



# American International University- Bangladesh

## CSC 3215: Web Technologies

### CO2 and CO4 Evaluation Finished Project Report Spring 2023-2024

**Project Title:** Library Management System  
**Section:** F

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## **Overview:**

The Library Management System Web Tech Project is a comprehensive solution aimed at optimizing library operations and elevating user experience within the realm of library services. The system is structured to accommodate three distinct user roles - Admin, and Librarians - each equipped with specific functionalities tailored to enhance their interactions and contributions within the platform. Through its user-centric design, the project seeks to streamline library processes and foster a more efficient and engaging environment for all stakeholders involved.

## **Key Functionalities:**

### **1. Admin Module:**

- **User & Library Management:** The Admin module provides comprehensive control, allowing administrators to add or remove user types, ensuring a dynamic and adaptable library management system.
- **Book Management:** Facilitates efficient management of the library's book inventory, including cataloging, tracking, and updates.
- **Help & Support for User:** Offers user assistance and support features, ensuring a seamless experience for user navigating the library system.
- **Event Management:** Enables administrators to organize and manage library events, enhancing community engagement and participation.
- **Trending Books:** Provides insights into the popularity of books, helping administrators highlight and promote trending titles within the library.

### **2. User Module:**

- **Recommend Books:** Empowers users to discover new reads by receiving personalized book recommendations based on their preferences and reading history.
- **Notification:** Keeps users informed about due dates, overdue books, and important library updates through a convenient notification system.
- **Books:** Provides a user-friendly interface for patrons to browse, search, and explore the library's collection of books efficiently.
- **Need Help:** Offers a dedicated support feature for users to seek assistance or information, ensuring a user-centric and responsive library experience.

## **Web App Sections:**

- **Home Page:** A visually appealing entry point offering an overview of the library's resources, upcoming events, and featured collections.
- **Catalog and Search:** Efficient search functionality and a well-organized catalog, allowing users to explore and find books easily.
- **Book Details:** Detailed information about each book, including author, genre, availability, and user reviews for informed decision-making.
- **Blog and Resources:** A dedicated section providing in-depth articles, reviews, and information on literature, authors, and library-related topics to enrich user engagement and awareness.
- **User Dashboard:** A centralized user interface enabling patrons to manage their account, view



