



Final Project Report

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Dated: July 31st, 2020

Library Management System

The Library Management System(LMS) is an efficient record keeping system for a Library. It is a very user friendly software with an easy to use user interface(UI).

A) Description:

The brief description of the features of the Library Management System are listed below:

Admin:

1. Admin can login.
2. Admin can logout.
3. Admin can add records of new books.
4. Admin can approve or disapprove a student's account.
5. Admin can issue books to students.
6. Admin can view record all students .
7. Admin can view a list of all the books in the library and a list of all the students who have taken the books.
8. Admin can send messages to students.
9. Admin can update the record when a book is returned by a student.
10. Admin can search books by book name.

Student:

1. Student can login and logout.
2. Student can search a book.
3. Student gets notification when admin sends a message and a Student can read that message.
4. A Student can view list of all the books in his/her possession with their issue dates.
5. A Student can register but it needs to wait until admin activates its library account.

B) DATABASE SCHEMA / ER DIAGRAM:

LMS librarian_registration	
id : int(5)	
fname : varchar(50)	
lname : varchar(50)	
username : varchar(50)	
password : varchar(50)	
email : varchar(50)	
contact : varchar(50)	

LMS messages	
id : int(5)	
sender_username : varchar(50)	
reciever_username : varchar(50)	
title : varchar(150)	
message : varchar(700)	
n_read : varchar(15)	

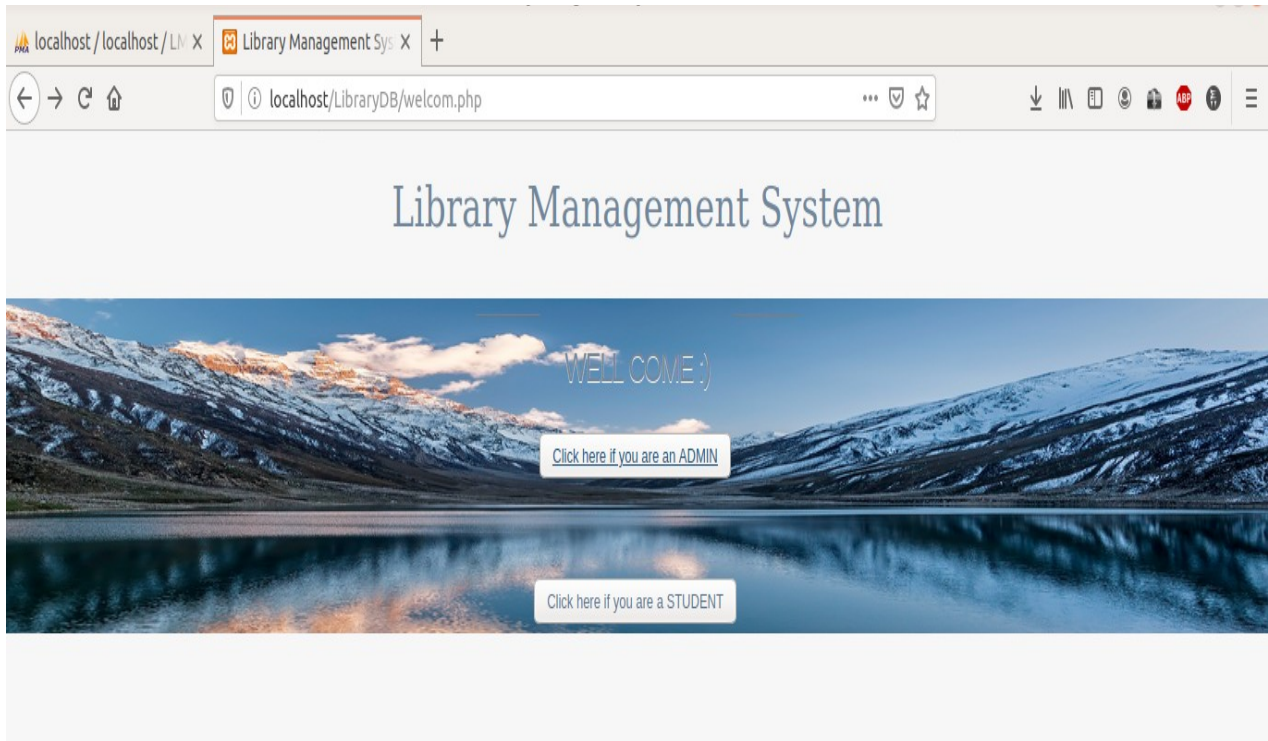
LMS user_registration	
id : int(5)	
fname : varchar(50)	
lname : varchar(50)	
username : varchar(50)	
password : varchar(50)	
email : varchar(50)	
contact : varchar(50)	
sem : varchar(50)	
enrollement : varchar(50)	
status : varchar(3)	

LMS add_books	
id : int(5)	
bookName : varchar(50)	
bookImage : varchar(500)	
bookAuthor : varchar(50)	
bookPublication : varchar(50)	
purchaseDate : varchar(50)	
price : varchar(50)	
totalquantity : varchar(50)	
availableQuantity : varchar(50)	
librarianUserName : varchar(50)	

LMS issuedBooks	
id : int(5)	
studentEnrollment : varchar(50)	
studentName : varchar(50)	
studentSem : varchar(50)	
studentContact : varchar(50)	
studentEmail : varchar(50)	
bookName : varchar(50)	
bookIssueDate : varchar(50)	
bookReturnDate : varchar(50)	
studentUserName : varchar(50)	

C) Screen Shots Of Front End With Description:

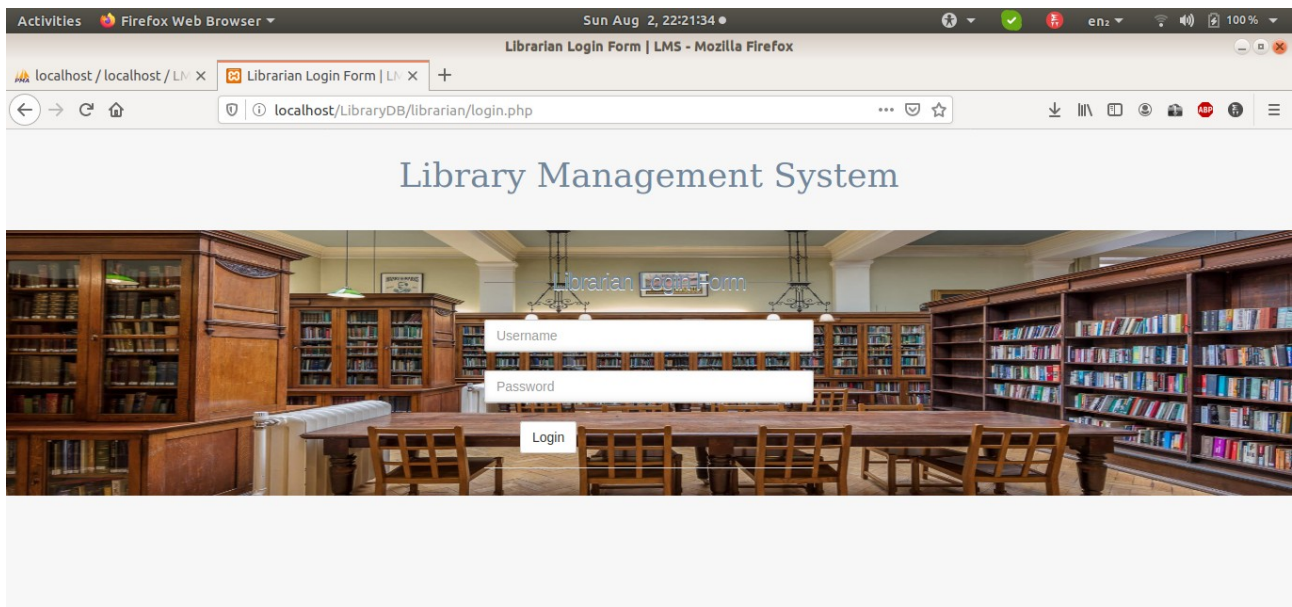
1) Well Come Page:



Description:

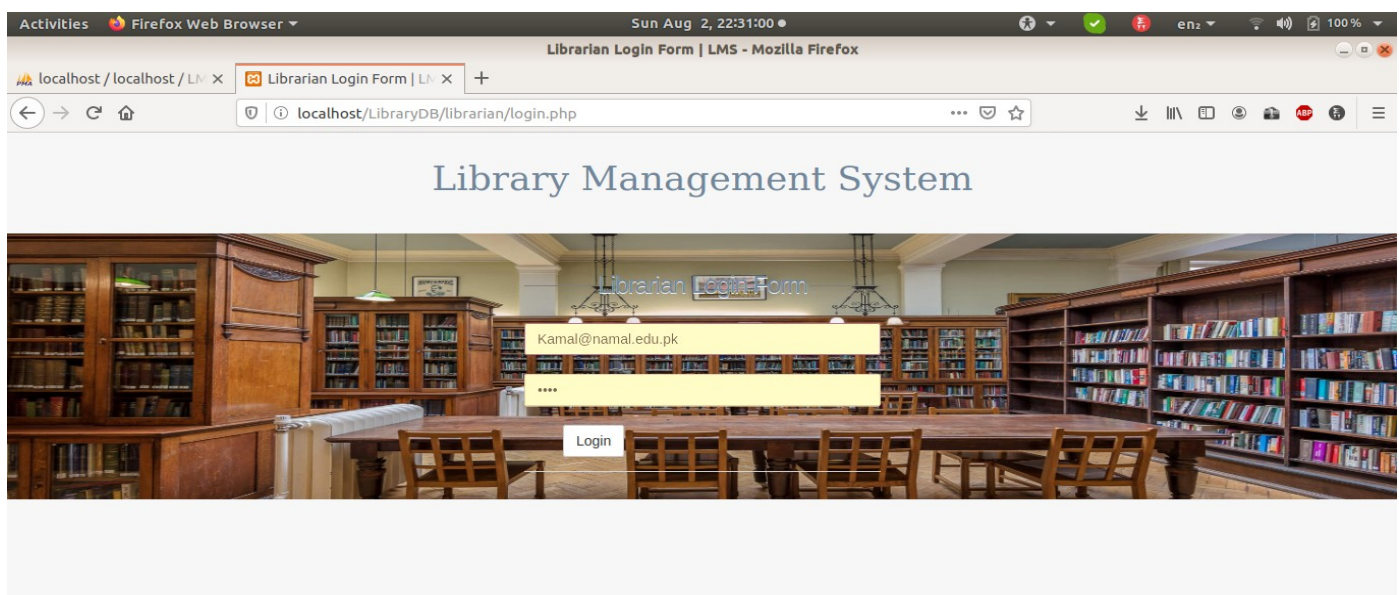
This is the first page. No table is linked with this page. It is just directing users to their relevant screens(Student Panel or Admin Panel). The users can click their relevant button to move forward.

