

Web Technology research

2019-2020

Library System

Introduction chapter

Description:

The university Library web application is a system used to manage this library. it makes the admin of the library and the student able to do the next:

1. The admin

- Can do a sign up as new admin.
- Can do a login as an exists admin.
- Can update his username, his password and his email.
- Can add a new book with its description (ISBN, book name, publication year, author).
- Can also update the book details.
- Can Brows all exists books.
- Can extend the time of borrowing for the student.
- Can send emails to late borrowers

2. The student

- Can do a sign up as new student.
- Can do a login as an exists student.
- Can update his username, his password and his email.
- Can see all available books in the library.
- Can borrow, return the books.
- Can open the messages books to check if he has new messages from the admin.

Technologies used:

We used a lot of technologies

1. HTML (Hypertext Markup Language)

We used it to build the main menu (login.html , signUp.html,

University_Library.html) and to organize our program.

It helped us in using the input, output and move the data between the pages by forms.

2. CSS (Cascading Style Sheets)

It's a style Sheets language we used it to organize the color and the background for each page.

It makes the style of the project more beautiful.

3. JavaScript

It's a programming language used to create interactive and friendly web pages used in the client side.

We used it to make a validation in case the user entered wrong inputs or let the inputs empty in the main page.

4. AJAX (Asynchronous JavaScript and XML)

Its a set of web development techniques using many web technologies on the client side to create asynchronous web applications.

We used it to view the signup form and login form in the main page without reloading it.

5. PHP (Hypertext Preprocessor) or (Personal Home Page)

It's a scripting language to make the web pages dynamic.

We create all web server pages by it because it's makes the web pages more interactive with the database.

It's includes a lot of built-in functions that helps us while coding.

It works on all browsers.

Its syntax is easy to learn.

- Sessions: help us to keep the username of the admin or student that visit this website to welcome him on entering the website by his name (to be stored in server side).
- Cookies: help us to set values in the client side to be sent with every http request in the website, we use it when the admin/student signing up or when the student borrow a book (to be stored in client side).

The tools we used:

1. Visual Studio Code

We used it to write all codes for the web pages.

2. PhpMyAdmin

We used it to make a database and do operations on it.

3. Google chrome

We used it as a browser to view and test our pages.

We used it as search engine to collect information about the languages.

4. XAMP

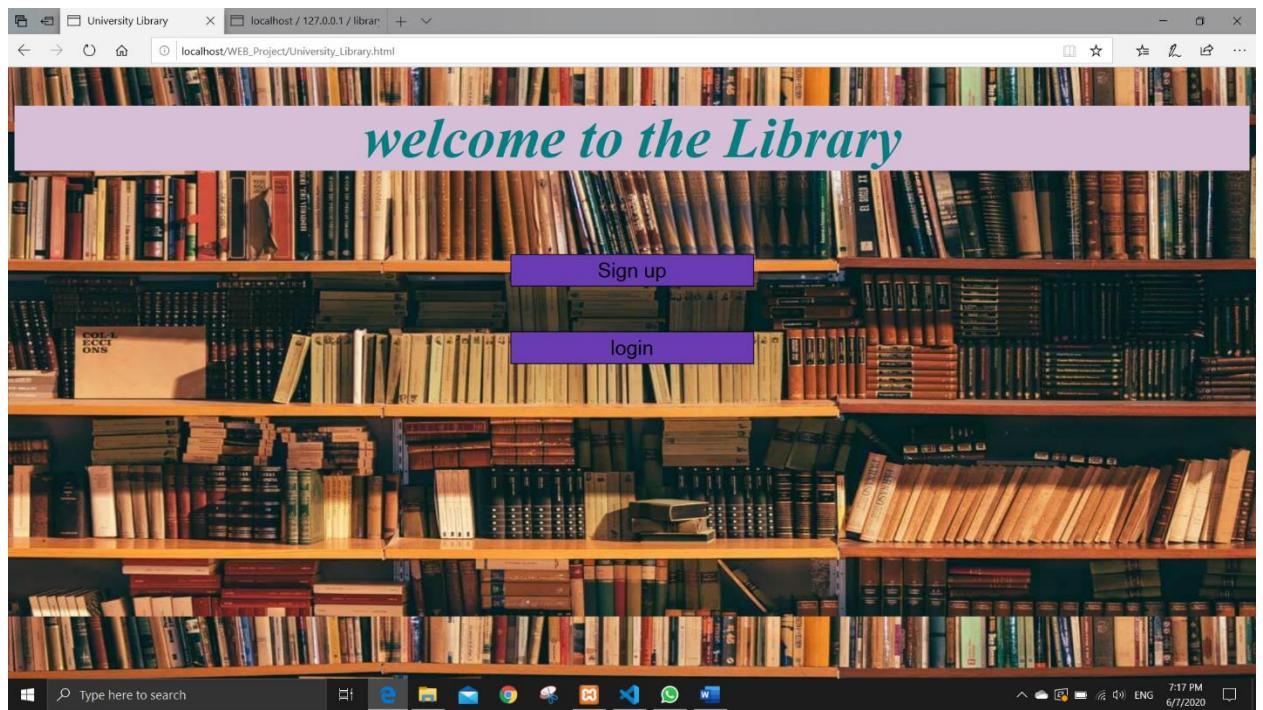
We used it to make a local server and connect the pages with each other and the database.

The whole project file in drive:

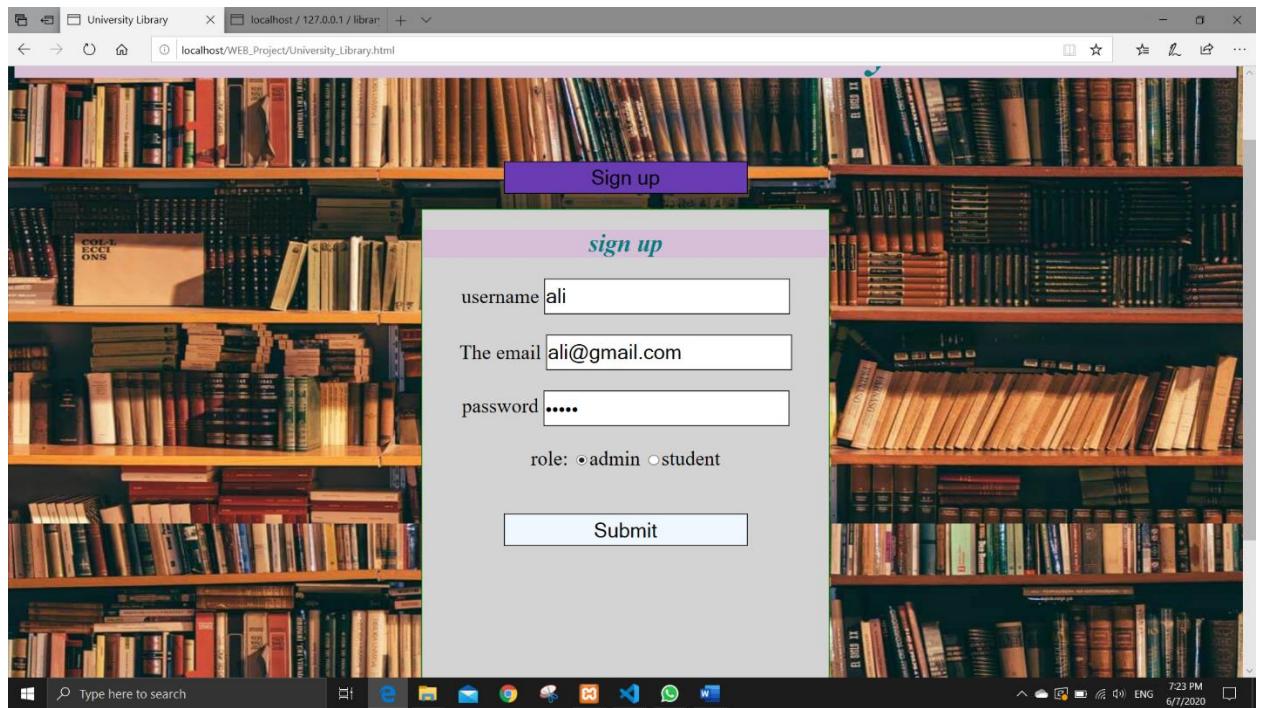
<https://drive.google.com/drive/folders/1XeKTwzMUYhWzkJkYtA0dpo1y7RfUtMQF>

Output of system functions:

