WEB DEVELOPMENT 2 ASSIGNMENT
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Pages in Website

- footer.php
- header.php
- home.php
- login.php
- logout.php
- register.php
- reserve.php
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footer.php

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link type="text/css" rel="stylesheet" href="style.css" />
</head>
<body>

<footer>
    <div class="footer">
        <p>Copyright. 2023 Fatima Alubaidi</p>
    </div>
</footer>

</body>
</html>
```

My footer page is used throughout all of my pages. It includes my name and the year. I linked in my CSS stylesheet to this page.

header.php

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link type="text/css" rel="stylesheet" href="style.css" />
</head>
<body>
<div class="header">
        <div class="container">
            <div id="menu">
                <ul class="nav">
                    <li><a href="home.php">Home</a></li>
                    <li><a href="search.php">Search</a></li>
                    <li><a href="reserve.php">Reserve</a></li>
                    <li><a href="remove_reserve.php">Check Reservations</a></li>
                    <li><a href="register.php">Register</a></li>
                    <li><a href="login.php">My Account</a></li>
                </ul>
            </div>
        </div>
    </div>
</body>
</html>
```

My header page is used throughout all my pages. It includes a navigation bar so that the user can easily access each aspect of the website. I used div classes to make it easier to deal with the CSS. I linked in my CSS stylesheet to this page.

home.php

```
<!DOCTYPE html>
<html>
<head>
    <link type="text/css" rel="stylesheet" href="style.css" />
    <title>Library Website</title>
</head>
<body class="home">
    <?php
        include('header.php');
    ?>

    <div class="content">
        <h1>Welcome to the Reader's Library</h1>
        <p>Explore our wide variety of books and enjoy a simple reservation experience.</p>
    </div>

    <?php
        include('footer.php');
    ?>
</body>

</html>
```

I created a home page which the user gets redirected to every time they log in or register. A welcome message is displayed to the user and a brief description of the website is displayed.

I created a body class called home so that I could easily add CSS to the background image. I linked in my CSS stylesheet to this page. The header and footer pages are included.

login.php

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link rel="stylesheet" href="style.css">
</head>
<body>
    <?php
        include('header.php');
    ?>


    <?php
    $host = "localhost";
    $username = "root";
    $password = "";
    $database = "BookReservation";

    $con = new mysqli($host, $username, $password, $database);

    if ($con->connect_error) {
        die("Connection failed: " . $con->connect_error);
```

```
}

session_start();

if (isset($_SESSION['Username'])) {
    ?>
    <br>
    <div class="loggedin">You are logged in
    <br><br>
    <a href='logout.php'>Click here to log out</a><br>
    <br><br></div>
    <?php
}
else {
    if (isset($_POST['Username']) && isset($_POST['Password'])) {
        $Username = mysqli_real_escape_string($con, $_POST['Username']);
        $Password = mysqli_real_escape_string($con, $_POST['Password']);

        $query = "SELECT * FROM Users WHERE Username='$Username' AND Password='$Password'";
        $result = mysqli_query($con, $query);

        if (mysqli_num_rows($result) == 1) {
            $_SESSION['Username'] = $Username;

    ?>
<?php
    header('Location: home.php');
        }
        else {
            echo "<div class='form-error'>
            <h3>Invalid username or password. Please try again.</h3><br/>
            </div>";
        }
    }

if (!isset($_SESSION['Username'])) {
?>
    <form class="form" action="login.php" method="post">
        <h1 class="form-title">Login</h1>
        <label for="Username">Username</label>
```

```
        <input type="text" class="login-input" name="Username" required />

        <label for="Password">Password</label>
        <input type="password" class="login-input" name="Password" required />

        <input type="submit" name="login" value="Login" class="login-button">
        <p class="link"><a href="register.php">Click to Register</a></p>
      </form>
   <?php
      }
   }
   ?>

   <?php
      include('footer.php');
   ?>
</body>
</html>
```

This page allows the user to enter their username and password. I added an option to register which directs them to a register form if they don't have an account. I connected my database.

I used session_start() to begin a session for the user. I included code to check if the users username and password is the same as what is stored in the database. If it is not an error message is displayed to the user.

The following line if (mysqli_num_rows($result) == 1) checks to see if the username and passwords exist in the database. I used a html form to display to the user. If the user successfully logs in they are redirected to the home page. I linked in my CSS stylesheet to this page. The header and footer pages are included.

logout.php

```
<!DOCTYPE html>
<html>
   <head>
   <meta charset="utf-8">
      <link type="text/css" rel="stylesheet" href="style.css"/>
      <title>Logged Out</title>
```

```
    </head>

<body>

    <?php
        include('header.php');
    ?>

    <?php
        session_start();
        unset($_SESSION['Username']);
        session_destroy();
    ?>

    <br><br>
    <div class="loggedout">
        <h2>You have successfully logged out</h2><br>
        <div class='Form'><h3><a href='login.php'>Log back in here</a> <br></h3></div>
    </div>
    <br><br>

    <?php
        include('footer.php');
    ?>

</body>
</html>
```

This page allows the user to sign out of their account. A session is first initiated using session_start(). I then removed the users username from the session resulting in them being logged out.

Session_destroy() then destroys the session and deletes all stored session data. This helps with user privacy. When the user successfully logs out, a message is printed and an option to log back in is displayed.

I linked in my CSS stylesheet to this page. The header and footer pages are included.

register.php

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Registration</title>
    <link rel="stylesheet" href="style.css">
</head>
<body>
    <?php
        include('header.php');
    ?>

    <?php
    error_reporting(E_ALL);
    ini_set('display_errors', 1);

    $host = "localhost";
    $username = "root";
    $password = "";
    $database = "BookReservation";

    $con = new mysqli($host, $username, $password, $database);

    if ($con->connect_error) {
        die("Connection failed: " . $con->connect_error);
    }

    session_start();

    if (isset($_SESSION['Username'])) {
        ?>
        <br>
        <div class="loggedin">You are already registered
        <br><br>
        <a href='logout.php'>Click here to log out</a><br>
        <br><br></div>
        <?php
```

```
}
else {
    if (isset($_POST['Username'])) {
        $FirstName = mysqli_real_escape_string($con, $_REQUEST['FirstName']);
        $Surname = mysqli_real_escape_string($con, $_REQUEST['Surname']);
        $Username = mysqli_real_escape_string($con, $_REQUEST['Username']);
        $AddressLine1 = mysqli_real_escape_string($con, $_REQUEST['AddressLine1']);
        $AddressLine2 = mysqli_real_escape_string($con, $_REQUEST['AddressLine2']);
        $City = mysqli_real_escape_string($con, $_REQUEST['City']);
        $Telephone = mysqli_real_escape_string($con, $_REQUEST['Telephone']);
        $Mobile = mysqli_real_escape_string($con, $_REQUEST['Mobile']);
        $Password = mysqli_real_escape_string($con, $_REQUEST['Password']);
        $ConfirmPassword = mysqli_real_escape_string($con, $_REQUEST['ConfirmPassword']);

        $errors = [];

        $checkUsername = "SELECT * FROM Users WHERE Username = '$Username'";
        $result = mysqli_query($con, $checkUsername);

        if (mysqli_num_rows($result) > 0) {
            $errors[] = "<div class='form'>
                            <h3>Username is already taken. Please choose another</h3><br/>
                        </div>";
        }

        // check if passwords match
        if ($Password !== $ConfirmPassword) {
            $errors[] = "<div class='form'>
                            <h3>Passwords do not match</h3><br/>
                        </div>"; "";
        }

        // check if telephone is 10 digits long
        if (strlen($Telephone) !== 10 || !ctype_digit($Telephone)) {
            $errors[] = "<div class='form'>
                            <h3>Telephone number must be 10 digits long</h3><br/>
                        </div>";
        }

        // check if mobile is 10 digits long
```

```
        if (strlen($Mobile) !== 10 || !ctype_digit($Mobile)) {
            $errors[] = "<div class='form'>
                            <h3>Mobile number must be 10 digits long</h3><br/>
                        </div>";
        }

        if (empty($errors)) {
            $insert = "INSERT INTO Users (FirstName, Surname, Username, AddressLine1, AddressLine2, City,
Telephone, Mobile, Password)
            VALUES ('$FirstName', '$Surname', '$Username','$AddressLine1', '$AddressLine2', '$City',
'$Telephone', '$Mobile', '$Password')";
            mysqli_query($con, $insert);
            header("Location: home.php");
            exit();
        }
    }


    if (!empty($errors)) {
        echo '<div class="errors"><ul>';
        foreach ($errors as $error) {
            echo '<li>' . $error . '</li>';
        }
        echo '</ul></div>';
    }



    ?>
    <form class="form" action="" method="post">
        <h1 class="form-title">Registration</h1>
        <label for="FirstName">First Name</label>
        <input type="text" class="login-input" name="FirstName" required />

        <label for="Surname">Surname</label>
        <input type="text" class="login-input" name="Surname" required />

        <label for="Username">Username</label>
        <input type="text" class="login-input" name="Username" required />

        <label for="AddressLine1">Address Line 1</label>
```

```
        <input type="text" class="login-input" name="AddressLine1" required />

        <label for="AddressLine2">Address Line 2</label>
        <input type="text" class="login-input" name="AddressLine2" />

        <label for="City">City:</label>
        <input type="text" class="login-input" name="City" required />

        <label for="Telephone">Telephone Number</label>
        <input type="text" class="login-input" name="Telephone" />

        <label for="Mobile">Mobile Number</label>
        <input type="text" class="login-input" name="Mobile" required />

        <label for="Password">Password</label>
        <input type="password" class="login-input" name="Password" required />

        <label for="ConfirmPassword">Confirm Password</label>
        <input type="password" class="login-input" name="ConfirmPassword" required />

        <input type="submit" name="submit" value="Register" class="login-button">
        <p class="link"><a href="login.php">Click here to Login</a></p>
    </form>
  <?php
  }
  ?>

  </div>

</body>
</html>
```

The register page allows the user to create a new account. I first checked to see if the user is already logged in and gave them an option to log out. I assigned each variable a name and used mysqli_real_escape_string to escape special characters in the string and prevent SQL injection.

I used a SQL query to check if the username the user entered already exists in the database, if it is the user must pick another unique one and a message is displayed.

I prompted the user to confirm their password which they entered. I used operators (==) to check if both passwords matched and if they did not a message was displayed to the user.

For the mobile and telephone numbers I made sure that the users input was 10 numbers long and only digits were entered using ctype_digit, if not error message was displayed.

All these errors were stored into a list. If the list was empty, I provided and SQL query to insert all the date the user entered into the database.

Once the user was successfully registered I redirected them to my home page. If the errors list wasn't empty, whatever error there was is displayed on the page using a foreach loop.