2) If User clicks Admin Button:



Description: The user jumps on the admin login form by clicking admin button. The user can enter its username and password and then click the login button to login in. When the user clicks login button then its credentials are matched with the already stored credentials in the **librarian_registration** table, If a match is found then the admin is directed to the following admin portal:

3) Admin Portal:



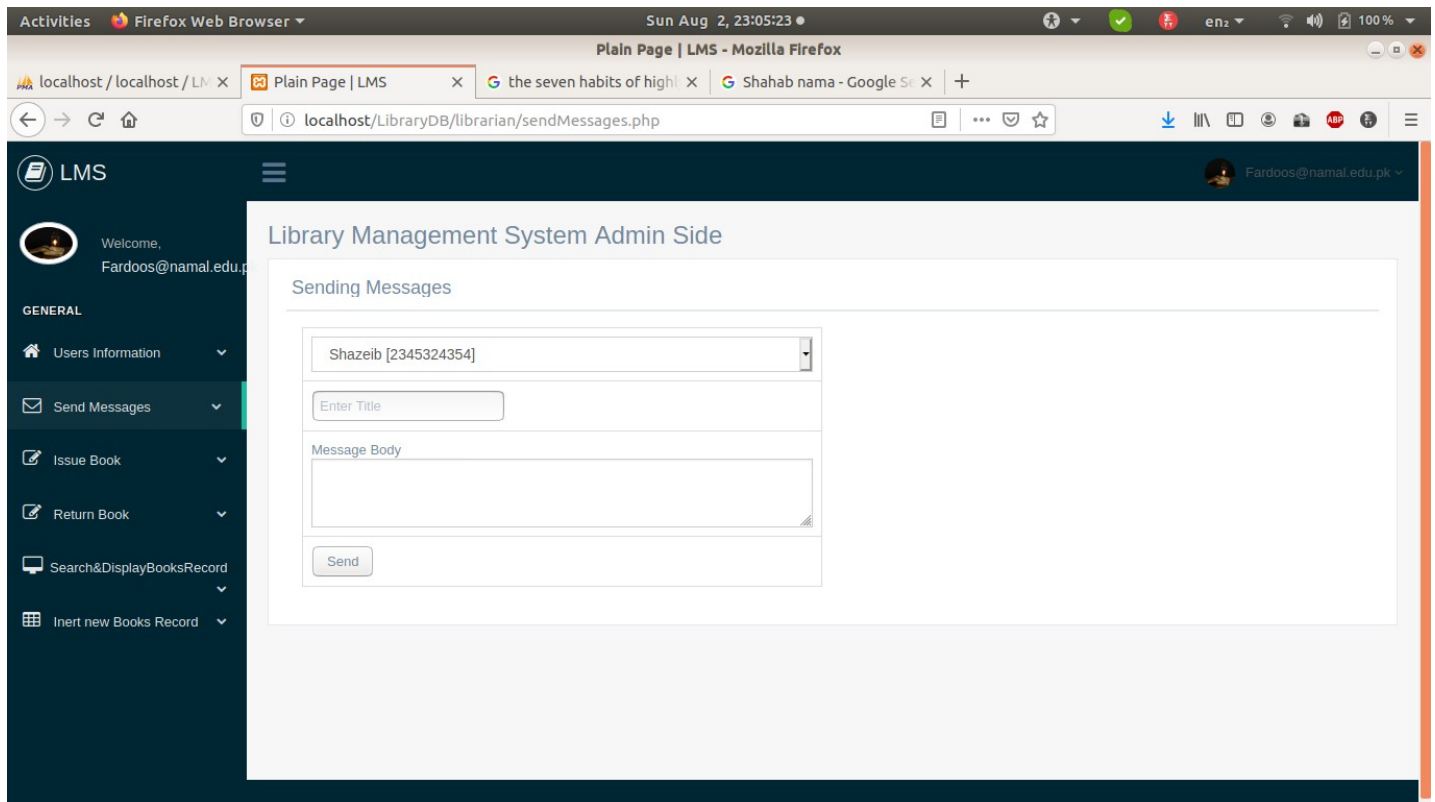
The screenshot shows the 'Library Management System Admin Side' interface. The left sidebar contains a navigation menu with the following items: 'Users Information' (selected), 'Send Messages', 'Issue Book', 'Return Book', 'Search&DisplayBooksRecord', and 'Inert new Books Record'. The main content area is titled 'Student's Info' and displays a table of student records. The table has columns for FirstName, LastName, UserName, Email, Contact, Semester, Enrollement, Status, Approve, and Unapprove. The data rows are as follows:

FirstName	LastName	UserName	Email	Contact	Semester	Enrollement	Status	Approve	Unapprove
Ali	Khan	ALi	Ali@namal.edu.pk	03002321121	5	123454321	yes	Approve	Unapprove
Ali	Khan	ALi	Ali@namal.edu.pk	03002321121	5	123454321	yes	Approve	Unapprove
aa	aaa	aaa	aaa	aaa	aaa	aaa	yes	Approve	Unapprove
tt	tt	tt	tt	tt	tt	tt	no	Approve	Unapprove

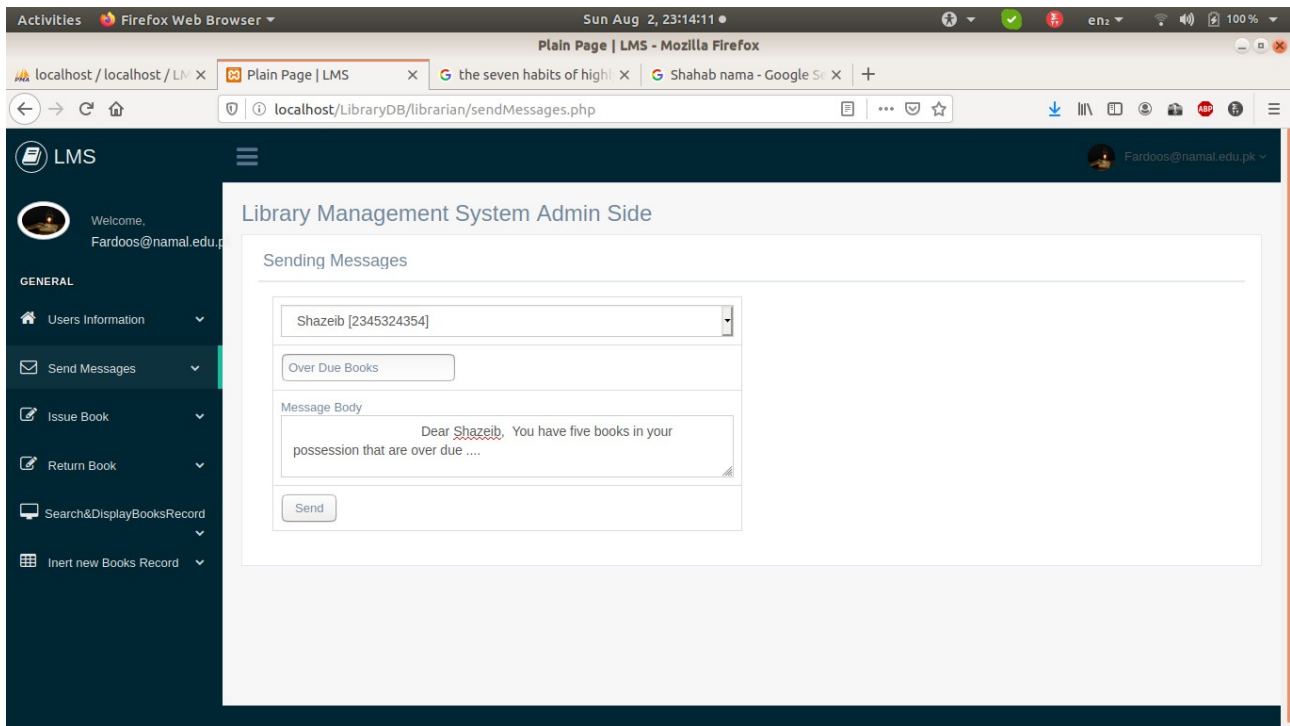
Description: Only admin are authorized to use admin portal. The navigation bar on the left side of the screen is used to navigate in the admin portal. Further details of admin portal are listed below:-

i- The **Users Information** is the default page of admin portal. It is used to display a list of all the students that already have library's membership or requested to have it. The admin can also accept by clicking **Approve** a student's membership request. It can also delete or suspends a student's account by clicking **Unapprove**. The **Users Information** is based on **user_registration** table.

