ASSIGNMENT REPORT

Web Development 2

Book Reservation Website

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Due Date: 9th of December 2022

LIST OF FILES IN ASSIGNMENT:

CSS:

✓ style

PHP:

✓ database_connect
✓ login
✓ index
✓ logout
✓ register
✓ reserve

SQL:

✓ bookdb

TEXTUAL DESCRIPTION OF FILES IN ASSIGNMENT:

1. style.css

This page is connected to all pages to format the layout of the website. It controls colour, font and size of text, spacing and position of tables, and background image and colour.

2. database_connect.php

This page establishes the connection to the MySQL database in phpMyAdmin. It is included in at the top of every other PHP files for retrieving and/or adding data to tables in the database.

If no connection is found, an error message will be displayed on the page. It connects the website to the database using: require_once *"database_connect.php";*.

3. login.php

This is a page that allows the user to log in to gain access to the library system. The above *database_connect.php* is required, then we check if the session is created and if not, we create the session. The user must enter their username and password. We can then check if the username and password exist in the database. If it matches, a new session will be created, and if it doesn't match, an error message will be displayed.

After a successful user login, the user's login details are stored in the session and transferred to *index.php* for verification. The user can then search and reserve books in the database using *reserve.php*. If a book or author keyword matches the data in the database, the specific book will be displayed, if not, it will display a message that 0 results were found.

4. index.php

This is the home page that directs the user to the functionality of the website. It has user-friendly navigation that directs the end user to search for a book by keyword for the book title and/or author or a specific category. The results are shown below in a table with all the details as well as a booking button if the book has not yet been reserved. On the left side, there is a logout button redirecting to *logout.php*. In the middle of the page, there is also a button for viewing reservations to *reserve.php*. The header and footer on each page contain the appropriate information.

5. logout.php

This page unsets and destroys the session when the user logs out and then restarts it. This clears the current user logged in and directs the user back to the login page. It is linked to the logout button in *index.php*.

6. register.php

This is the page that allows the user to register in the library system. This registration page that contains a form with username, password, confirm password, first name, surname, address line 1, address line 2, city, telephone and mobile fields.

All data fields must be filled in and upon successful registration, the user is added to the database with all their details. If the user enters incorrect data, such as when the password characters are longer than 6 digits, the phone and mobile phone values are not numeric or when they are more or less than 10 digits, an error message will be displayed. Validation is properly implemented and the end user can log in with their username and password after registering at *login.php*.

7. reserve.php

This page allows the user to view and delete book reservations. The user is directed here when they click the 'View Reserved Books' button or the 'Reserve' button on *index.php*. When the user presses the 'Reserve' button on *index.php*, the book ID is sent to *reserve.php* where it is added to the reservation table in the database. It is then displayed in a table with pre-existing reservations. The user can also remove their book reservations from this table. This page displays the reserved book details such as 'ISBN', 'Title', 'Author', 'Edition', 'Year', 'Category', 'ReservedDate' and if the book is 'Reserved' in the table.

8. bookdb.sql

This is the library MySQL database created in phpMyAdmin. It is set up with a table for bookstable with 'ISBN', 'BookTitle', 'Author', 'Edition', 'Year', 'CategoryID' and 'Reserved'. The data is inserted into this table. 'Categorytable' is set with 'CategoryID' and 'CategoryDescription' and then inserted with their values. Another table reservedbooktable is set with 'ISBN', 'Username' and 'ResevedDate' and inserted with values. Then 'usertable' is set and inserted with the login and registration user details. Finally, suitable indexes and constraints were created for these tables.

CODE USED IN ASSIGNMENT:

1. style.css

```css
#main {
    min-height: 800px;
    margin: auto;
    padding: 5px;
    width: 60%;
}

#background {
    background-image: url('../Image/LibraryBackground.jpg');
    color: ghostwhite;
    font-family:'Times New Roman', Times, serif;
    width: 100%;
    margin: auto;
    font-size: 20px;
    background-size: 100% 100%;
    background-attachment: fixed;
    background-repeat: no-repeat;
}

#header {
    background-color: rgb(126, 157, 170);
    color: black;
    padding: 15px;
    text-align: center;
    font-family:'Franklin Gothic Medium', 'Arial Narrow', Arial, sans-serif;
    font-size: 45px;
    font-style: italic;
}

footer {
    margin: 10px;
    color: whitesmoke;
    text-align: center;
    font-size: 15px;
}

input {
    width: 25vw;
    display: block;
    border: 1px rgb(78, 78, 78) solid;
    margin-bottom: 4vh;
}

.rad {
```

```css
        width: fit-content;
        vertical-align: left;
        display: inline;
}

form div {
        vertical-align: center;
        width: 70%;
        margin: 1vw;
}

#box {
        width: 50%;
        height: fit-content;
        margin: auto;
        background-color: rgba(173, 173, 173, 0.644);
        padding: 3vw;
}

#result {
        width: fit-content;
        margin: auto;
        padding: 2vw;
}

.button {
        width: fit-content;
        margin: auto;
}

table {
        border-collapse: collapse;
        margin: 25px 0;
        font-size: 0.9em;
        font-family: sans-serif;
        min-width: 400px;
        box-shadow: 0 0 20px rgba(0, 0, 0, 0.15);
}

table td {
        padding: 10px 12px;
        text-align: center;
}

table thead tr {
        background-color: #202020;
        color: ghostwhite;
        text-align: center;
}
```

