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Web Technology Research



Abdelrahman Soliman & Mayar Elhussieny &

Esraa Ahmed

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Team Members Info

Names	ID
عبدالرحمن محمد سليمان رمضان محمد	20180148
ميار الحسيني محمد الباز محمد	20180300
اسراء أحمد السيد قطان	20180041

Documentation Bibliography

Chapter one: Introduction • WHAT IS THE PROJECT ABOUT? • FEATURES OF THE WEBSITE APPLICATION. (2) TECHNOLOGIES USED

- WEB TECHNOLOGIES.
- WEB IDES AND PROGRAMS.
- (3) TEAM MEMBERS ROLES

Chapter Two: Design/Implementation

(1) SOURCE CODES

(1) DESCRIPTION

• HTML, CSS, JS AND PHP PAGES.

Chapter There: Project Output

(1) SCREENSHOTS FOR EACH FUNCTIONALITY.

Introduction

This Project is about University Library Management system shown by web application, this application let you borrow available books in the library which be added by the admin of the website.

Application Features:

- Signing up a new user (Student or Admin).
- Login system as admin and as student by remember me feature.
- Update the user date (User Name, Password, E-mail-----).
- Adding a book in the library by an admin user.
- *Updating a book details by an admin (Book name, Book ISPN----).*
- Browsing books via Entering Book ISPN.
- Showing a list of books that satisfy certain criteria Via Entering one of this data list (Book ISPN, Author, number of copies, publication year).
- Sending emails to late borrowers.
- Borrowing and returning books.
- Log out.

Technologies and Tools:

• WEB TECHNOLOGIES

- HTML Language for the main structure of each page.
- CSS Language for styling the pages.
- PHP Language to interact with user activity.
- MySQL Language for controlling to the database of the application.
- JavaScript Languages for input validation in the client side and AJAX.
- Usage of Cookies and Session for saving the user settings.

- WEB IDES and another programs
 - VS Code to implement the Pages by (HTML, CSS, JAVASCRIPT and PHP).
 - XAMPP Program to use a local host.
 - *PHPMYADMIN* to create the database and its tables.

Team member roles:

- Abdelrahman Mohamed.
 - Necessary pages for the Admin Interface by Using HTML, CSS, PHP and MYSQL.
 - Create the Database of the application.
 - Test the parts of Mayar and Esraa
 - Taking Screenshots for the project outputs to his Part.
 - Making the cover of the research and writing the introduction chapter.
- Mayar Elhussieny
 - Necessary pages for the Student Interface by Using HTML, CSS, PHP and MYSQL.
 - Main Page to enter to the login page or sign up page.
 - Test the parts of Abdelrahman and Esraa.
 - Taking Screenshots for the project outputs to her Part.
 - Writing the Design/Implementation chapter.
- Esraa Ahmed.
 - Two pages for the Login System and Signup system by Using HTML, CSS, PHP and MYSQL.
 - JavaScript Code for the AJAX and input validation.
 - Using the Cookies and Sessions for the Login and Signup system and another parts in the Application.
 - Test the parts of Abdelrahman and Mayar.
 - Taking Screenshots for the project outputs to her Part.
 - Writing the Project output chapter.

Design and Implementation

Main Pages and Files:

- (1) Main.css
 - This is file contain the code of CSS for design the pages.
 - **(Note)** We used external CSS file for all page but in somewhat pages we used Internal and inline CSS.
 - **Source Code:** Page (9,10,11)
- (2) Main.js
 - This is file contain the code of JavaScript for AJAX and Input Validation Functions.
 - **Source Code:** Page (12,13,14,15)
- (3) MainPage.php
 - This is file contain the code of HTML, Inline and internal CSS.
 - This is the first page in the application which has two buttons to enable the user to log in or sign up
 - Source Code: Page (16,17)
- (4) Login.php
 - This is file contain the code of HTML, Inline CSS and PHP.
 - This is page to Log in the web application by entering username and password then, the server search about this user in database and determine the user is admin or student if he/she is admin the server show to the user the admin page, if he/she is student the server show to the user the student page.
 - In the case of the user is not registered or entered wrong username or wrong password or the both, the server show an alert message to the user.
 - The system will save this action with cookies and sessions so, this user is not required to write his user name and password again in the next time.
 - In the case, user didn't enter any data or missed one of them, the system alert him.
 - **Source Code:** Page (18,19,20)

(5) Signup.php

- This is file contain the code of HTML, Inline CSS and PHP.
- This is page to Sign up in the web application by entering the main data then, the server will add this user to the database in the table of student users if signed up as student and in the table of admin users if signed up as admin.
- In the case, user didn't enter any data or missed one of them, the system alerts him.
- **Source Code:** Page (21,22,23)

(6) Admin.php

- This is file contain the code of HTML, Inline CSS and PHP.
- This is page to show the interface of the admin user which has a nav bar that contains the features of admin user.
- There is log out button to return to the main page (MainPage.php).
- There is a welcome message for the current user by using the sessions, the format of the message ("Welcome 'User FirstName + User LastName').
- We use AJAX in the pages which appear via select one option in the nav bar.
- Source Code: Page (24)

(7) Student.php

- This is file contain the code of HTML, Inline CSS and PHP.
- This is page to show the interface of the student user which has a nav bar that contains the features of student user.
- There is log out button to return to the main page (MainPage.php).
- There is a welcome message for the current user by using the sessions, the format of the message ("Welcome 'User FirstName + User LastName').
- We use AJAX in the pages which appear via select one option in the nav bar.
- Source Code: Page (25)

Pages for admin user only:

(8) Add a new book.php

- This is file contain the code of HTML, Inline and internal CSS.
- This is page to add a new book via entering (Book Name, ISPN, Autor...)
- The Server will add the new book to the database in book table
- In the case, user didn't enter any data or missed one of them, the system alerts him.
- Source Code: Page (26,27)

(9) Update Book Details.php

- This is file contain the code of HTML, Inline and internal CSS.
- This is page to update a book via entering the old name and the new data (Book Name, ISPN, Autor...)
- The Server will update the book to the database in book table
- In the case, user didn't enter any data or missed one of them, the system alerts him.
- **Source Code:** Page (28,29,30)

(10) Late Borrower.php

- This is file contain the code of HTML, Inline and internal CSS.
- This is page to show the all emails of borrowers student and select one of them then, sending the messages
- In the case, user didn't enter any data or missed one of them, the system alerts him.
- Source Code: Page (31)

Pages for Student user only:

(11) Add a borrow.php

- This is file contain the code of HTML, Inline and internal CSS.
- This is page to make a borrowing of book by entering borrowing process id and select one of the books from list and enter the period to return the book.
- In the case, user didn't enter any data or missed one of them, the system alerts him.
- The Server will identify the email and the name of borrower automatically by using sessions.
- The Server add this borrowing process to the database in the borrowers table.
- **Source Code:** Page (32,33).