I linked in my CSS stylesheet to this page. The header and footer pages are included.

reserve.php

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <link type="text/css" rel="stylesheet" href="style.css"/>
    <title>Reserve</title>
</head>


<body>
```

```php
<?php
    include('header.php');
?>

<?php

    session_start();

    $host = "localhost";
    $username = "root";
    $password = "";
    $database = "BookReservation";

    $conn = new mysqli($host, $username, $password, $database);

    if ($conn->connect_error) {
        die("Connection failed: " . $conn->connect_error);
    }

    if (!isset($_SESSION['Username'])) {
        header('Location: login.php');
        exit;
    }

    $isbn = $conn->real_escape_string($_POST['ISBN']);

    $bookQuery = $conn->query("SELECT * FROM Books WHERE ISBN = '$isbn'");

    if ($bookQuery->num_rows == 0) {
        ?>
        <div class='form-error2'>
            <h2>The book with the ISBN <?php echo $isbn; ?> doesn't exist.</h2>
        </div>
        <div class='form-error2'>
            <h3><a href='reservation.php'>Try again?</a> <br></h3>
        </div>
        <div class="footer">
            <p>Copyright. 2023 Fatima Alubaidi</p>
        </div>
        <?php
```

```
        exit;
    }

    $reserved = $conn->query("SELECT * FROM Books WHERE ISBN = '$isbn' AND Reserved = 'Y'");

    if ($reserved->num_rows > 0) {
        ?>
        <div class='form-error2'>
            <h3>The book with ISBN <?php echo $isbn; ?> is already reserved by a member.</h3>
        </div>
        <div class='form-error2'>
            <h3><a href='reservation.php'>Try again?</a> <br></h3>
        </div>
        <div class="footer">
            <p>Copyright. 2023 Fatima Alubaidi</p>
        </div>
        <?php
        exit;
    }

    $updateB = $conn->query("UPDATE Books SET Reserved = 'Y' WHERE ISBN = '$isbn'");

    if ($updateB) {
        ?>
        <div class='form-error2'>
            <h3>The book with ISBN <?php echo $isbn; ?> was reserved successfully.</h3>
        </div>
        <?php
    }

    $reserve = $conn->query("INSERT INTO Reserved (ISBN, Username, ReservedDate) VALUES ('$isbn',
'{$_SESSION['Username']}', NOW())");
  ?>

  <div class="form">
  <h1>Reserve a Book</h1>
    <form action="reservation.php" method="post">
        <label for="ISBN">Enter ISBN:</label>
        <input type="text" name="ISBN" required>
        <input type="submit" value="Reserve">
```

```
    </form>
  </div>

  <?php
  // Include the header.php file
  include('footer.php');
  ?>

</body>
</html>
```

The user is only able to access this page if they are logged in. If they're not they are automatically redirected to the log in page where they also have an option to register.

A session is initiated. I first declared the ISBN as a variable. The ISBN is then checked using an SQL query to check whether it exists in the book table. If the ISBN that the user entered doesn't exist an error message will be displayed to the user and they have an option to try again.

I used another reserved query to check if the book is already reserved ('Y') in my books table. If it is the user is not allowed to reserve the book and they have an option to try again.

Another SQL is used if the user successfully reserved the book. It updates the reservation status in the Books table and displays a message to the user.

I then used an SQL query to insert ('INSERT') this information into the Reserved table. The NOW() function captures the date when the user reserved the book and is put into the Reserved table.

I linked in my CSS stylesheet to this page. The header and footer pages are included.

reservation.php

```
<!DOCTYPE html>
<html>

<head>
    <meta charset="utf-8">
    <link type="text/css" rel="stylesheet" href="style.css" />
    <title>Reservation</title>
</head>

<body>

    <?php
        include('header.php');
    ?>
    <div class="form">
        <h1 class="loginheader">Reserve A Book</h1>
        <?php

            $host = "localhost";
            $username = "root";
            $password = "";
            $database = "BookReservation";

            $conn = new mysqli($host, $username, $password, $database);

            if ($conn->connect_error) {
                die("Connection failed: " . $conn->connect_error);
            }
            if ($_SERVER["REQUEST_METHOD"] == "POST") {
                $isbn = mysqli_real_escape_string($conn, $_POST['ISBN']);
```

```
            $check = "SELECT * FROM Books WHERE ISBN = '$isbn'";
            $result = mysqli_query($conn, $check);

            if ($result && mysqli_num_rows($result) > 0) {
                $reserve = "UPDATE Books SET Reserved = 'Y' WHERE ISBN = '$isbn'";
                $reserveResult = mysqli_query($conn, $reserve);

                if ($reserveResult) {
                    echo '<p>Book has been reserved successfully!</p>';
                } else {
                    echo '<p>Error reserving book: ' . mysqli_error($conn) . '</p>';
                }
            } else {
                echo '<p>Book with the ISBN ' . $isbn . ' not found.</p>';
            }
        }
    ?>

    <form action="reserve.php" method="POST">
        Enter ISBN Of The Book<br>
        <input type="text" name="ISBN" required><br>
        <input type="submit" value="Submit">
    </form>
</div>

<br><br>

<?php
    include('footer.php');
?>

</body>

</html>
```

I first established a connection with my database. If the user submits the form an SQL query is used to check if the ISBN the user entered exists in the database.

If it doesn't the user has an option to try again. If it does exist it checks whether the book is reserved ('N') or not. If it is the book is then reserved.

I set the ISBN as required in the form so the user is prompted to fill it in. I linked in my CSS stylesheet to this page. The header and footer pages are included.

remove_reserve.php

```php
<?php
    session_start();

    $host = "localhost";
    $username = "root";
    $password = "";
    $database = "BookReservation";

    $con = new mysqli($host, $username, $password, $database);

    if ($con->connect_error) {
        die("Connection failed: " . $con->connect_error);
    }

    if (!isset($_SESSION['Username'])) {
        header('Location: login.php');
        exit;
    }
```

```
    $username = $_SESSION['Username'];
    $reservedBooks = $con->query("SELECT * FROM Reserved WHERE Username = '$username'");
?>

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="utf-8">
    <link type="text/css" rel="stylesheet" href="style.css" />
    <title>View Reserved Books</title>
</head>

<body>

    <?php
        include('header.php');
    ?>

    <div class="reserved">
        <h1>View Reserved Books</h1>

        <?php
        if ($reservedBooks->num_rows > 0) {
            ?>
            <div class="reserved-table">
                <table>
                    <tr>
                        <th>ISBN</th>
                        <th>Reserved Date</th>
                        <th>Delete Reservation</th>
                    </tr>
                <?php
                while ($row = $reservedBooks->fetch_assoc()) {
                    $isbn = $row['ISBN'];
                    $reservedDate = $row['ReservedDate'];
                    ?>
                    <tr>
                        <td><?php echo $isbn; ?></td>
```

```
                <td><?php echo $reservedDate; ?></td>
                <td>
                    <form action='' method='post'>
                        <input type='hidden' name='action' value='remove_reserve'>
                        <input type='hidden' name='ISBN' value='<?php echo $isbn; ?>'>
                        <input type='submit' value='Remove Reservation'>
                    </form>
                </td>
            </tr>
            <?php
        }
        ?>
        </table>
    </div>
    <?php
}
else {
    ?>
    <div class='form-error'>
        <p>You currently have no books reserved.</p>
    </div>
    <?php
}

if ($_SERVER['REQUEST_METHOD'] == 'POST' && isset($_POST['action']) && $_POST['action'] == 'remove_reserve' && isset($_POST['ISBN'])) {
    $isbn = $con->real_escape_string($_POST['ISBN']);
    $remove = $con->query("DELETE FROM Reserved WHERE ISBN = '$isbn' AND Username = '$username'");

    if ($remove) {
        $updateBooks = $con->query("UPDATE Books SET Reserved = 'N' WHERE ISBN = '$isbn'");

        if ($updateBooks) {
            echo "<p>Your reservation has been successfully removed</p>";
            echo "<meta http-equiv='refresh' content='0'>";
        } else {
            echo "<p>There was an issue. Please try again</p>";
        }
    } else {
```

```
            echo "<p>There has been an issue removing your reservation. Please try again</p>";
        }
    }
    ?>
</div>

<?php
    include('footer.php');
?>

</body>

</html>
```

This page allows the user to view and remove their reservations. The user must be logged in to access this page, or else they are redirected to the log in page.

I declared a username variable to match the user's user name who is currently logged in in this session. I then used an SQL statement which looks for this username in the Reserved table. If one or more results were found I displayed them in a table for the user to view. If no results were found in the Reserved table I displayed a message saying they have no books reserved.

As usual I declared variable names for each row in the database table and printed it out for the user to display all the necessary information about their book.

In the table I also gave the user an option to remove their reservation. If the user chose to do this, I created an SQL statement using 'DELETE' to delete their reservation row from the table and 'UPDATE' to update the books reserved status to 'N' in the Books table. If there was an issue with any of this I displayed an error message to the user.

I linked in my CSS stylesheet to this page. The header and footer pages are included.

search.php

```php
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Book Search</title>
    <link rel="stylesheet" href="style.css">
</head>

<body>

    <?php
        session_start();

        $host = "localhost";
        $username = "root";
        $password = "";
        $database = "BookReservation";

        $conn = new mysqli($host, $username, $password, $database);

        if ($conn->connect_error) {
            die("Connection failed: " . $conn->connect_error);
        }
        if (!isset($_SESSION['Username'])) {
            header('Location: login.php');
            exit;
        }

        $Categories = mysqli_query($conn, "SELECT * FROM Category");
    ?>

    <?php
        include('header.php');
    ?>
```

```
    <div class="content">
        <h1>Search for a book</h1>

        <form class="form" action="search_results.php" method="post">
            <label for="title">Book Title</label>
            <input type="text" name="BookTitle">

            <label for="author">Author</label>
            <input type="text" name="Author">

            <input type="submit" value="Search">
        </form>

        <form class="form" action="search_results.php" method="post">
            <label for="category">Category</label>
            <select name="category">
                <?php
                while ($row = mysqli_fetch_assoc($Categories)) {
                    echo "<option value='{$row['CategoryID']}'>{$row['CategoryDescription']}</option>";
                }
                ?>
            </select>

            <input type="submit" value="Search by Category">
        </form>
    </div>

    <?php
        include('footer.php');
    ?>

</body>

</html>
```

In this page I created two HTML forms. One form allows the user to search by author name and/or book title.

The second form allows the user to search by book category by using a drop down box. I created this drop down box by using <select>. I got it to select all the categories from the Category table by iterating through it using a while loop in PHP.

For both forms, when the user presses submit, the information searched is submitted to my search_results.php page for further processing so that the results will be based off what the user inputted.

I linked in my CSS stylesheet to this page. The header and footer pages are included.

search_results.php

```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Search Results</title>
    <link rel="stylesheet" href="style.css">
</head>

<body>

    <?php
    include('header.php');

    session_start();

    $host = "localhost";
    $username = "root";
    $password = "";
```

```php
$database = "BookReservation";

$conn = new mysqli($host, $username, $password, $database);

if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

$max_per_page = 5;

$page = isset($_GET["page"]) ? $_GET["page"] : 1;

$start_from = ($page - 1) * $max_per_page;

$title = isset($_POST['BookTitle']) ? mysqli_real_escape_string($conn, $_POST['BookTitle']) : "";
$author = isset($_POST['Author']) ? mysqli_real_escape_string($conn, $_POST['Author']) : "";
$category = isset($_POST['category']) ? mysqli_real_escape_string($conn, $_POST['category']) : "";

$query = "SELECT * FROM Books WHERE 1";

if (!empty($title)) {
    $query .= " AND BookTitle LIKE '%$title%'";
}

if (!empty($author)) {
    $query .= " AND Author LIKE '%$author%'";
}

if (!empty($category)) {
    $query .= " AND CategoryID = $category";
}

$query .= " LIMIT $start_from, $max_per_page";

$result = mysqli_query($conn, $query);
?>

<div class="content">
    <h1>Search Results</h1>
```

```
    <?php
    if ($result) {
        if (mysqli_num_rows($result) > 0) {
            echo '<table class="search-results">';
            echo '<thead>';
            echo '<tr><th>Title</th><th>Author</th><th>Category</th><th>Reserve</th></tr>';
            echo '</thead>';
            echo '<tbody>';
            while ($row = mysqli_fetch_assoc($result)) {
                echo '<tr>';
                echo '<td>' . $row['BookTitle'] . '</td>';
                echo '<td>' . $row['Author'] . '</td>';
                echo '<td>' . $row['CategoryID'] . '</td>';
                echo '<td><a href="reservation.php?ISBN=' . $row['ISBN'] . '">Reserve Book</a></td>';
                echo '</tr>';
            }
            echo '</tbody>';
            echo '</table>';
        } else {
            echo '<p>No results found</p>';
        }
    } else {
        echo '<p>Error executing search: ' . mysqli_error($conn) . '</p>';
    }
    ?>
</div>