2. database_connect.php

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

    <head>

        <title>Database Connection</title>

    </head>

    <body>

        <?php

            $servername = "localhost";
            $username = "root";
            $password = "";
            $dbname = "bookdb";

            $connection = new mysqli($servername, $username, $password,
$dbname);

            if ($connection -> connect_error)
            {
                die ("Connection Failed: " . $connection -> connect_error);
            }

        ?>

    </body>

</html>
```

3. login.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">

        <title>Login · eLibrary</title>

        <link rel="stylesheet" href="../CSS/style.css">
```

```php
    </head>

    <?php

        session_start();

        require_once "database_connect.php";

        if (!empty($_POST["username"]) && !empty($_POST["password"]))
        {
            $username = $_POST["username"];
            $password = $_POST["password"];
            $sql = "SELECT Username, Password FROM userstable";
            $result = $connection -> query($sql);

            if ($result -> num_rows > 0)
            {
                while($row = $result -> fetch_assoc())
                {
                    if($username == $row["Username"] && $password ==
$row["Password"])
                    {
                        $_SESSION["username"] = $username;
                        $_SESSION["success"] = "Login Successful";
                        header("Location: index.php?page=0");
                        exit();
                    }
                }

                $_SESSION["error"] = "Incorrect username or password. Please
try again.";

                header("Location: login.php");
                exit();
            }
        }

    ?>

    <body id="background">
        <div id="main">

            <header>
                <br>
                <h1 id="header">eLibrary Ireland</h1>
                <br>
                <hr>
            </header>
```

```php
        <div id="box">
            <h2>Login</h2>

            <?php

                if (isset($_SESSION["error"]))
                {
                    echo("<script>alert('".$_SESSION["error"]."')</script>
");
                    unset($_SESSION["error"]);
                }

            ?>

            <form method="post">

                <p>Username:<input type="text" name="username"></p>
                <p>Password:<input type="password" name="password"></p>
                <button type="submit">Login</button>
                <button onclick="location.href='register.php'; return
false ">Register</button>

            </form>

        </div>

        <hr>
        <footer>Copyright © 2022 Paulina Czarnota · All rights
reserved.</footer>

    </div>

</body>

</html>
```