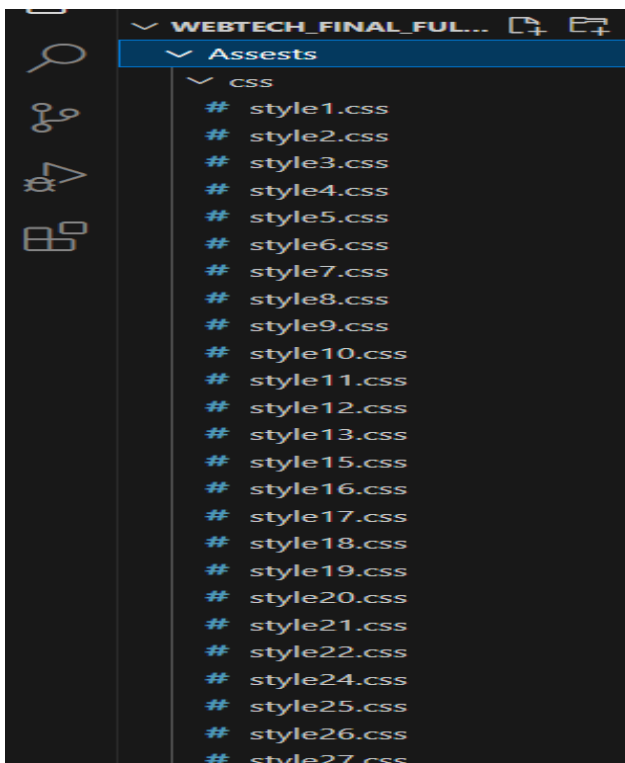
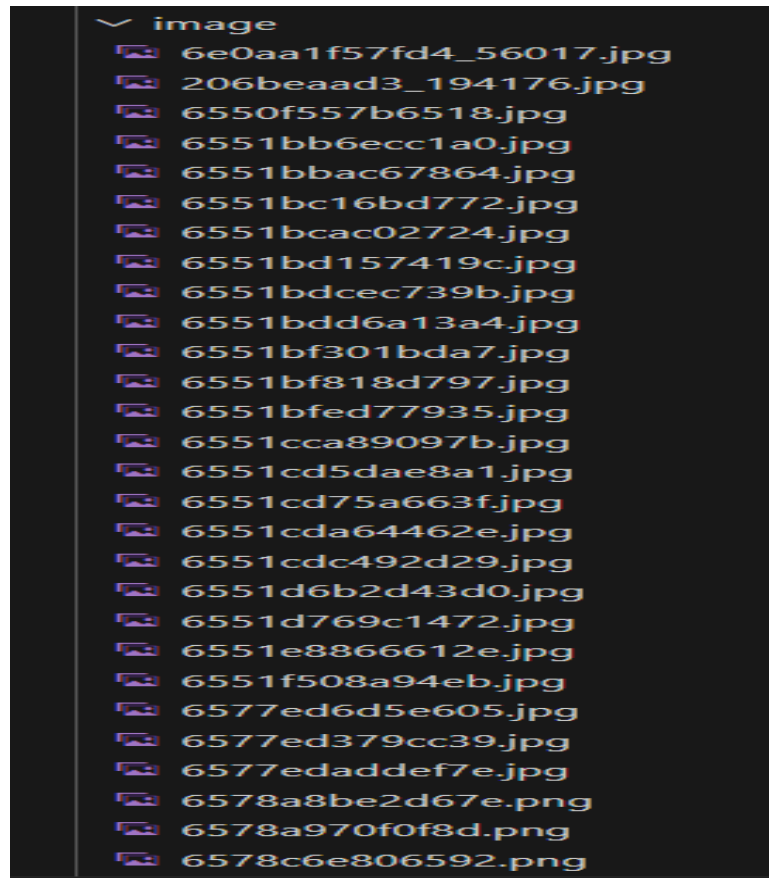
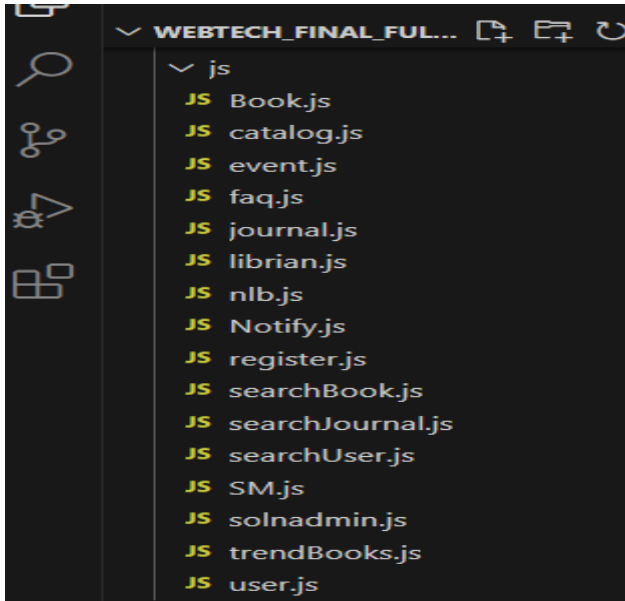
borrowing history, and access personalized recommendations.

- **Request System:** Patrons can submit requests for specific books or suggest additions to the library's collection, fostering community involvement.
- **User Authentication:** A secure registration and login system to protect user data and grant access to personalized features, ensuring a safe and tailored library experience.

