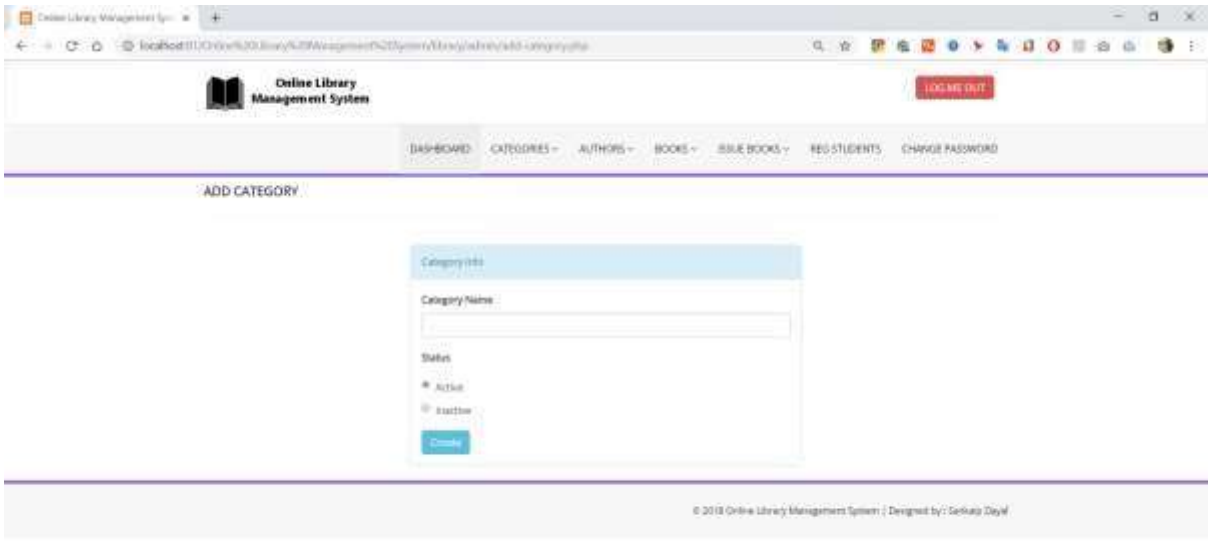


Fig 10

Admin can add new authors

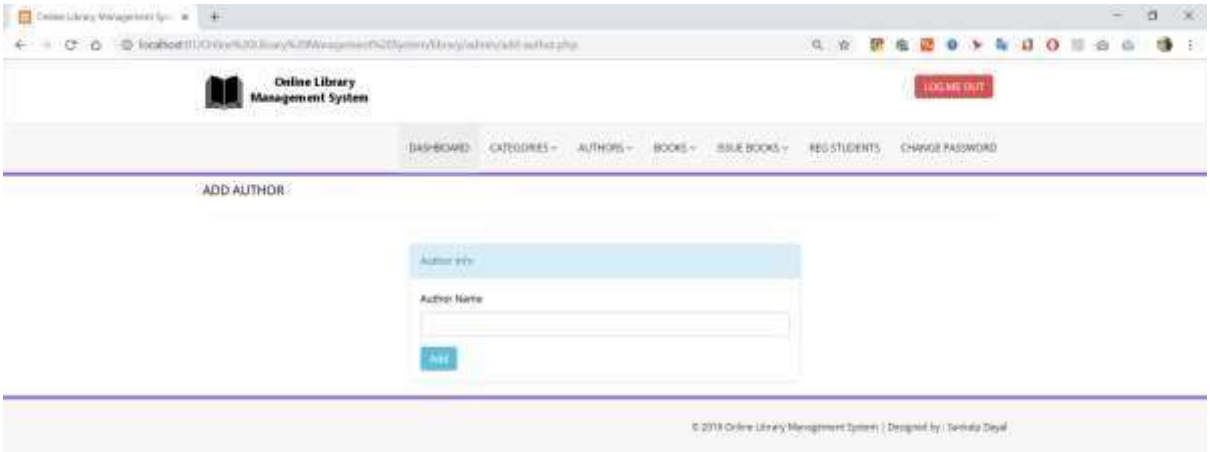


Fig 11

Admin can manage authors

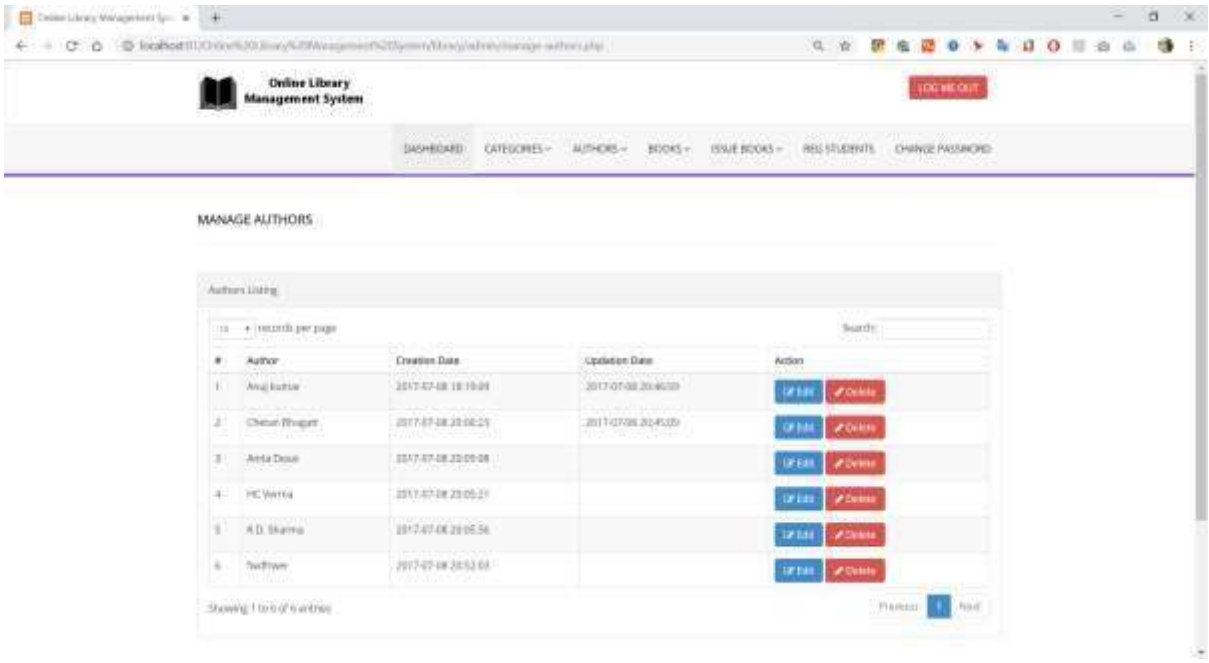


Fig 12

Admin can add new books

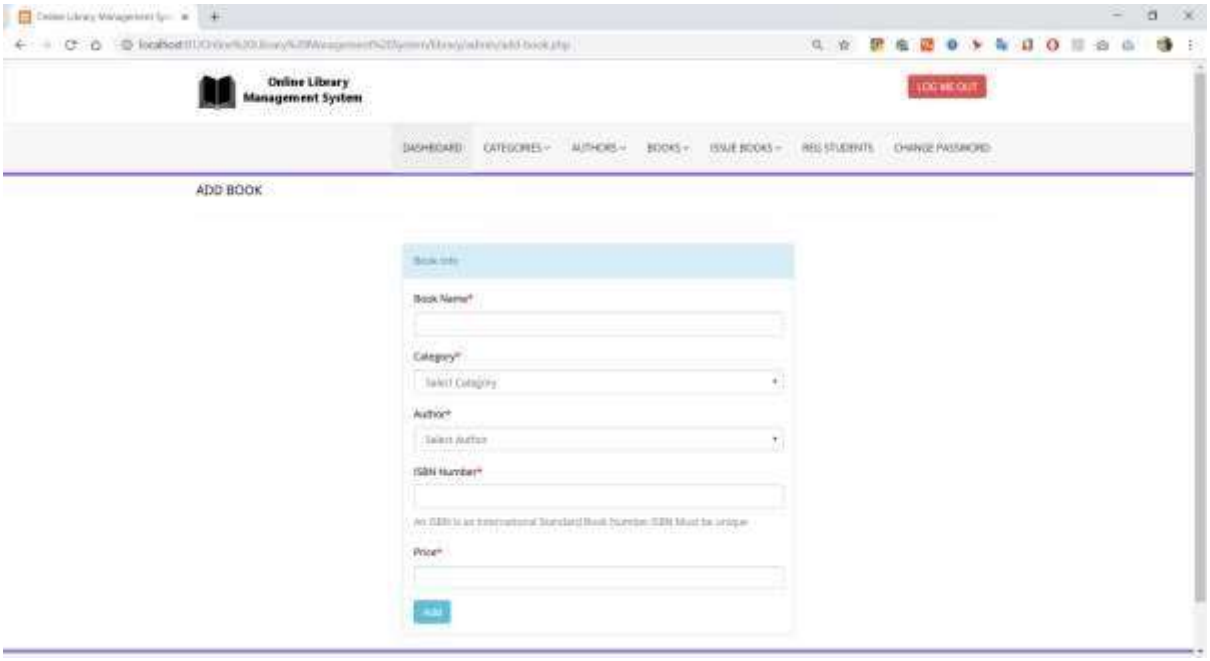


Fig 13