4. index.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">

        <title>Homepage · eLibrary</title>
```

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```php
        <link rel="stylesheet" href="../CSS/style.css">

    </head>

    <?php

        session_start();

        require_once "database_connect.php";

        if (isset($_SESSION["success"]))
        {
            echo("<script>alert('".$_SESSION["success"]."')</script>");
            unset($_SESSION["success"]);
            $_POST['book'] = '';
            $_POST['searchtype'] = 'both';
            $_SESSION['searchtype'] = $_POST['searchtype'];
        }

        if (!isset($_SESSION["username"]))
        {
            echo("<script>alert('No user logged in')</script>");
            session_destroy();
            header('Location: login.php');
            exit();
        }

    ?>

    <body id="background">

        <div id="main">

            <header>

                <br>
                <h1 id="header">eLibrary Ireland</h1>
                <br>
                <hr>

            </header>

            <div>

                <button onclick="location.href='logout.php'; return false
">Logout</button>

            </div>
```

```php
<div id="box">

    <h2>Search</h2>

    <?php

        if (isset($_SESSION["error"]))
        {
            if ($_SESSION['error'] == 'Error: Please choose a
searchtype')
            {
                $_POST['book'] = '';
                $_POST['searchtype'] = 'both';
            }

            echo("<script>alert('".$_SESSION["error"]."')</script>
");
            unset($_SESSION["error"]);

        }

    ?>

    <form method="post">

        <div>Search by keyword (Book Title or Author)<input
type="text" name="book"></div>

        <div>

            <input class="rad" type="radio" id="bt"
name="searchtype" value="booktitle"
            <?php if (isset($_POST['searchtype']) &&
$_POST['searchtype'] == 'booktitle') echo 'checked'?>>
            <label for="bt">Book Title</label>
            <br>

            <input class="rad" type="radio" id="aut"
name="searchtype" value="author"
            <?php if (isset($_POST['searchtype']) &&
$_POST['searchtype'] == 'author') echo 'checked'?>>
            <label for="aut">Author</label>
            <br>

            <input class="rad" type="radio" id="b"
name="searchtype" value="both"
            <?php if (isset($_POST['searchtype']) &&
$_POST['searchtype'] == 'both') echo 'checked'?>>
```

```php
                <label for="b">Both</label>

            </div>

            <button type="submit">Search</button>

        </form>

        <form method="post" name="CategorySelect">

            <p>Search by Category Description</p>

            <select name="categorytable"
onchange="CategorySelect.submit()">
                <option value="">-- Please Select --</option>

            <?php

                $sql = "SELECT CategoryDescription FROM
categorytable";

                $result = $connection -> query($sql);

                while($row = $result -> fetch_assoc())
                {
                    echo("<option
value='".$row["CategoryDescription"]."'>".$row["CategoryDescription"]."</optio
n>");
                }
            ?>

            </select>

        </form>

    </div>

    <div id="result">

    <div class="button"><button onclick="location.href='reserve.php';
return false ">View Reserved Books</button></div>
    <br>

    <?php

        if(!isset($_POST['book']) &&
!isset($_SESSION['categorytable']))
        {
            $_POST['book'] = $_SESSION['book'];
        }
```

```php
                if(isset($_POST['categorytable']))
                {
                    unset($_POST['book']);
                }

                if(isset($_POST['book']))
                {
                    unset($_SESSION['categorytable']);
                    $book = $_POST['book'];

                    if(isset($_GET['page']))
                    {
                        $page = $_GET['page'];
                    }

                    if(isset($_POST['searchtype']))
                    {
                        $_SESSION['searchtype'] = $_POST['searchtype'];
                    }

                    else
                    {
                        $_POST['searchtype'] = $_SESSION['searchtype'];
                    }

                    if (isset($_GET['page']) && isset($_POST['searchtype']) &&
$_POST['searchtype'] == 'booktitle')
                    {
                        $sql = "SELECT * FROM bookstable WHERE (BookTitle LIKE
'%$book%')";

                        $result = $connection -> query($sql);
                        $pagenum = ceil(($result -> num_rows) / 5);

                        if($pagenum < ($page / 5) + 1 && $result -> num_rows >
0)
                        {
                            $_SESSION['book'] = $book;
                            header("Location: index.php?page=0");
                            exit();
                        }

                        $sql= "SELECT * FROM bookstable WHERE (BookTitle LIKE
'%$book%') LIMIT $page, 5";
                    }

                    elseif (isset($_GET['page']) &&
isset($_POST['searchtype']) && $_POST['searchtype'] == 'author')
                    {
```

```php
                    $sql = "SELECT * FROM bookstable WHERE (Author LIKE
'%$book%')";
                    $result = $connection -> query($sql);
                    $pagenum = ceil(($result -> num_rows) / 5);

                    if($pagenum < ($page / 5) + 1 && $result -> num_rows >
0)
                    {
                        $_SESSION['book'] = $book;
                        header("Location: index.php?page=0");
                        exit();
                    }

                    $sql = "SELECT * FROM bookstable WHERE (Author LIKE
'%$book%') LIMIT $page, 5";
                }

                elseif (isset($_GET['page']) &&
isset($_POST['searchtype']) && $_POST['searchtype'] == 'both')
                {
                    $sql = "SELECT * FROM bookstable WHERE (BookTitle LIKE
'%$book%' OR Author LIKE '%$book%')";
                    $result = $connection -> query($sql);
                        $pagenum = ceil(($result -> num_rows) / 5);

                    if($pagenum < ($page / 5) + 1 && $result -> num_rows >
0)
                    {
                        $_SESSION['book'] = $book;
                        header("Location: index.php?page=0");
                        exit();
                    }

                    $sql = "SELECT * FROM bookstable WHERE (BookTitle LIKE
'%$book%' OR Author LIKE '%$book%') LIMIT $page, 5";
                }

                $result = $connection -> query($sql);

                if ($result -> num_rows > 0)
                {
                    echo "searched by: ".$_POST['searchtype'];
                    echo "<table border='1'>";
                    echo "<thead>";
                    echo "<tr><td>"."ISBN".
                    "</td><td>"."BookTitle".
                    "</td><td>" ."Author".
                    "</td><td>" ."Edition".
                    "</td><td>" ."Year".
```

```php
                      "</td><td>" ."CategoryID".
                      "</td><td>" ."Reserved".
                      "</td></tr>\n";
                      echo "</thead>\n";

                      while($row = $result -> fetch_assoc())
                      {
                          echo "<tr><td>";
                          echo $row["ISBN"].
                          "</td><td>" .$row["BookTitle"].
                          "</td><td>" .$row["Author"].
                          "</td><td>" .$row["Edition"].
                          "</td><td>" .$row["Year"].
                          "</td><td>" .$row["CategoryID"].
                          "</td><td>" .$row["Reserved"].
                          "</td>";

                          if($row["Reserved"] == 'N')
                          {
                              echo "<td><button
onclick=".'location.href="reserve.php?book='.$row["ISBN"].'"; return false
>Reserve</button></td>';
                          }

                          echo "</tr>\n";
                      }

                      echo "</table>\n";
                      $i = 0;

                      while($i < $pagenum)
                      {
                      echo "<button"."
onclick=".'location.href="index.php?page='.($i * 5).'"; return false >'.($i +
1)."</button>";
                          $_SESSION['book'] = $book;
                          $i++;
                      }
                  }
                      else
                      {
                          echo "searched by: ".$_POST['searchtype']."</br>";
                          echo "0 results found";
                      }
              }

              if(!isset($_POST['categorytable']) &&
!isset($_SESSION['book']))
                  {
```