(12)Add return.php

- This is file contain the code of HTML, Inline and internal CSS.
- This is page to make a returning of book by entering borrowing process id.
- In the case, user didn't enter any data or missed one of them, the system alerts him.
- The Server will identify the email and the name of borrower automatically by using sessions.
- The Server delete this borrowing process to the database in the borrowers table.
- Source Code: Page (34,35)

Pages for Student user and admin user:

(13) updatauserdetails.php

- This is file contain the code of HTML, Inline and internal CSS.
- This is page to update the user INFO.
- In the case, user didn't enter any data or missed one of them, the system alerts him.
- The Server will identify OF user automatically by sessions.
- The Server update this action to the database in the Student or admin table.
- **Source Code:** Page (36,37,38)

(14) Browsing.php

- This is file contain the code of HTML, Inline and internal CSS.
- This is page to Search about a book via ISPN.
- In the case, user didn't enter any data or missed one of them, the system alerts him.
- The Server will Show a table with the book INFO.
- Source Code: Page (39,40)

(15) showlist.php

- This is file contain the code of HTML, Inline and internal CSS.
- This is page to show list of books that satisfy certain criteria (e.g.,
- ISBN, publication year, author...).
- In the case, user didn't enter any data or missed one of them, the system alerts him.
- The Server will Show a table with the booklist INFO.
- Source Code: Page (41,42)

```
/* All CSS Formating which we have used in the project */
 background-image: url("Images/P1.jpg");
 border: 3px solid #f1f1f1;
nput[type=text], input[type=password] , input[type=email] , input[type=number]
 width: 50%;
 padding: 12px 20px;
 display: inline-block;
 border: 2px brown;
 box-sizing: border-box;
 margin:auto ;
 background-color: white ;
input[type="email"]
 margin-left: 3.5%;
.nput[type="number"]
 margin-left: 3%;
nput[name = "cpsw"]
 margin-left: -1.5%;
Signup
 margin-left: 29%;
 margin-top:5% ;
 padding: 16px;
 background-color:black ;
 color: white;
 padding:12px 20px;
 border: none;
 cursor: pointer;
 width: 20%;
```

```
margin-left: 25%;
border-radius: 20%;
font-size: 14px;
log
margin-left: 67%;
margin-top: -4.5%;
color: darkred;
text-align: center;
SA
margin-left: 1%;
SS
margin-right: 15%;
color :white;
font-size:large ;
font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
outton:hover
opacity: 0.8;
login
margin-left: 29%;
margin-top: 13.5%;
padding: 16px;
margin-left: 29%;
width: 10%;
border-radius: 50%;
margin-top: -19.5%;
topnav
background-color :darkgoldenrod ;
```

```
overflow : hidden ;
margin-right: -1%;
margin-left: -1%;
margin-top: -1%;
topnav a
float: left;
color: #f2f2f2;
text-align: center;
padding: 14px 16px;
text-decoration: none;
font-size: 17px;
topnav a:hover
background-color: #ddd;
color:gray;
topnav a.active
background-color : darkgoldenrod ;
color: white;
border-collapse: collapse;
width: 100%;
color: #588C7E ;
font-family: monospace;
font-size: 25PX ;
text-align: center;
width: 50%;
height:200%;
font-family:"Roboto";
padding: 5px 10px;
font-size: 1.25rem;
cursor: pointer;
margin-left: 30%;
margin-top: 5%;
```

```
// Function to handel the empty input in Login Form
function Login Validation() {
 if (document.myform.psw.value == "" && document.myform.uname.value == "") // Us
erName and Password Case
   alert("Please Enter your username and password");
   document.myform.psw.focus();
   return false;
 if (document.myform.uname.value == "") // UserName only Case
   alert("Please Enter your user Name");
   document.myform.uname.focus();
   return false;
 if (document.myform.psw.value == "") // PassWord only Case
   alert("Please Enter your Password");
   document.myform.psw.focus();
   return false;
 return true;
// Function to handel empty input in Signup Form
function Signup_Validation() {
 var psw = document.getElementById("pswdid").value; // Handel if the password an
d returned password don,t match
 var cpsw = document.getElementById("cpswid").value; // Handel if the password a
nd returned password don,t match
 // Handel if any data input is missed
 if (document.myform.fname.value == "" || document.myform.lname.value == "" || d
ocument.myform.uname.value == "" || document.myform.pswd.value == "" || document.
nyform.cpsw.value == "" || document.myform.Phone.value == "" || document.myform.e
mail.value == "") {
   alert("You must fill all data");
   document.myform.focus();
   return false;
 // Handel if the password and returned password don,t match
   alert("The Password and the Confirmed Password Not identical");
   return false;
 return true;
```

```
// Function to handel empty input in add a add borrow Form
function Adddborrow Validation() {
 // Handel if any data input is missed
 if (document.myborrow.bow.value == "" || document.myborrow.bdate.value == "" ||
document.myborrow.dur.value == "" || document.myborrow.book.value == "") {
   alert("You must fill all data");
   document.mybook.focus();
   return false;
 if (document.myborrow.dur.value == 0) // Handel if duration = 0
   alert("You must borrow a book for one day at least");
   document.myform.Copies.focus();
   return false;
 return true;
// Function to handel empty input in add a add return Form
function Adddreturn Validation() {
 // Handel if any data input is missed
   alert("You must fill all data");
   document.myreturn.focus();
   return false;
 return true;
// Function to handel empty data in browsing form
function Browsing Validation() {
 // Handel if any data input is missed
 if (document.brows.ISPN.value == "") {
   alert("You must fill all data");
   document.ISPN.focus();
   return false;
 return true;
// Function to handel empty data in late borrower form
function Late Validation() {
 // Handel if any data input is missed
 if (document.Late.email.value == "" || document.Late.mess.value == "") {
   alert("You must fill all data");
   document.Late.focus();
   return false;
```

```
return true;
// AJAX Functions for bar of admin and bar of student
function loadDoc() {
 var xhttp = new XMLHttpRequest();
 xhttp.onreadystatechange = function () {
   if (this.readyState == 4 && this.status == 200) {
     document.getElementById("demo").innerHTML = this.responseText;
 };
 xhttp.open("GET", "UpdateData.php", true);
 xhttp.send();
unction AJAXbooK() {
 var xhttp = new XMLHttpRequest();
 xhttp.onreadystatechange = function () {
   if (this.readyState == 4 && this.status == 200) {
     document.getElementById("demo").innerHTML = this.responseText;
 };
 xhttp.open("GET", "Update Book details.php", true);
 xhttp.send();
function NewAJAXbook() {
 var xhttp = new XMLHttpRequest();
 xhttp.onreadystatechange = function () {
   if (this.readyState == 4 && this.status == 200) {
     document.getElementById("demo").innerHTML = this.responseText;
 };
 xhttp.open("GET", "Add a new book.php", true);
 xhttp.send();
function AJAXborrow() {
 var xhttp = new XMLHttpRequest();
 xhttp.onreadystatechange = function () {
   if (this.readyState == 4 && this.status == 200) {
     document.getElementById("demo").innerHTML = this.responseText;
 };
 xhttp.open("GET", "Add borrow.php", true);
 xhttp.send();
unction AJAXreturn() {
```

```
var xhttp = new XMLHttpRequest();
 xhttp.onreadystatechange = function () {
   if (this.readyState == 4 && this.status == 200) {
     document.getElementById("demo").innerHTML = this.responseText;
 };
 xhttp.open("GET", "Add return.php", true);
 xhttp.send();
function AJAXBrowsing() {
 var xhttp = new XMLHttpRequest();
 xhttp.onreadystatechange = function () {
   if (this.readyState == 4 && this.status == 200) {
     document.getElementById("demo").innerHTML = this.responseText;
 };
 xhttp.open("GET", "Browsing.php", true);
 xhttp.send();
function AJAXLate() {
 var xhttp = new XMLHttpRequest();
 xhttp.onreadystatechange = function () {
   if (this.readyState == 4 && this.status == 200) {
     document.getElementById("demo").innerHTML = this.responseText;
 };
 xhttp.open("GET", "Late Borrower.php", true);
 xhttp.send();
/ Function to handel empty input in add a book Form
Function Adddbook Validation() {
 // Handel if any data input is missed
 if (document.myBook.bname.value == "" || docu-
nent.myBook.ISPN.value == "" || document.myBook.author.value == "" || docu-
nent.myBook.Pubyear.value == "" || document.myBook.Copies.value == "") {
   alert("You must fill all data");
   document.myBook.focus();
   return false;
 if (document.myBook.Copies.value == 0) // Han if number of copies = 0
   alert("Any book must have an one copy at least");
   document.myBook.Copies.focus();
   return false;}return true ;
```

```
<!DOCTYPE HTML>
<html>
<head>
