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Student Number: C20402732

Index.php--

```html
<!DOCTYPE html>

<link rel='stylesheet' type='text/css' href='Style.css' />
<html>
    <head>
        <title>AM Library</title>
    </head>

    <body>

        <header id="Title">
           AM LIBRARY
        </header>
        <form action="login.php" method="post" id="loginform">

        <h2>LOGIN</h2>

        <?php if (isset($_GET['error'])) { ?>

            <p class="error"><?php echo $_GET['error']; ?></p>

        <?php } ?>

        <label>User Name</label>

        <input type="text" name="username" placeholder="User Name"><br>

        <label>Password</label>

        <input type="Password" name="Password" placeholder="Password"><br>

        <button id="loginbutton" type="submit">Login</button>

        </form>
        <a href="register.php">Don't have have a login? Register</a>

        <footer id="footer">
                <p>Site by Aleksey Makarevich 2021</p>
        </footer>

    </body>
</html>
```

Login.php--

```php
<?php

        session_start();
        include "DBCON.php";

        if (isset($_POST['username']) && isset($_POST['Password'])) {

            function validate($data){

                $data = trim($data);

                $data = stripslashes($data);

                $data = htmlspecialchars($data);

                return $data;

            }

            $username = validate($_POST['username']);

            $pass = validate($_POST['Password']);

            if (empty($username)) {

                header("Location: index.php?error=User Name is required");

                exit();

            }else if(empty($pass)){

                header("Location: index.php?error=Password is required");

                exit();

            }else{

                $sql = "SELECT * FROM users WHERE Username='$username' AND
Password='$pass'";

                $result = mysqli_query($conn, $sql);

                if (mysqli_num_rows($result) === 1) {

                    $row = mysqli_fetch_assoc($result);
```

```php
                    if ($row['Username'] === $username && $row['Password']
=== $pass) {

                        echo "Logged in!";

                        $_SESSION['Username'] = $row['Username'];

                        $_SESSION['Firstname'] = $row['Firstname'];

                        header("Location: home.php");

                        exit();

                    }else{

                        header("Location: index.php?error=Incorrect User
name or Password");

                        exit();

                    }

                }else{

                    header("Location: index.php?error=Incorrect User name
or Password");

                    exit();

                }

            }

        }else{

            header("Location: index.php");

            exit();

        }
?>
```

DBCON.php---

```php
<?php
$servername = "localhost";
$username = "Gooba";
$password = "";
$dbname = "library";

//Create Connection
$conn = new mysqli($servername, $username, $password, $dbname);

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

Home.php---

```php
<?php

session_start();


 ?>
<!DOCTYPE html>
<link rel='stylesheet' type='text/css' href='Style.css' />
    <head>
        <title>AM Library</title>
    </head>

    <body>
```

```html
        <header id="Title">
            AM LIBRARY
        </header>
        <h1 class="label">Hello, <?php echo $_SESSION['Firstname']; ?></h1>
        <form method="submit" action="search.php">
        <button id="menu" type="submit">Search Book</button>
        </form>
        <form method="submit" action="reservations.php">
        <button id="menu" type="submit">My Reservations</button>
        </form>
        <form method="submit" action="logout.php">
        <button id="menu" type="submit">Logout</button>
        </form>


        <footer id="footer">
                <p>Site by Aleksey Makarevich 2021</p>
        </footer>


    </body>
</html>
```


Logout.php--

```php
<?php

session_start();

session_unset();

session_destroy();
```

```php
header("Location: index.php");
?>
```

Register.php---

```html
<!DOCTYPE html>
<link rel='stylesheet' type='text/css' href='Style.css' />
<html>
    <head>
        <title>AM Library</title>
    </head>

    <body>

        <header id="Title">
            AM LIBRARY
        </header>
        <form action="registration.php" method="post" id="loginform">