<div class="pagination">
    <?php
    $query_string = "BookTitle=$title&Author=$author&category=$category";

    $query = "SELECT COUNT(*) FROM Books WHERE 1";

    if (!empty($title)) {
        $query .= " AND BookTitle LIKE '%$title%'";
    }

    if (!empty($author)) {
        $query .= " AND Author LIKE '%$author%'";
    }
```

```
    if (!empty($category)) {
        $query .= " AND CategoryID = $category";
    }

    $rs_result = mysqli_query($conn, $query);
    $row = mysqli_fetch_row($rs_result);
    $total_records = $row[0];

    echo "</br>";

    $total_pages = ceil($total_records / $max_per_page);
    $pagLink = "";

    if ($page >= 2) {
        $pagLink .= "<a href='search_results.php?page=" . ($page - 1) . "&$query_string'> Back</a>";
    }

    for ($i = 1; $i <= $total_pages; $i++) {
        if ($i == $page) {
            $pagLink .= "<a class='active' href='search_results.php?page=" . $i . "&$query_string'>" . $i . " </a>";
        } else {
            $pagLink .= "<a href='search_results.php?page=" . $i . "&$query_string'> " . $i . " </a>";
        }
    }

    if ($page < $total_pages) {
        $pagLink .= "<a href='search_results.php?page=" . ($page + 1) . "&$query_string'> Next</a>";
    }

    echo $pagLink;
    ?>
</div>

<?php
include('footer.php');
?>

</body>
```

```
</html>
```

The search results page processes whatever the user put into the search forms. I included pagination so that only 5 results are shown per page, and the use can click through the pages to see more results. I first set a variable to 5 for the maximum number of results per page. The variable $start_from calculates the starting index for the current page.

I fetched the search results by using mysqli_query and by using a SELECT statement in SQL. I generated a list of the results through a table. If no results are found, a message is displayed. I also added a link so that the user can reserve the book, which they will then have to enter the ISBN of the book in order to confirm their reservation. I included conditions to check whether each variable is empty using the empty() function which returns either true or false. If it is true (meaning it's not empty) then I append it to the SQL query which is stored in a variable. This is done for each aspect of the search. I used .= to concatenate the new part to the existing value of the query. The search allows for partial search also.

I also added pagination links so that user can easily navigate their way through the results. The user can jump from one page to another or they can simply press the 'Back' or 'Next' button to navigate through the pages.

The variable $rs_result retrieves the total number of results based of off what the user searched. I then calculated the total number of pages which were needed for pagination by division. The ceil() function is used to round up if needed. I then used a for loop to create a link for each page. If there is 2 or more pages I added a back link which will take them to the pervious page. If the current page is less than the total pages, I created a next link which allows the user to go to the following page. I then used echo $pagLink to output all these links.

I linked in my CSS stylesheet to this page. The header and footer pages are included.

style.css

```css
/* header */
.header {
    background-color: rgba(221, 210, 192, 0.942);
    color: #333;
    padding: 30px 0;
    text-align: left;
    font-size: 18px;
    font-weight: bold;
    font-family: 'Monaco', Monospace;
}

.container {
    width: 80%;
    margin: 0 auto;
}

.nav {
    list-style: none;
    padding: 0;
    margin: 0;
    text-align: left;
}

.nav li {
    display: inline-block;
    margin-right: 30px;
}

.nav a {
    text-decoration: none;
    color: rgb(0, 0, 0);
    transition: color 0.3s;
}

.nav a:hover {
    color: rgb(233, 141, 141);
}
```

```css
/* forms */
.form {
    max-width: 400px;
    margin: 20px auto;
    padding: 20px;
    background-color: #fff;
    box-shadow: 0 0 10px rgba(4, 4, 4, 0.1);
    text-align: center;
    font-family: 'Monaco', Monospace;
    border-radius: 10px;
}

.form-title {
    font-size: 24px;
    margin-bottom: 20px;
    color: #333;
    font-family: 'Monaco', Monospace;
}

.form label {
    display: block;
    margin-bottom: 8px;
    color: #333;
    font-family: 'Monaco', Monospace;
}

.form input[type="text"],
.form input[type="password"],
.form textarea {
    width: 100%;
    padding: 10px;
    margin-bottom: 15px;
    box-sizing: border-box;
    border: 1px solid #333;
    border-radius: 5px;

}
```

```css
.form input[type="submit"] {
    background-color: rgb(233, 141, 141);
    color: #fff;
    padding: 10px 15px;
    border: none;
    cursor: pointer;
    border-radius: 5px;
}

.form input[type="submit"]:hover {
    background-color: #555;
}

/* home page */

body.home{
    background-image: url('/WebD/library.jpeg');
    background-size: cover;
    background-position: center;
}

.content {
    padding: 20px;
    text-align: center;
    position: absolute;
    top: 50%;
    left: 50%;
    transform: translate(-50%, -50%);
    background-color: rgba(255, 255, 255, 0.7);
    border-radius: 10px;
    font-family: 'Monaco', Monospace;
}

/* footer */
#page-container{
    position: relative;
    min-height : 100vh
}

.footer {
```

```
    clear: both;
    position: absolute;
    bottom: 0;
    margin-top: 15px;
    width: 100%;
    background-color: rgb(224, 220, 220);
    padding-bottom: 10px
}


.footer p {
    text-align: center;
    color: #333;
    font-size: 14px;
    font-family: 'Monaco', Monospace;
}

/* logged in message */
.loggedin {
    text-align: center;
    position: absolute;
    top: 50%;
    left: 50%;
    transform: translate(-50%, -50%);
    background-color: rgb(239, 168, 168);
    padding: 90px;
    border-radius: 8px;
    box-shadow: 0 0 20px rgba(0, 0, 0, 0.1);
    font-size: 25px;
    font-family: 'Monaco', Monospace;
}

.loggedin a {
    color: #f1f3f6;
    text-decoration: underline;
}
.loggedin a:hover {
    color: #333;
}
```

```css
/* logged out message */
.loggedout{
    text-align: center;
    position: absolute;
    top: 50%;
    left: 50%;
    transform: translate(-50%, -50%);
    background-color: rgb(239, 168, 168);
    padding: 90px;
    border-radius: 8px;
    box-shadow: 0 0 20px rgba(0, 0, 0, 0.1);
    font-size: 20px;
    font-family: 'Monaco', Monospace;
}

.loggedout a {
    color: #f1f3f6;
    text-decoration: underline;
}

.loggedout a:hover {
    color: #333;
}


/* form errors */
.form-error {
    background-color: #ffdddd;
    border: 1px solid #a22828;
    color: #000000;
    margin: 10px auto 0;
    border-radius: 5px;
    max-width: 400px;
    font-family: 'Monaco', Monospace;
}

.form-error h3{
    position: center;
    font-size: 10px;
}
```

```css
body {
    background-color: #e6e3e3
}

/* View reservations */
.reserved{
    font-family: 'Monaco', Monospace;
    position: center;
}

/* table  */
table {
    width: 100%;
    border-collapse: collapse;
    margin-top: 20px;
}

th, td {
    border: 1px solid #ddd;
    padding: 8px;
    text-align: left;
}

th {
    background-color: #f2f2f2;
    font-weight: bold;
}

a {
    text-decoration: none;
    color: rgb(239, 168, 168)
}

a:hover {
    text-decoration: underline;
}
```

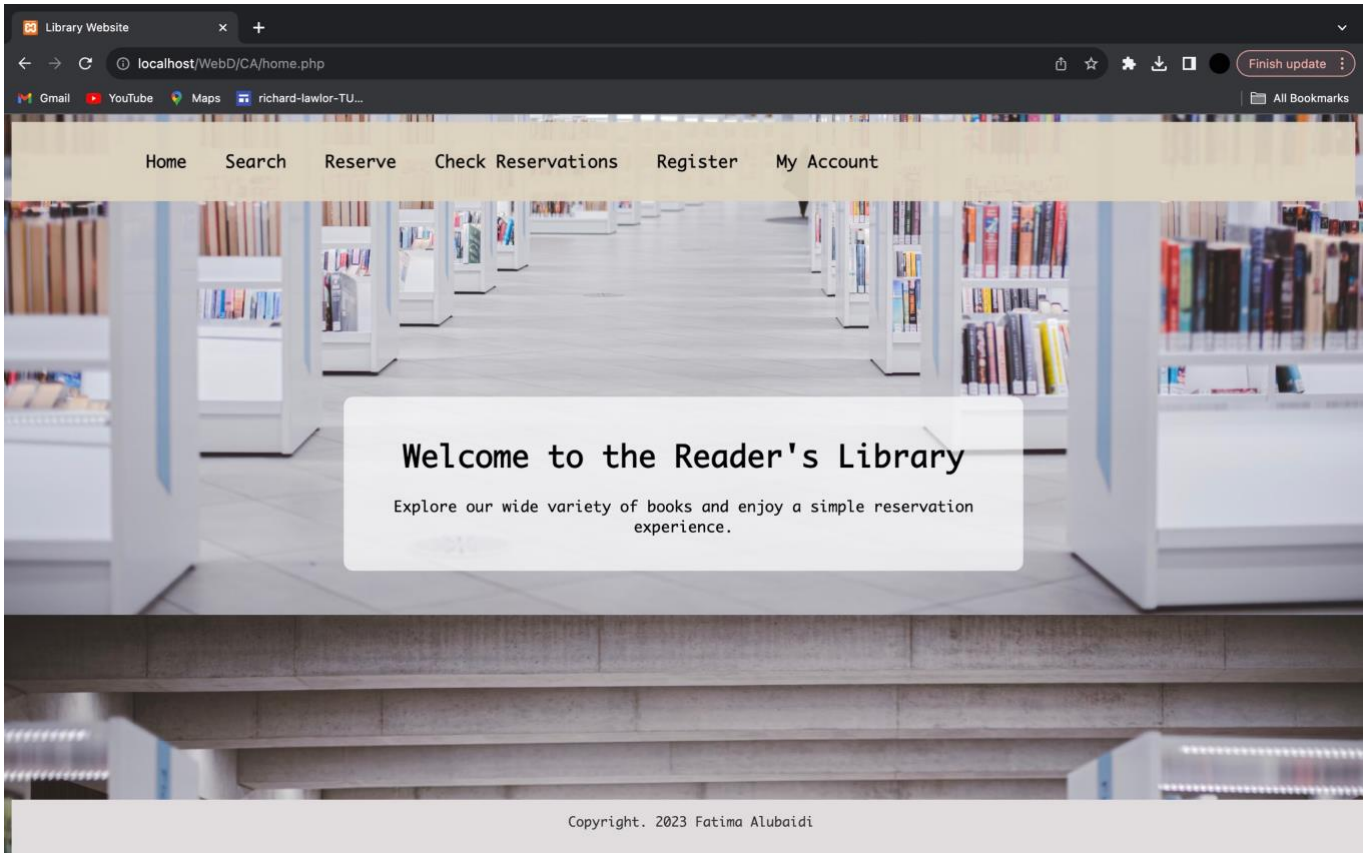
```css
/* reserved messages */
.form-error2 {
    border: 2px solid #f5b7be;
    border-radius: 8px;
    padding: 15px;
    margin: 20px auto 0;
    background-color: #f9f2f3;
    color: #000000;
    display: flex;
    justify-content: center;
    align-items: center;
    max-width: 400px;
    width: 100%;
    font-family: 'Monaco', Monospace;
}