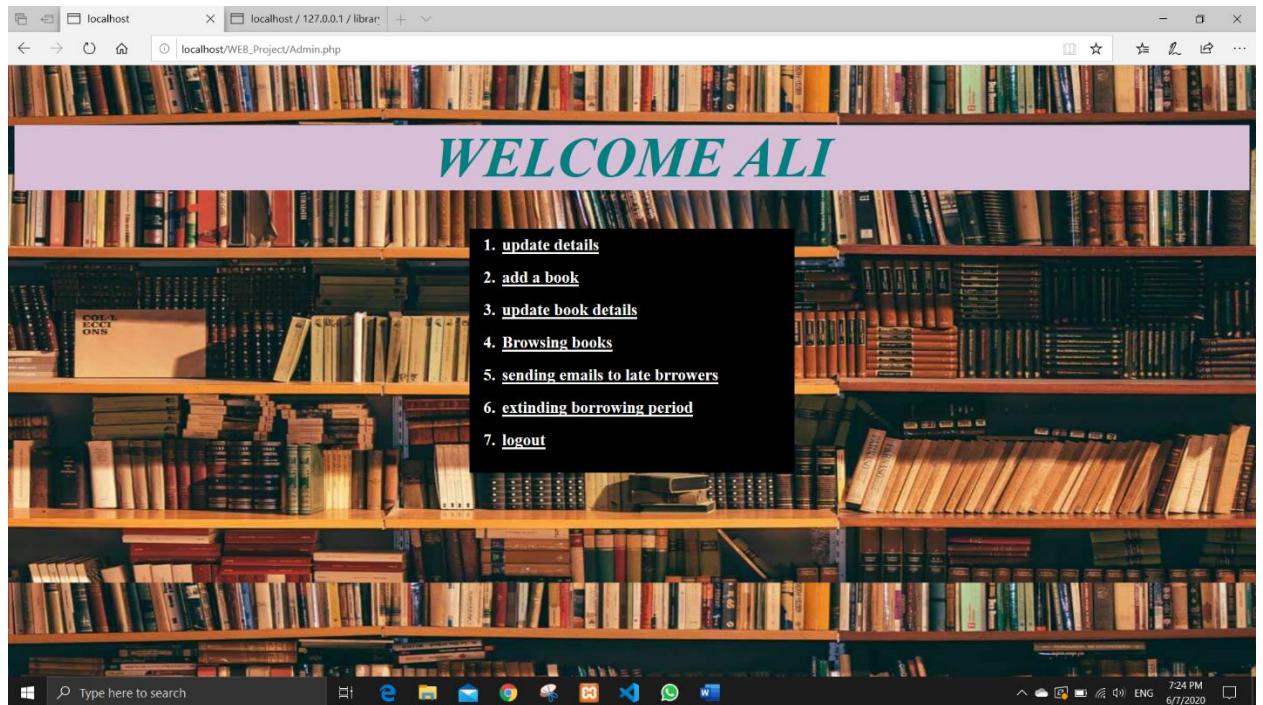
1. University library



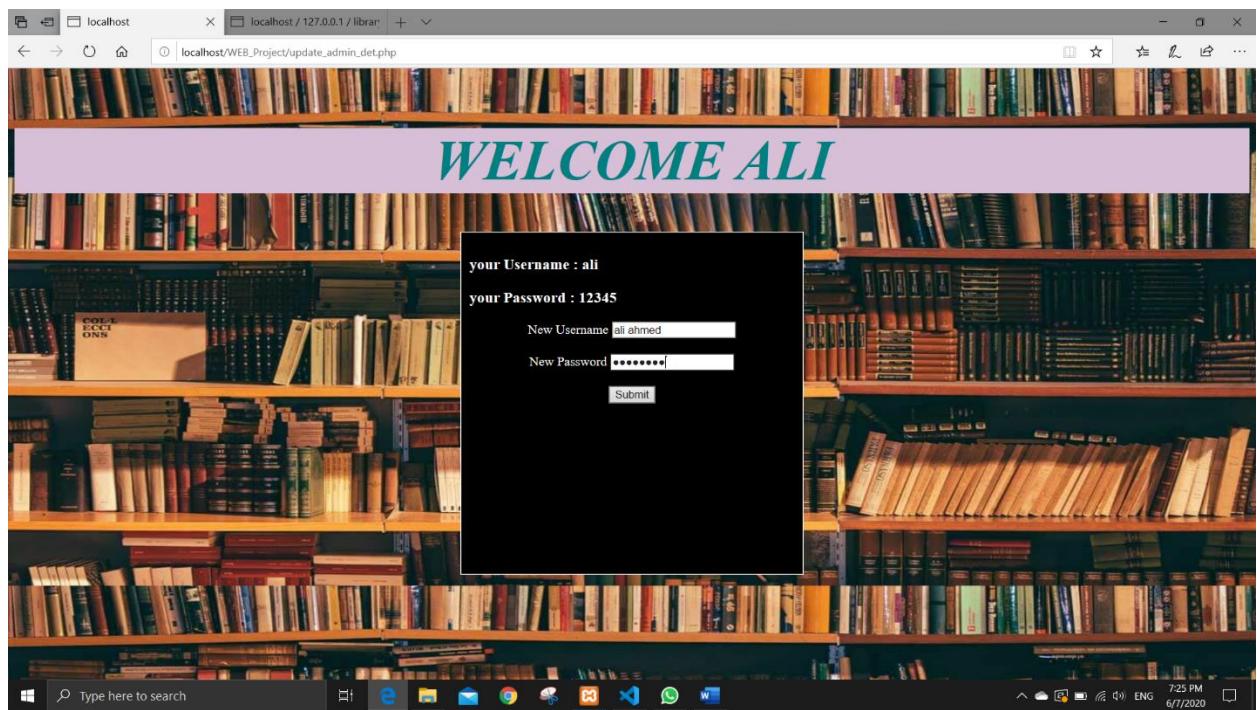
2. Signing up for an admin



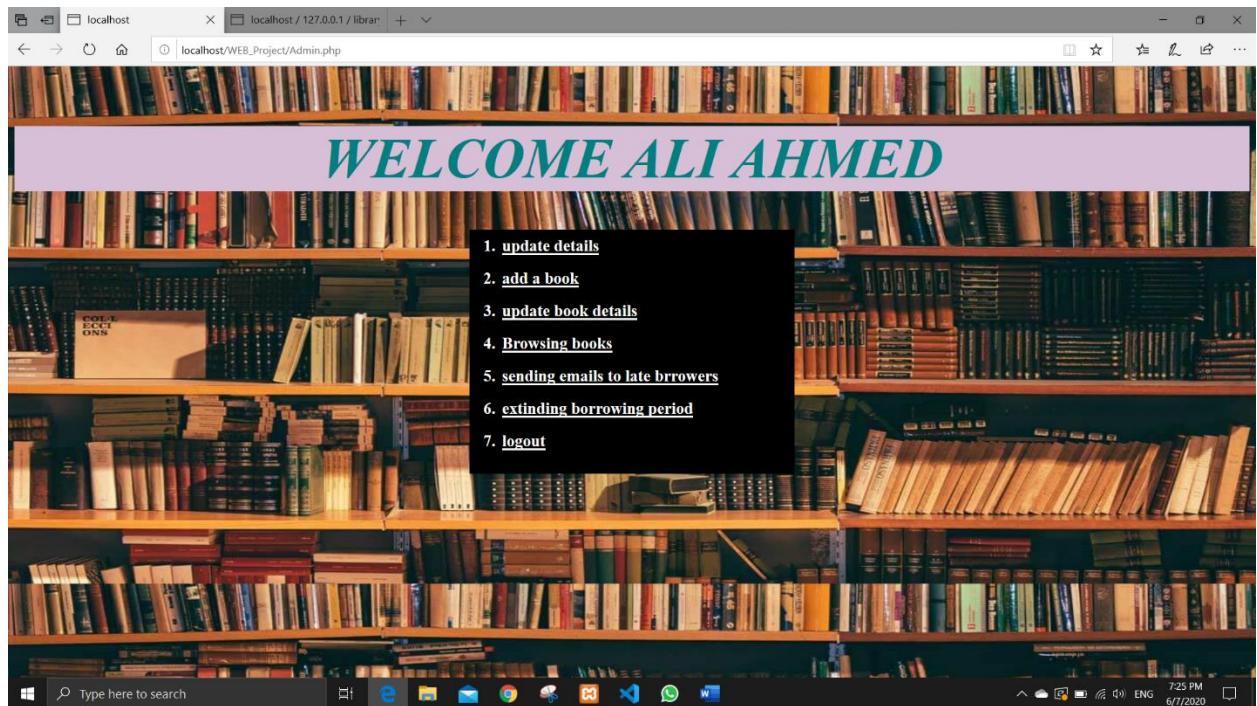
3. After signing up a new admin the system go to the main page to admin that contain all functions that admin can make



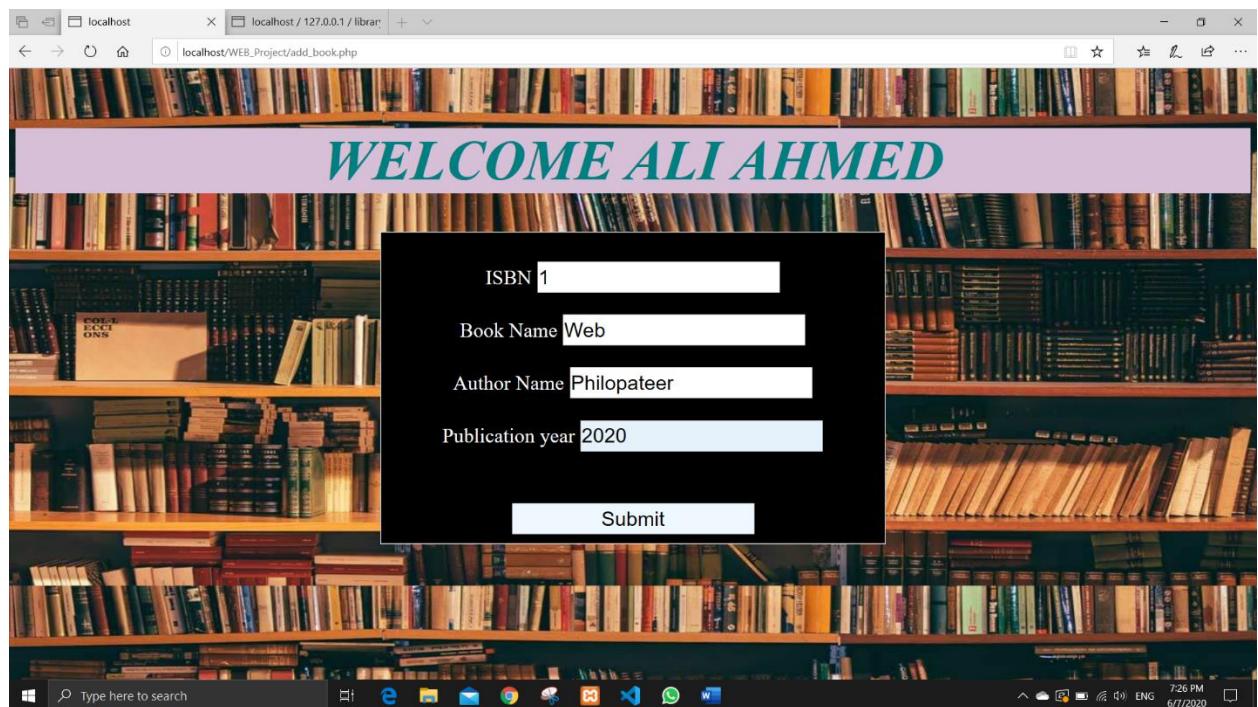
4. Update details function



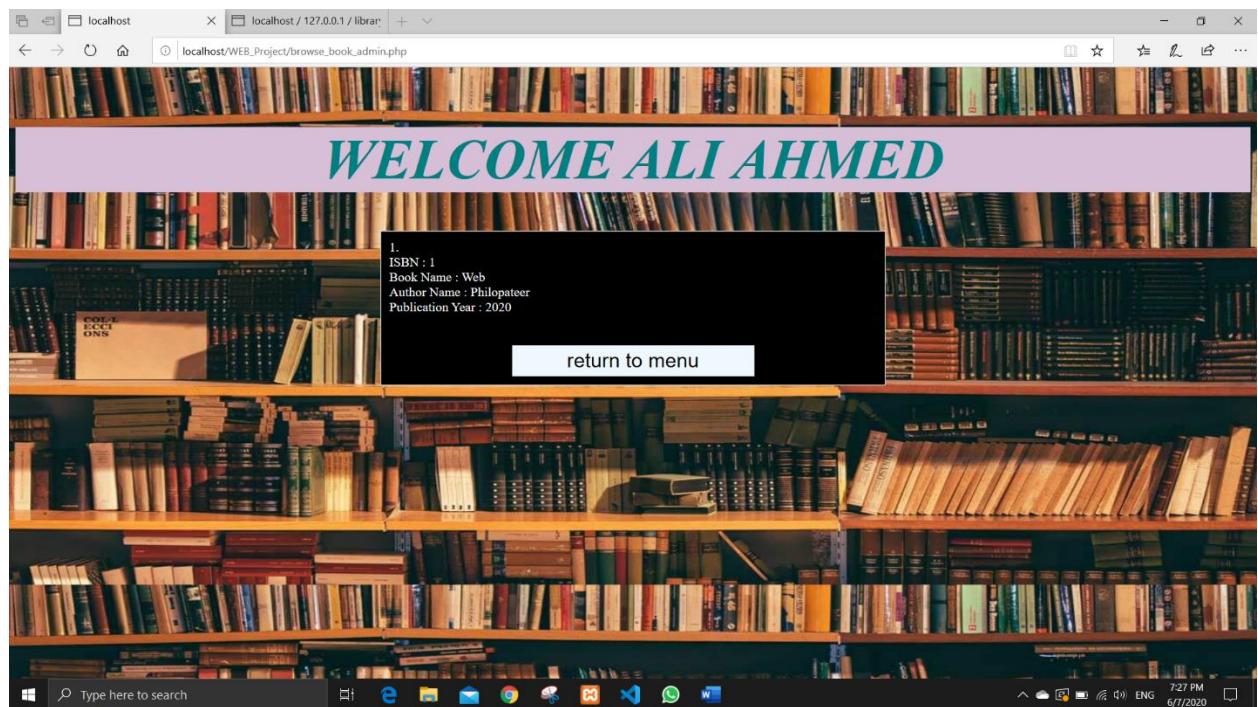
5. After submitting a new book the system will go again to the functions that admin can do