        <h2>Register</h2>

        <?php if (isset($_GET['error'])) { ?>

            <p class="error"><?php echo $_GET['error']; ?></p>

        <?php } ?>

        <label>User Name</label>

        <input type="text" name="username" placeholder="User Name"><br>

        <label>Password</label>

        <input type="Password" name="password" placeholder="Password"><br>

        <label>Confirm Password</label>

        <input type="Password" name="conpassword" placeholder="Confirm
Password"><br>

        <label>First Name</label>

        <input type="text" name="firstname" placeholder="First Name"><br>

        <label>Last Name</label>

        <input type="text" name="lastname" placeholder="Last Name"><br>
```

```html
        <label>Address Line 1</label>

        <input type="text" name="addy1" placeholder="Address Line 1"><br>

        <label>Address Line 2</label>

        <input type="text" name="addy2" placeholder="Address Line 2"><br>

        <label>City</label>

        <input type="text" name="city" placeholder="City"><br>

        <label>Telephone</label>

        <input type="number" name="telly" placeholder="Telephone"><br>

        <label>Mobile</label>

        <input type="number" name="mobile" placeholder="Mobile"><br>


        <button id="loginbutton" type="submit">Register</button>

        </form>
        <a href="login.php">Already registered? Login</a>

        <footer id="footer">
                <p>Site by Aleksey Makarevich 2021</p>
        </footer>

    </body>
</html>
```

Registration.php

```php
<?php

        session_start();
        include "DBCON.php";

        if (isset($_POST['username']) && isset($_POST['password']) &&
isset($_POST['conpassword']) && isset($_POST['firstname']) &&
isset($_POST['lastname']) && isset($_POST['addy1']) && isset($_POST['addy2'])
&& isset($_POST['city']) && isset($_POST['telly']) &&
isset($_POST['mobile'])){

                function validate($data){
```

```php
            $data = trim($data);

            $data = stripslashes($data);

            $data = htmlspecialchars($data);

            return $data;

        }

        $username = validate($_POST['username']);

        $pass = validate($_POST['password']);

        $conpass = validate($_POST['conpassword']);

        $first = validate($_POST['firstname']);

        $last = validate($_POST['lastname']);

        $addy1 = validate($_POST['addy1']);

        $addy2 = validate($_POST['addy2']);

        $city = validate($_POST['city']);

        $telly = validate($_POST['telly']);

        $mobile = validate($_POST['mobile']);

        if (empty($username)) {

            header("Location: register.php?error=User Name is
required");

            exit();

        }else if(empty($pass)|| strlen($pass)!=6){

            header("Location: register.php?error=Valid Password is
required");

            exit();

        }else if(strcmp($pass,$conpass)!== 0){

            header("Location: register.php?error=Passwords do not
match");
```

```php
                exit();

            }else if(empty($first)){

                header("Location: register.php?error=First Name is
required");

                exit();
            }else if(empty($last)){

                header("Location: register.php?error=Last Name is
required");

                exit();
            }else if(empty($addy1)){

                header("Location: register.php?error=Address Line 1 is
required");

                exit();
            }else if(empty($addy2)){

                header("Location: register.php?error=Address Line 2 is
required");

                exit();
            }else if(empty($city)){

                header("Location: register.php?error=City is required");

                exit();
            }else if(empty($telly)){

                header("Location: register.php?error=Telephone Number is
required");

                exit();
            }else if(empty($mobile) || strlen($mobile)!=10){

                header("Location: register.php?error=Valid Mobile Number
is required");

                exit();
            }else{

                $sql = "INSERT INTO users (Username, Password, Firstname,
Surname, AddressLine1, AddressLine2, City, Telephone, Mobile) VALUES
```

```php
('$username', '$pass', '$first', '$last', '$addy1', '$addy2', '$city',
'$telly', '$mobile')";

                    if (mysqli_query($conn, $sql)) {
                        header("Location: login.php");
                    } else {
                        header("Location: register.php?error=Sorry there's
been an error with our servers.");
                    }

            }

        }else{

            header("Location: register.php");

            exit();

        }
?>
```


Reservations.php

```php
<!DOCTYPE html>
<link rel='stylesheet' type='text/css' href='Style.css' />
    <head>
        <title>AM Library</title>
    </head>