/* search results page */
.pagination {
    display: flex;
    justify-content: center;
    margin-top: 500px;
    font-family: 'Monaco', Monospace;
}

.pagination a {
    font-weight:bold;
    font-size:18px;
    color: black;
    float: left;
    padding: 8px 16px;
    text-decoration: none;
    border:1px solid black;

}

.pagination a.active {
    background-color: rgb(196, 186, 188);

}
```

```
.pagination a:hover:not(.active) {
    background-color: rgb(233, 141, 141);
}
```

This is my style sheet where I designed all my pages. I have used comments to show which part of the codes I am adding styling to.

Screenshots of Website

Home Page (home.php)


Library Website
localhost/WebD/CA/home.php
Finish update
Gmail
YouTube
Maps
richard-lawlor-TU...
All Bookmarks
Home
Search
Reserve
Check Reservations
Register
My Account
Welcome to the Reader's Library
Explore our wide variety of books and enjoy a simple reservation experience.
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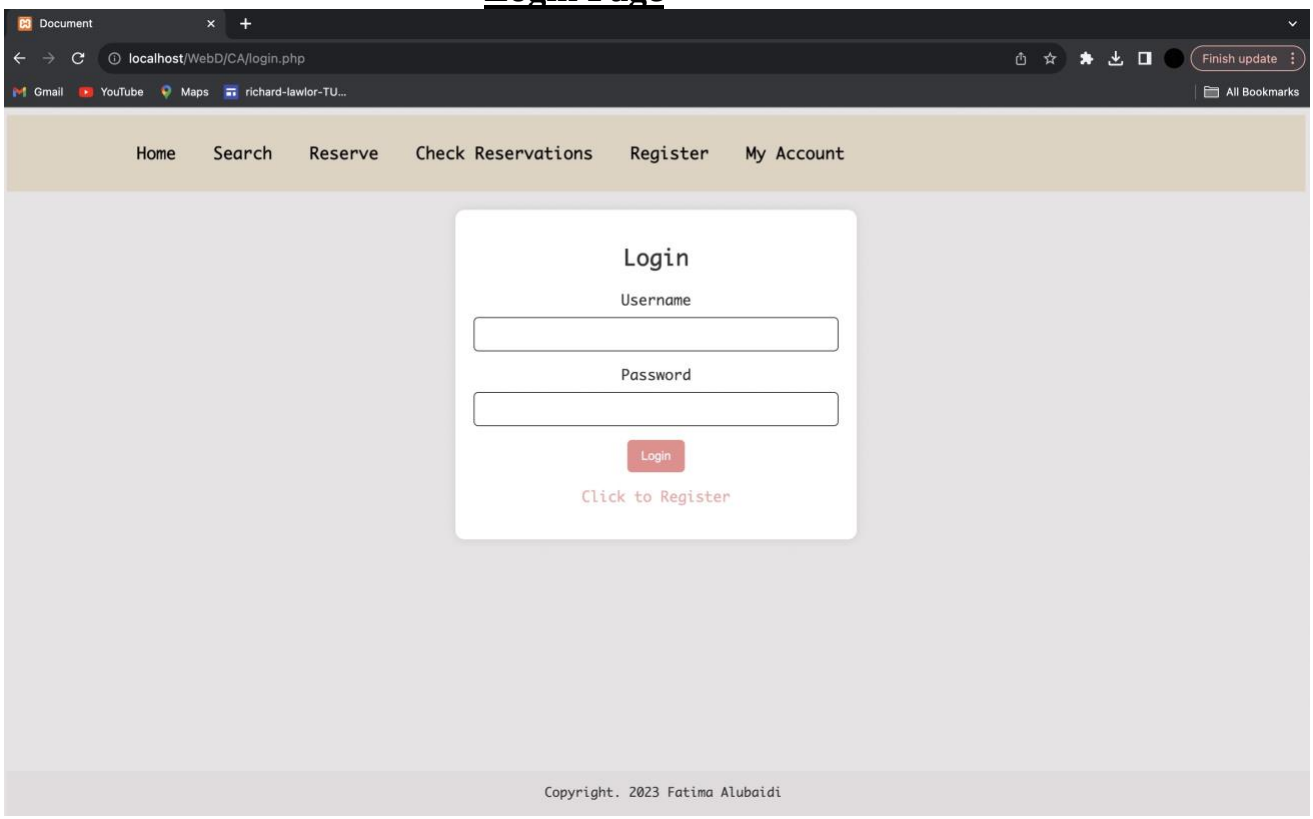
Login Page


Document
localhost/WebD/CA/login.php
Finish update
Gmail
YouTube
Maps
richard-lawlor-TU...
All Bookmarks
Home
Search
Reserve
Check Reservations
Register
My Account
Login
Username
Password
Login
Click to Register
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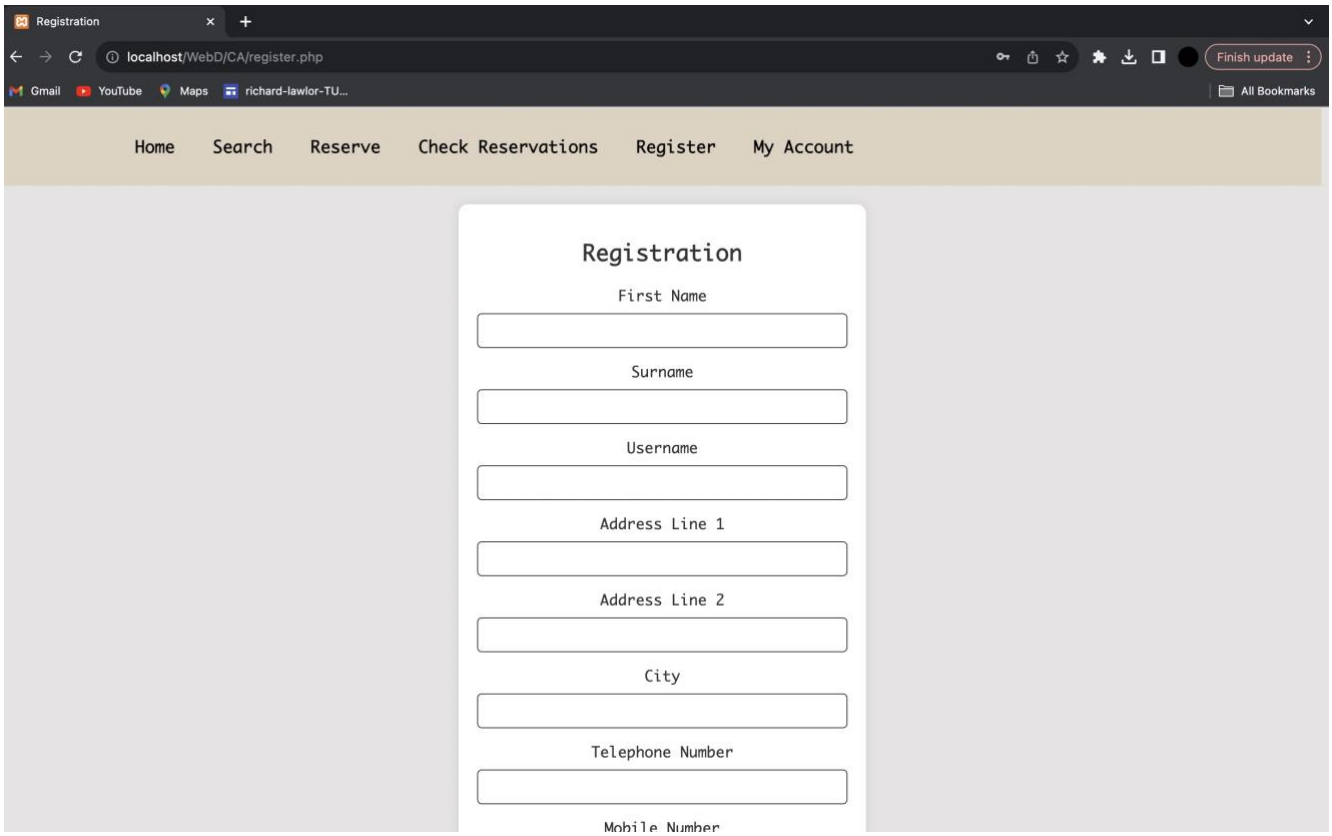
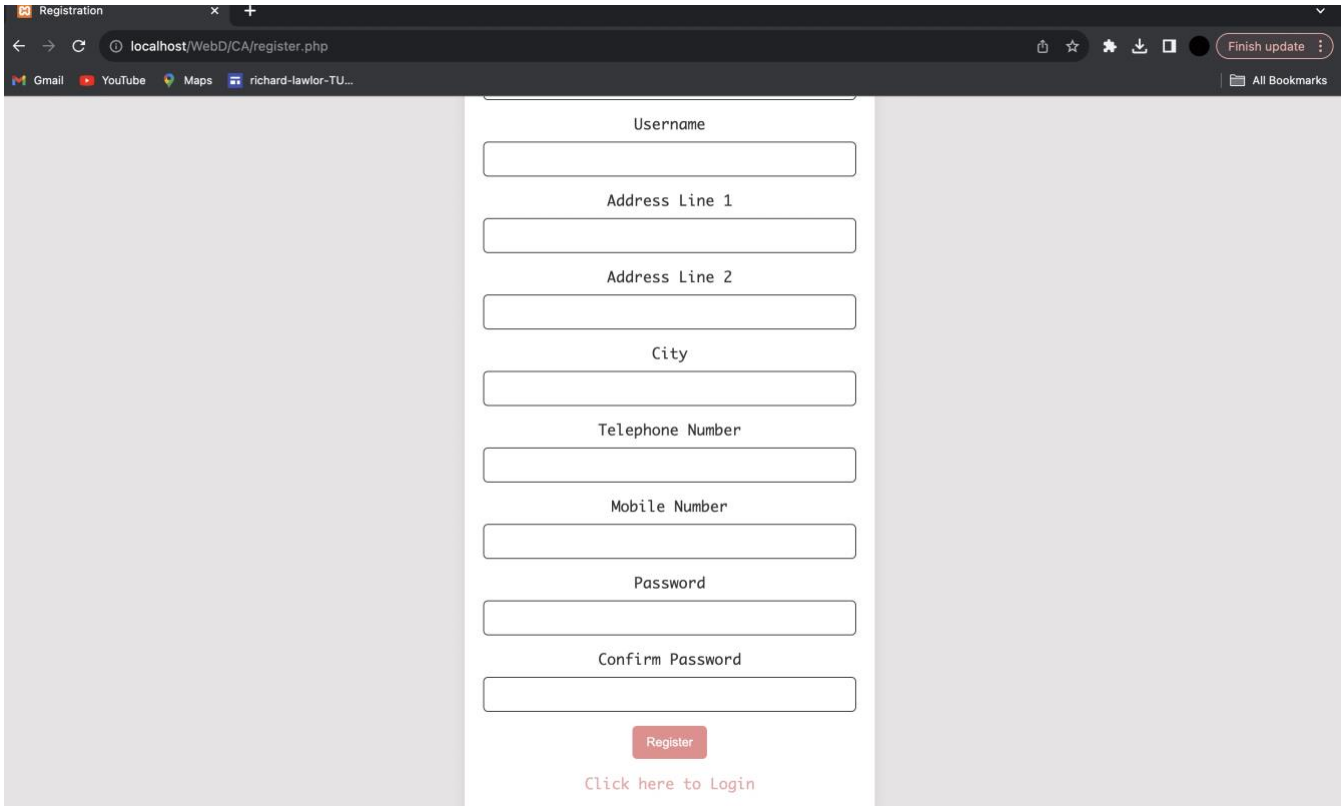