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```php
                    $_POST['categorytable'] = $_SESSION['categorytable'];
            }

            if(isset($_POST['book']))
            {
                unset($_POST['categorytable']);
            }

            if(isset($_POST['categorytable']))
            {
                unset($_SESSION['book']);
                $category = $_POST['categorytable'];

                if(isset($_GET['page']))
                {
                    $page = $_GET['page'];
                }

                if($category == '' && ! isset($_GET['categorytable']))
                {
                    $sql = "SELECT * FROM bookstable";
                }

                elseif(isset($_GET['categorytable']) && $category == '')
                {
                    $sql = "SELECT * FROM bookstable";
                    $result = $connection -> query($sql);
                    $pagenum = ceil(($result -> num_rows) / 5);
                    $sql = "SELECT * FROM bookstable LIMIT $page, 5";
                }

                else
                {
                    $sql = "SELECT * FROM bookstable WHERE CategoryID LIKE
(SELECT CategoryID FROM categorytable WHERE CategoryDescription =
'$category')";
                    $result = $connection -> query($sql);
                    $pagenum = ceil(($result -> num_rows) / 5);
                    $sql = "SELECT * FROM bookstable WHERE CategoryID LIKE
(SELECT CategoryID FROM categorytable WHERE CategoryDescription = '$category')
LIMIT $page, 5";
                }

                $result = $connection -> query($sql);

                if ($result -> num_rows > 0)
                {
                    echo "<table border='1'>";
                    echo "<thead>";
```

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```php
                    echo "</tr><td>" ."ISBN";
                    echo "</td><td>" ."BookTitle";
                    echo "</td><td>" ."Author";
                    echo "</td><td>" ."Edition";
                    echo "</td><td>" ."Year";
                    echo "</td><td>" ."CategoryID";
                    echo "</td><td>" ."Reserved";
                    echo "</td></tr>\n";
                    echo "</thead>\n";

                    while($row = $result -> fetch_assoc())
                    {
                        echo "<tr><td>";
                        echo $row["ISBN"].
                        "</td><td>" .$row["BookTitle"].
                        "</td><td>" .$row["Author"].
                        "</td><td>" .$row["Edition"].
                        "</td><td>" .$row["Year"].
                        "</td><td>" .$row["CategoryID"].
                        "</td><td>" .$row["Reserved"].
                        "</td>";

                        if($row["Reserved"] == 'N')
                        {
                            echo "<td><button
onclick="."'location.href="reserve.php?book='.$row["ISBN"].'"; return false
>Reserve</button></td>';
                        }

                        echo "</tr>\n";
                    }

                    echo "</table>\n";

                    $i = 0;

                    while($i < $pagenum)
                    {
                        echo "<button"."
onclick="."'location.href="index.php?page='.($i * 5).'"; return false >'.($i +
1)."</button>";
                        $_SESSION['categorytable'] = $category;
                        $i++;
                    }
                }

                else
                {
                    echo "0 results found";
```

```
                    }
                }

            ?>

        </div>

        <hr>
        <footer>Copyright © 2022 Paulina Czarnota · All rights
reserved.</footer>

        </div>

    </body>

</html>
```

5. logout.php

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

    <head>

        <title>Logout · eLibrary</title>

    </head>

    <body>

        <?php

            session_start();
            session_destroy();
            header("Location: index.php?page=0");

        ?>

    </body>

</html>
```

6. register.php

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

    <head>
```

```php
        <meta charset='utf-8'>
        <meta http-equiv="X-UA-Compatible" content="IE=edge">
        <meta name="viewport" content="width=device-width, initial-scale=1">

        <title>Register · eLibrary</title>

        <link rel="stylesheet" href="../CSS/style.css">

    </head>

    <?php

        session_start();

        require_once "database_connect.php";

        if (!empty($_POST['Username']) && !empty($_POST['Password']) &&
!empty($_POST['Password2'])
        && !empty($_POST['FirstName']) && !empty($_POST['Surname']) &&
!empty($_POST['AddressLine1'])
        && !empty($_POST['City']) && !empty($_POST['Telephone']) &&
!empty($_POST['Mobile']))
        {
            $Username = $_POST['Username'];
            $Password = $_POST['Password'];
            $Password2 = $_POST['Password2'];

            if (strlen($Password) > 6)
            {
                $_SESSION["error"] = "Password must be 6 characters or less";
                header('Location: register.php');
                exit();
            }

            if ($Password != $Password2)
            {
                $_SESSION["error"] = "Passwords do not match";
                header('Location: register.php');
                exit();
            }

            $FirstName = $_POST['FirstName'];
            $Surname = $_POST['Surname'];
            $AddressLine1 = $_POST['AddressLine1'];
            $Addressline2 = $_POST['AddressLine2'];
            $City = $_POST['City'];
            $Telephone = $_POST['Telephone'];
            $Mobile = $_POST['Mobile'];
```