    <title>Main</title>
    <meta charset="utf-8">
           background-image: url("Images/Main.jpg");
           margin-top: 5%;
           width: 35%;
           height: 35%;
            margin-left: 6%;
           margin-top: -4%;
            color: burlywood;
            background-color: brown;
            color: white;
            padding: 12px 20px;
            border: none;
            cursor: pointer;
            width: 15%;
            margin-left: 44%;
            border-radius: 20px;
   </style>
   <link rel="icon" href="Images/notebook.png" type="image/x-icon">
</head>
<body>
   <img src="Images/notebook.png" width="5%" height="5%">
   <h1>FL</h1>
   <video width="100%" height="240" controls>
        <source src="Images/BOOK ADVERTISEMENT.mp4">
   <br>
```

```
if(count($_COOKIE)>0)
 echo "Enable Cookies in your website";
if(array_key_exists('foundOrnot' , $_POST)){
 foundOrNot();
$cookie value = "" ;
setcookie("username" , $cookie_value , Time() + 6400 , "/") ;
session_start();
function foundOrNot()
 session_start();
 $servername = "localhost";
 $username = "Abdelrahman";
 $password = "abdo11";
 $dbname = "library";
 $conn = new mysqli( $servername , $username , $password ,$dbname);
 if ($conn->connect_error) {
     die("Connection failed: " . $conn->connect_error);
 $count = 0;
 $User = $_POST["uname"] ;
 $Pass = $_POST["psw"] ;
 $query = mysqli_query($conn,"SELECT * FROM student_registration");
 $query2 = mysqli_query($conn,"SELECT * FROM admin_registration");
 $Falg = "False" ;
 foreach($query as $row){
   if( $row["UserName"] == $User && $row["Password"] == $Pass ){
     $Falg = "True";
     $ SESSION['username'] = $User;
     $_SESSION['pass'] = $Pass ;
     $_SESSION['First'] = $row['FirstName'];
     $_SESSION['Last'] = $row['LastName'];
     $ SESSION['EMail'] = $row['email'];
     if($ SERVER['REQUEST METHOD'] == 'POST')
       $cookie value = "$User";
       setcookie("username" , "$cookie_value" , Time() + 3600 , "/");
```

```
if(isset($_COOKIE['username']))
       $input = $_COOKIE['username'];
     else{
       $input = $_COOKIE["username"];
     Header("Location:Admin.php");
     break ;
   else{
        $count2++;
 if($Falg=="False")
   echo '<span style = "color:white; margin-
left:40%;">Incorrect UserName or incorrect password or the both </span>' ;
<!DOCTYPE HTML>
        <title>Login</title>
        <meta charset="utf-8">
        <link rel="stylesheet" type="text/css" href="Main.css">
        <link rel = "icon" href = "Images/notebook.png" type = "image/x-icon">
        <script src="Main.js"></script>
   </head>
        <form name = "myform" method = "post">
        <div class="login">
            <img src="Images/P2.png">
            <br>
            <br>
            <label><b>Username</b></label>
            <input type="text" placeholder="Enter Username" name="uname" value =</pre>
"<?php echo $ SESSION['username']; ?>" required>
            <br>
            <label><b>Password</b></label>
```

```
if(array_key_exists('addadmin' , $_POST)){
   addadmin();
if(array key exists('addstudent' , $ POST)){
   addstudent();
function addadmin(){
   $servername = "localhost";
   $username = "Abdelrahman";
   $password = "abdo11";
   $dbname = "library";
   $conn = new mysqli( $servername , $username , $password ,$dbname);
   if ($conn->connect_error) {
     die("Connection failed: " . $conn->connect_error);
   $SQL = "INSERT INTO admin_registration (`FirstName`, `LastName`, `UserName`,
email`, `Password`, `ConfirmPass`, `Phone`)
   VALUES ('".$_POST["fname"]."','".$_POST["lname"]."','".$_POST["Uname"]."','"
$_POST["email"]."','".$_POST["pswd"]."','".$_POST["cpsw"]."' , '".$_POST["Phone"]
   if ((mysqli_query($conn, $SQL))) {
       Header("Location:Login.php");
  $conn->close();
function addstudent(){
   $servername = "localhost";
   $username = "Abdelrahman";
   $password = "abdo11";
   $dbname = "library";
   $conn = new mysqli( $servername , $username , $password ,$dbname);
   if ($conn->connect_error) {
     die("Connection failed: " . $conn->connect error);
   $SQL = "INSERT INTO student_registration (`FirstName`, `LastName`, `UserName`
 `email`, `Password`, `ConfirmPass`, `Phone`)
   VALUES ('".$_POST["fname"]."','".$_POST["lname"]."','".$_POST["Uname"]."','".
$ POST["email"]."','".$ POST["pswd"]."','".$ POST["cpsw"]."' , '".$ POST["Phone"]
   if ((mysqli query($conn, $SQL))) {
         Header("Location:Login.php");
```

```
$conn->close();
<!DOCTYPE HTML>
        <title>Signup</title>
        <meta charset="utf-8">
        <link rel="stylesheet" type="text/css" href="Main.css">
        <link rel = "icon" href = "Images/notebook.png" type = "image/x-icon">
        <script src="Main.js"></script>
    </head>
        <form name="myform" method = "post">
        <div class="Signup">
            <img src="Images/user-profiles.png"style ="margin-top : -5%;">
            <br>
            <br>
            <label><b>First Name</b></label>
            <input type="text" placeholder="Enter first name" name="fname" requir</pre>
ed>
            <br>
            <br>
            <br>
            <label><b>Last Name</b></label>
            <input type="text" placeholder="Enter last name" name="lname" require</pre>
            <br>
            <br>
            <br>
            <label><b>UserName</b></label>
            <input type="text" placeholder="Enter UserName" name="Uname" required</pre>
            <br>
            <br>
            <br>
            <label><b>E-Mail</b></label>
            <input type="email" placeholder="Enter e-mail" name="email" required>
            <br>
            <br>
            <label><b>Password</b></label>
            <input type="password" placeholder="Enter Password" id = "pswdid" nam</pre>
e="pswd" required>
            <br>
```

```
<!DOCTYPE html>
<html>
   <head>
        <title>Admin</title>
       <meta charset="utf-8">
       <link rel="stylesheet" type="text/css" href="Main.css">
       <link rel="icon" href="Images/notebook.png" type="image/x-icon">
       <script src="Main.js"></script>
   </head>
        <div class="topnav" id = "demo" method = "post">
            <a class="active" href="Login.php">Home</a>
            <a href="updateUserdetails.php">Update User Details</a>
            <a href="Add a new book.php">Adding a book</a>
            <a href= "Update Book details.php">Update a Book Details </a>
            <a href= "Browsing.php">Browsing Books </a>
           <a href= "Showlist.php">Showlist Via </a>
            <a href="Late Borrower.php" >Late Borrowers </a>
          </div>
          <br>
         <form action="MainPage.php" class ="log">
          <button> Log out </button>
          </form>
          <h1 style = "color:darkgoldenrod;"><?php session start(); echo "Welcom"</pre>
 "."'". $ SESSION['First']." ".$ SESSION['Last']."'" ;?></h1>
         <video width="100%" height="240" style=" margin-top: 5%;" controls>
            <source src="Images/BOOK ADVERTISEMENT.mp4">
          </video>
   </body>
</html>
```

```
<!DOCTYPE html>
<html>
       <title>Student</title>
       <meta charset="utf-8">
       <link rel="stylesheet" type="text/css" href="Main.css">
       <link rel="icon" href="Images/notebook.png" type="image/x-icon">
       <script src="Main.js"></script>
   </head>
       <div class="topnav" id = "demo">
           <a class="active" href="Login.php">Home</a>
           <a href="updateUserdetails.php" >Update User Details</a>
           <a href="Add borrow.php">Borrow a book</a>
           <a href="Add return.php">Return a book</a>
           <a href="Browsing.php">Browsing Books </a>
           <a href="Showlist.php">Show list Via</a>
         </div>
         <br>
         <form action="MainPage.php" class ="log">
         <button> Log out </button>
         </form>
           <h1 style = "color:darkgoldenrod;"><?php session_start(); echo "Welc</pre>
<video
width="100%" height="240" style=" margin-top: 5%;" controls>
           <source src="Images/BOOK ADVERTISEMENT.mp4">
         </video>
   </body>
</html>
```

```
if(array_key_exists('addbook' , $_POST)){
   addbook();
function addbook(){
   $servername = "localhost";
   $username = "Abdelrahman";
   $password = "abdo11";
   $dbname = "library";
   $conn = new mysqli( $servername , $username , $password ,$dbname);
   if ($conn->connect_error) {
     die("Connection failed: " . $conn->connect_error);
   $SQL = "INSERT INTO book (`BookName`, `BookISPN`, `Author`, `Publishingyear`
 `NumofCopies`)
   VALUES ('".$_POST["bname"]."','".$_POST["ISPN"]."','".$_POST["author"]."','".
$_POST["Pubyear"]."','".$_POST["Copies"]."')";
   if ((mysqli_query($conn, $SQL))) {
       Header("Location:Admin.php");
   $conn->close();
<!DOCTYPE html>
<html>
        <title>Adding a book</title>