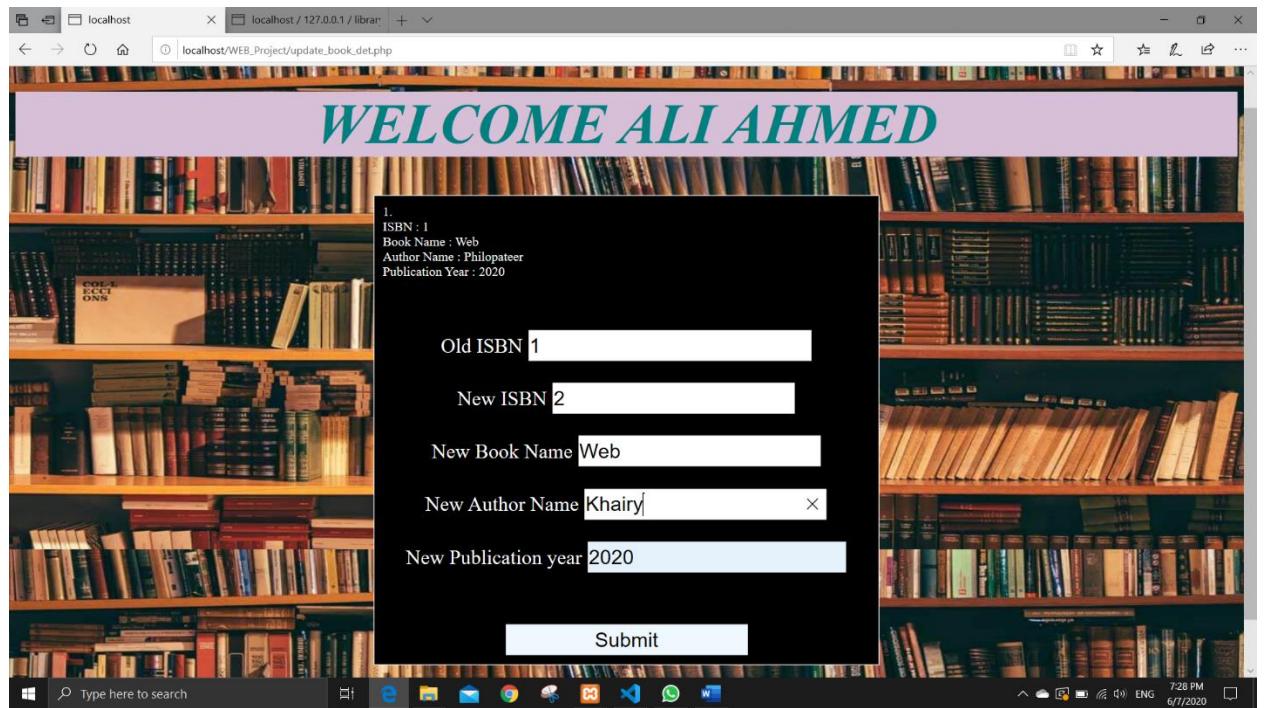
6. Add book function



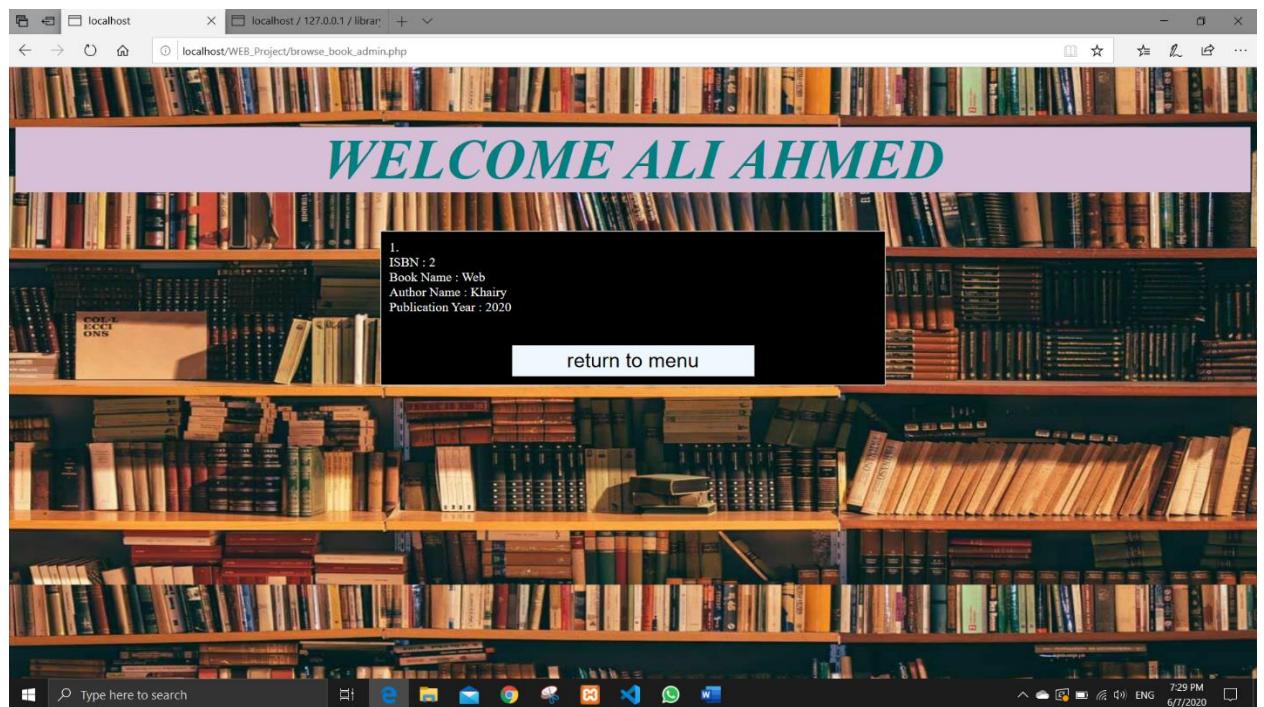
7. Browsing books



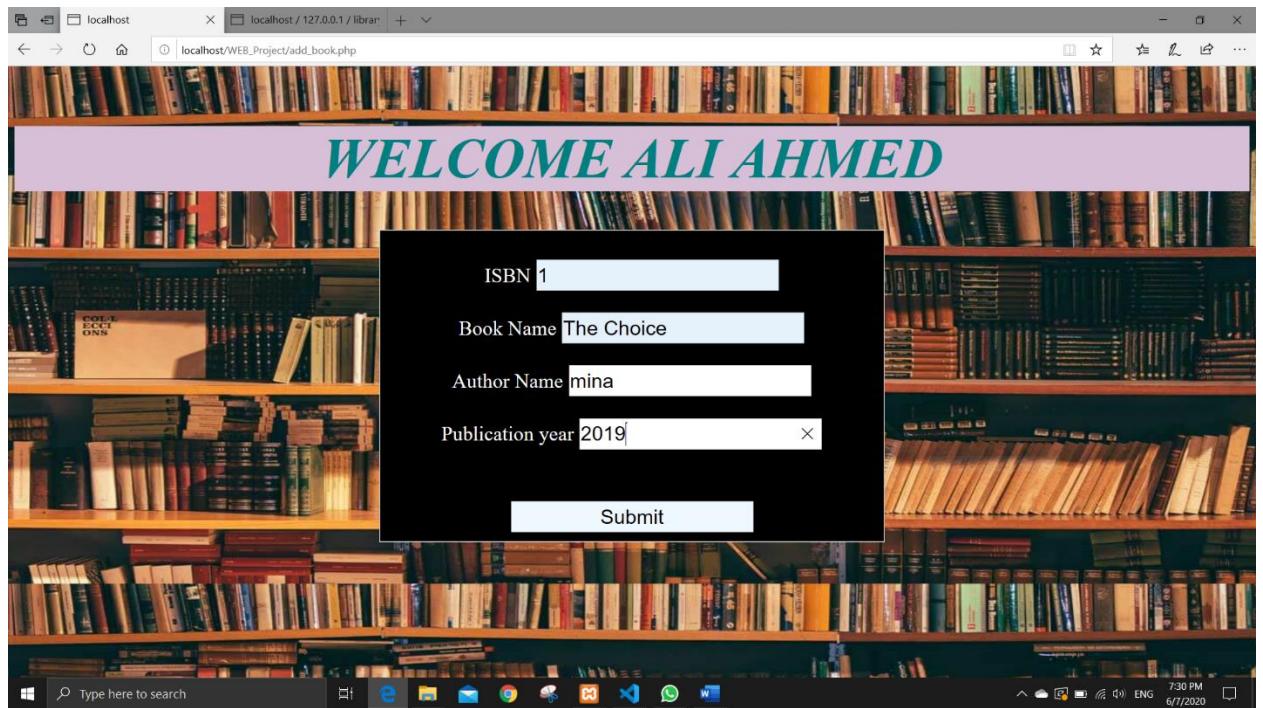
8. Update book details, accessing the book by its ISBN



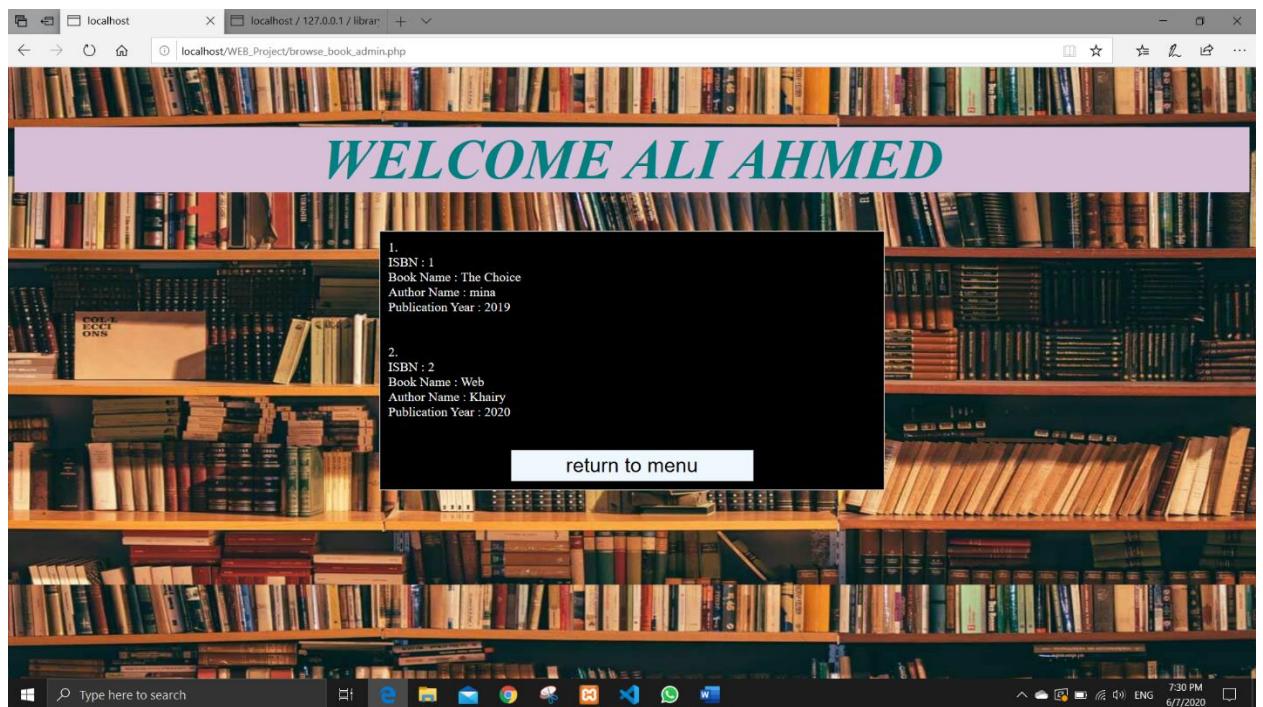
9. Browsing books that are in library now