Admin can manage existing books

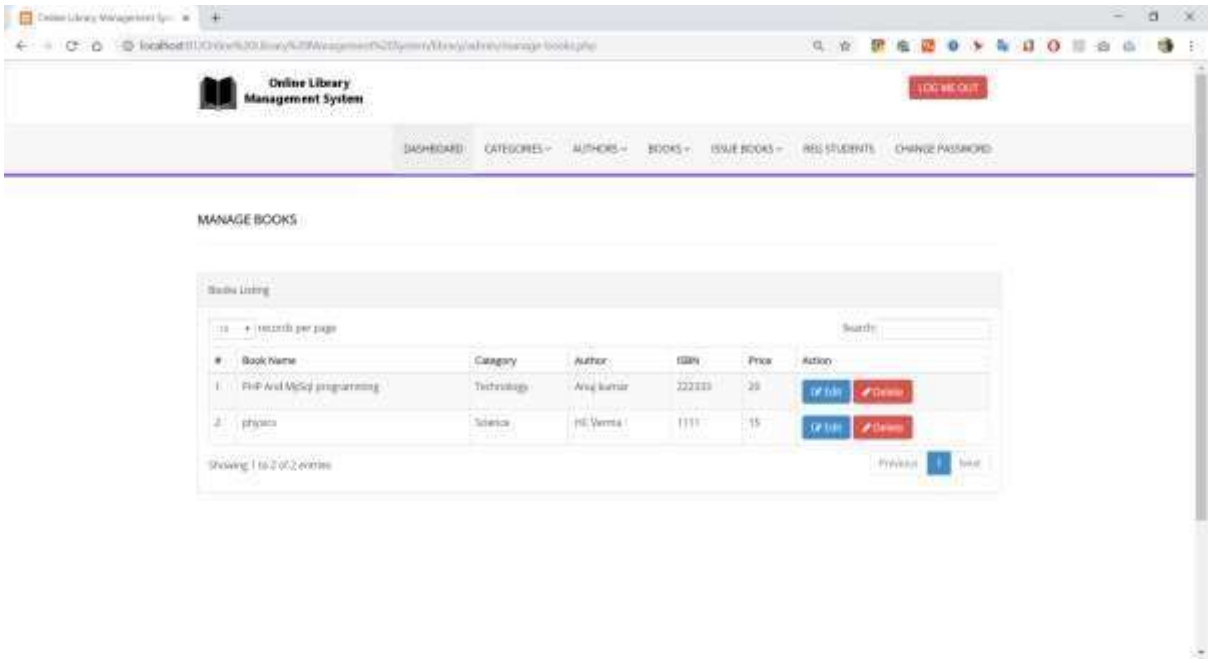


Fig 14

Admin can issue a new book

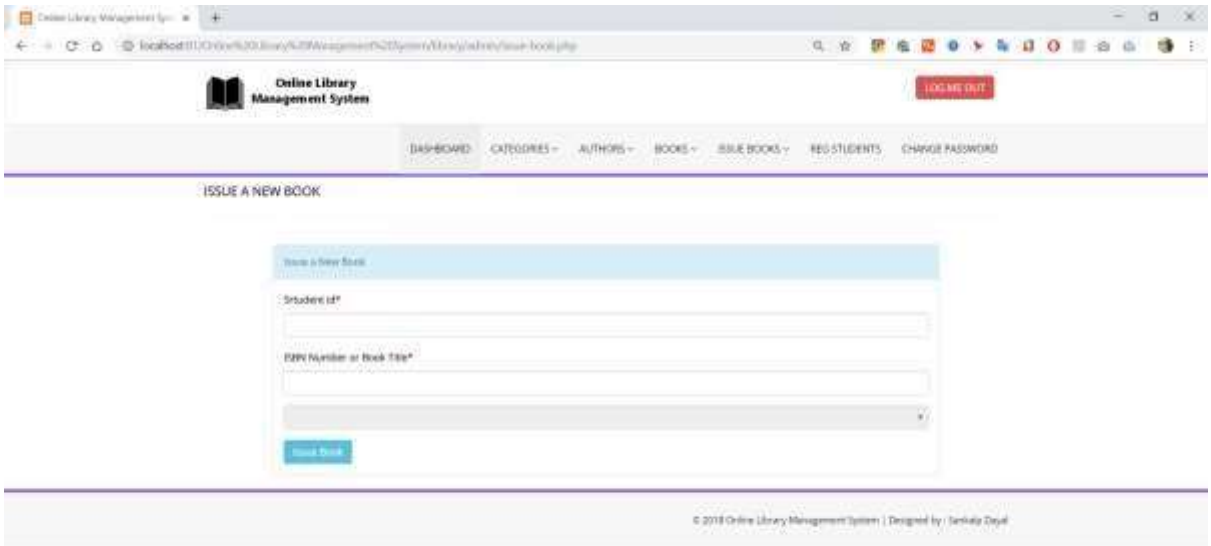


Fig 15

Admin can manage issued books to the students

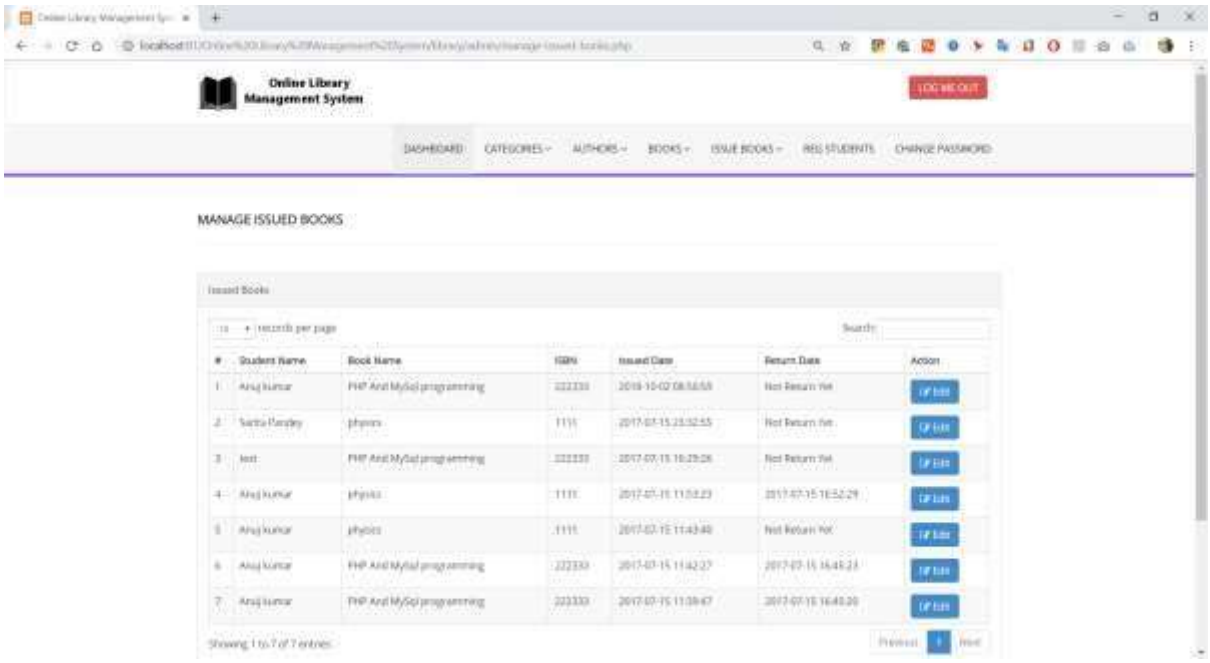


Fig 16

Admin can manage Registered students