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```php
        if(strlen((string)$Mobile) != 10)
        {
            $_SESSION["error"] = "Mobile phone numbers must be 10 numbers
in length";

            header('Location: register.php');
            exit();
        }

        $sql = "INSERT INTO userstable VALUES ('$Username', '$Password',
'$FirstName', '$Surname', '$AddressLine1', '$Addressline2', '$City',
$Telephone, $Mobile)";

        if ($connection -> query($sql) === TRUE)
        {
            echo '<script>alert("New user registered
successfully");</script>';
        }

        else
        {
            $sql = "SELECT Username FROM userstable";
            $result = $connection -> query($sql);

            if ($result -> num_rows > 0)
            {
                while($row = $result -> fetch_assoc())
                {
                    if($username == $row["Username"])
                    {
                        $_SESSION["error"] = "Error: Username already
exists!";

                        header('Location: register.php');
                        exit();
                    }
                }

                echo "Error:" . $sql . "<br>" . $connection -> error;

            }
        }
    }

    elseif (count($_POST) > 0)
    {
        $_SESSION["error"] = "Error: Make sure all fields are filled in!";
        header('Location: register.php');
        return;
    }
```

```php
            $connection -> close();

    ?>


    <body id="background">
        <div id="main">

            <header>

                <br>
                <h1 id="header">eLibrary Ireland</h1>
                <br>
                <hr>

            </header>


            <div id="box">

                <h2>Register</h2>

                <?php

                    if (isset($_SESSION["error"]))
                    {
                        echo("<script>alert('".$_SESSION["error"]."')</script>
");

                        unset($_SESSION["error"]);
                    }

                ?>

                <form method="post">

                    <div><label>Username:</label><input type="text"
name="Username"></div>
                    <div><label>Password:</label><input type="password"
name="Password"></div>
                    <div><label>Confirm Password:</label><input
type="password" name="Password2"></div>
                    <div><label>First Name:</label><input type="text"
name="FirstName"></div>
                    <div><label>Surname:</label><input type="text"
name="Surname"></div>
                    <div><label>Address Line 1:</label><input type="text"
name="AddressLine1"></div>
                    <div><label>Address Line 2:</label><input type="text"
name="AddressLine2"></div>
```

```
                    <div><label>City:</label><input type="text"
name="City"></div>
                    <div><label>Telephone:</label><input type="number"
name="Telephone"></div>
                    <div><label>Mobile:</label><input type="number"
name="Mobile"></div>

                    <button type="submit">Register</button>
                    <button onclick="location.href='login.php'; return false
">Cancel</button>

                </form>

            </div>

            <hr>
            <footer>Copyright © 2022 Paulina Czarnota · All rights
reserved.</footer>