    <body>

        <header id="Title">
```

```php
            AM LIBRARY
        </header>

    <body>
        <?php

session_start();
include "DBCON.php";
if (isset($_GET['ISBN'])) {


    $ISBN = $_GET['ISBN'];
    $username = $_SESSION['Username'];
    $sql = "DELETE FROM `reserved books` WHERE ISBN='$ISBN'";
    if (mysqli_query($conn, $sql)) {
        echo "Reservation removed";
    } else {
        echo "Error updating record: " . mysqli_error($conn);
    }
    $sql = "UPDATE books SET Reserved='N' WHERE ISBN='$ISBN'";
    if (mysqli_query($conn, $sql)) {
        echo "";
    } else {
        echo "Error updating record: " . mysqli_error($conn);
    }

}

    $username = $_SESSION['Username'];
    $sql = "SELECT * FROM `reserved books` WHERE Username='$username'";
    $result = $conn->query($sql);

    if ($result != false && $result->num_rows > 0) {
        ?><label>My Reservations</label><?php
        echo "<Table border ='1'>";
        while ($row = $result->fetch_assoc()) {
        echo "<tr><td>";
        echo ($row["ISBN"]);
        echo "</td><td>";
        echo ($row["Username"]);
        echo "</td><td>";
        echo ($row["ReservedDate"]);
        echo "</td><td>";
            unset($_GET['ISBN']);
            $link = "?".http_build_query($_GET)."&ISBN=".$row['ISBN'];
            ?><a href="reservations.php<?php echo $link; ?>">Remove
Reservation</a><?php
        echo "</td>\n";
    }
```

```php
    } else {
        ?><label class="label">You have no reservations</label><?php
    }

    echo "</table>\n";


?>
<form method="submit" action="home.php">
        <button id="menu" type="submit">back</button>
        </form>

        <footer id="footer">
                <p>Site by Aleksey Makarevich 2021</p>
        </footer>


    </body>
</html>
```
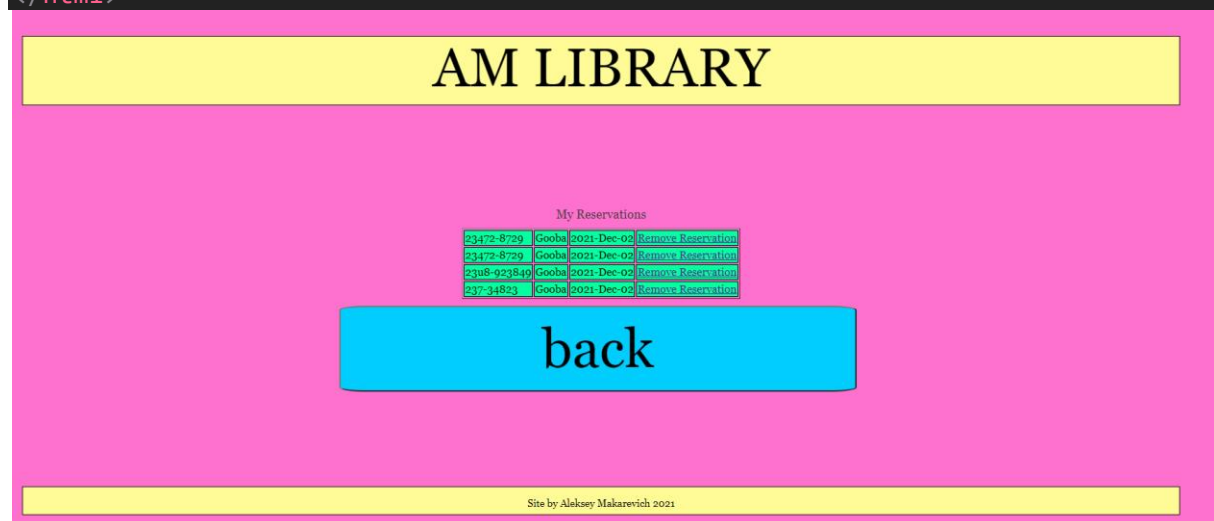

AM LIBRARY

My Reservations

23472-8729	Gooba	2021-Dec-02	Remove Reservation
23472-8729	Gooba	2021-Dec-02	Remove Reservation
23u8-923849	Gooba	2021-Dec-02	Remove Reservation
237-34823	Gooba	2021-Dec-02	Remove Reservation

back

Site by Aleksey Makarevich 2021

Search.php