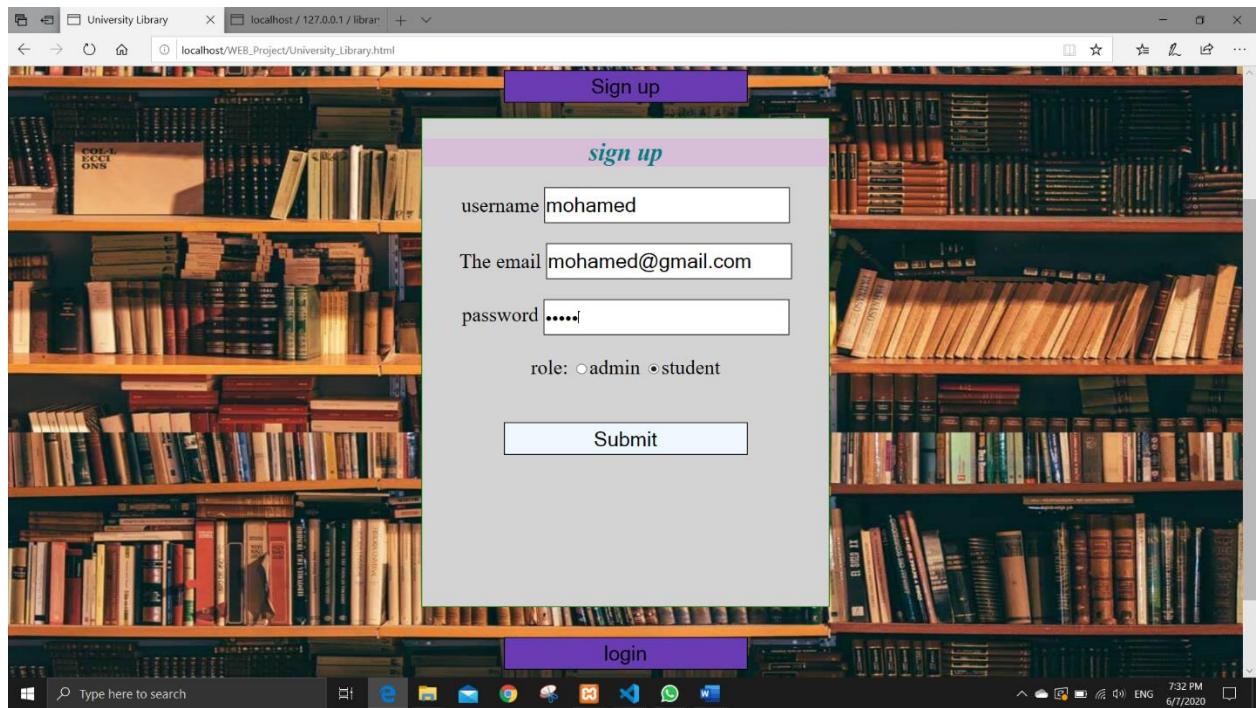
10. Add another book to the library



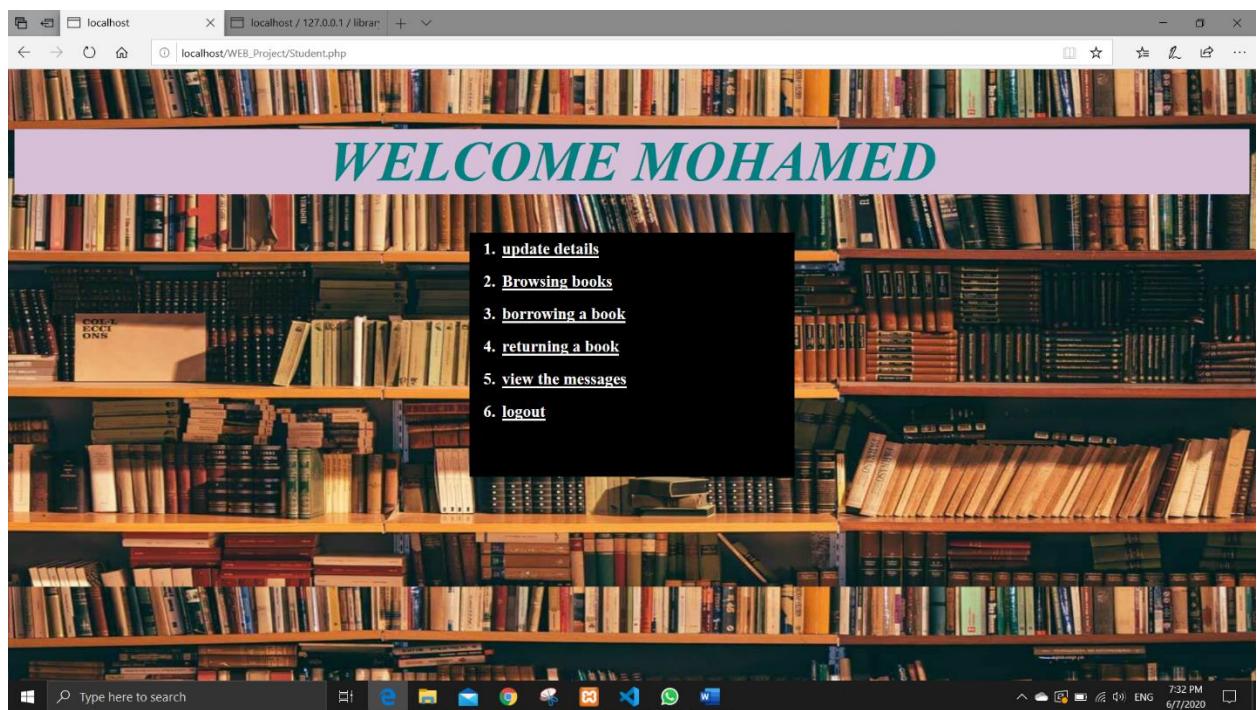
11. Browsing books that are in library now



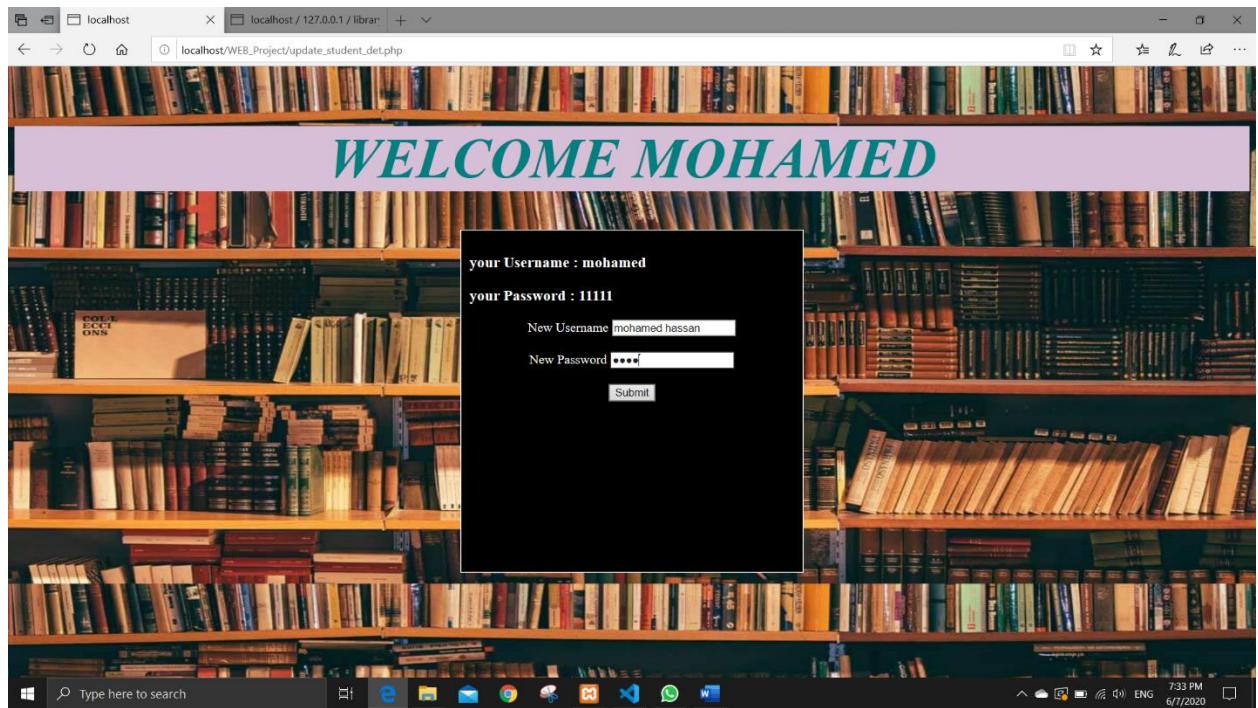
12. Logout as admin, and go to sign up first student



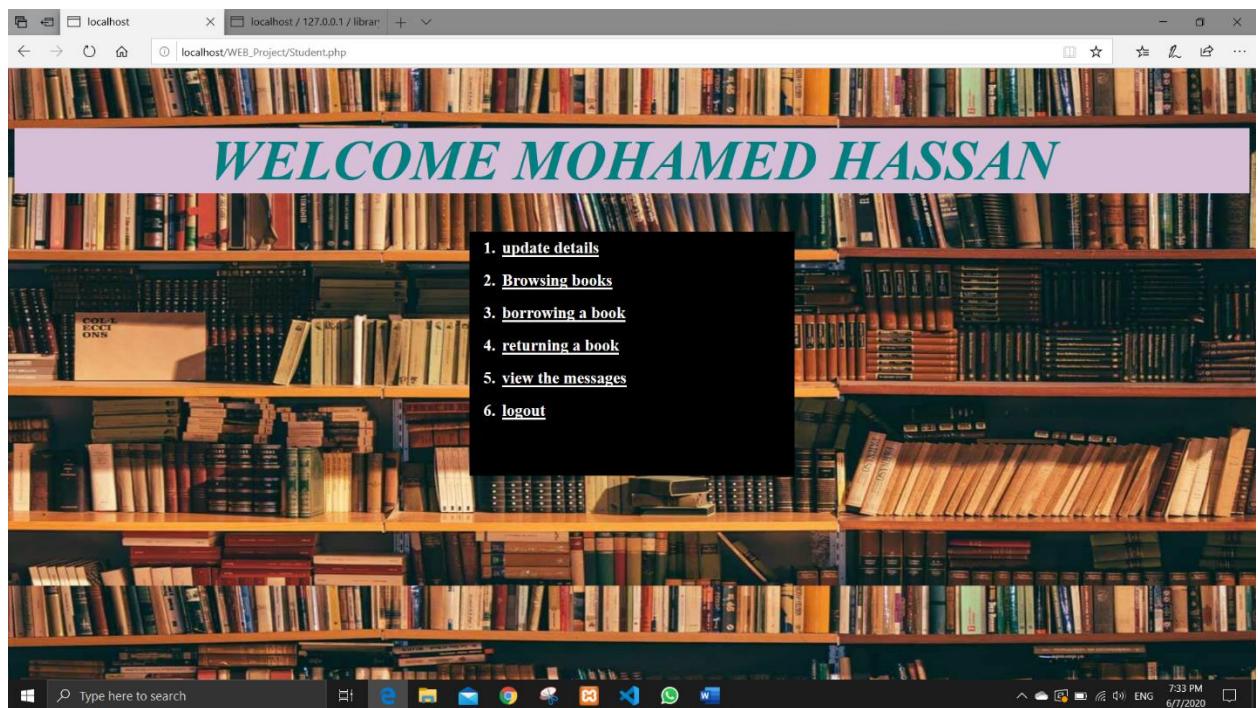
13. After signing up a new student the system go to the main page to student that contain all functions that student can make