        </div>

    </body>

</html>
```

7. reserve.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">

        <title>Reservations · eLibrary</title>

        <link rel="stylesheet" href="../CSS/style.css">

    </head>

    <body id="background">
        <div id="main">

            <header>

                <br>
```

```php
        <h1 id="header">eLibrary Ireland</h1>
        <br>
        <hr>

    </header>


<?php

    session_start();

    if(!$_SESSION["username"])
    {
        header("location:index.php?page=0");
    }

    require_once "database_connect.php";

    if (isset($_GET["book"]))
    {
        $ISBN = $_GET["book"];
        $username = $_SESSION["username"];
        $reservedate = date('Y-m-d');
        $sql = "INSERT INTO reservedbooktable (ISBN, Username,
ReservedDate) VALUES ('$ISBN', '$username', '$reservedate')";

        if ($connection -> query($sql) === TRUE)
        {
            echo "<script>alert('New Reservation Added')</script>";
            $sql = "UPDATE bookstable SET Reserved = 'Y' WHERE ISBN =
'$ISBN'";

            $connection -> query($sql);
        }

        else
        {
            echo "Error: Reservation could not be completed";
        }
    }

    if(isset($_GET["remove"]))
    {
        $ISBN = $_GET["remove"];
        $sql = "DELETE FROM reservedbooktable WHERE ISBN = '$ISBN'";

        if ($connection -> query($sql) === TRUE)
        {
            echo "<script>alert('Reservation Deleted')</script>";
```

```php
                $sql = "UPDATE bookstable SET Reserved = 'N' WHERE ISBN =
'$ISBN'";

                $connection -> query($sql);
            }

            else
            {
                echo "Error: Reservation could not be deleted";
            }
        }

    ?>

    <div id="result">

    <?php

        $username = $_SESSION["username"];
        $check = false;

        $result = mysqli_query($connection, "SELECT * FROM bookstable LEFT
JOIN reservedbooktable ON bookstable.ISBN = reservedbooktable.ISBN");

        if ($result === false)
        {
            echo "There was an error when processing the request";
            die(mysqli_error($connection));
        }

        if($result -> num_rows > 0)
        {
            echo "<table border='1'>";
            echo "<thead>";
            echo "</tr><td>"; echo "ISBN";
            echo "</td><td>"; echo "Title";
            echo "</td><td>"; echo "Author";
            echo "</td><td>"; echo "Edition";
            echo "</td><td>"; echo "Year";
            echo "</td><td>"; echo "Category";
            echo "</td><td>"; echo "ReservedDate";
            echo "</td><td>"; echo "Reserved";
            echo "</td></tr>\n";
            echo "</thead>\n";

            $i = 0;

            while($row = mysqli_fetch_array($result))
            {
                if ($row[8] == $username)
```

```php
                {
                    if (($i % 2) == 0)
                    {
                        echo "<tr class =\"even\"><td>";
                    }

                    else
                    {
                        echo "<tr><td>";
                    }

                    echo $row[0];
                    echo "</td><td>"; echo $row[1];
                    echo "</td><td>"; echo $row[2];
                    echo "</td><td>"; echo $row[3];
                    echo "</td><td>"; echo $row[4];
                    echo "</td><td>"; echo $row[5];
                    echo "</td><td>"; echo $row[9];
                    echo "</td>"."<td><button
onclick=".'location.href="reserve.php?remove='.$row["ISBN"].'"'; return false
>Remove</button></td>'."</tr>\n";

                    $check = true;
                    $i++;
                }
            }

            echo "</table>";
        }

        if ($check == false)
        {
            echo "0 results found";
        }

        ?>

        </div>

        <div><button onclick='location.href="index.php?page=0"; return
false'>Return to Homepage</button></div>
        <hr>

        <footer>Copyright © 2022 Paulina Czarnota · All rights
reserved.</footer>

        </div>

    </body>
```

```
</html>
```