       <meta charset="utf-8">
        <link rel="stylesheet" type="text/css" href="Main.css">
       <link rel="icon" href="Images/notebook.png" type="image/x-icon">
        <script src="Main.js"></script>
   </body>
   </head>
        <body style="background-color: yellow; background-</pre>
image: url(Images/P5.jpg) ; height: 10%;">
            <form name="myBook" method = "post" style="margin-left: -</pre>
10% ; margin-top: 7%;">
                <div class="Signup">
                    <img src="Images/book.png" style="margin-left:35%;">
                    <br>
                    <br>
                    <label><b>Book Name</b></label>
```

```
<input style =" margin-</pre>
left:6.5%;" type="text" placeholder="Enter the booK name" name ="bname" style="ma
rgin-left:6%;" required>
                     <br>
                     <br>
                     <label><b>Book ISPN</b></label>
                     <input style =" margin-</pre>
left: 6.5%;" type="number" placeholder="Enter the book ISPN" name ="ISPN" style="
margin-left:7%;" required>
                     <br>
                     <br>
                     <br>
                     <label><b>Author</b></label>
                     <input style =" margin-</pre>
left:9.5%;" type="text" placeholder="Enter author name" name ="author" style="mar
gin-left:10.5%;" required>
                     <br>
                     <br>
                     <br>
                     <label><b>Publishing year</b></label>
                     <input style =" margin-rigth:-</pre>
1%;" type="number" placeholder="Enter Publishing year" name ="Pubyear" required>
                     <br>
                     <br>
                     <br>
                     <label><b>Num of Copies</b></label>
                     <input type="number" placeholder = "Enter the number of Copie</pre>
s" name = "Copies" style="margin-left:3.5%;" required>
                     <br>
                     <br>
                     <br>
                     <button style =" background-color:black; margin-</pre>
left:30%; " name = "addbook" style="margin-
left: 33%;" type="submit" class ="SA" onclick="Adddbook Validation()">Save</butto
n>
                     </div>
                     </form>
        </body>
</html>
```

```
if(array_key_exists('upbook' , $_POST)){
   updatebook();
function updatebook(){
   $servername = "localhost";
   $username = "Abdelrahman";
   $password = "abdo11";
   $dbname = "library";
   $conn = new mysqli( $servername , $username , $password ,$dbname);
   if ($conn->connect_error) {
     die("Connection failed: " . $conn->connect_error);
   $SQL = "UPDATE book SET BookName = '".$_POST["bname"]."' , BookISPN = '".$_PO
ST["ISPN"]."',Author = '".$_POST["author"]."',    Publishingyear = '".$_POST["Pubyea
r"]."' , NumofCopies = '".$_POST["Copies"]."'
   Where BookName = '".$ POST["oname"]."' ";
   if ((mysqli_query($conn, $SQL))) {
       Header("Location:Admin.php");
   $conn->close();
<!DOCTYPE html>
<html>
       <title>Update Book details</title>
       <meta charset="utf-8">
       <link rel="stylesheet" type="text/css" href="Main.css">
        <link rel="icon" href="Images/notebook.png" type="image/x-icon">
        <script src="Main.js"></script>
   </body>
   </head>
        <body style="background-color: yellow; background-</pre>
image: url(Images/P5.jpg) ; height: 10%;">
            <form method="post" name="myBook" style="margin-left: -10%; margin-</pre>
top: 7%;">
                <div class="Signup">
                    <img src="Images/notebook.png" style="margin-left:37%;">
                    <br>
                    <br>
                    <label><b>Old Book Name</b></label>
```

```
input style =" margin-
left:6.5%;" type="text" placeholder="Enter the old booK name" name="oname" style=
"margin-left:6%;" required>
                    <br>
                     <br>
                     <br>
                    <label><b>New Book Name</b></label>
                    <input style =" margin-</pre>
left:6.5%;" type="text" placeholder="Enter the booK name" name="bname" style="mar
gin-left:6%;" required>
                     <br>
                     <br>
                    <br>
                    <label><b>New Book ISPN</b></label>
                     <input style = " margin-</pre>
left:6.5%;" type="number" placeholder="Enter the book ISPN" name="ISPN" style="ma
rgin-left:7%;" required>
                     <br>
                    <br>
                     <br>
                    <label><b>New Author</b></label>
                    <input style =" margin-</pre>
left:9%;" type="text" placeholder="Enter author name" name="author" style="margin
left:10.5%;" required>
                     <br>
                    <br>
                    <br>
                    <label><b>New Publishing year</b></label>
                    <input style =" margin-</pre>
left:2%;" type="number" placeholder="Enter Publishing year" name="Pubyear" requir
ed>
                    <br>
                     <br>
                    <label><b>New Num of Copies</b></label>
                    <input style =" margin-</pre>
left:2%;" type="number" placeholder = "Enter the number of Copies" name = "Copie
s" style="margin-left:3.5%;" required>
                    <br>
                     <br>
                    <button name = "upbook" style =" background-</pre>
color:black; margin-
left:34%; " type="submit" class ="SA" onclick= "Adddbook_Validation()">Save</butt
```

```
</div>
</form>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
       <title>Late borrower</title>
        <meta charset="utf-8">
       <link rel="stylesheet" type="text/css" href="Main.css">
       <link rel="icon" href="Images/notebook.png" type="image/x-icon">
        <script src="Main.js"></script>
   </head>
        <body style ="background-image: url(Images/P5.jpg); height: 10%;">
              $servername = "localhost";
              $username = "Abdelrahman";
              $password = "abdo11";
              $dbname = "library";
              $conn = new mysqli( $servername , $username , $password ,$dbname);
              $query = mysqli_query($conn,"SELECT EMail FROM brrowers");
              echo"<select class = 's'>" ;
                 echo"<option>"."Browwers E-mails"."</option>" ;
                 foreach($query as $row)
                    echo "<Option>".$row['EMail']."</Option>" ;
                 echo"</select>";
                 $conn->close();
             <input type="text" placeholder="Enter your message" style="height :</pre>
105%; margin-left: 30%; margin-top: 22%;" required>
             <br>
             <br>
             <button type="submit" style = "margin-</pre>
left: 42%; height: 100%;">Send</button>
    </body>
</html>
```

```
<!DOCTYPE html>
<html>
       <title>Adding a borrow</title>
        <meta charset="utf-8">
        <link rel="stylesheet" type="text/css" href="Main.css">
       <link rel="icon" href="Images/notebook.png" type="image/x-icon">
        <script src="Main.js"></script>
   </head>
   <body> <body style="background-color: yellow; background-
image: url(Images/P5.jpg)">
        <form name="myborrow" style="margin-left: -10%; margin-</pre>
top: 10%;"method = "POST">
            <div class="Signup" style = "s.margin-left:10%">
                <img src="Images/book.png" style="margin-left:35%;">
                <br>
                <br>
                <input type="number" placeholder="Enter your borrowing ID" name="</pre>
bID" style="margin-left:16%;" required>
                <br>
                <br>
                <br>
                <div style = "margin-left:-14%; width:100%;">
                    $servername = "localhost";
                    $username = "Abdelrahman";
                    $password = "abdo11";
                    $dbname = "library";
                    $conn = new mysqli( $servername , $username , $password ,$dbn
ame);
                    if ($conn->connect error) {
                         die("Connection failed: " . $conn->connect_error);
                    $query = mysqli_query($conn,"SELECT BookName FROM book");
                    echo "<Select class = 's' name = 'bd'>" ;
                    echo "<Option>"."All avaliable books"."</Option>" ;
                   foreach($query as $row)
                      echo "<Option>".$row['BookName']."</Option>";
                   echo "</Select>";
                   $conn->close();
                </div>
```

```
<br>
                <br>
                <input type="number" placeholder="Enter number of days to return"</pre>
 name="dur" style="margin-left:16%;" required>
                <br>
                <br>
                <button style="margin-</pre>
left: 31%;" name = "BORROW" type="submit" class ="SA" onclick="Adddborrow_Validat