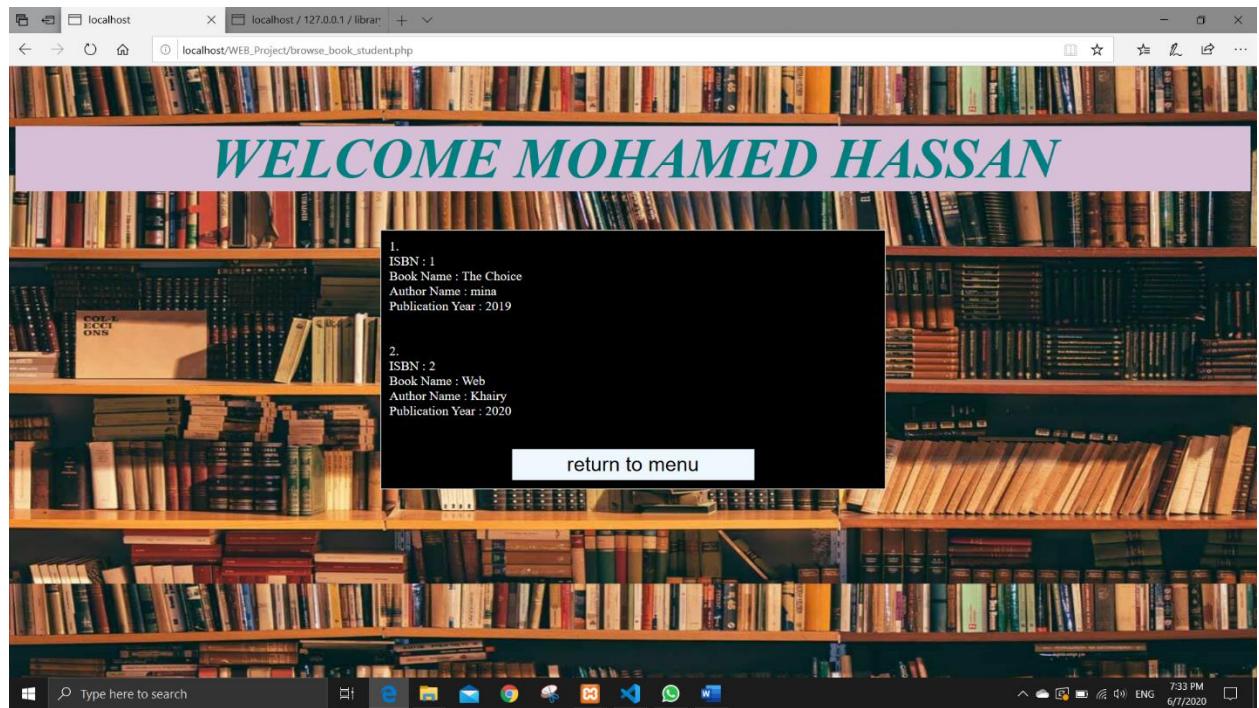
14. Update student details



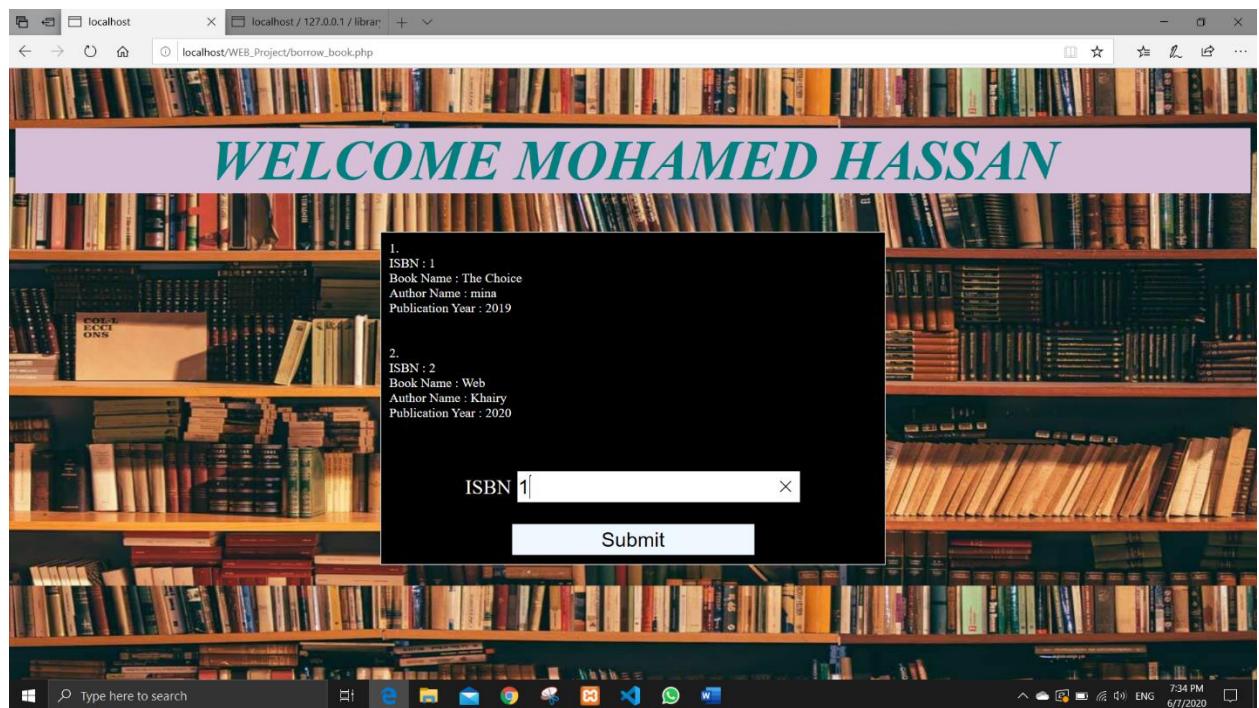
15. Note that the name of the student change in welcome statement



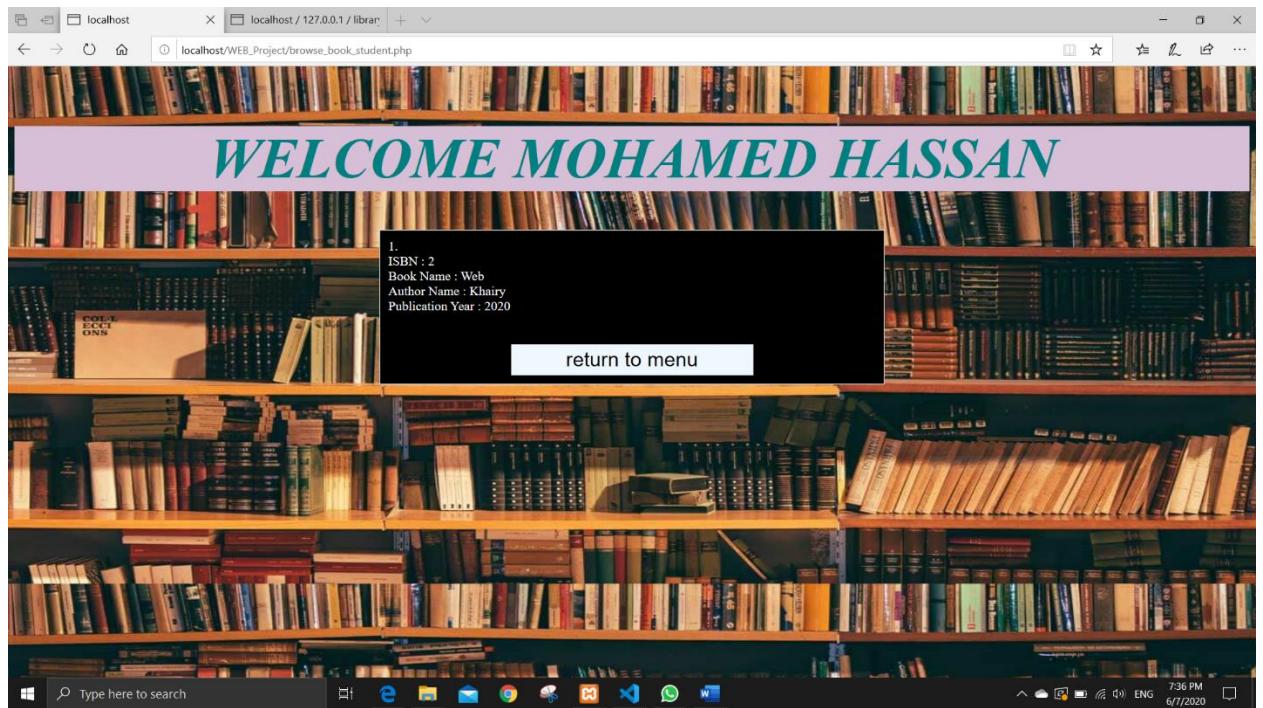
16. Browsing books for student side



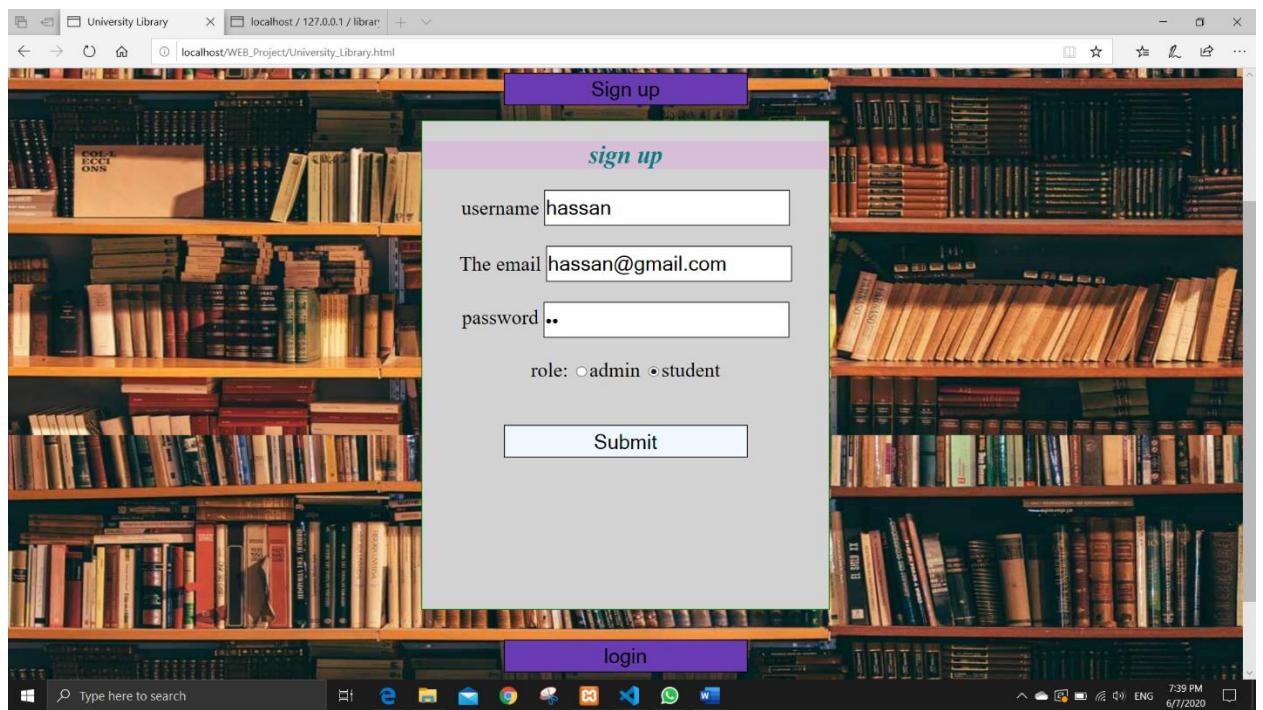
17. Borrow a book by mentioning its ISBN only