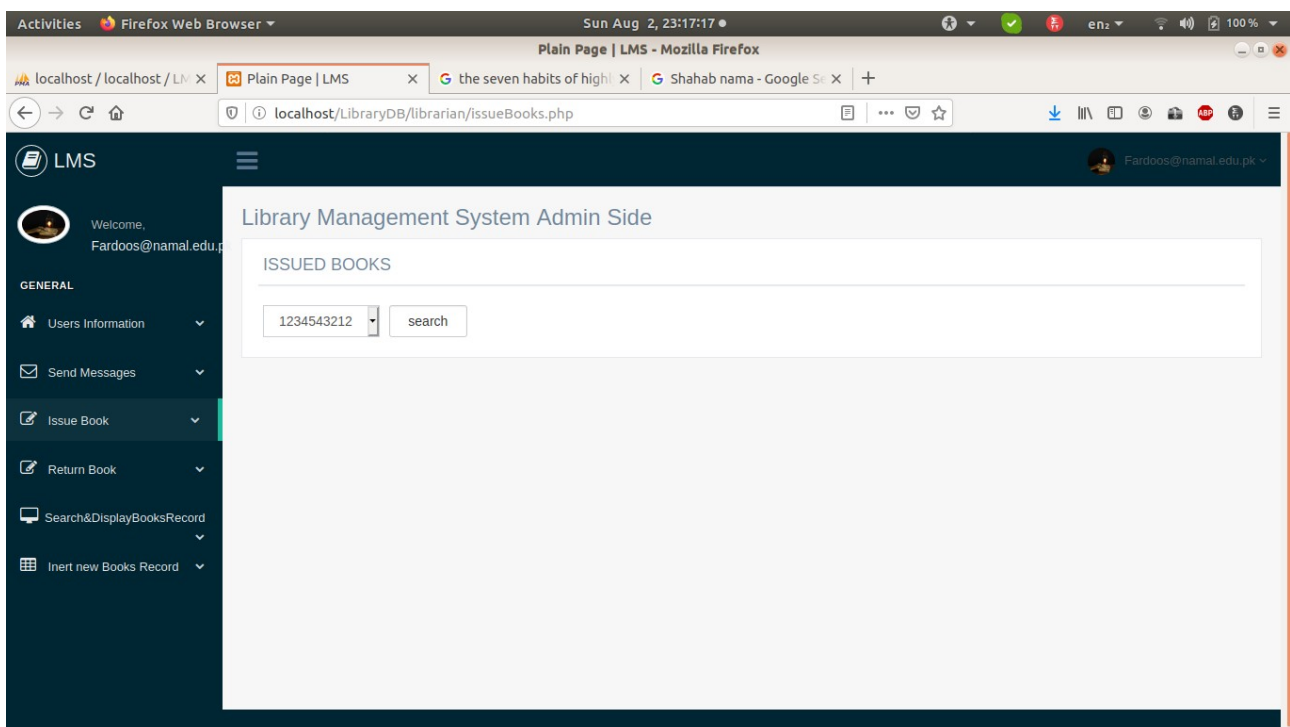
ii- The second page of admin portal **Send Messages** is given below:



The admin can send messages by selecting a student with its username and enrollment number(username and enrollment# are coming from the **user_registration** table of the database), then the admin can type the message and click the send button to send the message. When the admin clicks the send button, the message id, sender username, receiver username, title, message body content with a status not read got stored in **messages** table. When the student click the notification to read the message, then that status variable is updated in the messages table to indicate that the message has been read.



iii- The third page is The **Issue Book** which is used to issue books to students. The layout of the page is given below:-



This above drop down menu select students based on their enrollment number(This number is coming from **user_registration** table). After clicking the search button, the layout changes as following:-

Library Management System Admin Side

ISSUED BOOKS

2345324354 search

1234521234

Qasim Javed

1

Qasim@namal.edu.pk

03321275324

The 7 Habits of Highly Effective People

02-08-2020

Qasim

IssueBook

The enrollment number(1234521234), name(Qasim Javed) of the student, semester(1), username(Qasim@namal.edu.pk) of the student and contact(03321275324) is coming from the **user_registration** table. The second drop menu helps to select the book to be issued and it is based on the **add_books** table.

Library Management System Admin Side

ISSUED BOOKS

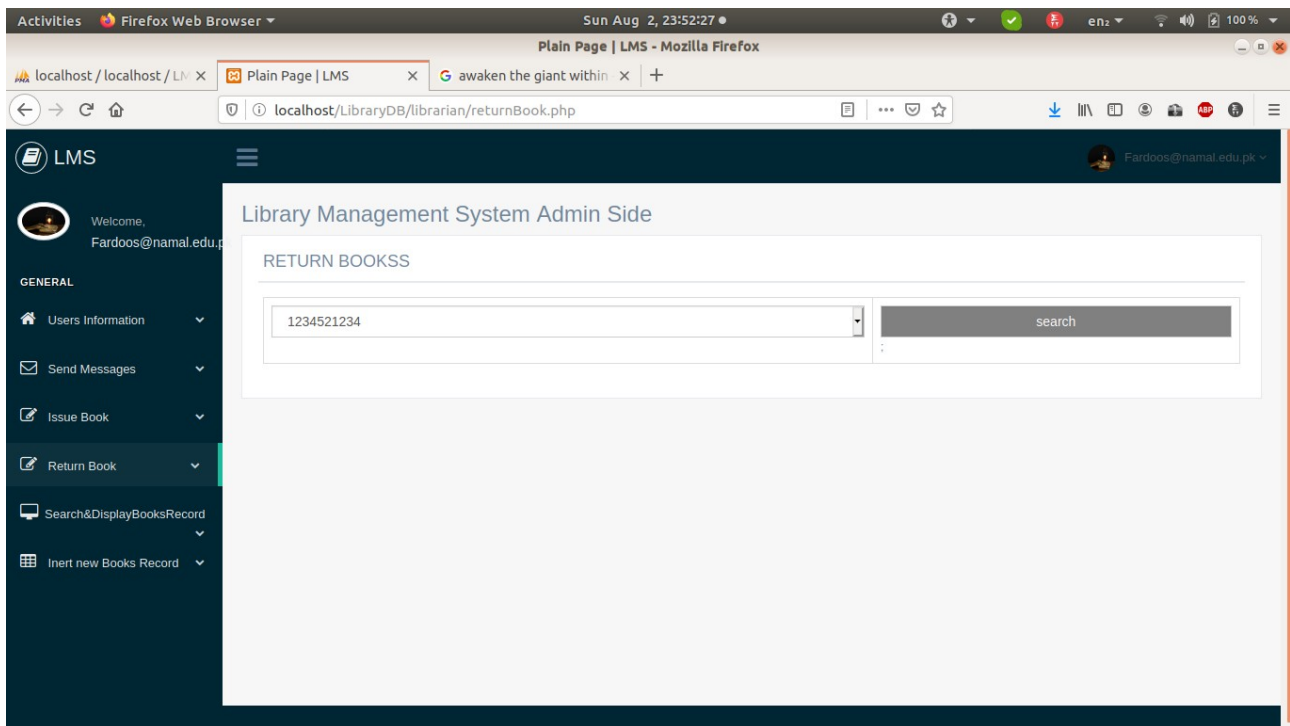
1234543212 search

The Book has been Successfully issued!

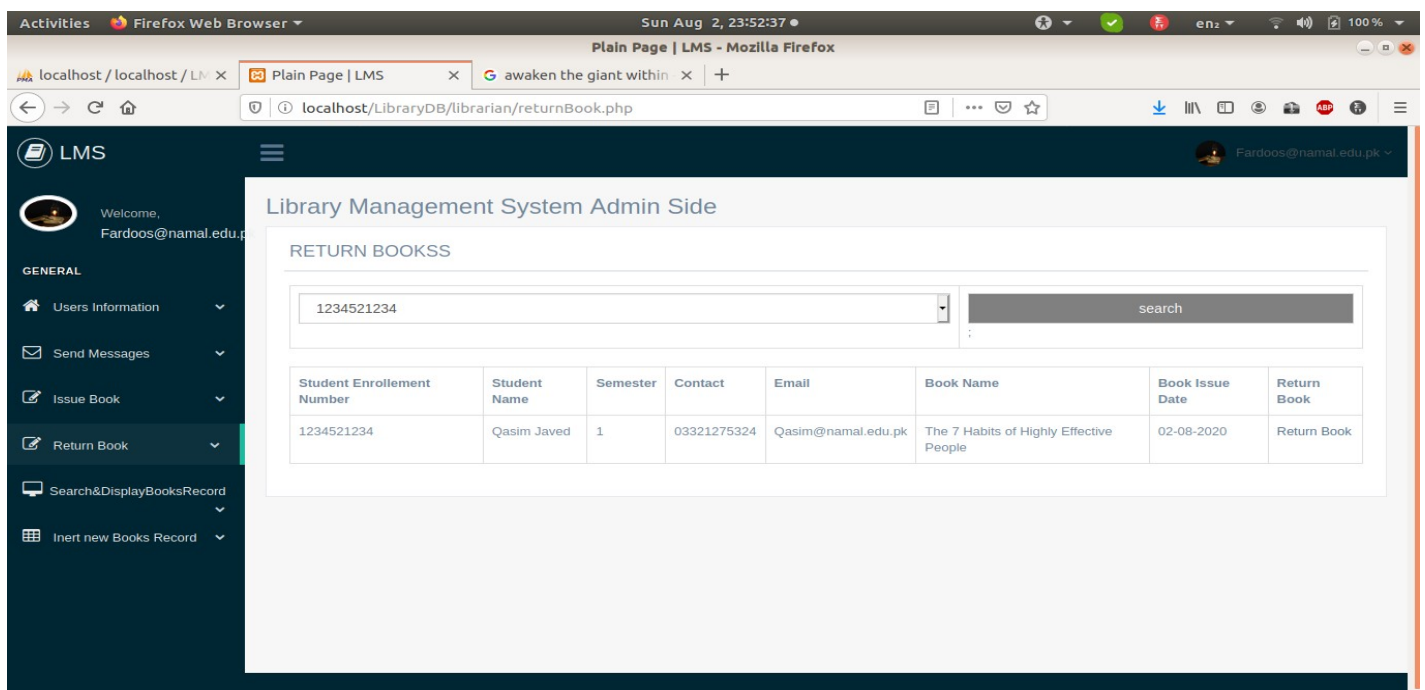
OK

When we click the **IssueBook** button after selecting the student and the book, the issue id, issued date with the student details and book details got saved in the **issuedBooks** table along with the admin username.