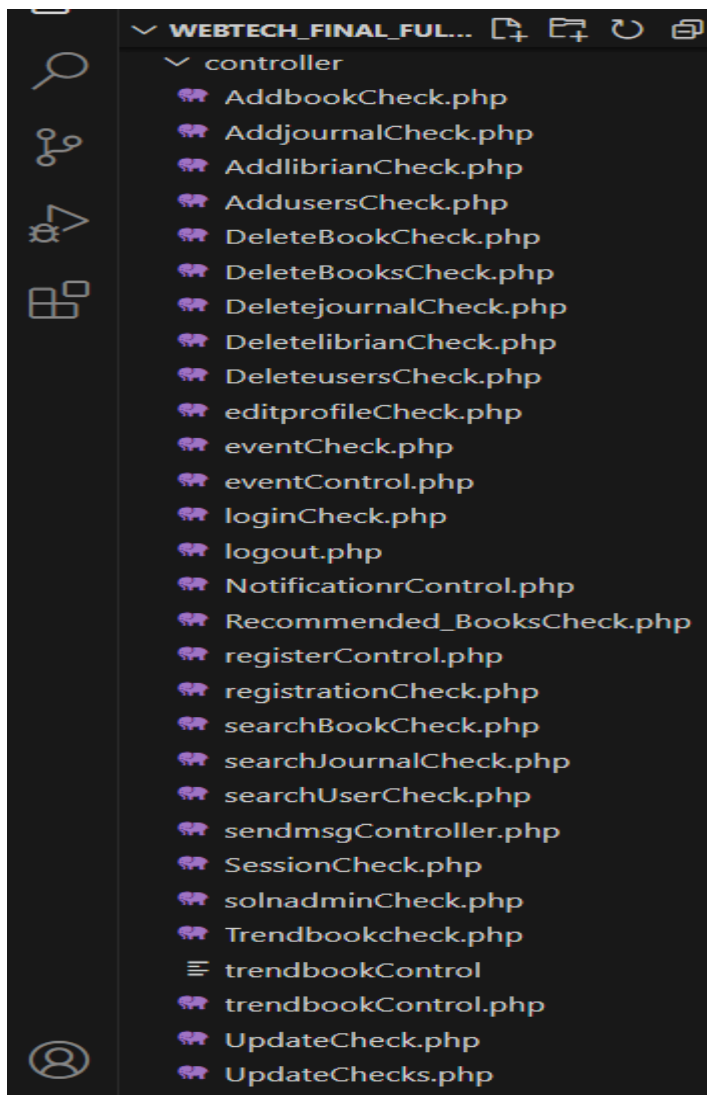
The Library Management System Web App aspires to redefine library services, offering a user-centric platform that caters to the diverse needs of patrons, librarians, and administrators.

## Folder Structure

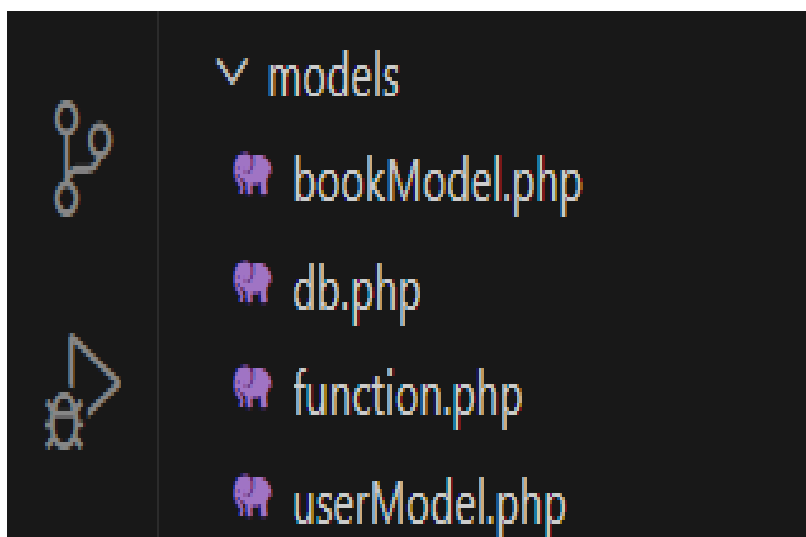
### Assets and CSS:

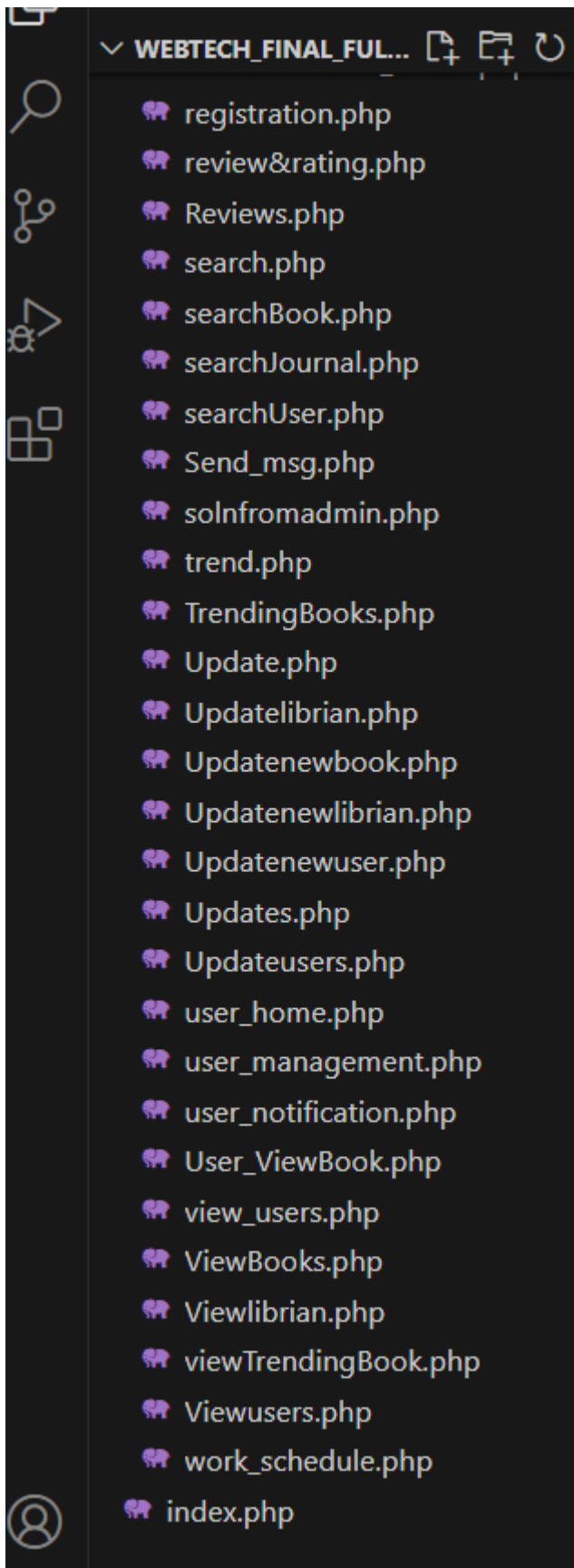


### Controller:

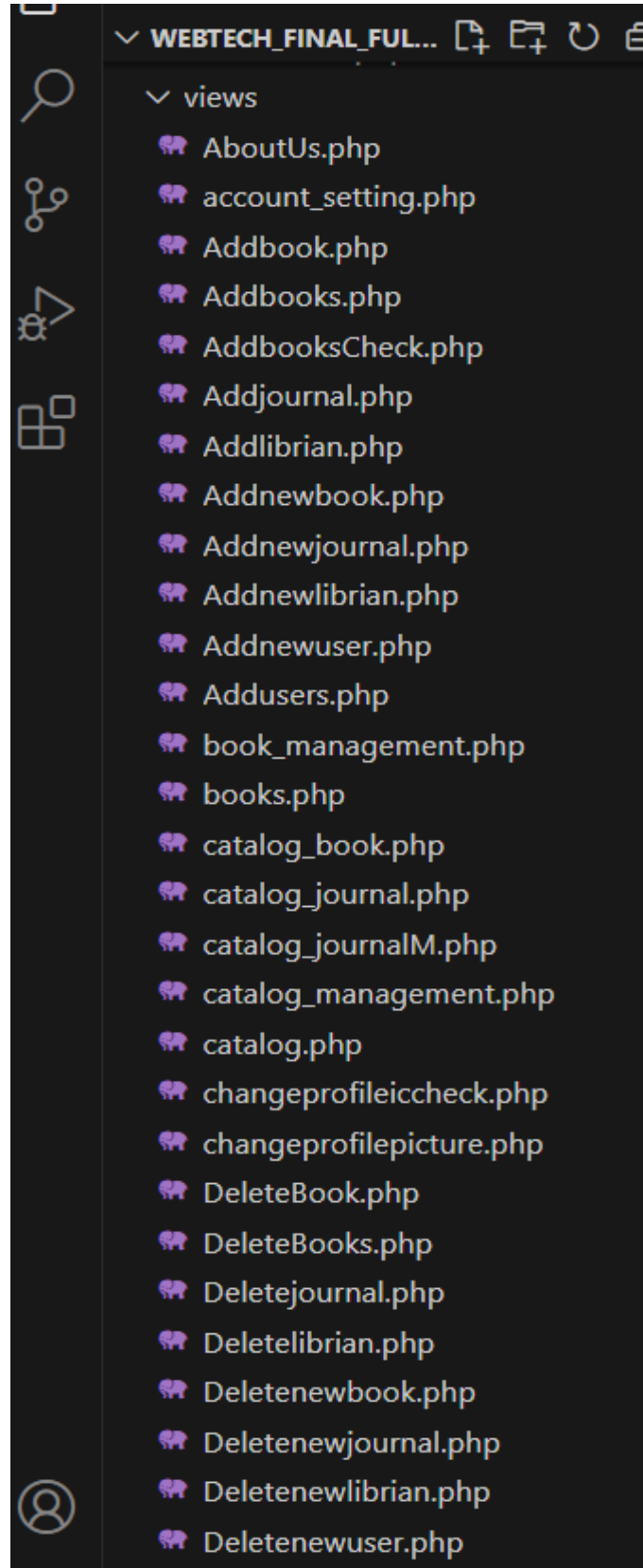


### Model:





## Views:



## Core Modules of the project:

### Login.php :

```
<?php
include_once("../controller/loginCheck.php");
session_start();
if ($_SERVER["REQUEST_METHOD"] == "POST") {

    $userid = $_POST["id"];
    $_SESSION["id"] = $userid;
    exit;
}
?>

<html>

<head>
    <title>Login</title>
    <link rel="stylesheet" href="style3.css">

    <script>
        function validateForm() {
            var userId = document.forms["loginForm"]["id"].value.trim();
            var password = document.forms["loginForm"]["password"].value.trim();

            if (userId === "") {
                alert("User Id must be filled out");
                return false;
            }

            if (password === "") {
                alert("Password must be filled out");
                return false;
            }

            return true;
        }
    </script>

</head>

<body>

    <div class="col-lg-8 col-md-12">
        <nav>
            <ul>
                <li><a href="home.php">Home</a></li>
                <li><a href="login.php">Login</a></li>
                <li><a href="registration.php">Registration</a></li>
            </ul>
        </nav>
    </div>
</div>
```



```

        </header>
        <!-- header ends -->
    <center>
        <main>
            <div class="card">
                <table height=600 width=1080>

                    <tr>
                        <td>
                            <div class="row" style="text-align: center;">
                                <form name="loginForm" action="../controller/loginCheck.php" method="POST"
enctype="" onsubmit="return validateForm()">
                                    <fieldset>
                                        <legend>
                                            <h3>LOGIN</h3>
                                        </legend>
                                        <table>
                                            <tr>
                                                <td>User Id</td>
                                                <td><input type="text" name="id" value="<?php echo $id ?>"
/><br></td>

                                            </tr>
                                            <tr>
                                                <td>Password</td>
                                                <td><input type="password" name="password" value="<?php echo
$password ?>" /><br></td>

                                            </tr>
