ASHESI ONLINE BOOKSTORE

PROJECT DOCUMENTATION

WEB TECHNOLOGIES GROUP PROJECT

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CONTENTS

OVERVIEW / PROJECT BACKGROUND

It can be very troublesome when one needs to convey books from place to place regardless of the number of books or number of pages each has; inevitably they all contribute to the weight of one's load. As a popular habit too, particularly with books, one may have a hard time recalling the pages they got to; in this manner they would flip through pages for quite a while before they find the last known point of interest. Additionally, print books are liable to wear and tear from time and utilization regardless of how cautious one is with books.

In brainstorming the stress students and lecturers face in organizing various books and content they wish to use at a later time, The Trailblazers tasked ourselves with creating an ultra-modern solution to cumbersome physical print books.

This web platform was established as a solution for students, staff and faculty of Ashesi University who need quick access to digital books and is functional to use and makes saving e-books easy for the average user. Php, HTML, and MySQL were among the programming languages deployed to seamlessly allow web content to be delivered in the most perfect user-friendly interface as possible.

The Ashesi online bookstore has a sort functionality called E*asySearch*™ where users can select the genre of the book they are looking out for and results are returned with the books available under that genre. With this, users do not waste time in searching for books. The books on the website are free due to permissions from their authors, thereby eliminating the case of copyright theft. Ashesi Online Bookstore is an electronic bookshop where people can download their desired books under various categories including Education, Science, Fiction and Business.

DATABASE STRUCTURE

To manage information about the website and its users, a database was created which stored information about the books sold in the store, the students who were using the site and what books they had in the libraries.

When a student is registered for the online store, their username and an encrypted version of their password is saved in a database that is consulted anytime they try to log in. if the credentials do not match what is on the database, the student will be unable to sign in.

Upon signing in, the student is able to access 'My Books', which takes data from a database about which books are associated to that student's account. When a student adds a book to 'My Books', it is reflected in the database again; the book is added to those on the list of books associated with their account

The database also manages the books currently available in the library that are available to be accessed by students. It keeps track of the books' titles, authors, publishers, ISBN, and even the years they were published. It helps users to monitor and keep a record of the books in their accounts.

UNIT TESTING

System testing of software or hardware is testing conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements. The user determines situations to test when a user story has been accurately executed. A story can have one or numerous acceptance tests, whatever it takes to guarantee the usefulness works. Acceptance tests are discovery framework tests. All acceptance tests speak to some normal outcome from the framework. Users are liable for confirming the accuracy of the acknowledgement tests and auditing tests to choose which tests have higher priority. These are snippets of the testing of the online bookstore:

AREAS OF CHALLENGE

Throughout the project we defined only two challenges which we managed to overcome as time went on. The first one had to do with timing. Since most of us had incompatible free times, we managed to have confusion when we set actual meeting times because they usually don't favor everyone. We managed to overcome this by implementing version control through GITHUB since that would help each of us contribute to the project equally and in our own free time.

Implementation of the add to library functionality was also a problem since the structure was complicated.

CONCLUSION

The web application Ashesi Online Bookstore provides a system for students and lecturers of Ashesi, that allows them to access e-books and add the ones they would like to read to a library. It is supposed to be used by the students and lecturers both inside and outside campus. It is an internet enabled application to be used solely by people who sign up, for easy access and download of books.