8. bookdb.sql

```sql
-- phpMyAdmin SQL Dump
-- version 5.2.0
-- https://www.phpmyadmin.net/
--
-- Host: 127.0.0.1
-- Generation Time: Dec 06, 2022 at 04:17 PM
-- Server version: 10.4.24-MariaDB
-- PHP Version: 8.1.6

SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
START TRANSACTION;
SET time_zone = "+00:00";


/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8mb4 */;

--
-- Database: `bookdb`
--

-- --------------------------------------------------------

--
-- Table structure for table `bookstable`
--

CREATE TABLE `bookstable` (
  `ISBN` varchar(20) NOT NULL,
  `BookTitle` varchar(50) NOT NULL,
  `Author` varchar(50) NOT NULL,
  `Edition` int(2) NOT NULL,
  `Year` int(4) NOT NULL,
  `CategoryID` int(3) NOT NULL,
  `Reserved` varchar(2) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--
-- Dumping data for table `bookstable`
--
```

```sql
INSERT INTO `bookstable` (`ISBN`, `BookTitle`, `Author`, `Edition`, `Year`,
`CategoryID`, `Reserved`) VALUES
('093-403992', 'Computers in Business', 'Alicia O\'neill', 3, 1997, 3, 'Y'),
('23472-8729', 'Exploring Peru', 'Stephanie Birchi', 4, 2005, 5, 'Y'),
('237-34823', 'Business Strategy', 'Joe Peppard', 2, 2002, 2, 'Y'),
('23u8-923849', 'A Guide to Nutrition', 'John Thorpe', 2, 1997, 1, 'N'),
('2983-3494', 'Cooking for Children', 'Anabelle Sharpe', 1, 2003, 7, 'N'),
('82n8-308', 'Computers for Idiots', 'Susan O\'Neill', 5, 1998, 4, 'N'),
('9823-23984', 'My Life in Picture', 'Kevin Graham', 8, 2004, 1, 'N'),
('9823-2403-0', 'DaVinci Code', 'Dan Brown', 1, 2003, 8, 'N'),
('9823-98345', 'How to Cook Italian Food', 'Jamie Oliver', 2, 2005, 7, 'Y'),
('9823-98487', 'Optimising Your Business', 'Cleo Blair', 1, 2001, 2, 'N'),
('98234-029384', 'My Ranch in Texas', 'George Bush', 1, 2005, 1, 'Y'),
('988745-234', 'Tara Road', 'Maeve Binchy', 4, 2002, 8, 'N'),
('993-004-00', 'My Life in Bits', 'John Smith', 1, 2001, 1, 'Y'),
('9987-0039882', 'Shooting History', 'Jon Snow', 1, 2003, 1, 'Y');


-- --------------------------------------------------------

--
-- Table structure for table `categorytable`
--

CREATE TABLE `categorytable` (
  `CategoryID` int(3) NOT NULL,
  `CategoryDescription` varchar(20) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--
-- Dumping data for table `categorytable`
--

INSERT INTO `categorytable` (`CategoryID`, `CategoryDescription`) VALUES
(1, 'Health'),
(2, 'Business'),
(3, 'Biography'),
(4, 'Technology'),
(5, 'Travel'),
(6, 'Self-Help'),
(7, 'Cookery'),
(8, 'Fiction');


-- --------------------------------------------------------

--
-- Table structure for table `reservedbooktable`
--

CREATE TABLE `reservedbooktable` (
```

```sql
  `ISBN` varchar(20) NOT NULL,
  `Username` varchar(30) NOT NULL,
  `ReservedDate` date NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;


--
-- Dumping data for table `reservedbooktable`
--

INSERT INTO `reservedbooktable` (`ISBN`, `Username`, `ReservedDate`) VALUES
('98234-029384', 'joecrotty', '2008-10-11'),
('993-004-00', 'tommy100', '2022-12-05'),
('9987-0039882', 'tommy100', '2022-12-06');


-- --------------------------------------------------------


--
-- Table structure for table `userstable`
--

CREATE TABLE `userstable` (
  `Username` varchar(30) NOT NULL,
  `Password` varchar(6) NOT NULL,
  `FirstName` varchar(20) NOT NULL,
  `Surname` varchar(20) NOT NULL,
  `AddressLine1` varchar(40) NOT NULL,
  `AddressLine2` varchar(40) NOT NULL,
  `City` varchar(30) NOT NULL,
  `Telephone` int(10) NOT NULL,
  `Mobile` int(10) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;


--
-- Dumping data for table `userstable`
--

INSERT INTO `userstable` (`Username`, `Password`, `FirstName`, `Surname`,
`AddressLine1`, `AddressLine2`, `City`, `Telephone`, `Mobile`) VALUES
('alanjmckenna', 't1234s', 'Alan', 'McKenna', '38 Cranley Road', 'Fairview',
'Dublin', 9998377, 856625567),
('joetcrotty', 'kj7899', 'Joseph', 'Crotty', 'Apt 5 Clyde Road', 'Donnybrook',
'Dublin', 8887889, 876654456),
('tommy100', '123456', 'Tom', 'Behan', '14 Hyde Road', 'Dalkey', 'Dublin',
9983747, 876738782);


--
-- Indexes for dumped tables
--
```

```sql
--
-- Indexes for table `bookstable`
--
ALTER TABLE `bookstable`
  ADD UNIQUE KEY `ISBN` (`ISBN`),
  ADD KEY `CatID_FK` (`CategoryID`);


--
-- Indexes for table `categorytable`
--
ALTER TABLE `categorytable`
  ADD UNIQUE KEY `CategoryID` (`CategoryID`);


--
-- Indexes for table `reservedbooktable`
--
ALTER TABLE `reservedbooktable`
  ADD PRIMARY KEY (`ISBN`),
  ADD KEY `User_FK` (`Username`) USING BTREE;


--
-- Indexes for table `userstable`
--
ALTER TABLE `userstable`
  ADD UNIQUE KEY `Username` (`Username`);


--
-- Constraints for dumped tables
--


--
-- Constraints for table `bookstable`
--
ALTER TABLE `bookstable`
  ADD CONSTRAINT `CatID_FK` FOREIGN KEY (`CategoryID`) REFERENCES
`categorytable` (`CategoryID`);


--
-- Constraints for table `reservedbooktable`
--
ALTER TABLE `reservedbooktable`
  ADD CONSTRAINT `ISBN_FK` FOREIGN KEY (`ISBN`) REFERENCES `bookstable`
(`ISBN`);
COMMIT;

/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
```
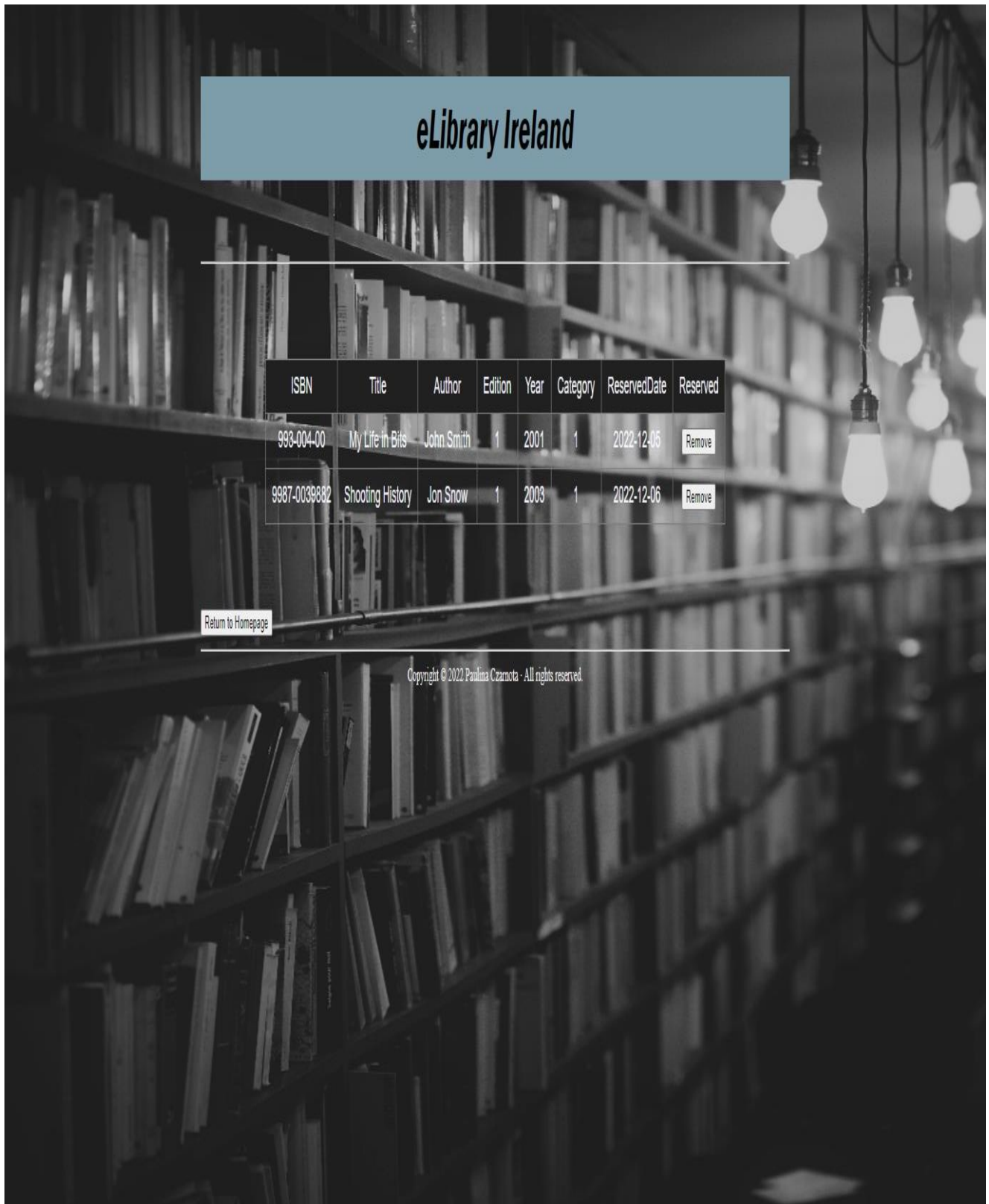
1. login.php