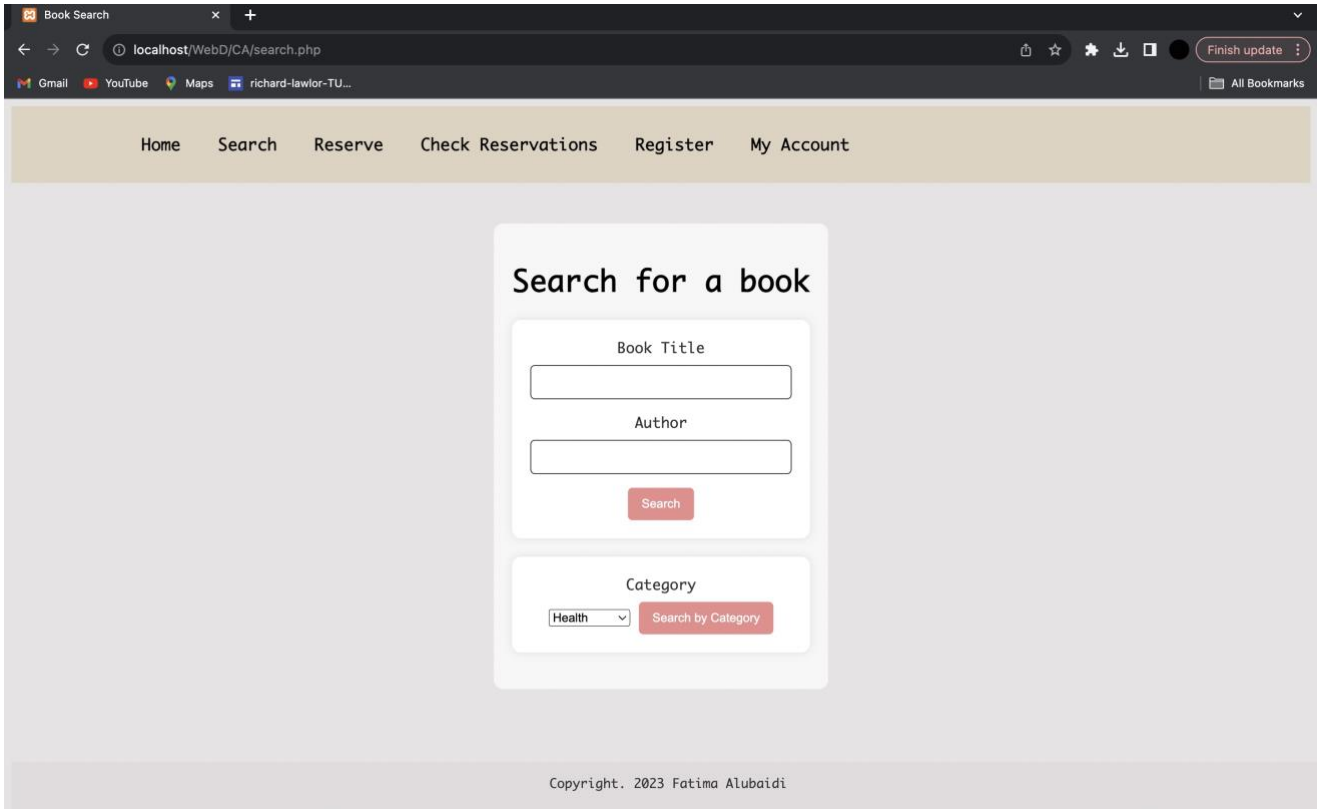
Register Page

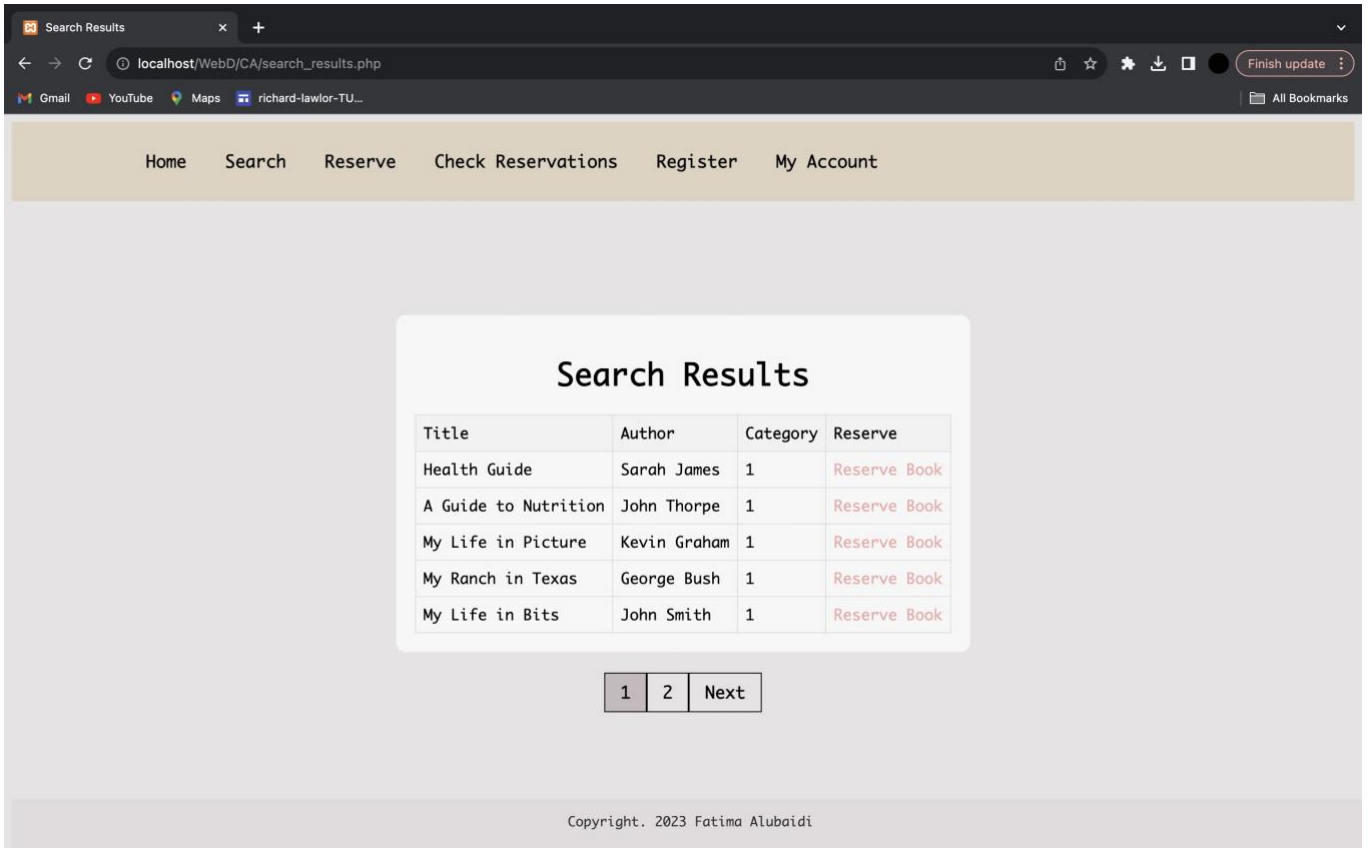




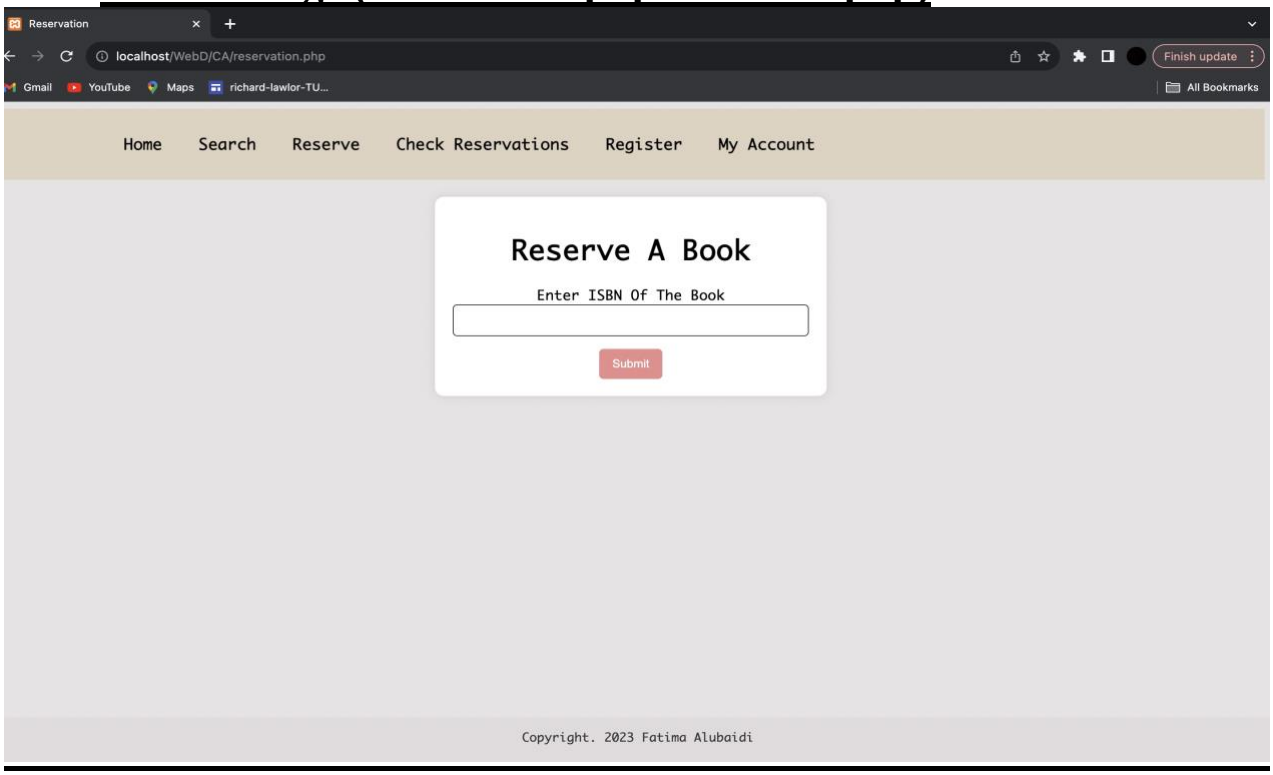
Search Page(search.php)

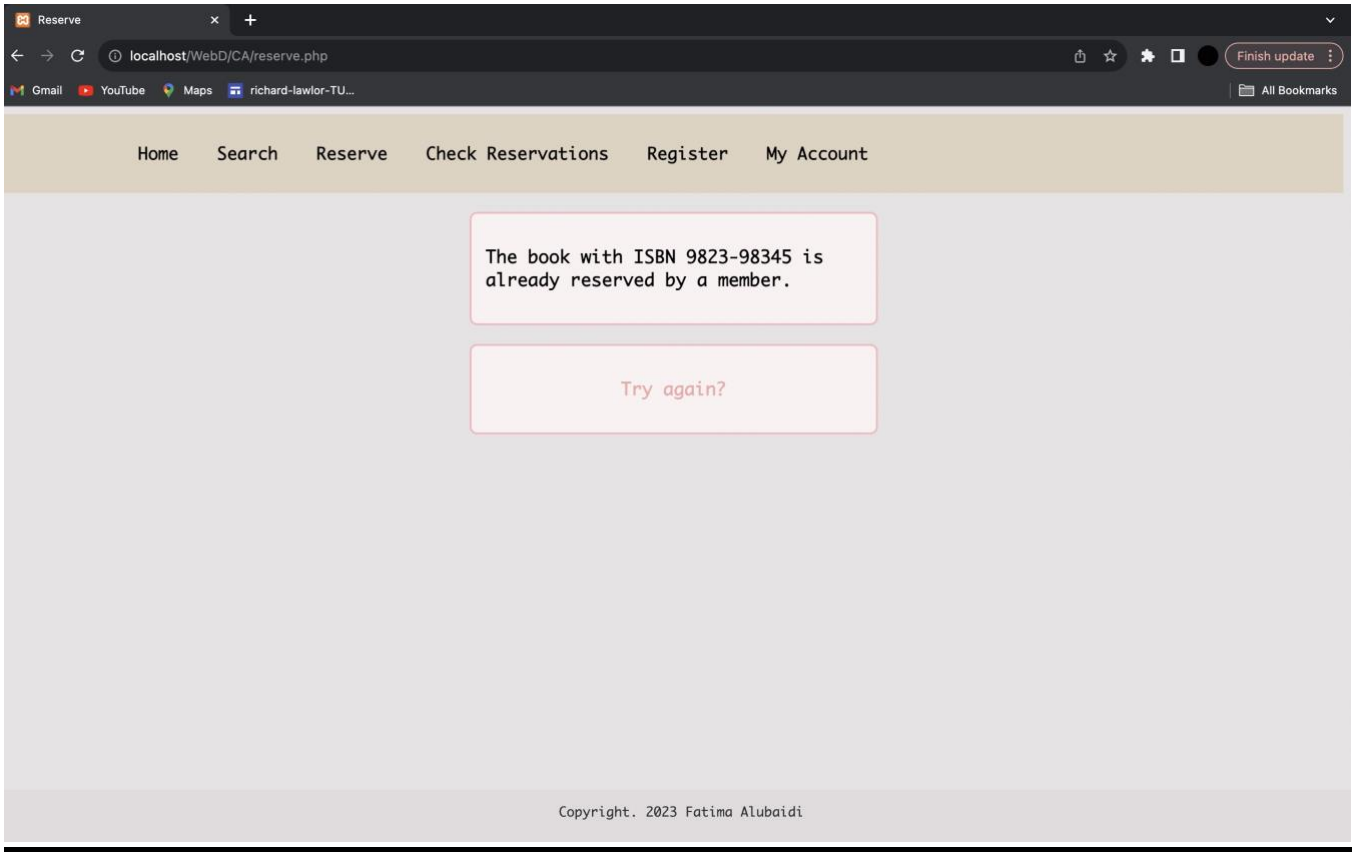


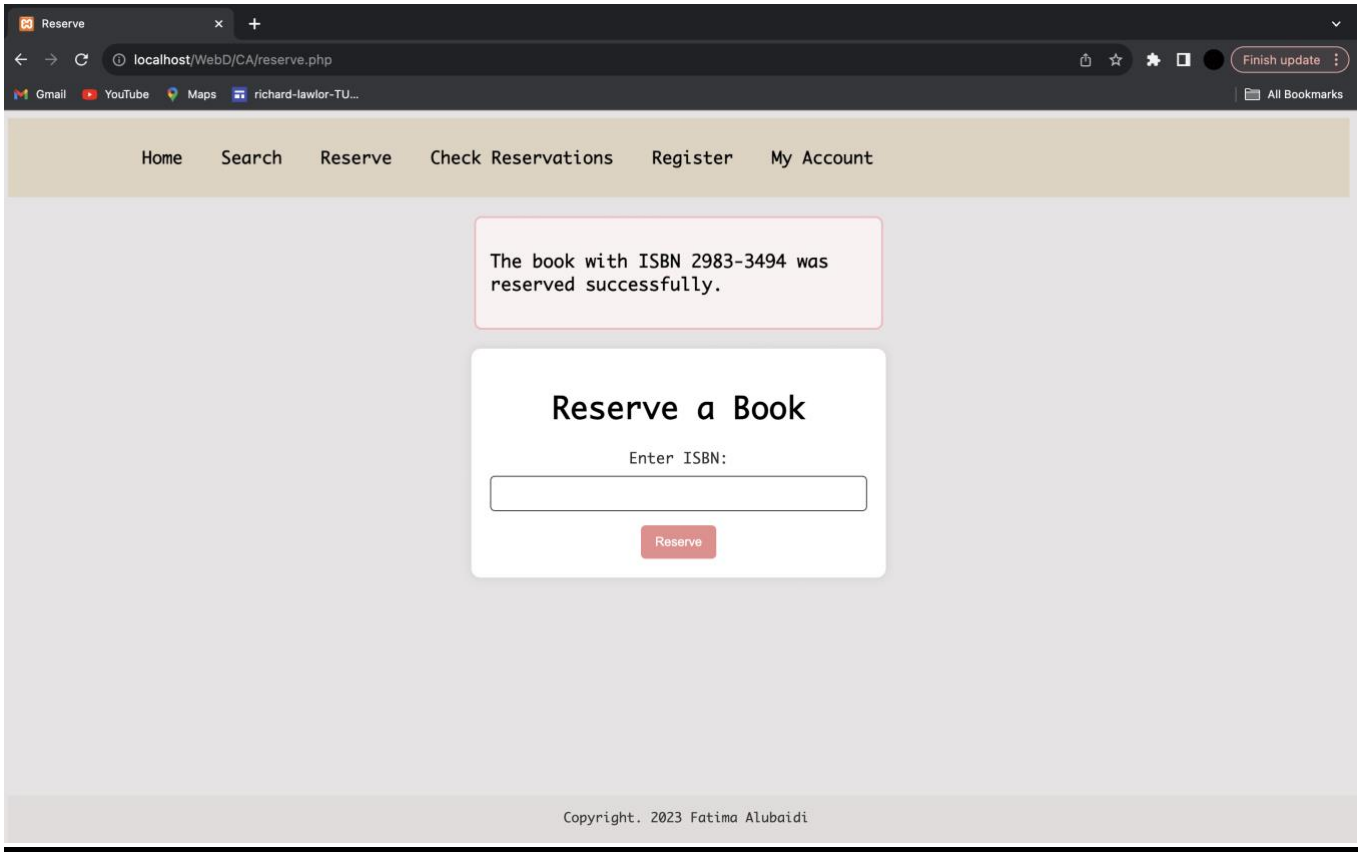
Search Results Page (search_results.php)



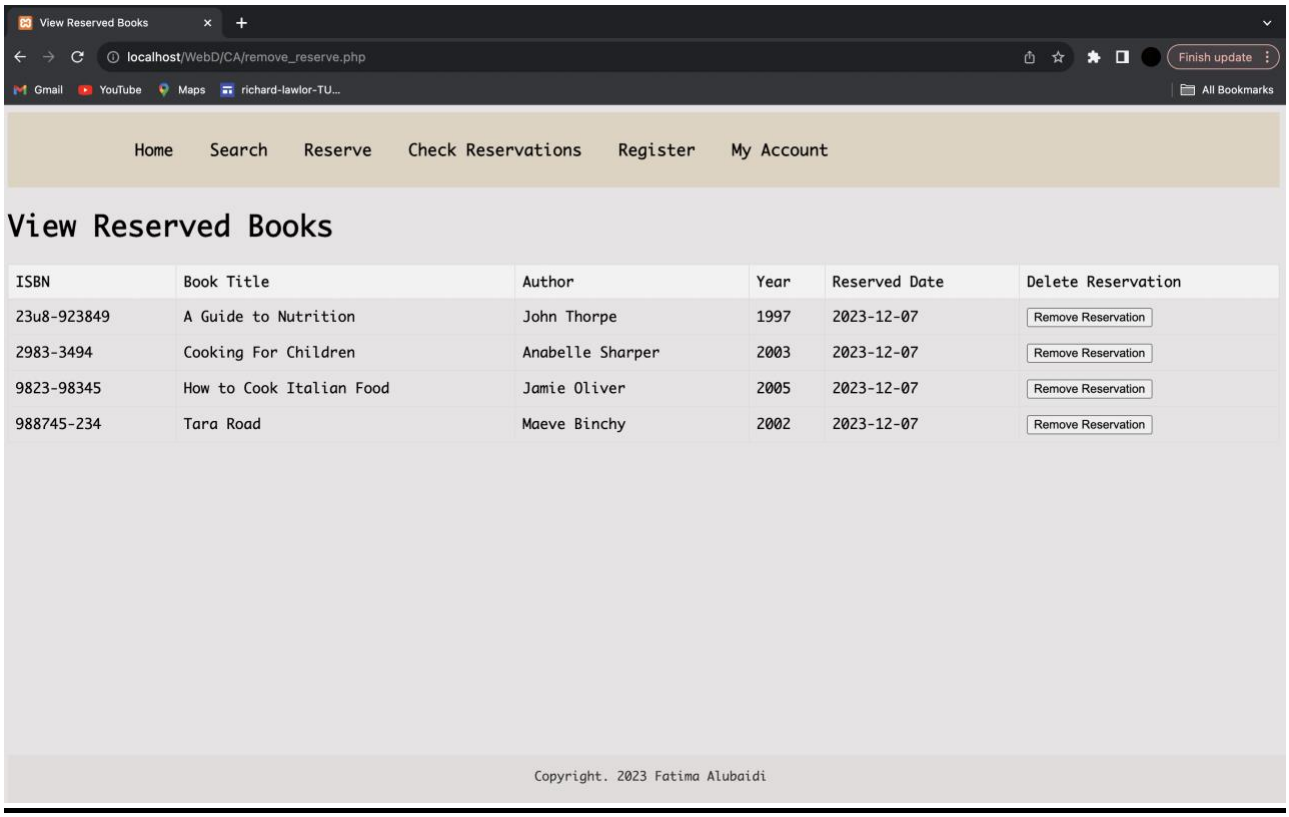
Reserve Page (reservation.php + reserve.php)



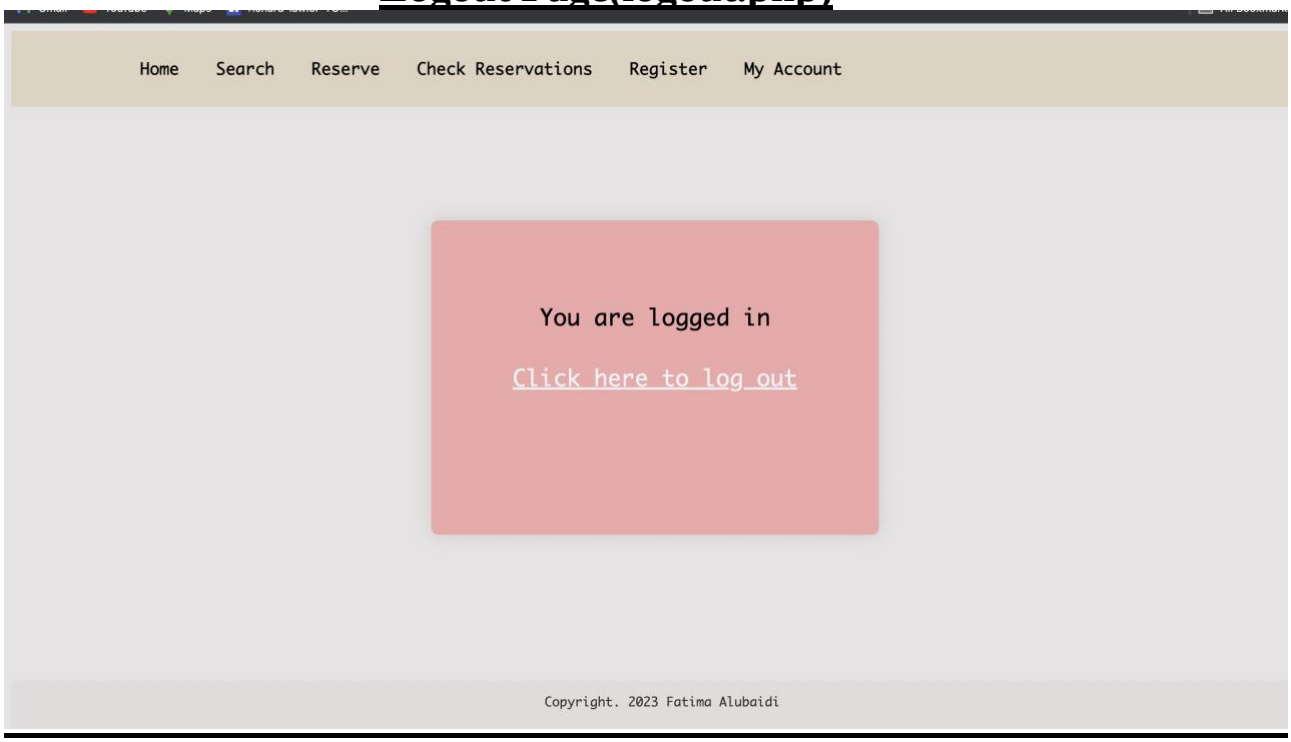


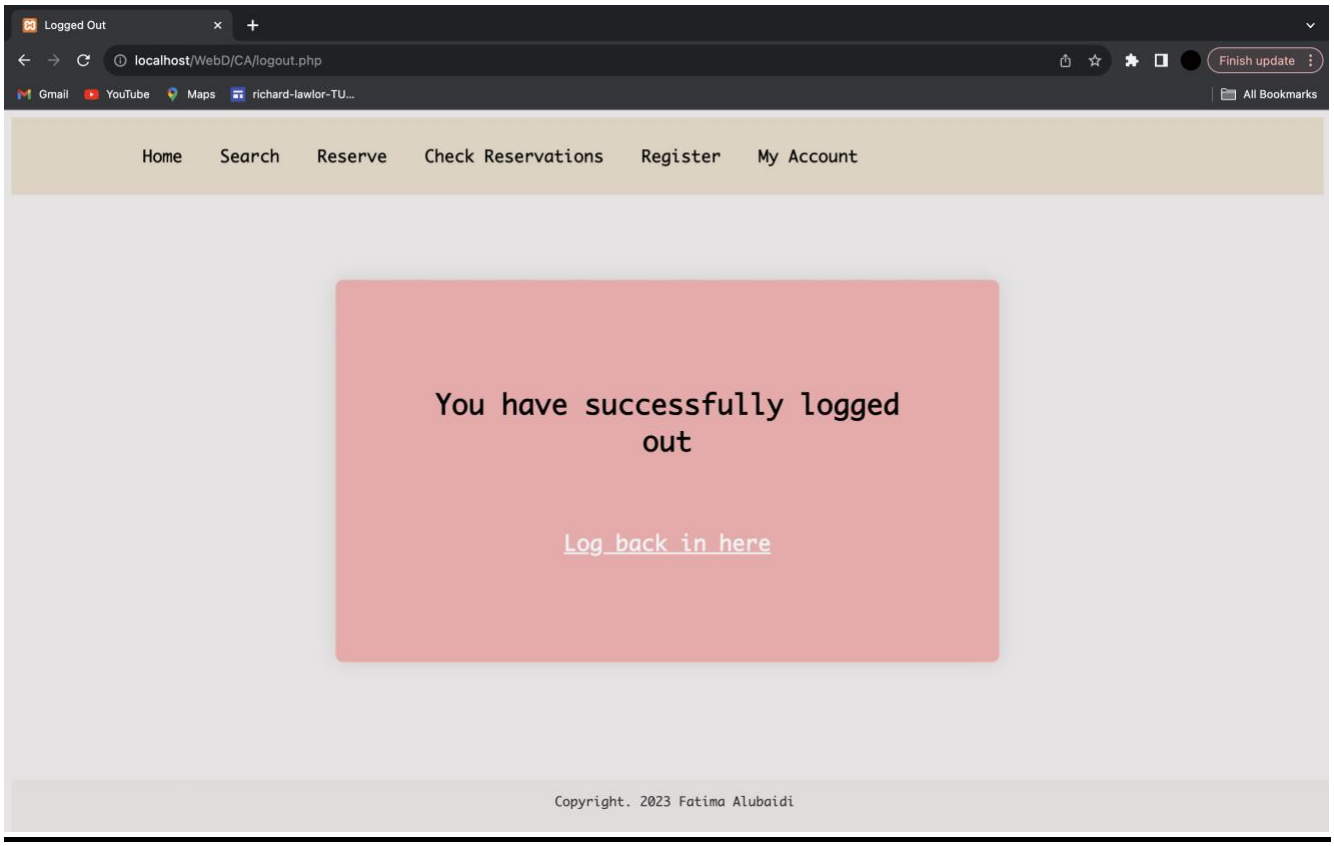