ion()">Borrow</button>
                </div>
                </form>
   </body>
</html>
  if(array_key_exists('BORROW', $_POST)){
   addborrow();
  function addborrow()
       session_start();
       $servername = "localhost";
       $username = "Abdelrahman";
       $password = "abdo11";
       $dbname = "library";
       $conn = new mysqli( $servername , $username , $password ,$dbname);
       if ($conn->connect_error) {
        die("Connection failed: " . $conn->connect_error);
       $f = $ SESSION['First'];
       $1 = $ SESSION['Last'];
       $m = $_SESSION['EMail'];
       $SQL = "INSERT INTO brrowers (`BorrowerID`, `BorrowerName`, `EMail`, `Dur
ation`, `BorrowedBook`)
       VALUES ('".$_POST["bID"]."','$f','$m','".$_POST["dur"]."','".$_POST["bd"
       if ((mysqli_query($conn, $SQL))) {
           Header("Location:Student.php");
       else{
            Header("Location:Admin.php");
   }?>
```

```
<!DOCTYPE html>
<html>
        <title>Returning a borrow</title>
        <meta charset="utf-8">
        <link rel="stylesheet" type="text/css" href="Main.css">
        <link rel="icon" href="Images/notebook.png" type="image/x-icon">
        <script src="Main.js"></script>
    </head>
     <body style="background-color: yellow; background-</pre>
image: url(Images/P5.jpg) height: 10%;">
        <form name="myreturn" method = "POST" style="margin-left: -10%; margin-</pre>
top: 10%;">
            <div class="Signup">
                <img src="Images/book.png" style="margin-left:35%;">
                <br>
                <br>
                <label><b>Borrower ID</b></label>
                <input type="Number" placeholder="Enter the Borrower ID" name="bI</pre>
D" style="margin-left:2%;" required>
                <br>
                <br>
                <br>
                <button name = "Return" style="margin-</pre>
left: 31%;" type="submit" class ="SA" onclick="Adddreturn_Validation()">Return</b
utton>
                </div>
                </form>
    </body>
</html>
   if(array_key_exists('Return', $_POST)){
   addReturn();
   function addReturn()
        session_start();
        $servername = "localhost";
        $username = "Abdelrahman";
        $password = "abdo11";
        $dbname = "library";
        $conn = new mysqli( $servername , $username , $password ,$dbname);
        if ($conn->connect error) {
        die("Connection failed: " . $conn->connect_error);
```

```
$f = $ SESSION['First'];
      $1 = $_SESSION['Last'];
      $m = $_SESSION['EMail'];
      $ID = $_POST['bID'] ;
      $Flag = "False" ;
      $sql = mysqli_query($conn,"SELECT * FROM brrowers ");
      foreach($sql as $row)
          if($ID == $row['BorrowerID'])
              $Flag = "True" ;
              $bb = $row['BorrowedBook'];
              break ;
      if($Flag == "True")
          echo "<b>"."$f"." "."$1"." "."has returned the book is called : ".$bb
" "."with ID = ".$ID."</b>";
      else{
          echo "<b>"."You didn,t borrow a book"."</b>";
```

```
if(array key exists('updateadmin' , $ POST)){
  updateadmin();
if(array key exists('updatestudent' , $ POST)){
   updatestudent();
function updateadmin(){
   $servername = "localhost";
   $username = "Abdelrahman";
   $password = "abdo11";
   $dbname = "library";
   $conn = new mysqli( $servername , $username , $password ,$dbname);
   if ($conn->connect error) {
     die("Connection failed: " . $conn->connect_error);
   session start();
   $UN = $ SESSION['username'];
   $SQL = "UPDATE admin_registration SET FirstName = '".$_POST["fname"]."' , La
stName = '".$_POST["lname"]."', UserName = '".$_POST["Uname"]."',
   email = '".$ POST["email"]."' ,Password = '".$_POST["pswd"]."' , ConfirmPass
WHERE UserName = '$UN' ";
   if ((mysqli_query($conn, $SQL))) {
       $_SESSION['username'] = $_POST["Uname"];
       $_SESSION['First'] = $_POST["fname"];
       $_SESSION['Last'] = $_POST["lname"];
       $ SESSION['pass'] = $ POST["pswd"];
       Header("Location:Admin.php");
  $conn->close();
function updatestudent(){
   $servername = "localhost";
   $username = "Abdelrahman";
   $password = "abdo11";
   $dbname = "library";
   $conn = new mysqli( $servername , $username , $password ,$dbname);
   if ($conn->connect_error) {
     die("Connection failed: " . $conn->connect_error);
```

```
session start();
   $UN = $_SESSION['username'];
   $SQL = "UPDATE student_registration SET FirstName = '".$_POST["fname"]."' , L
astName = '".$_POST["lname"]."', UserName = '".$_POST["Uname"]."',
   email = '".$_POST["email"]."' , Password = '".$_POST["pswd"]."' , ConfirmPass
 = '".$ POST["cpsw"]."' , Phone = '".$ POST["Phone"]."'
   WHERE UserName = '$UN' ";
   if ((mysqli_query($conn, $SQL))) {
          $_SESSION['username'] = $_POST["Uname"];
          $_SESSION['First'] = $_POST["fname"];
          $_SESSION['Last'] = $_POST["lname"];
         $_SESSION['pass'] = $_POST["pswd"];
         Header("Location:Student.php");
   else{
       echo "False";
  $conn->close();
<!DOCTYPE HTML>
<html>
       <title>Update Data</title>
        <meta charset="utf-8">
       <link rel="stylesheet" type="text/css" href="Main.css">
        <link rel = "icon" href = "Images/notebook.png" type = "image/x-icon">
        <script src="Main.js"></script>
   </head>
    <body style="background-color: yellow; background-</pre>
image: url(Images/P5.jpg);">
       <form name="myform" method = "post">
        <div class="Signup" style = "margin-top:3%;margin-right:5%;">
            <img src="Images/user-profiles.png"style ="margin-top : -5%;">
            <br>
            <label><b>New First Name</b></label>
            <input type="text" placeholder="Enter first name" name="fname" requir</pre>
ed>
            <br>
            <br>
            <label><b>New Last Name</b></label>
```

```
<br>
            <br>
            <br>
            <label><b>New UserName</b></label>
            <input type="text" placeholder="Enter UserName" name="Uname" required</pre>
            <br>
            <br>
            <br>
            <label><b>New E-Mail</b></label>
            <input type="email" placeholder="Enter e-mail" name="email" required>
            <br>
            <br>
            <br>
            <label><b>New Password</b></label>
            <input type="password" placeholder="Enter Password" id = "pswdid" nam</pre>
e="pswd" required>
            <br>
            <br>
            <br>
            <label><b>Re-enter</b></label>
            <input style = "margin-</pre>
left:5.5%;" type="password" placeholder="Confirm password" id ="cpswid" name="cps
w" required>
            <br>
            <br>
            <label><b>New Phone</b></label>
            <input type="number" placeholder="Enter Phone" name="Phone" required>
            <br>
            <br>
            <button type="submit" name = "updateadmin" class = "SA" onclick = "S</pre>
ignup_Validation()" >Save as Admin</button>
            <button type="submit" name = "updatestudent" class ="SS" onclick = "S</pre>
ignup_Validation()">Save as Student</button>
            </div>
            </form>
    </body>
</html>
```

```
<!DOCTYPE html>
<html>
        <titleBrowsing</title>
        <meta charset="utf-8">
        <link rel="stylesheet" type="text/css" href="Main.css">
        <link rel="icon" href="Images/notebook.png" type="image/x-icon">
        <script src="Main.js"></script>
    </head>
        <body style="background-color: yellow; background-</pre>
image: url(Images/P5.jpg);">
            <form name="brows" style="margin-left: -10%; margin-</pre>
top: 14%; " method = "POST">
                <div class="Signup">
                    <img src="Images/book.png" style="margin-left:35%;">
                    <br>
                    <label><b>Book ISPN</b></label>
                    <input type="text" placeholder="Enter your the Book ISPN" nam</pre>
e="ISPN" style="margin-left:7%;" required>
                    <br>
                    <br>
                    <br>
                    <button style="margin-</pre>
left: 31%;" type="submit" NAME = "search" onclick="Browsing_Validation()">Search
</button>
                    <br>
                    <br>
                    <html>
                    if(array_key_exists('search', $_POST)){
                     Search();
                    function Search()
                          $servername = "localhost";
                          $username = "Abdelrahman";
                          $password = "abdo11";
                          $dbname = "library";
                          $conn = new mysqli( $servername , $username , $password
 ,$dbname);
                          if ($conn->connect error) {
                                die("Connection failed: " . $conn->connect_error);
```