eLibrary Ireland

Login

Username:

Password:

Login Register

2. index.php

eLibrary Ireland

Logout

Search

Search by keyword (Book Title or Author)

* Book Title

* Author

○ Both

Search

Search by Category Description

-- Please Select -- ▼

View Reserved Books

searched by: both.

ISBN	BookTitle	Author	Edition	Year	CategoryID	Reserved	
083-403982	Computers in Business	Alicia O'neill	3	1997	3	Y	
23472-9729	Exploring Peru	Stephanie Birchi	4	2005	5	Y	
237-34823	Business Strategy	Joe Peppard	2	2002	2	Y	
23u8-923840	A Guide to Nutrition	John Thorpe	2	1997	1	N	Reserve
2883-3464	Cooking for Children	Anabelle Sharpe	1	2003	7	N	Reserve

1 2 3

3. reserve.php

eLibrary Ireland

ISBN	Title	Author	Edition	Year	Category	ReservedDate	Reserved
993-004-00	My Life in Bits	John Smith	1	2001	1	2022-12-05	Remove
9987-0039882	Shooting History	Jon Snow	1	2003	1	2022-12-06	Remove

Return to Homepage

4. register.php

eLibrary Ireland

Register

Username:

Password:

Confirm Password:

Firstname:

Surname:

Address Line 1:

Address Line 2:

City:

Telephone:

Mobile:

Register Cancel

WEB PAGES WIREFRAMES:

http://localhost/WebD/WebDev_Assignment/PHP/login.php

eLibrary Ireland

Login

Username:

....

Password:

....

(Login) (Register)

eLibrary Ireland

Logout

Search

Search by keyword (Book Title or Author)

- Book Title
- Author
- Both

Search

Search by Category Description

-- Please Select --

View Reserved Books

searched by: both

ISBN	BookTitle	Author	Edition	Year	CategoryID	Reserved

1 | 2 | 3

eLibrary Ireland

ISBN	BookTitle	Author	Edition	Year	Category	ReservedDate	Reserved

Return to Homepage

eLibrary Ireland

Register

Username:

Password:

Confirm Password:

First Name:

Surname:

Address Line 1:

Address Line 2:

City:

Telephone:

Mobile:

(Register) (Cancel)