View and Remove Reservations page (remove_reserve.php)



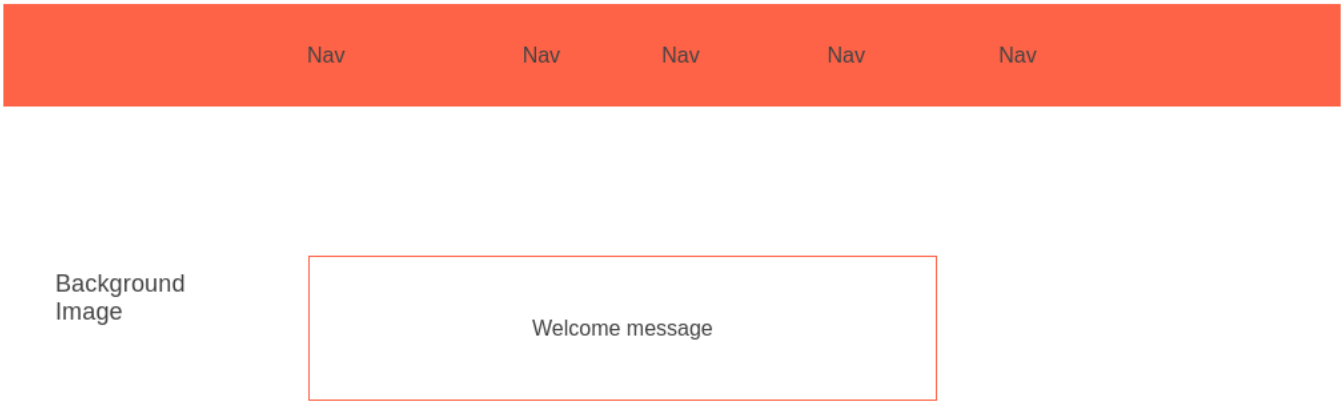
Logout Page(logout.php)



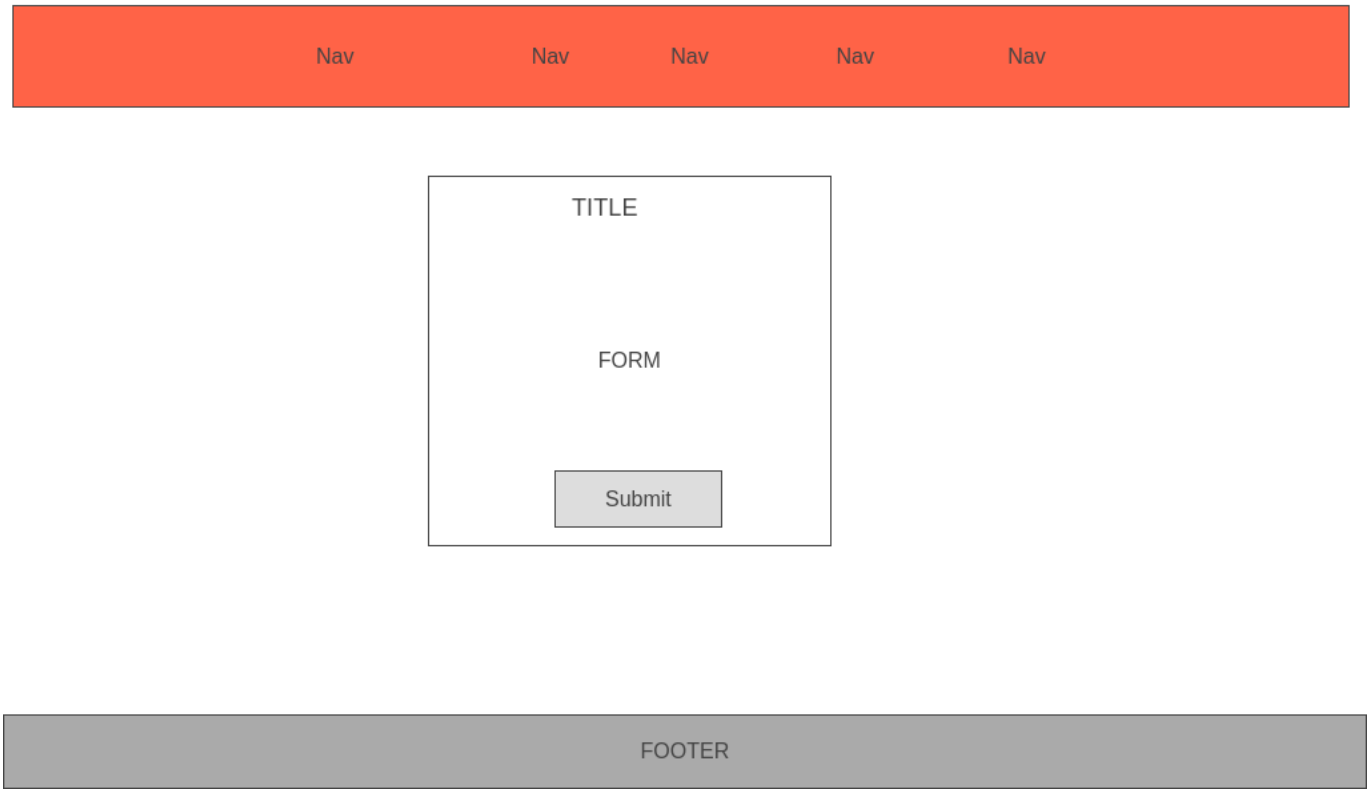


Design Document

HOME PAGE

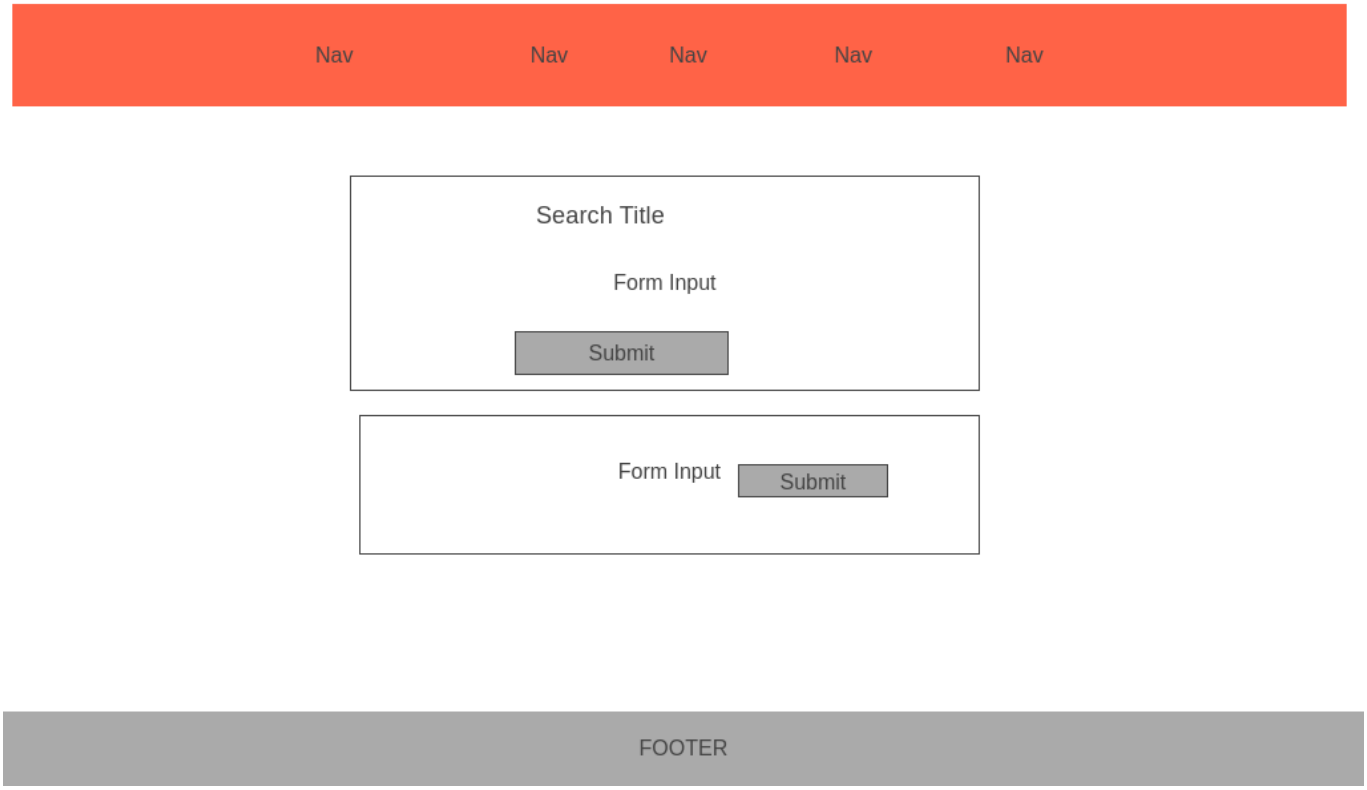


LOGIN PAGE

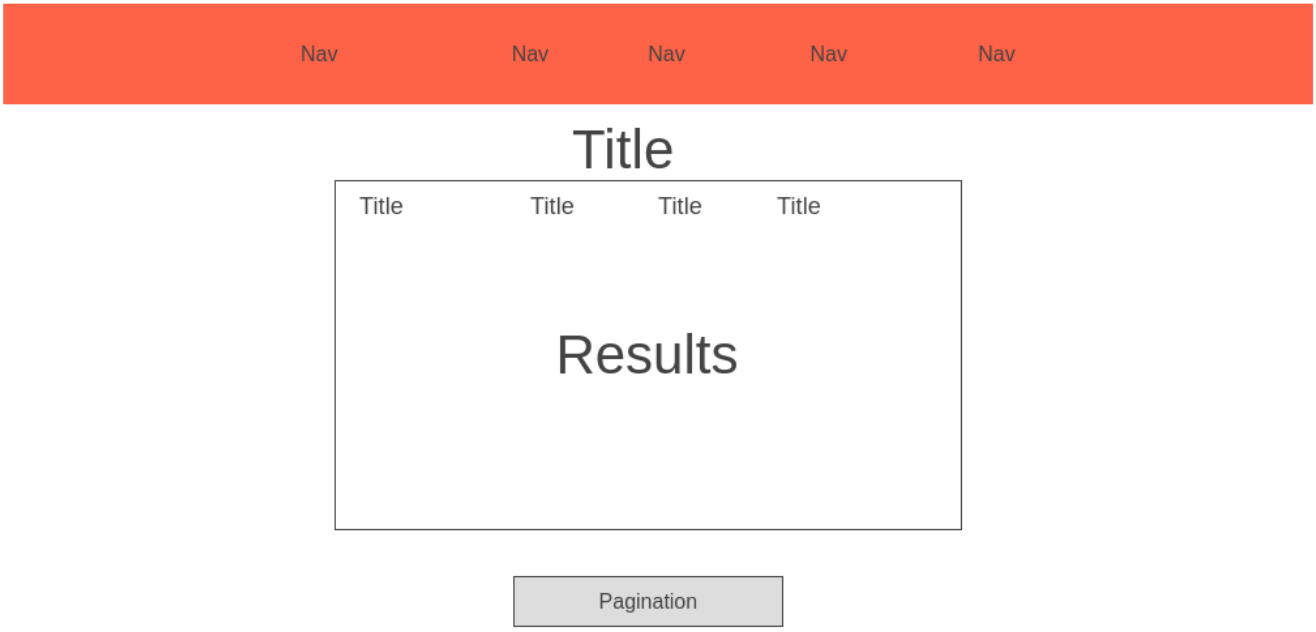


REGISTER PAGE

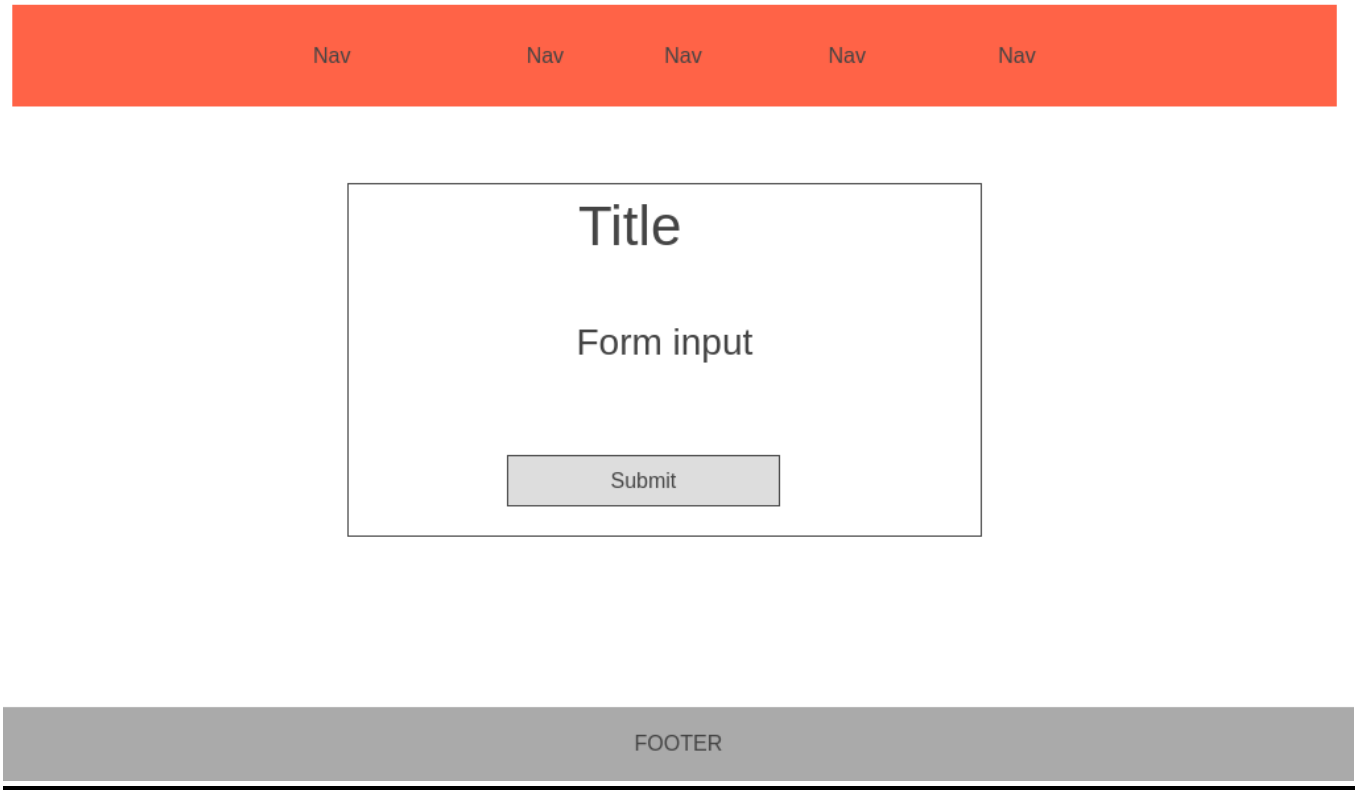
SEARCH PAGE

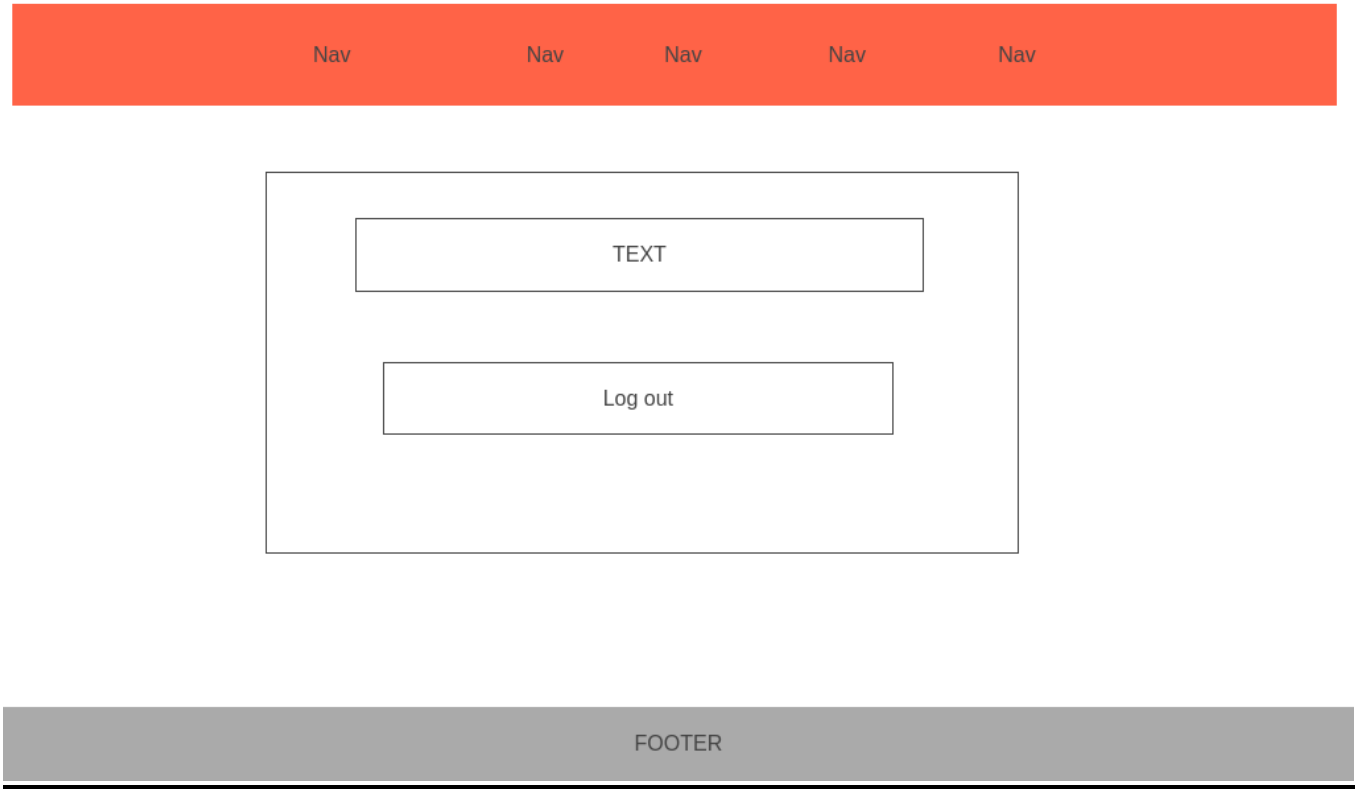


SEARCH RESULTS PAGE



Reserve Page



VIEW RESERVATIONS PAGE

LOGOUT PAGE