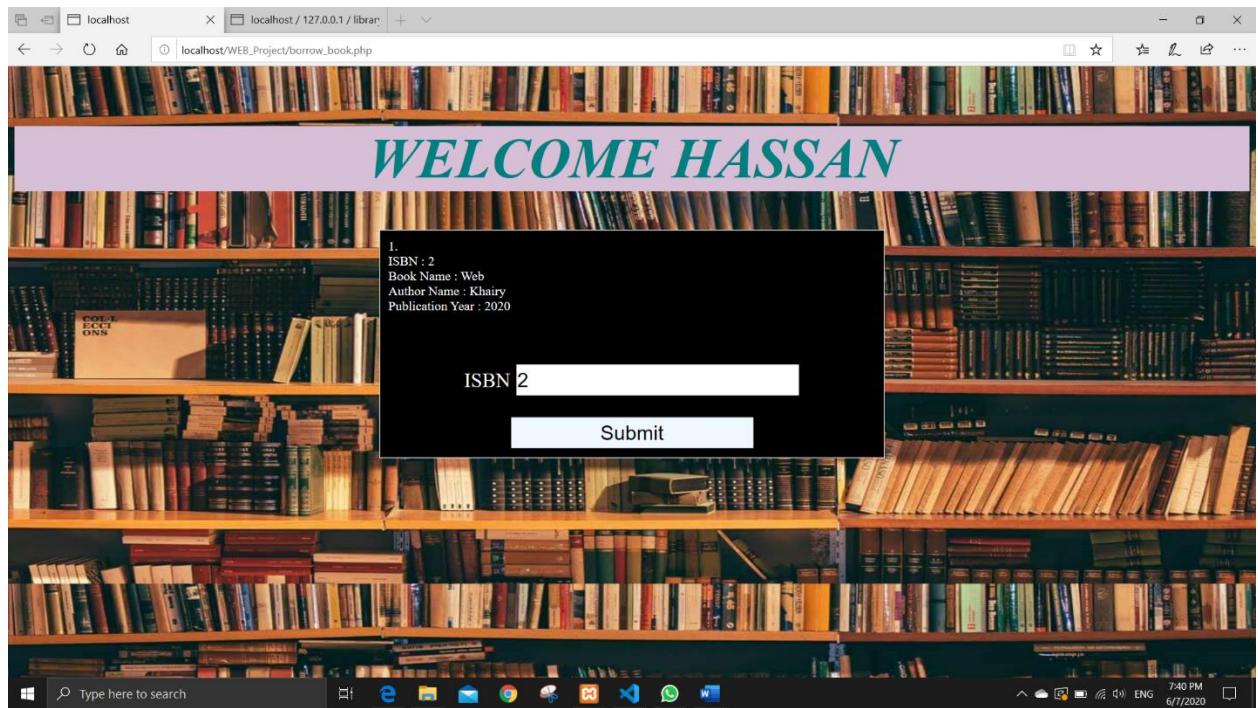
18. Browsing books that are in library now



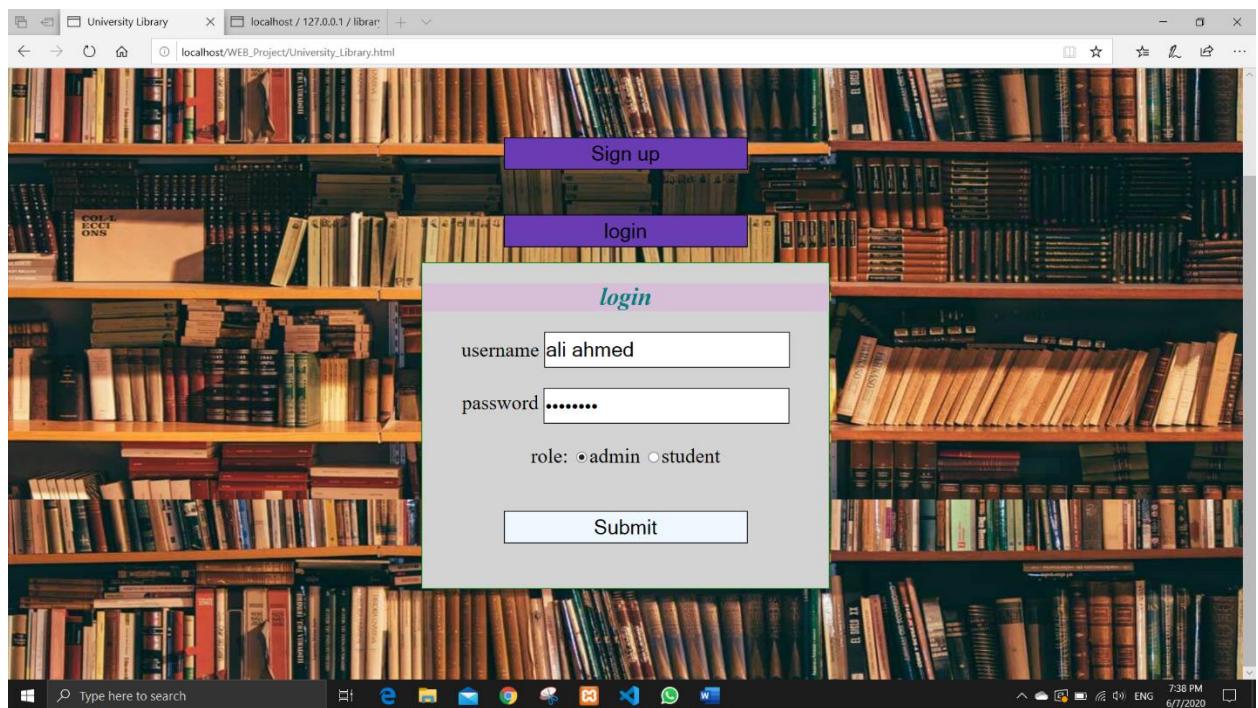
19. Signing up with a new student



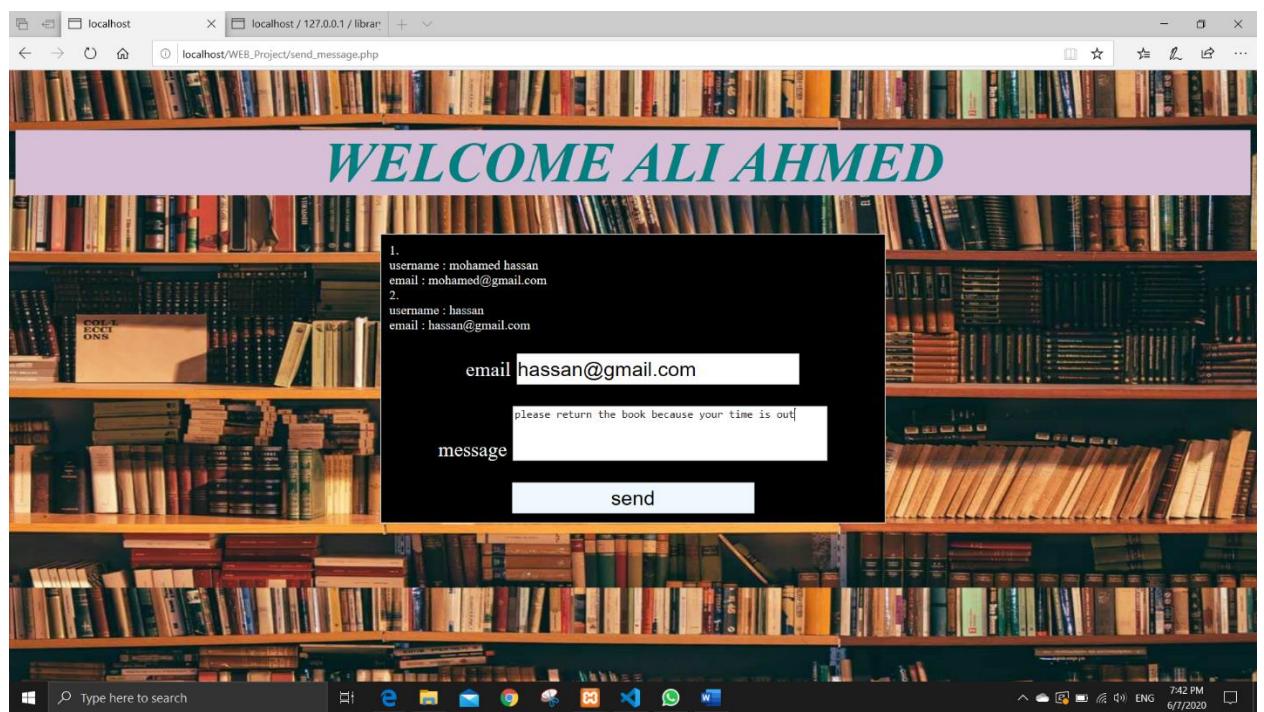
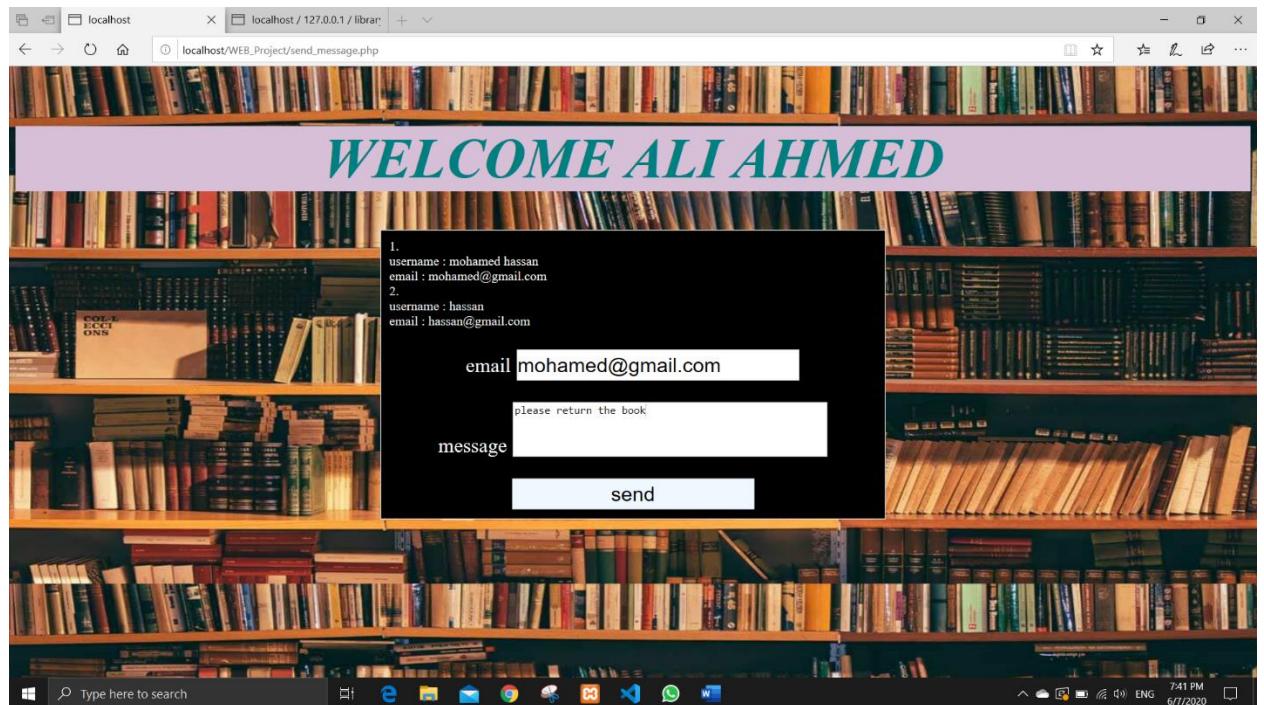
20. The new student borrow the only book in the library