                                        </table>
                                        <hr class="dotted-hr">
                                        <input type="submit" value="Login" name="submit">
                                    </fieldset>
                                </form>
                            </div>
                        </td>
                    </tr>

                </table>

            </div>
        </main>
    </center>
    <div class="row">
        <div class="col-lg-12">
            <p>Copyright © by Jahidul Islam 2023</p>
        </div>
    </div>
</div>
</body>

</html>

```

[bookMangement.php:](#)



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```

<?php
include_once("../controller/view_userCheck.php");
include_once("../controller/userData.php");

?>

<?php
    require_once('../models/bookModel.php');
    $viewbook = getviewbook();
?>

<!DOCTYPE html>
<html>
<head>
    <title>Book Database</title>
    <link rel="stylesheet" href="style22.css">
    <script src="../Assests/Book.js"></script>
    <style>
        .error {
            color: red;
        }
    </style>
    <script>
        function validate() {
            var Book_ID = document.getElementsByName("Bookid")[0].value;
            var Book_Name = document.getElementsByName("Bookname")[0].value;
            var Author = document.getElementsByName("Author")[0].value;
            var Genre= document.getElementsByName("Genre")[0].value;
            var Quantity = document.getElementsByName("Quantity")[0].value;
            var image = document.getElementsByName("image")[0].value;

            var inputFile = document.getElementById('imageInput');
            var errorSpan = document.getElementById('error');

            // Check if the file input has a file selected
            if (inputFile.files.length === 0) {
                errorSpan.textContent = 'Please select an image file.';
                return false;
            }

            // Get the file name and check its extension
            var fileName = inputFile.files[0].name;
            var fileExtension = fileName.split('.').pop().toLowerCase();

            // Allowed image file extensions (you can customize this list)
            var allowedExtensions = [ 'jpeg', 'png', 'gif'];

            // Check if the file extension is in the allowed list
            if (allowedExtensions.indexOf(fileExtension) === -1) {
                errorSpan.textContent = 'Invalid file type. Please select a valid image file.';
                return false;
            }
        }
    </script>

```