APPENDIX

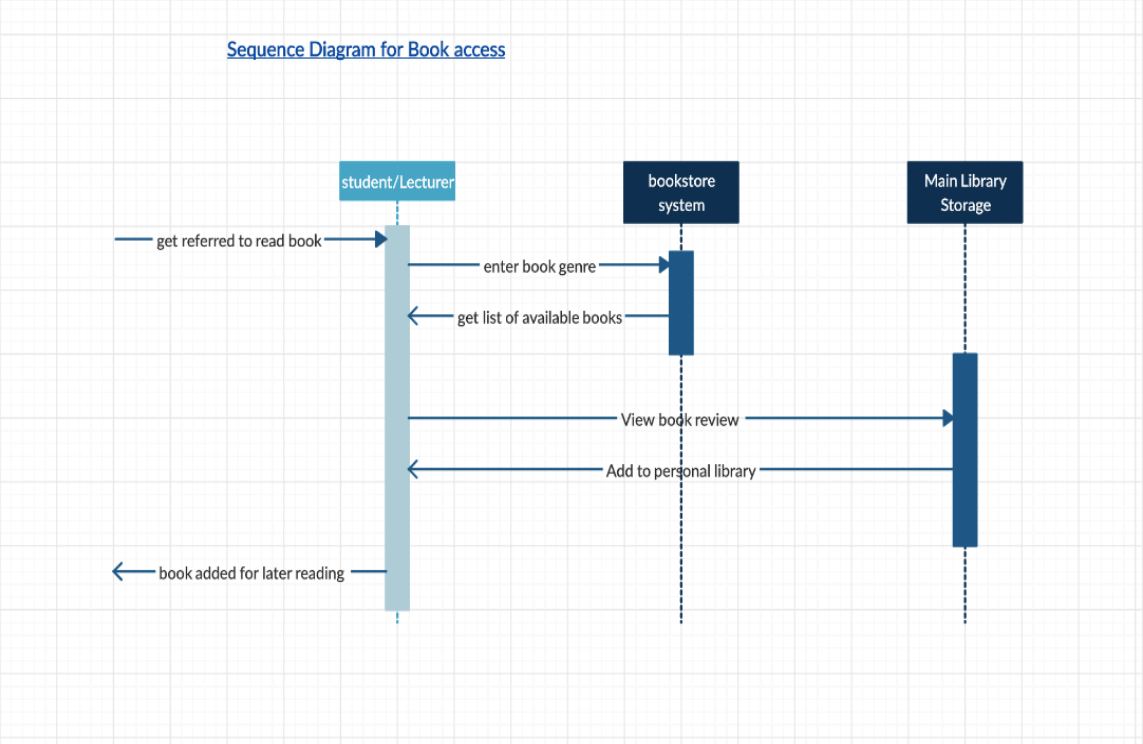

Fig. 1: Sequence Diagram

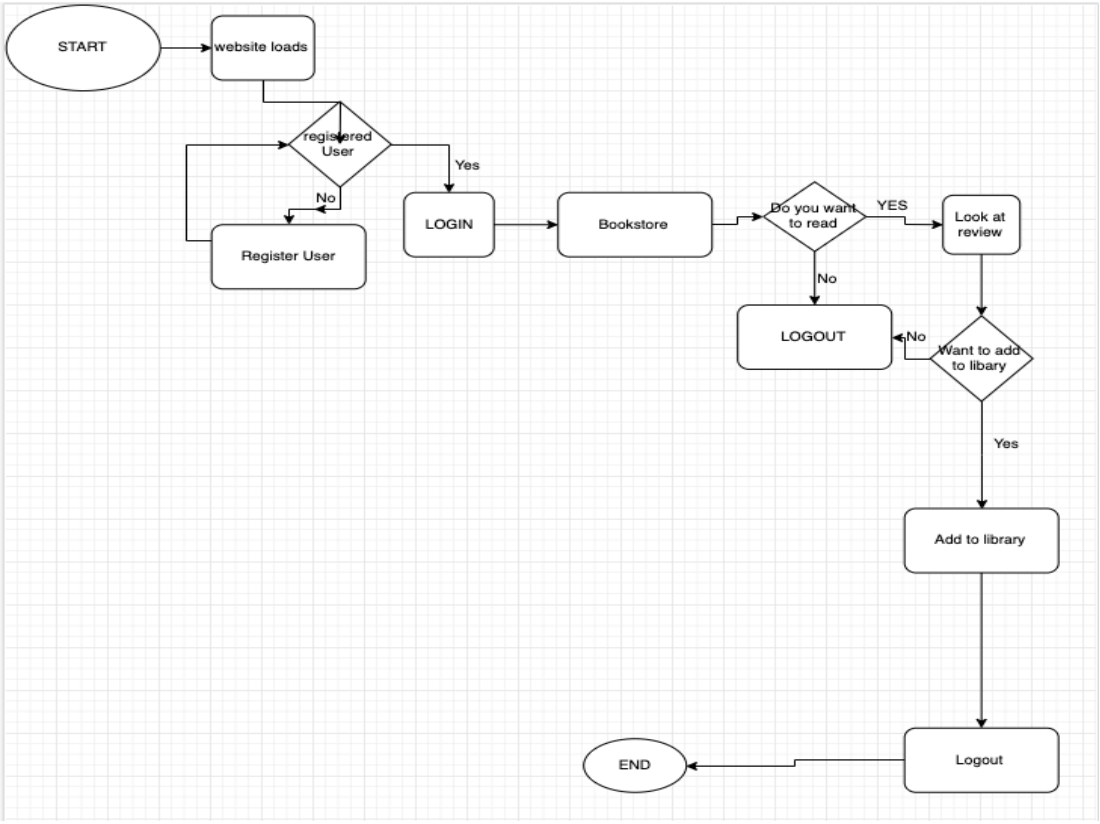

Fig. 2: Flowchart of Functionalities

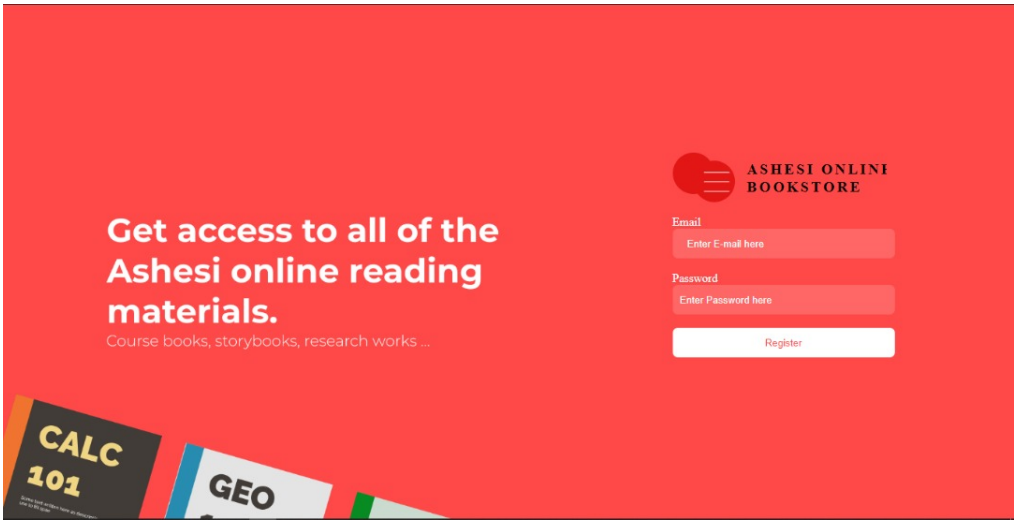

Fig. 3: Register Page

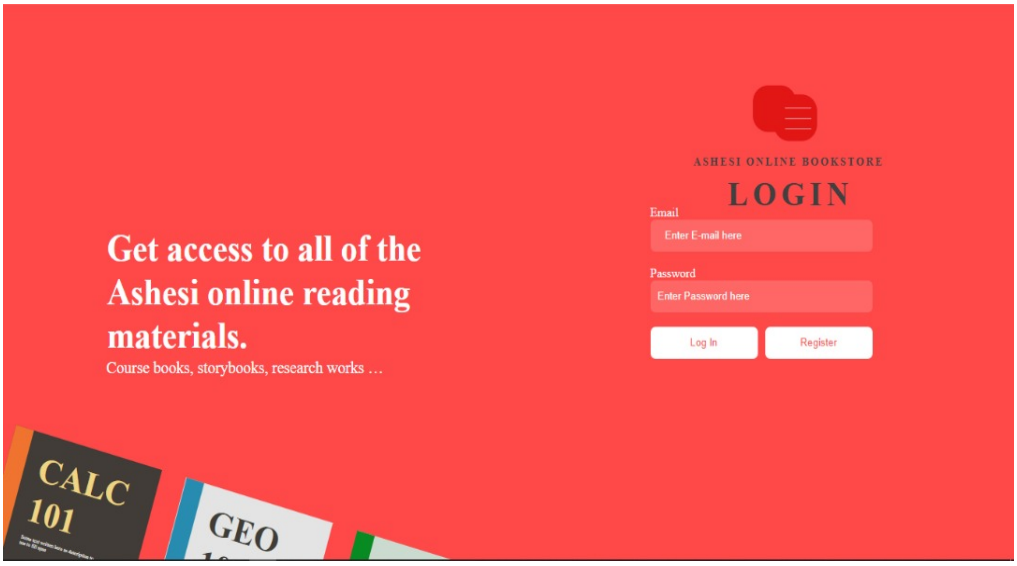

Fig. 4: Login Page

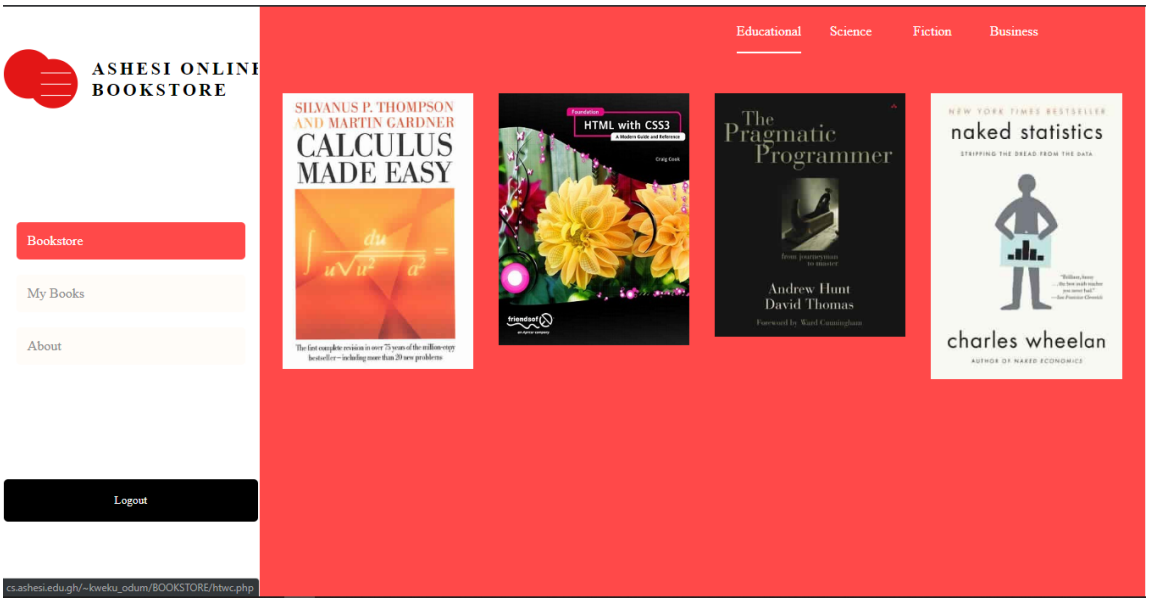

Fig. 5: Homepage

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```php
<?php

    class user extends dbb{

        public $username = null;
        public $book = null;


        function __construct($username,$book){
            $this->username = $username;
            $this->bookid = $book;
        }


        public function insertBook($bookid){
            $userid = returnUserID();
            $sql = "SELECT * from user_books where User_id = '$userid' and book_id = '$bookid'";
            $result = $this->connect()->query($sql);
            if (!(mysqli_num_rows($result) == 1)){
                $query = "INSERT INTO user_books VALUES ('$userid','$bookid')";
                $result = $this->connect()->query($query);
            }else{
                echo "This Book is already in your Library";
            }
        }

        private function returnUserID(){
            $query = "SELECT * from user where username = '$this->username' ";
            $result = $this->connect()->query($query);
            $row = $result->fetch_assoc();
            $userid = $row['User_id'];
            return $userid;
        }

        private function returnBookID(){
            $query = "SELECT * from books where book_id = '$this->book_id' ";
            $result = $this->connect()->query($query);
            $row = $result->fetch_assoc();
            $bookid = $row['book_id'];
            return $bookid;
        }
    }
```

Fig. 6: Most Important Algorithm