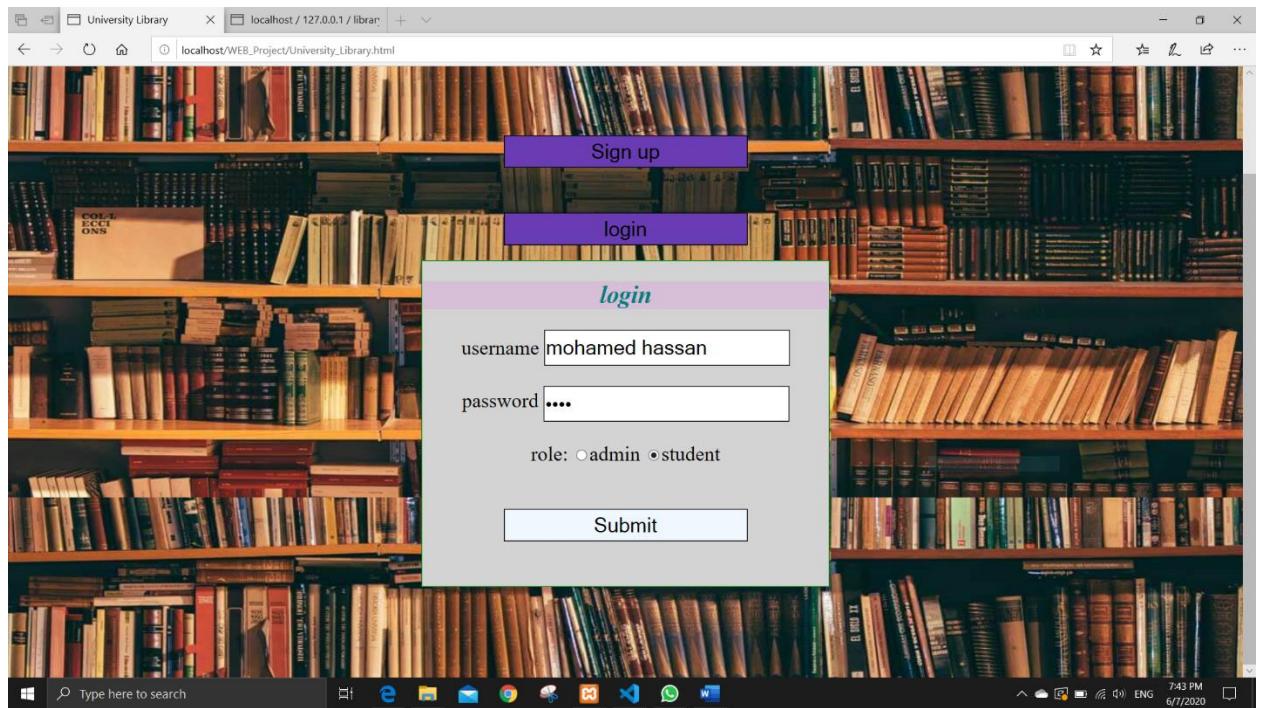
21. Logout from student and login as the only admin in the system



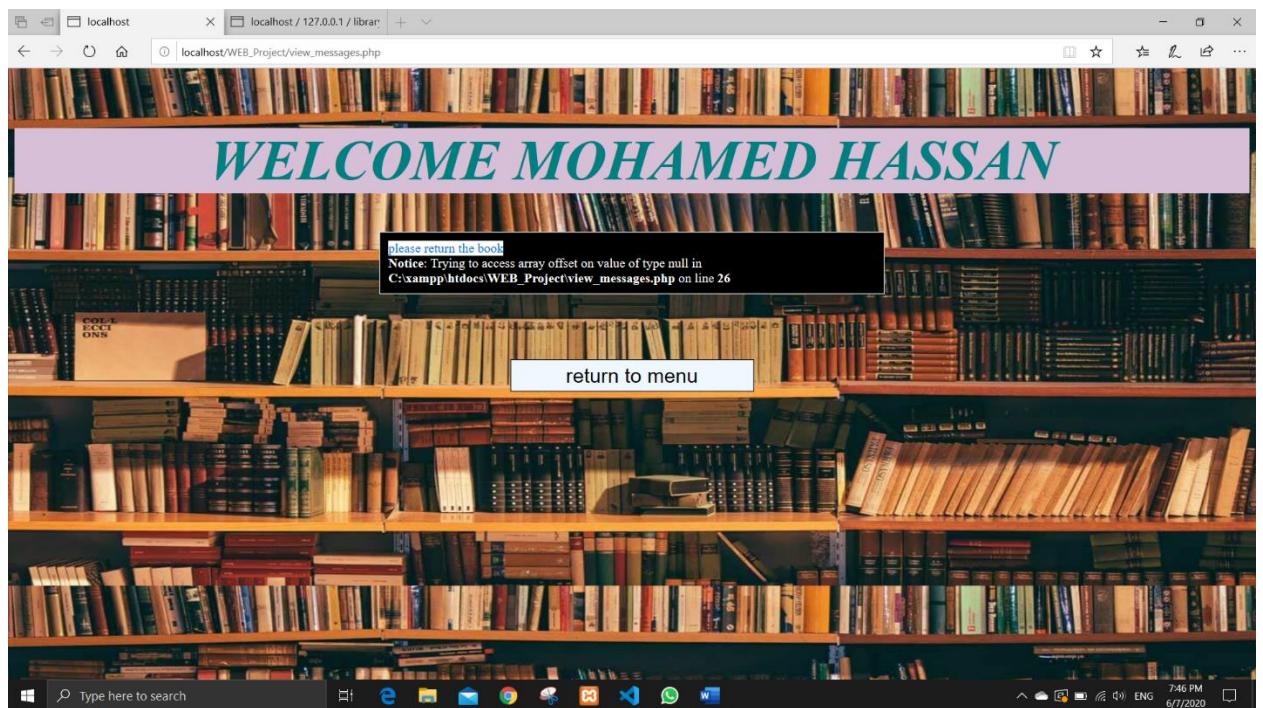
22. Sending two messages to the two borrowers