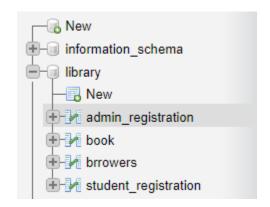
```
$ISPN = $_POST["ISPN"];
                  $sql = mysqli_query($conn,"SELECT * FROM book WHERE Boo
kISPN = '$ISPN'");
                   echo "";
                   echo "";
                  echo ">"."BookName"."" ;
                  echo ">"."Author"."" ;
                  echo ">"."Publishing Year"."";
                  echo ""."Number of copies"."";
                   echo "";
                  foreach($sql as $rows)
                     echo "".$rows['BookName']."".$rows['
Author']."".$rows['Publishingyear']."".$rows['NumofCopies']."</
td>";
                  echo "" ;
                 </html>
               </div>
               </form>
      </body>
</html>
```

```
<!DOCTYPE html>
<html>
        <title>showlist</title>
        <meta charset="utf-8">
        <link rel="stylesheet" type="text/css" href="Main.css">
        <link rel="icon" href="Images/notebook.png" type="image/x-icon">
        <script src="Main.js"></script>
   </head>
        <body style ="background-image: url(Images/P5.jpg); height: 10%;">
        <img src="Images/book.png" style="margin-left:47%; margin-top:1%;">
            <form style = "margin-left:21%; margin-top:2%;" method = "POST">
            <label><b>Book ISPN</b></label>
            <input style = "margin-</pre>
left:9.5%;" type = "number" placeholder="Via ISPN" name = "ISPN">
            <br>
            <br>
            <label><b>Author</b></label>
            <input style = "margin-</pre>
left:12%;" type = "text" placeholder="Via Author" name = "AUTHOR">
            <br>
            <br>
            <label><b>Number of copies</b></label>
            <input type = "number" placeholder="Via number of Copies" name = "Nu</pre>
m">
            <br>
            <br>
            <label><b>Publishinh year</b></label>
            <input style = "margin-</pre>
left:5%;" type = "number" name = "Pub" placeholder="Via Publishing year">
            <br>
            <br>
            <button style = "margin-</pre>
left:30%;" type = "submit" name = "Show">Show</button>
            <br>
            <br>
            </form>
                    if(array_key_exists('Show', $_POST)){
                     Show();
                    function Show()
                          $servername = "localhost";
                          $username = "Abdelrahman";
```

```
$password = "abdo11";
                     $dbname = "library";
                     $conn = new mysqli( $servername , $username , $password
,$dbname);
                    if ($conn->connect_error) {
                         die("Connection failed: " . $conn->connect_error);
                    $ISPN = $_POST["ISPN"];
                    $author = $ POST["AUTHOR"] ;
                    $Pub = $_POST['Pub'];
                    $Num = $_POST['Num'];
                    $sql = mysqli_query($conn,"SELECT * FROM book WHERE Boo
kISPN = '$ISPN' OR Author = '$author' OR Publishingyear = '$Pub' OR NumofCopies =
'$Num' ");
                    echo "";
                    echo "";
                    echo ">"."BookName"."" ;
                    echo ">"."BookISPN"."";
                    echo ">"."Author"."" ;
                    echo ">"."Publishing Year"."";
                    echo ">"."Number of copies".";
                    echo "" ;
                    foreach($sql as $rows)
                       echo "".$rows['BookName']."".$rows['
BookISPN']."".$rows['Author']."".$rows['Publishingyear']."
".$rows['NumofCopies']."";
                    echo "" ;
      </body>
</html>
```