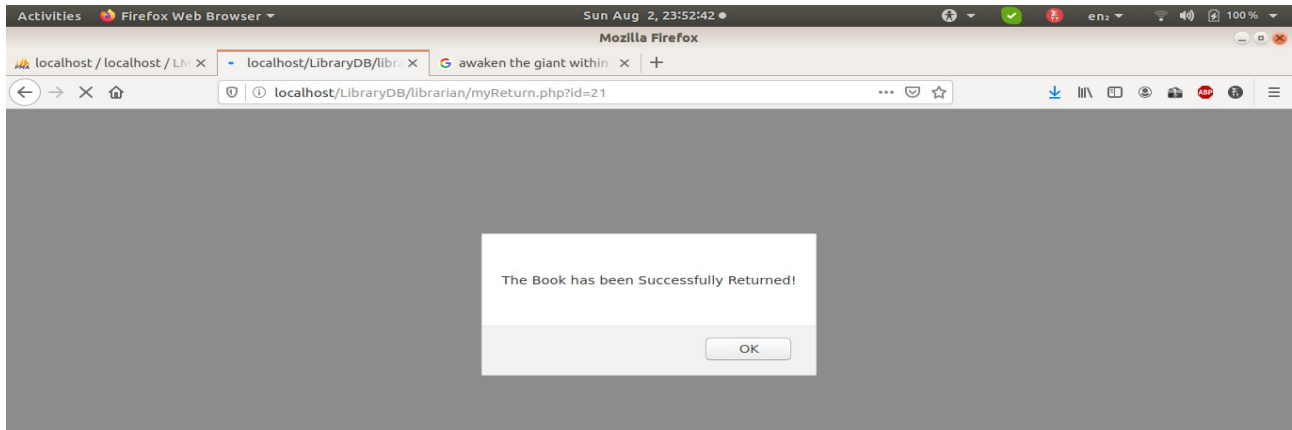
iv- The fourth page Return Book of the admin panel is given below:-



First the admin search the student based on the enrollment number in the **issuedBook** table, If the match is found then the layout of the page becomes:-



The above data is coming from **issuedBooks** table. By clicking **Return Book** under Return Book column, the book is returned.



When a book is returned, the **issuedBooks** table is updated to enter returned date and the **add_books** table is updated to increase the available quantity by 1 (When we issue a book, the available quantity field relevant to that book decreases by 1).

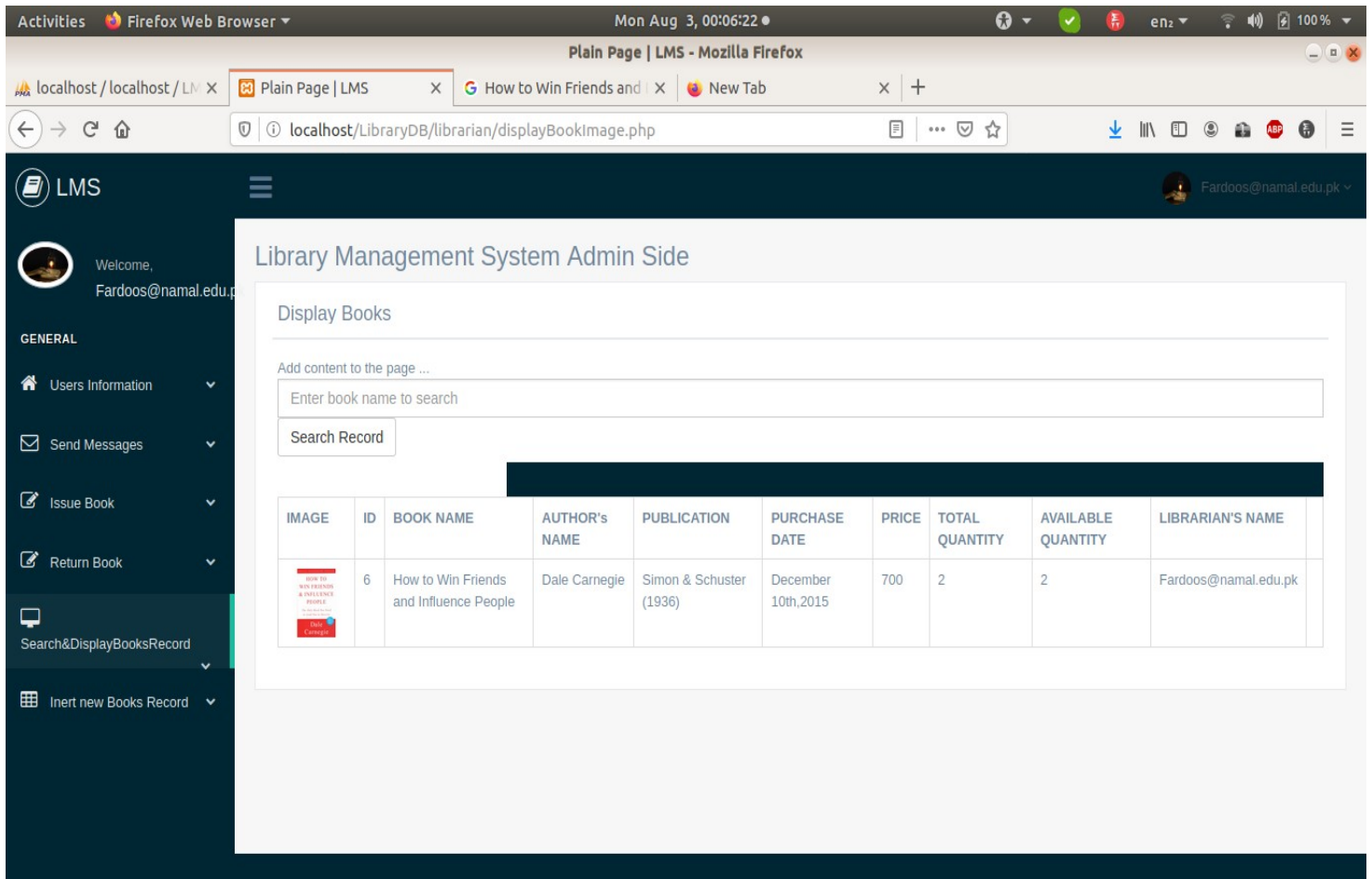
v- The fifth page **Search&DisplayBooksRecord** is given below:-

The screenshot displays the 'Library Management System Admin Side' interface. On the left is a dark sidebar with a menu including 'GENERAL', 'Users Information', 'Send Messages', 'Issue Book', 'Return Book', 'Search&DisplayBooksRecord' (highlighted), and 'Inert new Books Record'. The main content area is titled 'Library Management System Admin Side' and 'Display Books'. It features a search bar with the placeholder 'Enter book name to search' and a 'Search Record' button. Below the search bar is a table with the following data:


IMAGE	ID	BOOK NAME	AUTHOR'S NAME	PUBLICATION	PURCHASE DATE	PRICE	TOTAL QUANTITY	AVAILABLE QUANTITY	LIBRARIAN'S NAME
	3	The Power of your Subconscious Mind	Joseph Murphy	ILQA	July 20th, 2018	300	120	101	Kamal@namal.edu.pk
	4	The 7 Habits of Highly Effective People	Stephen Covey	Free Press	August 10th, 2010	500	10	9	Kamal@namal.edu.pk
	5	Awaken the Giant Within	Tony Robbins	not availabe	September 6th, 2012	400	5	4	Fardoos@namal.edu.pk
	6	How to Win Friends and Influence People	Dale Carnegie	Simon & Schuster (1936)	December 10th, 2015	700	2	2	Fardoos@namal.edu.pk

At first, it lists down the record of all the books available in the library. It also given us the functionality to search books by name. This page is based on a single **add_books** table. When we use the search button to search for the book, the page displays the book if it finds it in the record(**add_books** table) otherwise shows nothing.

The result of searching “How to Win” is given below:-



The screenshot shows a web browser window with the URL `localhost/LibraryDB/librarian/displayBookImage.php`. The page title is "Library Management System Admin Side". On the left, there is a sidebar with the "LMS" logo and a user profile for "Fardoos@namal.edu.pk". The main content area is titled "Display Books" and includes a search bar with the text "Enter book name to search" and a "Search Record" button. Below the search bar, a table displays the search results.