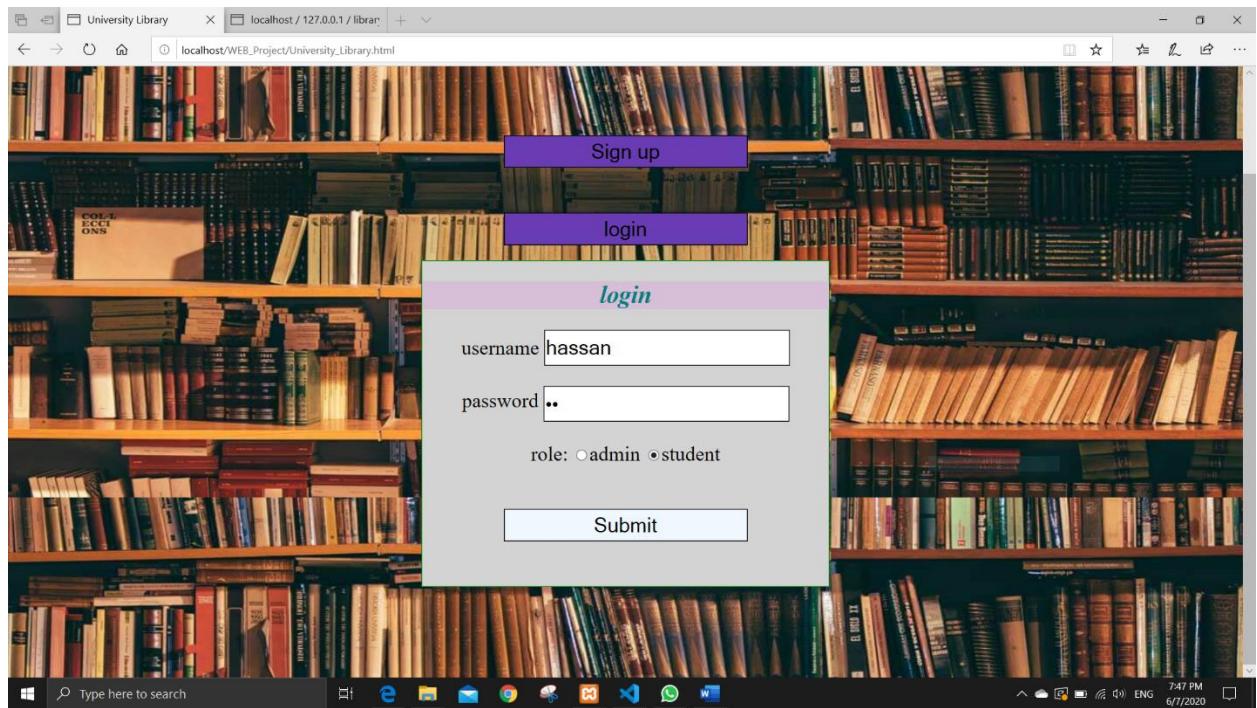
23. Login as first student



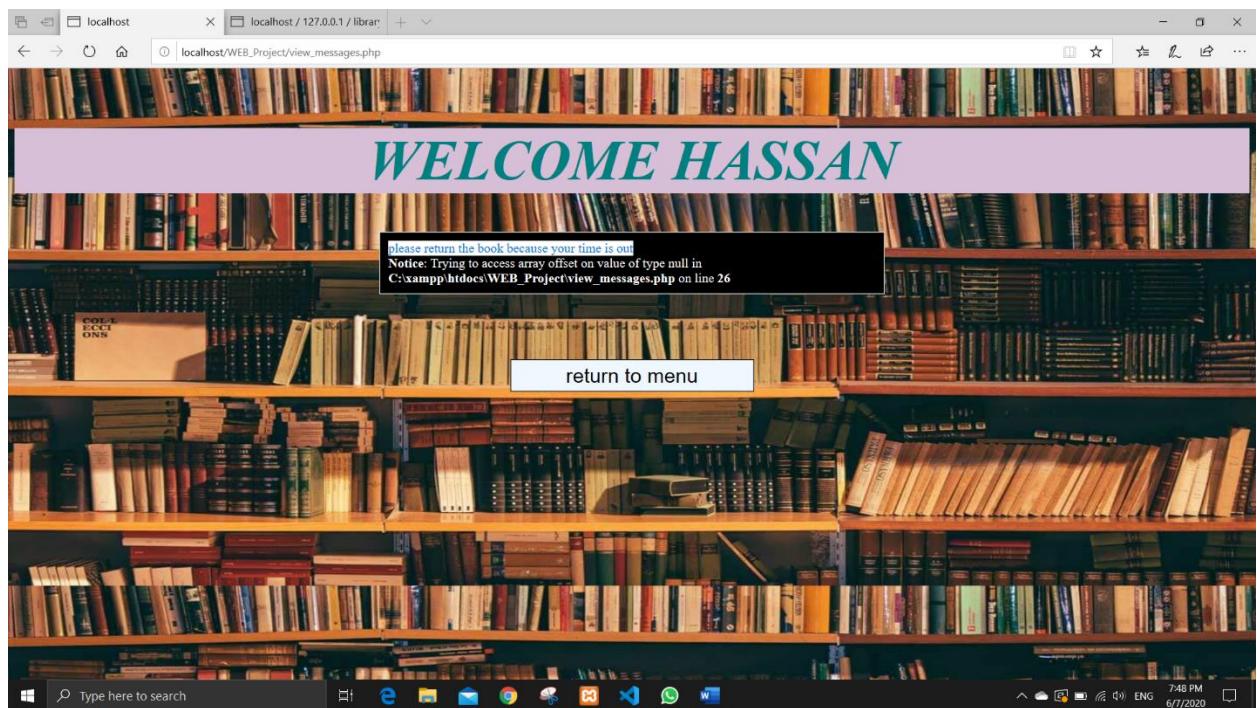
24. View message function in first student functions



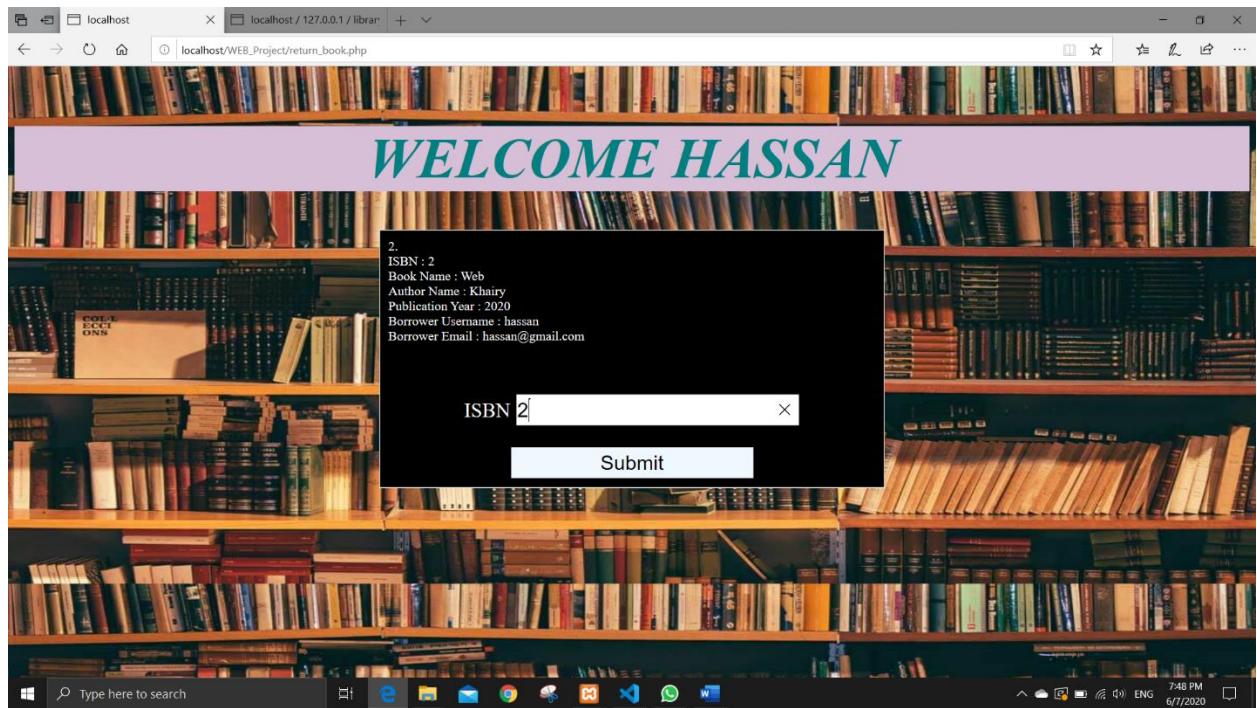
25. Login as the second student



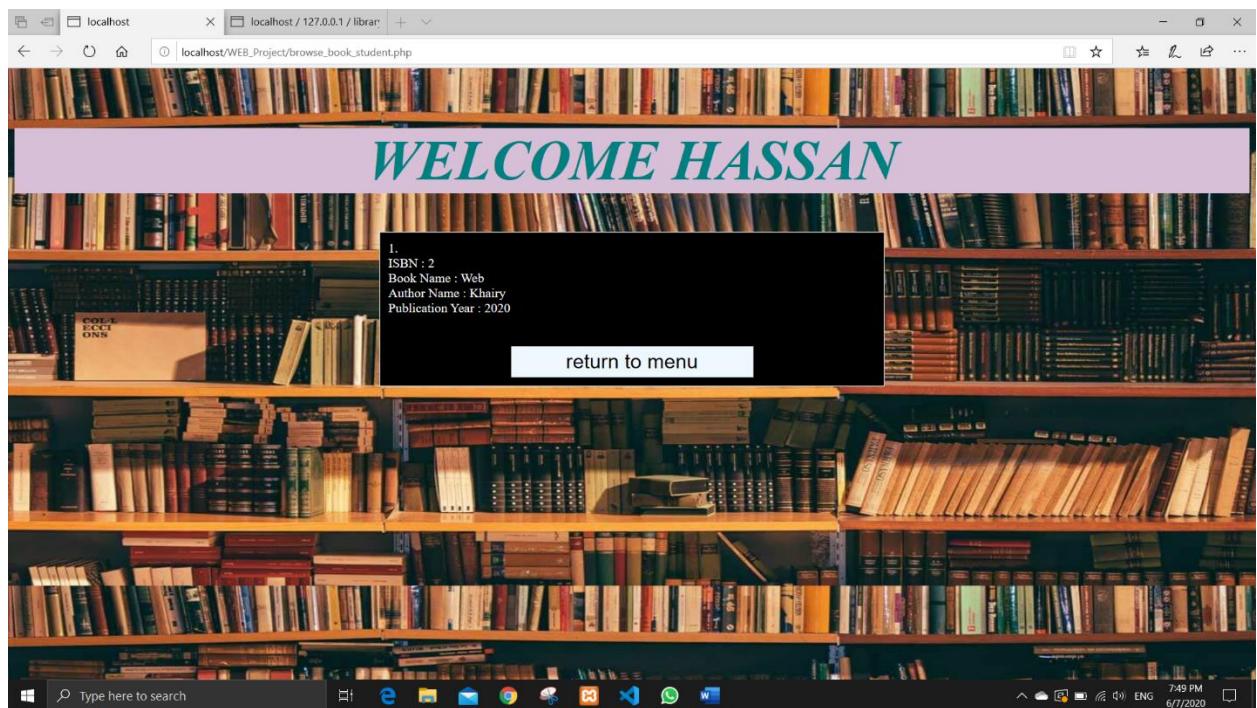
26. View message function in second student functions



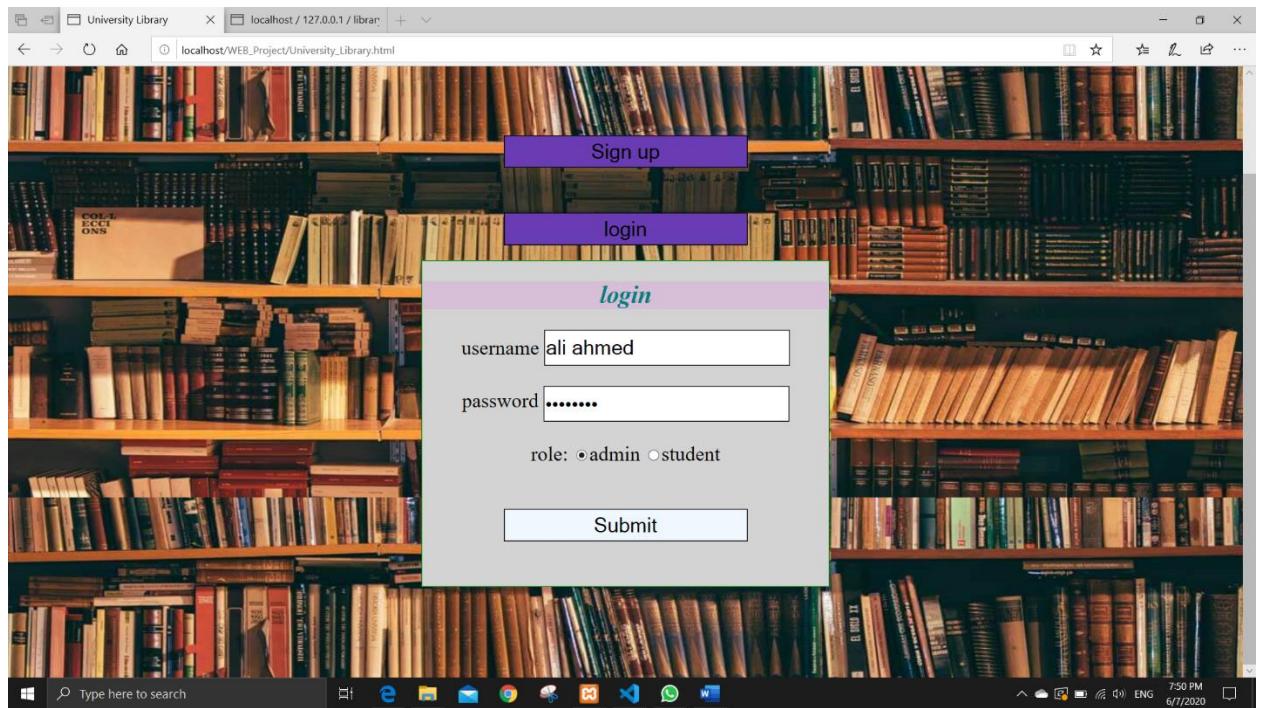
27. The second student return the book that he borrowed



28. Browsing the books that are in the library now



29. Login as admin again to see the latest function



30. Enter an ISBN for a book to extend its borrowing time