```

// Clear any previous error messages
errorSpan.textContent = '';

// Validate User ID
if (Book_ID === "") {
    alert("Please enter Book ID");
    return false;
}

// Validate User Name
if (Book_Name === "") {
    alert("Please enter Book Name");
    return false;
}
if (Author === "") {
    alert("Please enter Author");
    return false;
}

if (Genre === "") {
    alert("Please enter Genre");
    return false;
}

// Validate Mobile Number
if (Quantity === "" || isNaN(Quantity) || !Number.isInteger(parseFloat(Quantity))) {
    alert("Please enter a integer for Quantity Number");
    return false;
}

if (image === "") {
    alert("Please selet an Image ");
    return false;
}
return true;
}
</script>
</head>
<body>

<div class="books">
<h2>Book Details</h2>
</div>

<div>
<table cellpadding="0" cellspacing="0" align="center">

<tr>

<td colspan="5" align="center">
<input type="button" name="click" id="add" value="AddBook" onclick="add()"

```



```

/>

        <input type="button" name="click" id="" value="Update" onclick="update()" />
        <input type="button" name="click" id="" value="DELETE" onclick="Deletebook()"
/>

                <p id="addBook"></p>
                <p id="update"></p>
                <p id="delete"></p>
            </td>

        </tr>
        <?php for($i=0; $i<count($viewbook); $i++){
?>

        <tr>
            <td>ID-<?=$id=$viewbook[$i]['Book_ID']?></td>
            <td>
                <input type="button" name="click" id="Bookid"
value="<?=$id=$viewbook[$i]['Book_ID']?>" />
            </td>
        </tr>
        <tr>
            <td></td>
        </tr>
        <tr>
            <td>Book Name:-<?=$viewbook[$i]['Book_Name']?></td>
            <td>Author:=<?=$viewbook[$i]['Author']?></td>
        </tr>

        <tr>
            <td>Genre:-<?=$viewbook[$i]['Genre']?></td>
            <td>Quantity:-<?=$viewbook[$i]['Quantity']?></td>
        </tr>

        <tr>
            <td colspan="2"><hr></td>
        </tr>

        <?php
        }
    ?>

    </tr>
</table>

</td>
</div>

<table>
    <a href="profile.php">Go Back</a>
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```



</table>

<script>

function update()

{

let username = document.getElementById('Bookid').value;

let xhttp = new XMLHttpRequest();

xhttp.open('POST', '../views/Updates.php', true);

xhttp.setRequestHeader("Content-type", "application/x-www-form-urlencoded");

xhttp.onreadystatechange = function(){

if(this.readyState == 4 && this.status == 200){

//alert(this.responseText);

document.getElementById('update').innerHTML = this.responseText;

}

}

xhttp.send('uname='+username);

}

function Deletebook()

{

let username = document.getElementById('Bookid').value;

let xhttp = new XMLHttpRequest();

xhttp.open('POST', '../views/DeleteBooks.php', true);

xhttp.setRequestHeader("Content-type", "application/x-www-form-urlencoded");

xhttp.onreadystatechange = function(){

if(this.readyState == 4 && this.status == 200){

//alert(this.responseText);

document.getElementById('delete').innerHTML = this.responseText;

}

}

xhttp.send('uname='+username);

}

function add()

{

let username = document.getElementById('Bookid').value;

let xhttp = new XMLHttpRequest();

xhttp.open('POST', '../views/Addbooks.php', true);

xhttp.setRequestHeader("Content-type", "application/x-www-form-urlencoded");

xhttp.onreadystatechange = function(){

if(this.readyState == 4 && this.status == 200){

//alert(this.responseText);

document.getElementById('addBook').innerHTML = this.responseText;

}

}

xhttp.send('uname='+username);



```
}
</script>
```

```
</body>
</html>
```

#### BookRecomendation.php:

```
<?php
    require_once('../models/function.php');
    require_once('../models/db.php');
    $viewNL_Books = getNL_Books();
?>

<?php
if (!isset($_REQUEST['data'])) {
    $response = ['error' => 'no data recieved'];
    echo json_encode($response);
} else {
    include_once('../models/function.php');
    $data = json_decode($_REQUEST['data']);
    echo json_encode(BR($data));
}
?>

<?php
include_once("../controller/view_userCheck.php");
include_once("../controller/userData.php");
//include_once("../controller/SessionCheck.php");

?>
```

```
<html>
    <head>
        <title>Profile</title>
        <link rel="stylesheet" href="style5.css">
    </head>
```

```
<body>
```

```
        <div class="col-lg-8 col-md-12">
            <p class="heading-style">Library Management System</p>
        </div>
    </div>
</header>
<!-- header ends -->
```

```
<center>
    <main>
        <table height=635 width=1080>

            <tr height=70>
                <td colspan="2">
                    <table width = "800">
```





```

        <td>Quantity</td>
    </tr>