IMAGE	ID	BOOK NAME	AUTHOR's NAME	PUBLICATION	PURCHASE DATE	PRICE	TOTAL QUANTITY	AVAILABLE QUANTITY	LIBRARIAN'S NAME
	6	How to Win Friends and Influence People	Dale Carnegie	Simon & Schuster (1936)	December 10th, 2015	700	2	2	Fardoos@namal.edu.pk

The result of searching “Rocket Science” is given below:-

The screenshot shows the 'Library Management System Admin Side' interface. On the left is a sidebar with navigation options: 'Users Information', 'Send Messages', 'Issue Book', 'Return Book', 'Search&DisplayBooksRecord', and 'Inert new Books Record'. The main content area is titled 'Display Books' and contains a search form with the text 'Enter book name to search' and a 'Search Record' button. Below the search form is a table displaying the search results for 'Rocket Science'.

IMAGE	ID	BOOK NAME	AUTHOR'S NAME	PUBLICATION	PURCHASE DATE	PRICE	TOTAL QUANTITY	AVAILABLE QUANTITY	LIBRARIAN'S NAME
		Rocket Science							

vi- The sixth page **Insert new Books Record** helps to insert the record of new books in our database. The layout of this page is given below:-

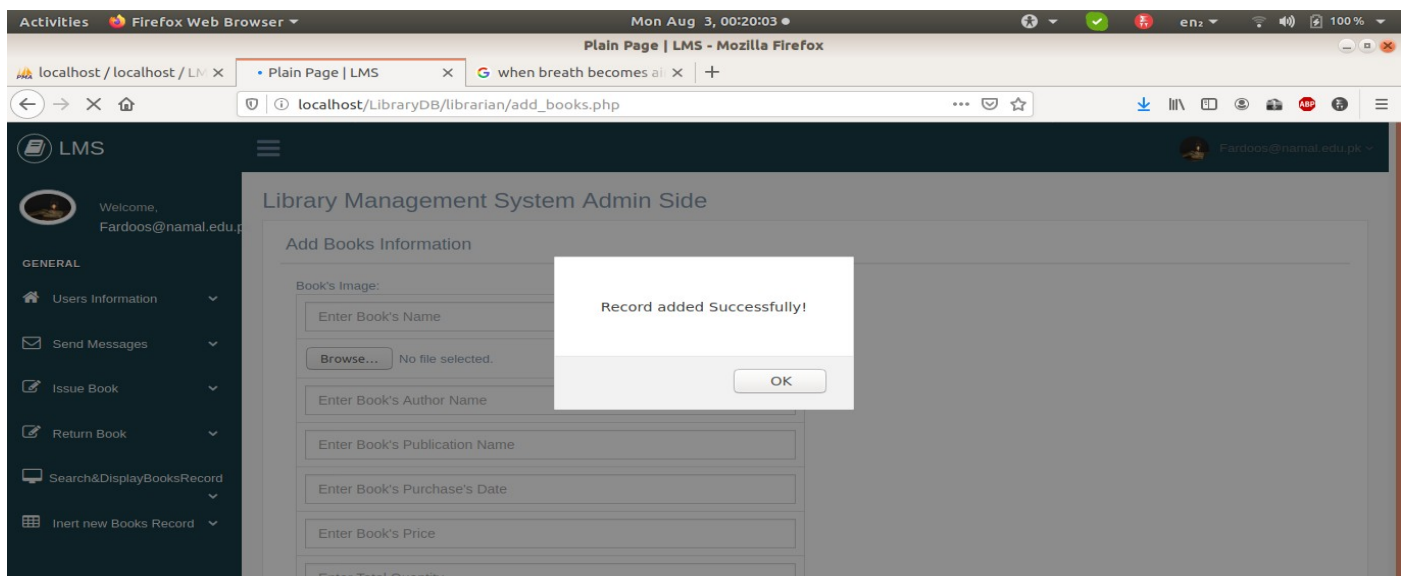
The screenshot shows the 'Library Management System Admin Side' interface. On the left is a sidebar with navigation options: 'Users Information', 'Send Messages', 'Issue Book', 'Return Book', 'Search&DisplayBooksRecord', and 'Inert new Books Record'. The main content area is titled 'Add Books Information' and contains a form for adding new books. The form includes fields for 'Book's Image', 'Enter Book's Name', 'Browse...' (with 'No file selected'), 'Enter Book's Author Name', 'Enter Book's Publication Name', 'Enter Book's Purchase's Date', 'Enter Book's Price', 'Enter Total Quantity', and 'Enter Available Quantity'. There is an 'Add Record' button at the bottom of the form.

After filling the data in the above fields, we hit the **Add Record** button as given below:

The screenshot shows a web browser window with the address bar displaying `localhost/LibraryDB/librarian/add_books.php`. The page title is "Library Management System Admin Side". On the left, there is a dark sidebar with a user profile and a menu under "GENERAL" including "Users Information", "Send Messages", "Issue Book", "Return Book", "Search&DisplayBooksRecord", and "Inert new Books Record". The main content area is titled "Add Books Information" and contains a form with the following fields:

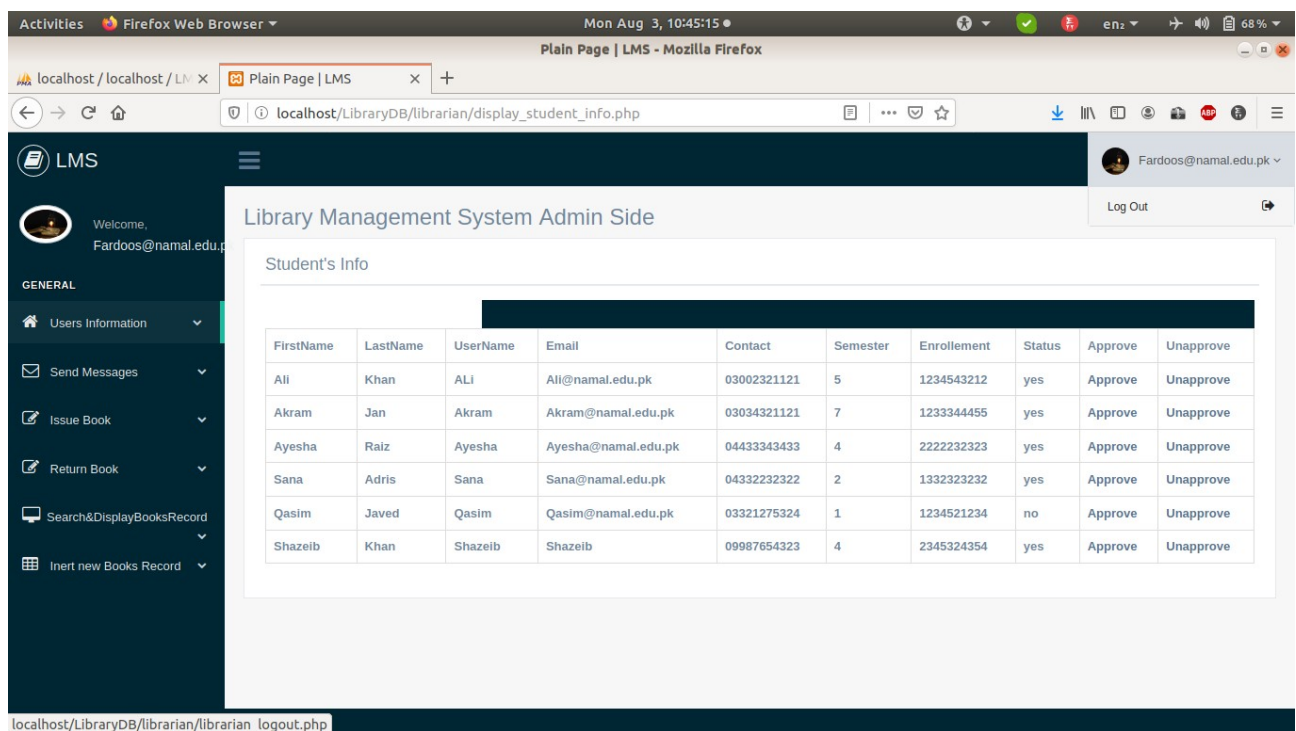
- Book's Image: A text input field containing "When Breath Becomes Air".
- Browse...: A button next to the text "bookBreath.jpeg".
- Author: A text input field containing "Paul Kalanithi".
- Status: A text input field containing "not avallabe".
- Date: A text input field containing "July 20th, 2020".
- ISBN: A text input field containing "1000".
- Category: A text input field containing "5".
- Sub-category: A text input field containing "5".
- At the bottom of the form is a button labeled "Add Record".

The page **Insert new Books Record** is based on **add_books** table which is used to store the data of all the above fields.



Vii- Logout(Admin Side):

When the user(Admin) finishes its work, it can hit logout from the top rightmost corner as given below:



The user is taken back to login page when He/She hits logout.