```php
<!DOCTYPE html>
<link rel='stylesheet' type='text/css' href='Style.css' />
    <head>
        <title>AM Library</title>
    </head>

    <body>

        <header id="Title">
            AM LIBRARY
        </header>

    <body>
```

```php
    <form action="search.php" method="get" id="searchform">
        <label class="label">Search</label>
        <input type="text" name="search"<br>
        <select name="cat">
        <option disabled selected>-- Select Category --</option>
        <?php

            session_start();
            include "DBCON.php";
            $sql = "SELECT * From category";
            echo "$sql";
            $records = mysqli_query($conn, $sql);

            while($data = mysqli_fetch_array($records))
            {
                echo "<option value='". $data['CategoryID'] ."'>"
.$data['CategoryDescription'] ."</option>";  // displaying data in option menu
            }

        ?>
        </select>
        <button type="submit" name="submit" value="search">Search</button>
    </form>

        <?php


if (!isset ($_GET['page']) ) {
    $page = 1;
} else {
    $page = $_GET['page'];
}
if (isset($_GET['ISBN'])) {


    $ISBN = $_GET['ISBN'];
    $date = date('Y-M-d');
    $username = $_SESSION['Username'];
    $sql = "INSERT INTO `reserved books` (`ISBN`, `Username`, `ReservedDate`)
VALUES ('$ISBN', '$username', '$date')";
    if (mysqli_query($conn, $sql)) {
        echo "Book Reserved";
      } else {
        echo "Error updating record: " . mysqli_error($conn);
      }
    $sql = "UPDATE books SET Reserved='Y' WHERE ISBN='$ISBN'";
    if (mysqli_query($conn, $sql)) {
        echo "";
      } else {
```

```php
            echo "Error updating record: " . mysqli_error($conn);
        }


    }
if (isset($_GET['search']) || isset($_GET['cat'])) {
    $count=0;
    $and_or = isset($_GET["search"]) && isset($_GET["cat"]) ? " AND " : " OR
";
    $cat = "";
    $search = "";
    if(isset($_GET["search"])){
        if ($_GET['search'] == "") {
            $search = "books.BookTitle LIKE CONCAT('%%')";
            $count++;
        } else {
            // constructs the book title search query
            $search = "(books.BookTitle LIKE CONCAT('%".$_GET["search"]."%')
OR books.Author LIKE CONCAT('%".$_GET["search"]."%')) ";
            // checks if we need to add an and/or symbol
            if($count > 0){
                $search = $and_or.$search;
            }
            $count++;
        }
    }
    if(isset($_GET["cat"])){
    $cat = "books.CategoryID=".$_GET["cat"]." ";
    if($count > 0){
        $cat = $and_or.$cat;
    }
    $count++;
    }

    $sql = "SELECT * FROM books WHERE $search $cat";

    $results_per_page = 5;
    $page_first_result = ($page-1) * $results_per_page;


    $result = mysqli_query($conn, $sql);
    $number_of_result = mysqli_num_rows($result);
    $number_of_page = ceil ($number_of_result / $results_per_page);

    $page_first_result = ($page-1) * $results_per_page;
    $query = "SELECT * FROM books WHERE $search $cat LIMIT " .
$page_first_result . ',' . $results_per_page;
    $result = mysqli_query($conn, $query);
```

```php
if ($result != false && $result->num_rows > 0) {
    echo "<Table border ='1'>";
    echo "<tr><th>";
    echo ("ISBN");
    echo "</th><th>";
    echo ("BookTitle");
    echo "</th><th>";
    echo ("Author");
    echo "</th><th>";
    echo ("Edition");
    echo "</th><th>";
    echo ("Year");
    echo "</th><th>";
    echo ("CategoryID");
    echo "</th></tr>";
    while ($row = $result->fetch_assoc()) {
    echo "<tr><td>";
    echo ($row["ISBN"]);
    echo "</td><td>";
    echo ($row["BookTitle"]);
    echo "</td><td>";
    echo ($row["Author"]);
    echo "</td><td>";
    echo ($row["Edition"]);
    echo "</td><td>";
    echo ($row["Year"]);
    echo "</td><td>";
    echo ($row["CategoryID"]);
    echo "</td><td>";
    //echo ($row["Reserved"]);
    if ($row["Reserved"] == "Y") {
        ?><button type="button" disabled>Reserve</button><?php
    } else {
        unset($_GET['ISBN']);
        $link = "?".http_build_query($_GET)."&ISBN=".$row['ISBN'];
        ?><a href="search.php<?php echo $link; ?>">Reserve</a><?php
    }
    echo "</td>\n";
}