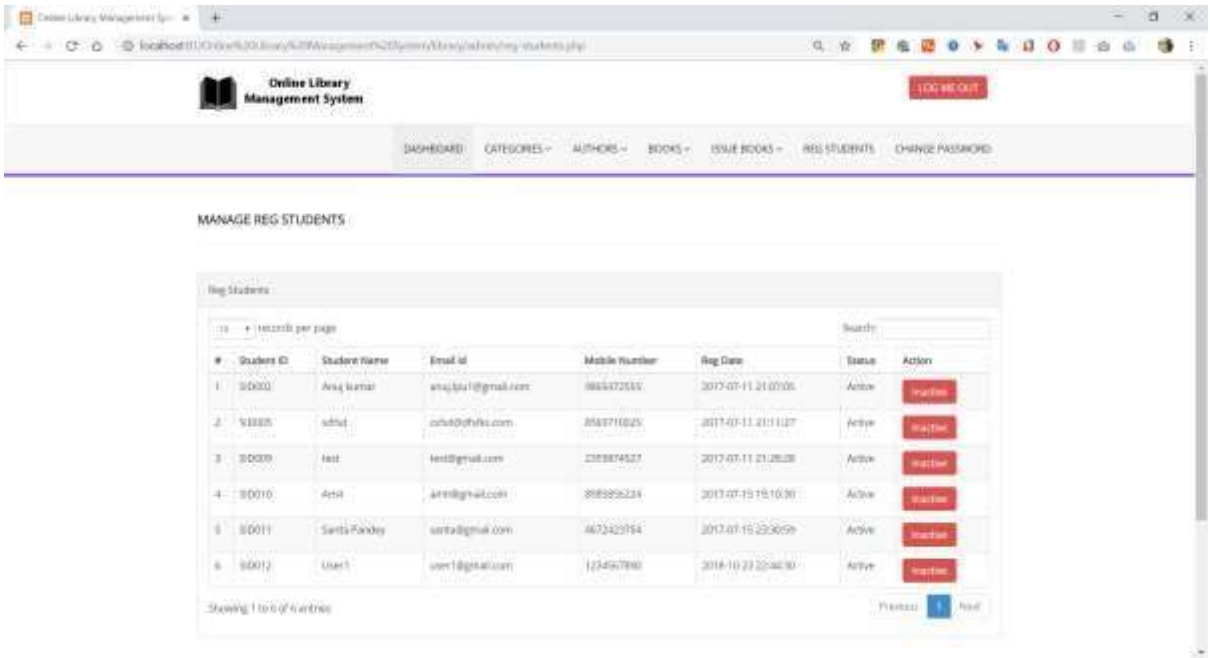


Fig 17

Admin can change the password if they want

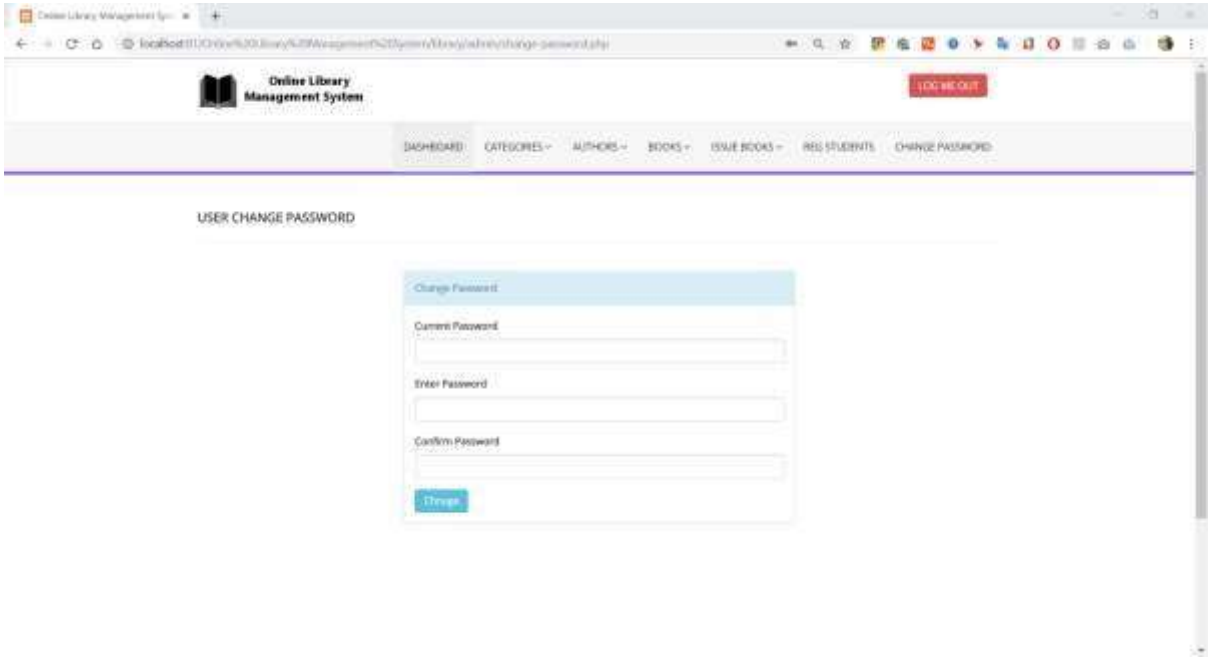


Fig 18

6. Conclusion

The project has been a great challenge to all the members of the group. Nourishing our knowledge on the topics is very helpful for the long run. Combination of some previous knowledge and now the database has made us sharpen the skills on the overall concept of the web portal. The project will serve as an easy interface to connect the users to share their reviews about a particular movie. The MongoDB database is great when it comes to working with JSON (Javascript Object Notations) file type. The queries are easy to understand. The use of node.js framework helped us to perform the backend in the best way, whether it comes to connecting with the API and work on a third party database or creating our own database and working on it.

We are highly obliged that our respected faculty Prof. Gopinath M.P provided us this opportunity to work on this project and go through the concepts of Web Development working on a real time project using the database.

7. References

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