4) If User clicks Student Button:

After clicking the student button the user jumps on the following student login page:

Library Management System

User Login Form

Username

Password

Login

New here? Request Account

i- Already Have an account:

If a student already has an account, He/She just need to type his username and password and hit login button. When the student hits login button, His credentials(username and password) are checked in the **user_registration** table. If a match is found then the student is directed to the following student panel:

LMS

Welcome, Shazeib

GENERAL

My Books

Search Books

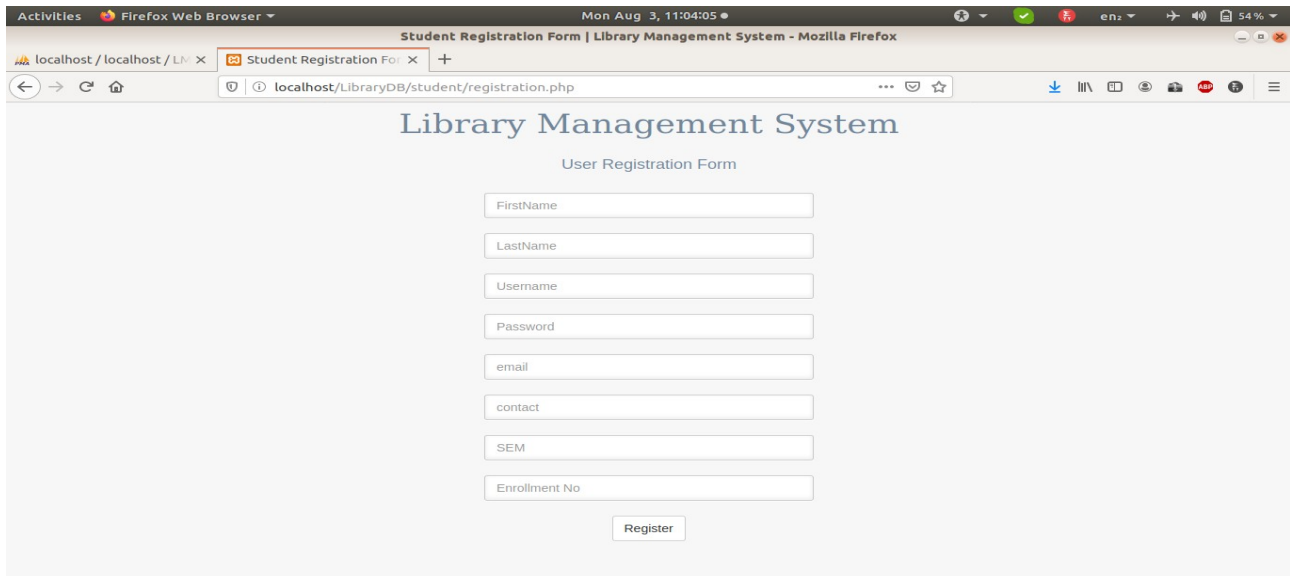
Library Management System Student Side

MY BOOKS

Student's Enrollement Number	Book's Name	Book's Issue Date
2345324354	The 7 Habits of Highly Effective People	02-08-2020
2345324354	The Power of your Subconscious Mind	02-08-2020

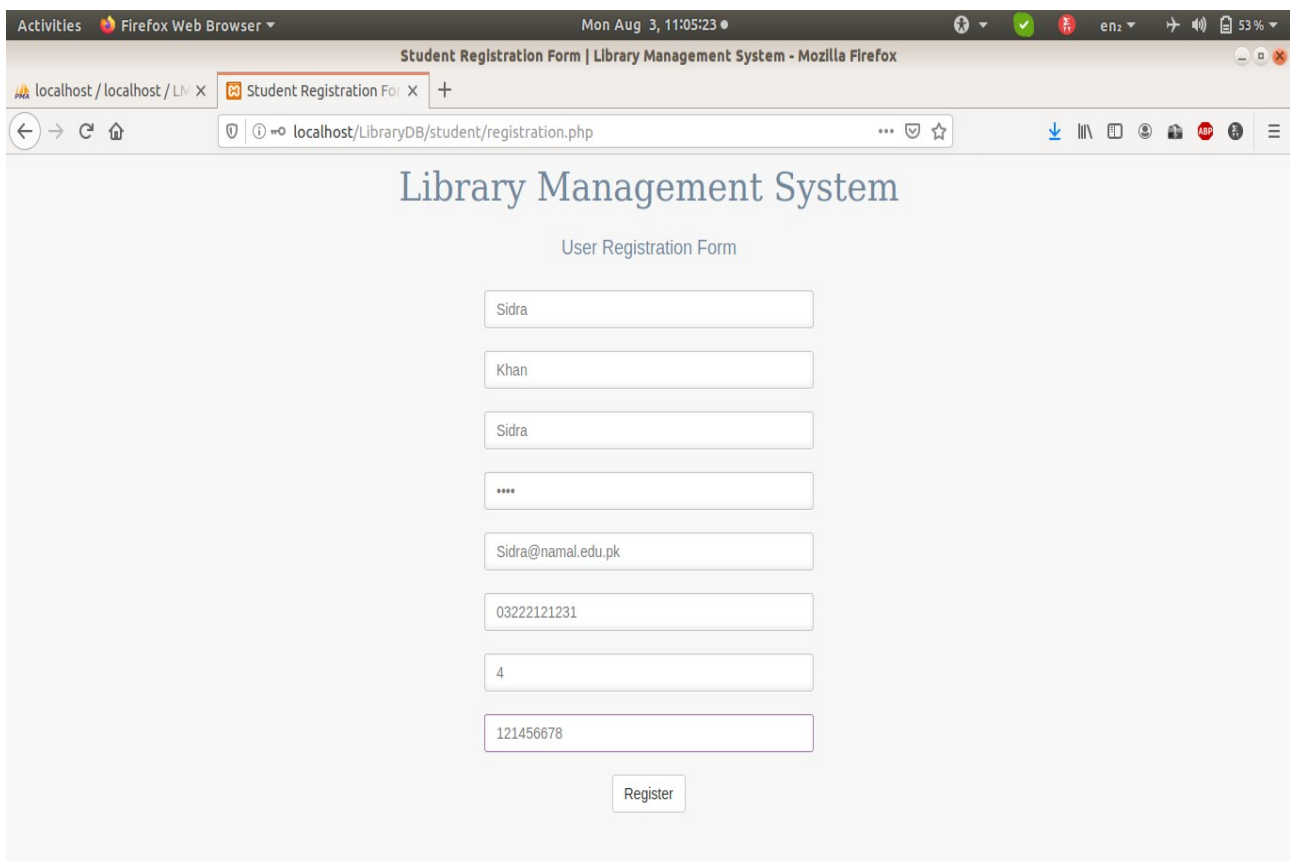
ii- Don't have an account:

If the user is new and don't have an account, He/She can click on the **Request Account** on the student login page. After requesting an account, the student has to give the following information:



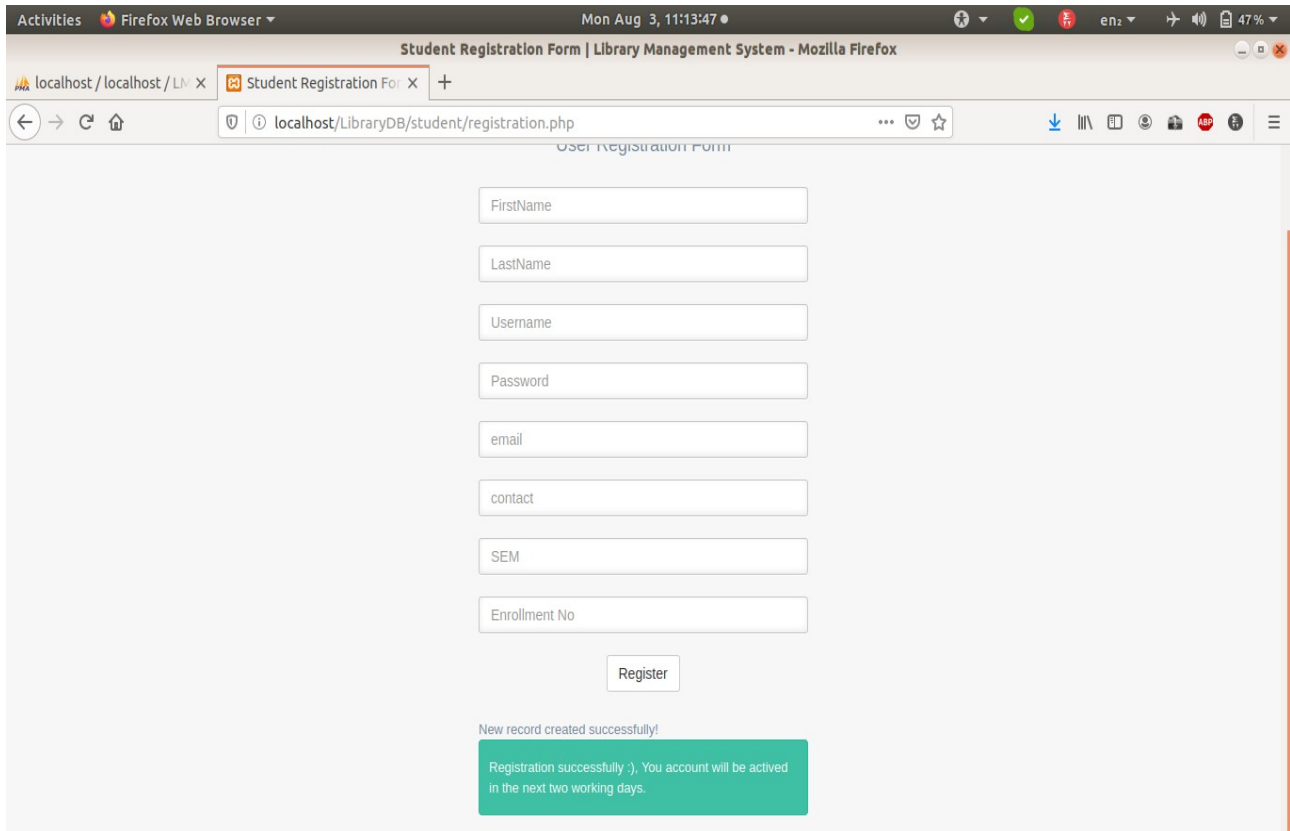
The screenshot shows a web browser window titled "Student Registration Form | Library Management System - Mozilla Firefox". The address bar shows "localhost/LibraryDB/student/registration.php". The page displays the "Library Management System" header and a "User Registration Form". The form contains the following fields: FirstName, LastName, Username, Password, email, contact, SEM, and Enrollment No. A "Register" button is located at the bottom of the form.