```

```

        <?php for($i=0; $i<count($viewNL_Books); $i++){
        ?>

        <tr>
            <td><?=$viewNL_Books[$i]['Book_ID']?></td>
            <td><?=$viewNL_Books[$i]['Book_Name']?></td>
            <td><?=$viewNL_Books[$i]['Author']?></td>
            <td><?=$viewNL_Books[$i]['Genre']?></td>
            <td><?=$viewNL_Books[$i]['Quantity']?></td>

        </tr>
    <?php
    }
    ?>
</table>

```

```

<h2><table align="center">

```

```

    <tr>
        <td>
            BookID
        </td>
        <td><input type="text" name="name" id="name" /></td>
    </tr>

    <tr>
        <td>
            Book Name
        </td>
        <td><input type="text" name="phone" id="phone" /></td>
    </tr>
    <tr>
        <td>
            Author
        </td>
        <td><input type="text" name="Author" id="Author" /></td>
    </tr>

    <tr>
        <td>
            Genre
        </td>
        <td><input type="text" name="Genre" id="Genre" /></td>
    </tr>

    <tr>
        <td>
            Rating
        </td>
        <td><input type="text" name="Rating" id="Rating" /></td>
    </tr>

```



```

</tr>

<tr>
    <td colspan="5"><hr></td>
</tr>
<tr>
    <td colspan="5">
        <input
            type="button"
            name="submit"
            id="submit"
            value="submit"
            onclick="validate()"
        /><br />
        <br />
    </td>
</tr>

<tr>
<td>

    <p id="success" style="color: green"></p>

    <p id="error" style="color: red"></p>
</td>
</tr>

</table>

</td>
</tr>
</table>

</main>

<footer>
    <div class="row">
        <div class="col-lg-12">
            <p>Copyright © by Jahidul Islam 2023</p>
        </div>
    </div>
</footer>
</center>
</div>
<script >
var emailError = true;

function validate() {

    let name = document.getElementById("name").value;
    let phone = document.getElementById("phone").value;
    let author=document.getElementById("Author").value;
    let genre=document.getElementById("Genre").value;
    American International University-Bangladesh (AIUB)

```



```

let rating=document.getElementById("Rating").value;

document.getElementById("error").innerHTML = "";
let error = "";
if (!name) {
    error += "Please enter Book ID <br>";
}
if (!phone) {
    error += "Please enter Book Name <br>";
}
if (!author) {
    error += "Please enter Author Name <br>";
}
if (!genre) {
    error += "Please enter Genre <br>";
}
if (!rating) {
    error += "Please enter Rating <br>";
}

if (error) {
    document.getElementById("error").innerHTML = error;
} else {
    register(name, phone, author, genre, rating);
}
}

function register(name, phone, author, genre, rating) {
    let xhttp = new XMLHttpRequest();
    xhttp.open("POST", "../controller/Recommended_BooksCheck.php", true);
    xhttp.setRequestHeader("Content-type", "application/x-www-form-urlencoded");
    let data = {
        name: name,
        phone: phone,
        author: author,
        genre: genre,
        rating: rating,

        show : 'success'
    };
    let dataToSend = JSON.stringify(data);

    xhttp.send("data=" + dataToSend);
    xhttp.onreadystatechange = function () {
        if (this.readyState == 4 && this.status == 200) {
            console.log(this.responseText);
            let response = JSON.parse(this.responseText);
            if (response.success) {
                // window.location.replace("");
                document.getElementById("error").innerHTML = data.show;
                // document.write("Success");
                alert('success');
            }
            if (response.error) {

```





```

        document.getElementById("error").innerHTML = response.error;
    }
}
};
}

</script>

</body>
</html>

```

CO2 and CO4 Evaluation: Project Report Evaluation					
Completeness (5)	Validation (5)	Feature Implementation (5)	Concept Understanding (5)	Promptness (5)	Total (25)