Project Output

Firstly, We Create a database called "library" with 4 tables and inserted default data into them.



✓ admin_registration table (one admin only)

+ Options

FirstName	LastName	UserName	email	Password	ConfirmPass	Phone
lhab	Ezzat	lhab2020	lhab_Ezzat@yahoo.com	12345	12345	1699

✓ student_registration table (four students)

+ Options

FirstName	LastName	UserName	email	Password	ConfirmPass	Phone
Abdelrahman	Soliman	abdo11	abdosoliman11@gmail.com	1122000	1122000	19777
Mayar	Elhussieny	mayar30	Mayar_Elhussieny30@yahoo.com	12345	12345	460860
Esraa	Ahmed	Esraa123	Esraa123@gmail.com	789789	789789	33412
Ayman	Kilany	Ayman77	Ayman_Kilany@FCAI.com	6556	6556	1117682121

✓ Book table

+ Options

BookName	BookISPN	Author	Publishingyear	NumofCopies	△ 1
CSS	5	Balle Jhon	2016		4
Clean Code	12	عبالحمن محمد	2020		4
HTML5	4	George Mina	2018		22
PHP For Beginners	2	Balle Jhon	2020		23
Web Development	1	George Mina	2019		33
Full Stack Web	6	George Mina	2017		65
تعليم البرمجة للاطفال	3	محمد وليد	2020		80
C++ Advanced	7	محمد وليد	2015		100

✓ Borrowers table

+ Options

BorrowerlD	BorrowerName	EMail	Duration	BorrowedBook 🔺 1
3	Esraa	Esraa123@gmail.com	8	C++ Advanced
1	Abdelrahman	abdosoliman11@gmail.com	3	Full Stack Web
4	Ayman	Ayman_Kilany@FCAI.com	1	PHP For Beginners
2	Mayar	Mayar_Elhussieny30@yahoo.com	7	Web Development

MainPage.Php Page

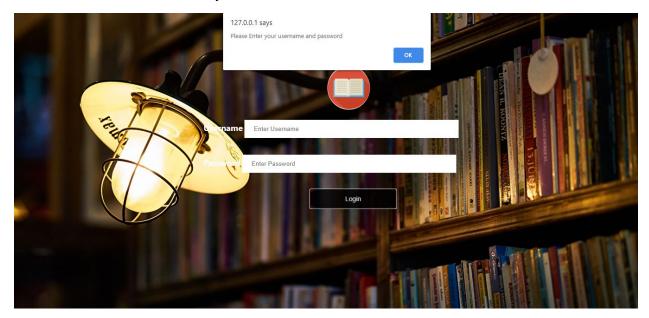


let's add a new user as student via pressing on signup button.



Let's log in the program with the new user "Ahmed" and cheek the input validation (User Name: Ahmed2102, Password: 12345).