The Student fills the table as following:



The screenshot shows the same "Library Management System" User Registration Form, but with sample data filled in. The fields are: FirstName (Sidra), LastName (Khan), Username (Sidra), Password (****), email (Sidra@namal.edu.pk), contact (03222121231), SEM (4), and Enrollment No (121456678). The "Register" button is still at the bottom.

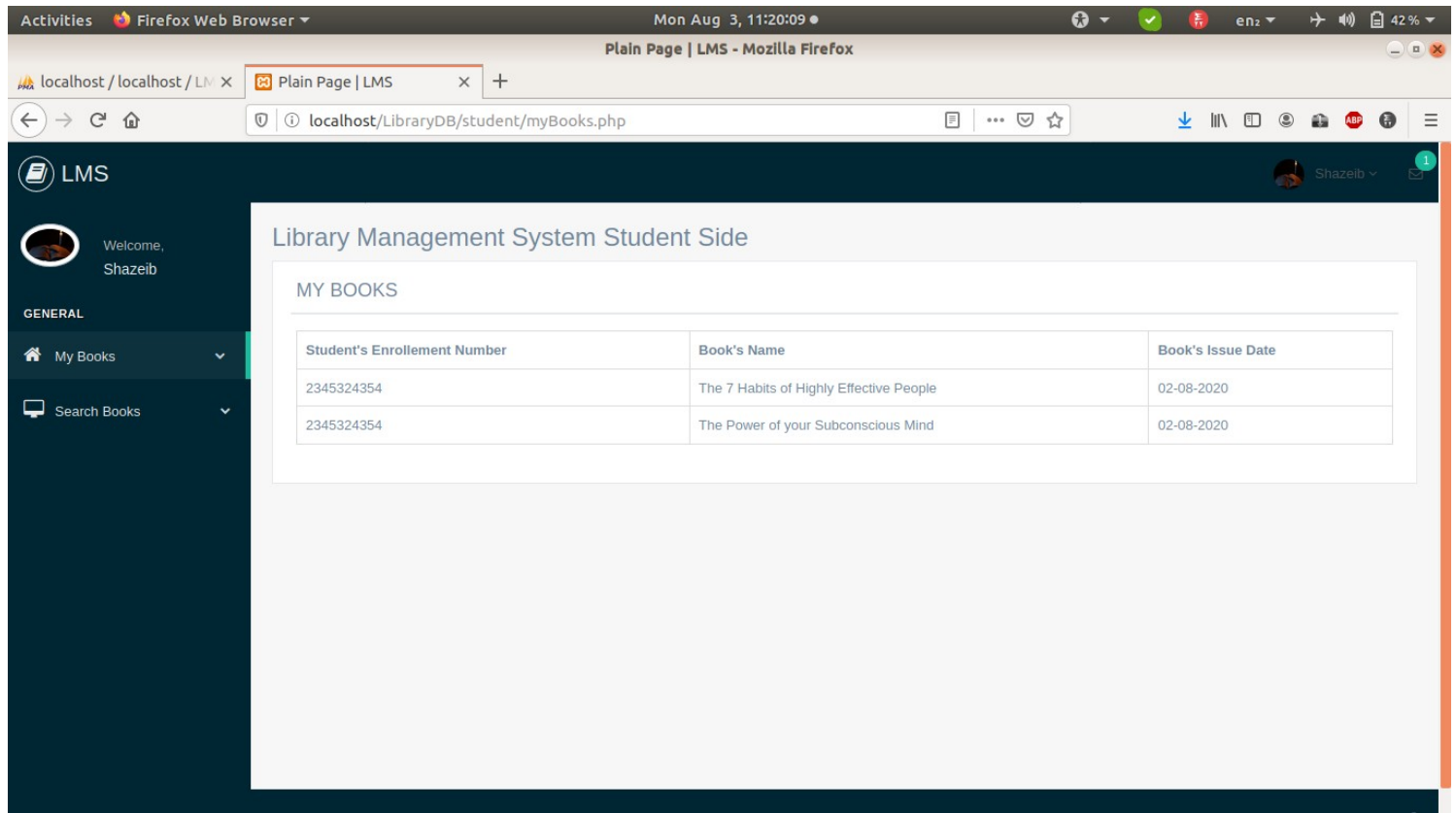
After filling the table the student hits register button. When a student hits register, his/her credentials got saved in **user_registration** table with unapproved status(The admin accepts account request and the status is updated to approved later on) and following appears on the screen:-



The screenshot shows a Mozilla Firefox browser window with the title "Student Registration Form | Library Management System - Mozilla Firefox". The address bar displays "localhost/LibraryDB/student/registration.php". The page content includes a registration form with the following fields: FirstName, LastName, Username, Password, email, contact, SEM, and Enrollment No. Below the form is a "Register" button. A green message box at the bottom of the form area contains the text: "New record created successfully! Registration successfully ., You account will be activated in the next two working days."

5) Student Panel:

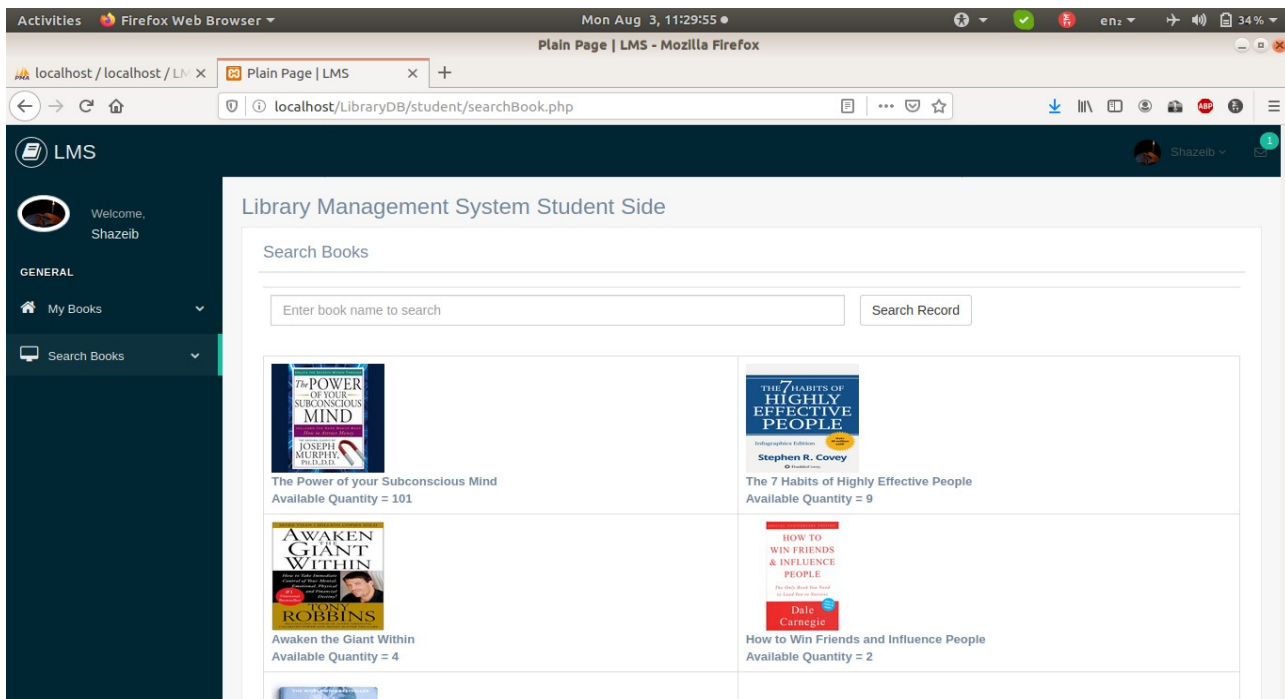
After a successful login the student sees the following student panel:-



Description: Only Students are authorized to use Student portal. The navigation bar on the left side of the screen is used to navigate in the student portal. Further details of student portal are listed below:-