}
echo "</table>\n";
unset($_GET['page']);

for($page = 1; $page<= $number_of_page; $page++) {
    $link = "?".http_build_query($_GET)."&page=".$page;
    echo '<a href = "search.php'.$link.'">' . "Page ". $page . ' </a>';
}
```

```
}

?>
<form method="submit" action="home.php">
        <button id="menu" type="submit">back</button>
        </form>

        <footer id="footer">
                <p>Site by Aleksey Makarevich 2021</p>
        </footer>


    </body>
</html>
```


DBCON.php Is my database connection code, which connects you to the database, allowing you to manipulate and use your sql library.

Index.php is my website homepage. It consists of a simple header and footer which is shared amongst all my web pages. The body of the webpage has a html form which allows the users to put in their login details. Upon entering their details login.php is called upon. This takes in their username and password, validating them from any commands which may break the program. We are then connected to the database. The inputted details are then compared to the users data, and allowing the user to login once all the details match. If one or more of the details do not match, a error with the matching problem is shown.
If the user does not have a login, an option is located at the bottom of the page, allowing the user to create a new user login. This will redirect the user to the Register.php page.

Register.php functions almost identically to the index.php page. It consists of a long registration form which allows the user to input all their information, which adds their data to the database, creating a new login. For the page to function, it calls upon Registration.php which validates all of the users entered information, making sure it does not break the website. After validating the

information, it adds the information to a new set on data on the users table. The password is limited to 6 characters login, which will leave an error if the user does not give a valid input. The same is with the mobile phone number, which is set to only accept integers, as well as only allowing 10 characters to be submitted. If all data is entered correctly, the user is redirected to the index.php where they can now login to the website.

Home.php is the homepage that you are welcomed to when you are finally logged in. It welcomes the user with their Firstname, as this would make the website more welcoming. There is then 3 options for the user to choose from. The first is search book option, clicking this option will redirect you to search.php. The second option the user can choose from is the "My Reservations" option, this will redirect the user to reserve.php. The final option is to Logout. This option will redirect the user to logout.php which simply removes the user from the session and disconnects from database, and then redirecting the user instantly back to the login page.

Search.php is the page where users can search and reserve books. At first the user is greeted with a simple search bar as well as a category selector. Pressing the search button with nothing inputted will result in every book being displayed. There is a limit of 5 per page, with an option to change the current page at the bottom the display table. The search bar searches for both author and book titles with partial search for both. This means that searching up "ro" will bring up both "Tara Road" by Maeve Binchy and "Davinci Code" by Dan Brown as both Road and Brown contain "ro". Choosing a Category using the dropdown menu will shorten the search results by only showing books with that chosen category. If no category is chosen, it will show books of all categories. On the right of the table there is also a column with a "Reserve option". Books that are available to reserve will have a button that the user can press to add it onto their account. Books that are already out for reservation cannot be reserved and their button is greyed out. This allows the user to search for and reserve their searched book in the same location. This is done by updating the books database, signifying that the book is now reserved and also creating a new entry in the reservations database with the book's ISBN number, the user's username and the date on which the reservation was made.

Reserve.php is where you are sent to after clicking the "My Reservations" button on the home page. This will give the user all of their reserved books and the option to remove the reservation from their account. If the user does not have any reservations, the webpage tells them so. When clicking the "Remove" button the database with the reservations is updated to remove the reservation. The books database is then also updated so that the book is no longer reserved.

For this website I decided to got for a simple banner header and footer with its contents inbetween them. My wireframe for my login page is very simplistic, which is what I based it off, and added colour to.

AM LIBRARY

Login

Username

Password

Login

Site by Aleksey Makarevich

My homepage wireframe is very similar with only the contents being different.

AM LIBRARY

Welcome _____

Search

My Reservations

Logout

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