• In case, I don't enter any data

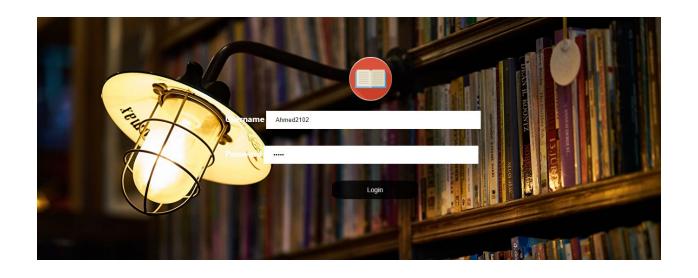


• *In case, I entered wrong user name or password or the both.*

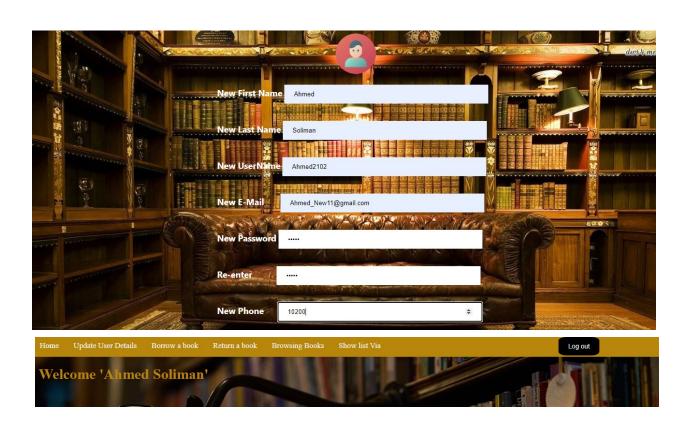


Then, we entered the correct data, let's cheek the logout button(return to login page) and sessions via welcoming to the user by his first name and last name and cookies with saving the last login user(User Name: Ahmed2102, Password:12345).

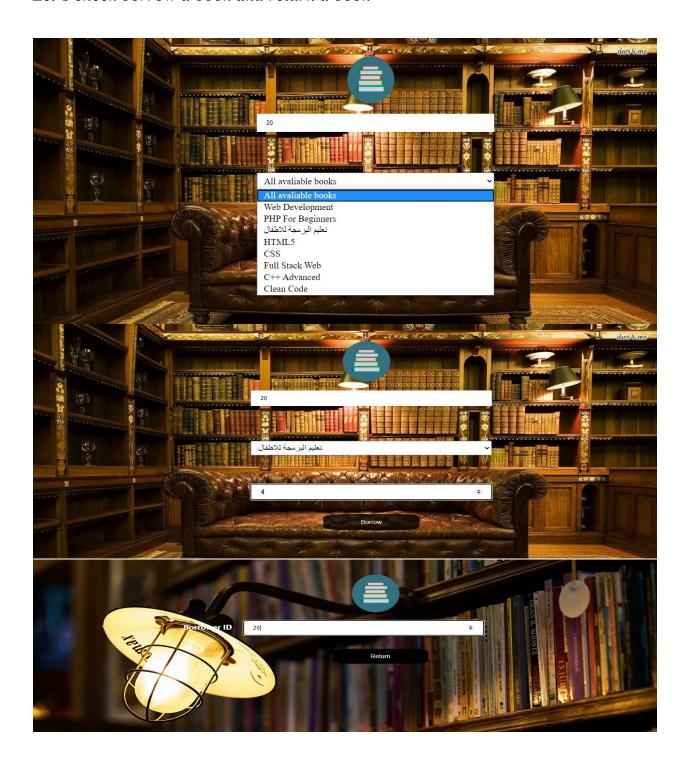




Let's cheek update user details features by changing the last name into "Soliman".

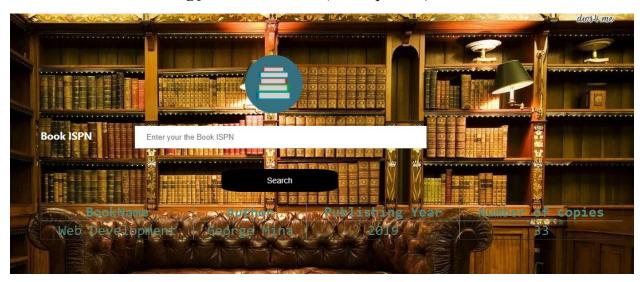


Let's cheek borrow a book and return a book

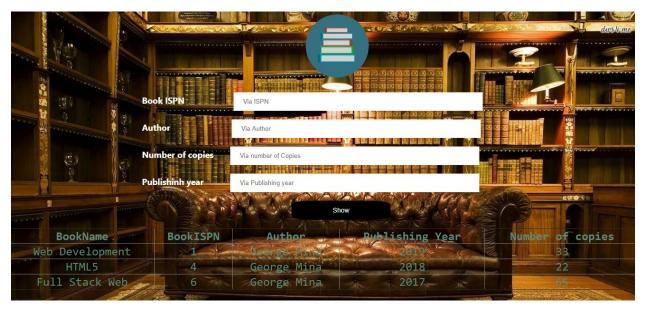




Let's cheek the browsing feature via ISPN(EX: ispn = 1)



Let's cheek the Show list of books that satisfy one criteria feature (EX: show all books which author is George Mina)



Let's cheek send email to the late borrowers





Let's cheek add a book feature



Let's cheek update book details feature



Let's see the database after this modifications.

+ Options					
BookName	BookISPN	Author	Publishingyear	NumofCopies	△ 1
CSS	5	Balle Jhon	2016		4
Clean Code	12	عبالحمن محمد	2020		4
HTML5	4	George Mina	2018		22
PHP For Beginners	2	Balle Jhon	2020		23
Web Development	1	George Mina	2019		33
Java for developers	40	Ahmed Samy	2020		45
Full Stack Web	6	George Mina	2017		65
تعليم البرمجة للاطفال	3	محمد وليد	2020		80
C++ Advanced	7	محمد وليد	2015		100

+ Options						
FirstName	LastName	UserName	email	Password	ConfirmPass	Phone
Abdelrahman	Soliman	abdo11	abdosoliman11@gmail.com	1122000	1122000	19777
Mayar	Elhussieny	mayar30	Mayar_Elhussieny30@yahoo.com	12345	12345	460860
Esraa	Ahmed	Esraa123	Esraa123@gmail.com	789789	789789	33412
Ayman	Kilany	Ayman77	Ayman_Kilany@FCAI.com	6556	6556	1117682121
Ahmed	Soliman	Ahmed2102	Ahmed_New11@gmail.com	12345	12345	10200

+ Options

Borrow	erID	BorrowerName	EMail	Duration	BorrowedBook 🔺 1
	3	Esraa	Esraa123@gmail.com	8	C++ Advanced
	1	Abdelrahman	abdosoliman11@gmail.com	3	Full Stack Web
	4	Ayman	Ayman_Kilany@FCAI.com	1	PHP For Beginners
	2	Mayar	Mayar_Elhussieny30@yahoo.com	7	Web Development
	20	Ahmed	Ahmed_New11@gmail.com	4	تعليم البرمجة للاطفال