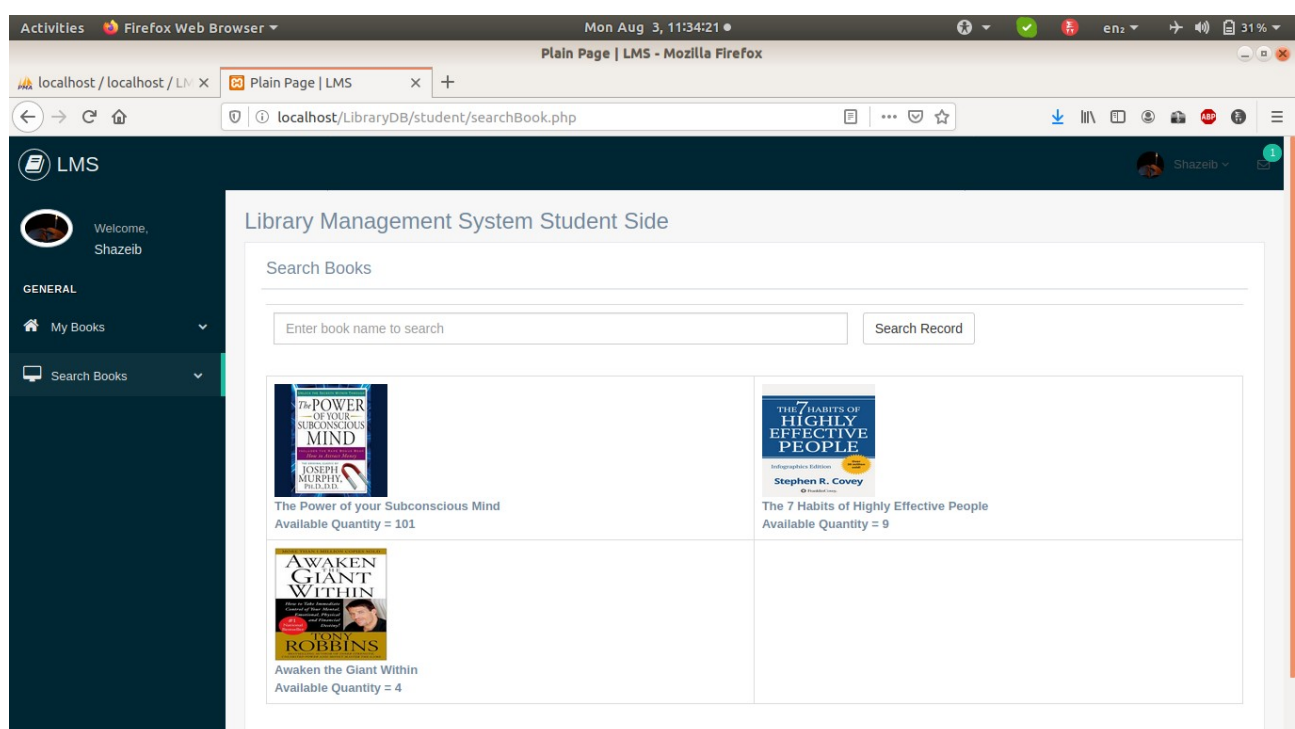
i- The default page of the student panel is **My Books**. This page is based on **issuedBooks** table. This page shows the record of all the books that a student have at the moment with their issue date.

ii- The second page of the student panel is **Search Books** which is given below:



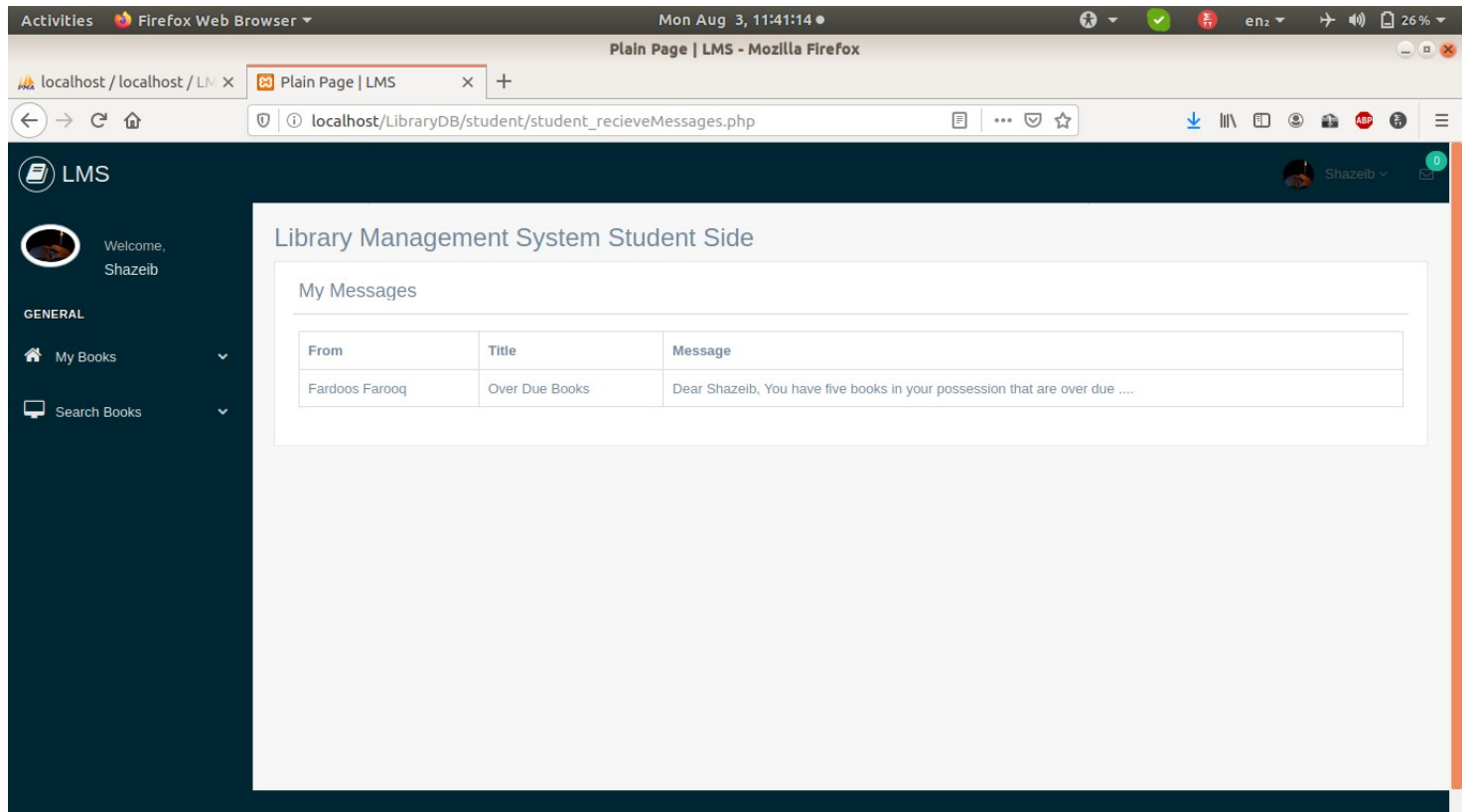
The search books page lists down all the books present in the library with their name, available quantity and picture. It also gives the functionality to search a specific book using keywords based on the name of the book.

The search results for “The” word are given below:-



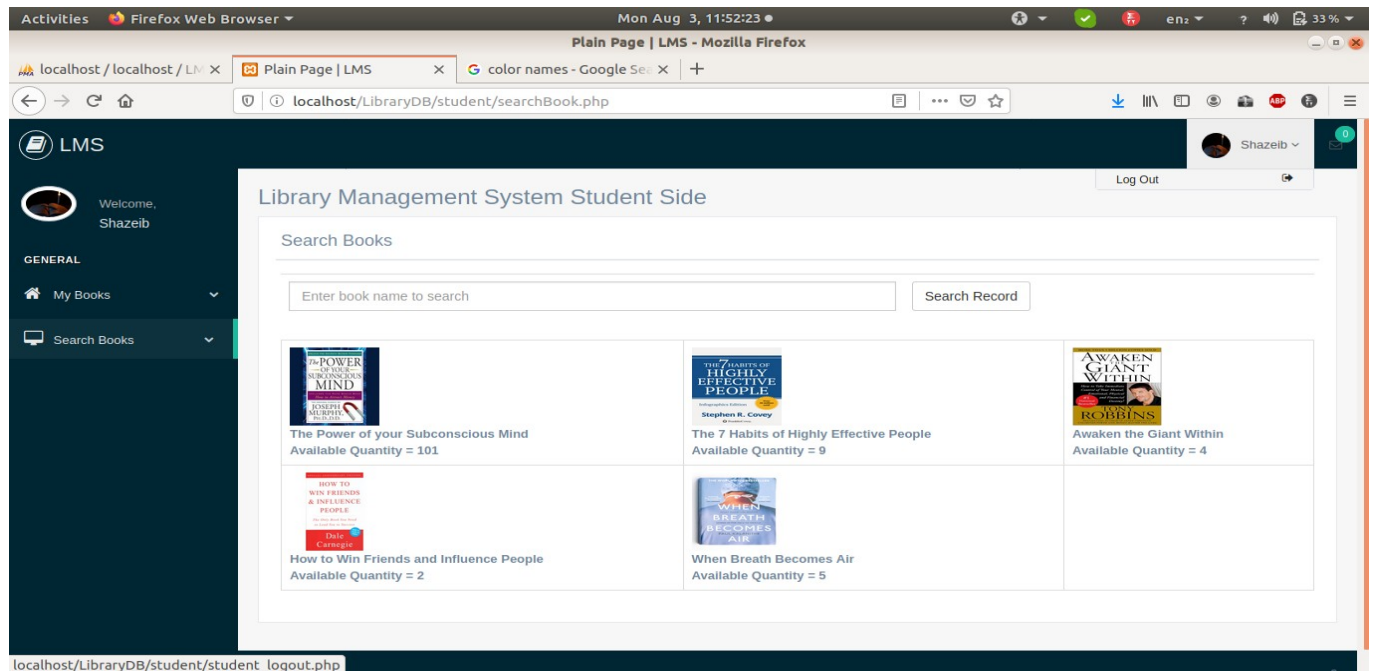
iii- Admin Messages:

A student gets notification at the top rightmost corner of the screen when an admin sends a messages to him/her. A student can access the admin messages by clicking that notification. When a student clicks the notification, the following page appears:-



The name of the sender(Admin) appears under **From**, the title of the message under **Title** and the body of the message under **Message**. This page is based on **messages** table of our database. When a student clicks the notification at the top rightmost corner of the screen, The **1** in the aqua color circle changes to **0**. 1 means that you have an unread message and 0 means that you have none unread message.

iv- Logout(Student Side): The logout process of student panel is similar to the admin panel. You just have to click logout in the top rightmost corner of the screen as given below:



When the students clicks logout, He/She is directed back to the login page which is again given below:

