Overview of pages

Graphical user interface, application, Teams

Description automatically generated

Description of pages

Main pages

login.php

The first page of the website. The user enters their username and password into a form in order to gain access to the rest of the website. If the user is not logged in, and they attempt to visit other pages of the website, they are redirected to the login page. The login page contains a link to the registration page if the user does not have an account.

register.php

Allows the user to register an account, whose details are put into a database. All form fields must be filled, and certain requirements must be met in order for the data to be valid. Once the registration form has been entered, the user is sent to a page that indicates that their registration is successful, along with a link to the login page.

success.php

A short page that the user is sent to if their account registration was successful. It contains a link to the login page.

home.php

The page the user is sent to if they logged into their account successfully. It contains two links, one which leads to the search web page, and one which leads to a page where the user can view their reservations. The navigation bar becomes available to use, which links the user to the two major functions of the library website, the search page, and the view page, as well an option to log out of their account.

search.php

The search page is where the user can search the titles of books that they can then reserve if they so choose. The user can search by title, author, both, or by category. A list of books is presented to the user based on their search query.

If the user finds a book that they wish to reserve, they can do so if the link to reserve the book is presented to them. If there is no link to reserve the book, that is because it has already been reserved by someone else. By clicking the link, the user is brought to the reservation page, which informs them that their reservation was successful.

view.php

The view page is where the user can view the books that they have reserved. If they wish to, they can remove the book from their list of reservations by clicking the link next to the book title. Clicking this link brings them to a page which informs the user that the removal of the book from their list was successful.

Accompanying Pages

getResult.php

A page included in search.php which reduces the amount of repetitious code. It gets the search results if the user chooses to search by title or chooses to search by author.

logout.php

A page that is used to confirm if the user wishes to log out or not. The user reaches this page if they click the “Log Out” link on the navigation bar. The page presents two links, one which logs the user out of their account and sends them to the login page, and one which brings them back to the home page.

mysqlconnect.php

A page of php code which is included in most pages in order to connect to the MySQL database.

remove.php

A page the user is sent to when they remove a book from their list. It contains code which removes the selected book from the reserved book table in the database.

reserve.php

The user is sent to this page when they click on a book they wish to reserve. It contains code which reserves the selected book into the reserved book table in the database.

success.php

The user is sent to this page when they have successfully registered an account into the library database. It displays a message of success, and a link back to the login page.

Source Code

login.php

<?php

//Starts the session for the browser

**session\_start**();

?>

<html>

<head>

<title> **Artyom's Library - Login** </title>

<link rel=**"stylesheet"** type=**"text/css"** href=**"Assets/CSS/site.css"**>

</head>

<!-- The login page: the user must enter in their password and username. -->

<body>

<h2> **Artyom's Library** </h2>

<?php

//Connecting to the database

**require\_once** "mysqlconnect.php";

//Initialising variables

$errFlag = 0;

$loginErr = $userErr = $passErr = "";

$n = "";

$p = **NULL**;

//Checks if form has been entered

**if** ( **isset**($\_POST['username']) && **isset**($\_POST['password'])) {

$n = $\_POST['username'];

$p = $\_POST['password'];

//Stores username in a session variable for later use

$\_SESSION["user"] = $n;

//Attempts to find match for username and password

$sql = "SELECT username, password FROM users

WHERE username = ?

AND password = ?";

//Prevents sql injection

$stmt = $conn->prepare($sql);

$stmt->bind\_param('ss', $n, $p); // 's' specifies the var type 'string'

$stmt->execute();

//Gets result

$result = $stmt->get\_result();

//Checks if form value is empty

**if** (**empty**($n)) {

$userErr = "Please enter a username";

$errFlag = 1;

}

**if** (**empty**($p)){

$passErr = "Please enter a password";

$errFlag = 1;

}

//If the username and password entered matches the database entry

**if** ($result->num\_rows > 0 && $errFlag != 1) {

//Login state is set to "yes"

$\_SESSION['login'] = 'y';

**header**("Location: home.php");

} **else** {

$loginErr = "Incorrect username or password entered"; }

$conn->close(); }

?>

<span> **Enter your login details** </span>

<div class=**"container"**>

<form method=**"post"** action=**"**<?php **echo** **htmlspecialchars**($\_SERVER["PHP\_SELF"]);?>**"**>

<div class=**"row"**>

<span class=**"errorMessage"**><?php **echo** $loginErr;?></span>

<div class=**"col-25"**>

<label for=**"username"**>**Username**</label>

</div>

<div class=**"col-75"**>

<input type=**"text"** name=**"username"** value=**"**<?php **echo** $n;?>**"**>

<span class=**"errorMessage"**><?php **echo** $userErr;?></span>

</div>

</div>

<div class=**"row"**>

<div class=**"col-25"**>

<label for=**"password"**>**Password**</label>

</div>

<div class=**"col-75"**>

<input type=**"password"** name=**"password"** value=**"**<?php **echo** $p;?>**"**>

<span class=**"errorMessage"**><?php **echo** $passErr;?></span>

</div>

</div>

<div class=**"row"**>

<input type=**"submit"** value=**"Login"**/></p>

</div>

</form>

</div>

<span> **Don't have an account?**<a href=**"register.php"**>**click here to register**</a></span>

<footer>

<p> **Site by: Artyom McNiff** *&copy;* **2021** </p>

</footer>

</body>

</html>

view.php

<?php

//Starts the session for the browser

**session\_start**();

//Checks if the user is logged in, redirected to the login page if not

**if** (!**isset**($\_SESSION['login']) || $\_SESSION['login'] == 'n') {

**header**("Location: login.php");

}

?>

<html>

<!--

View: allows the user to see a list of books

currently reserved by that user. user can remove

the reservation as well.

-->

<head>

<title> **Artyom's Library - View** </title>

<link rel=**"stylesheet"** type=**"text/css"** href=**"Assets/CSS/site.css"**>

</head>

<header>

<nav>

<ul>

<li><a href=**"home.php"**>**Home**</a></li>

<li><a href=**"search.php"**>**Search**</a></li>

<li><a href=**"view.php"**>**View**</a></li>

<li><a href=**"logout.php"**>**Log out**</a></li>

</ul>

</nav>

</header>

<body>

<h2> **Artyom's Library** </h2>

<?php

//Connecting to database

**require\_once** "mysqlconnect.php";

//Retrieves username stored previously

$n = $\_SESSION['user'];

//Selects the user's list of reserved books

$sql = "SELECT bookTitle, author FROM books INNER JOIN booksreserved

WHERE reservedUsername = ? AND isbn LIKE reservedisbn";

//Prevents sql injection

$stmt = $conn->prepare($sql);

$stmt->bind\_param('s', $n); // 's' specifies the var type 'string'

$stmt->execute();

//Gets result

$result = $stmt->get\_result();

//Displays the list of reserved books

**if** ($result->num\_rows > 0){

**echo** ("Books Reserved");

**echo** "<table border='1'>";

**echo** "<tr><th>";

**echo** "Book Title";

**echo** "</th><th>";

**echo** "Author";

**echo** "</th></tr>";

**while**($row = $result->fetch\_assoc()){

**echo**"<tr><td>";

**echo** ($row['bookTitle']);

**echo** ("</td><td>");

**echo** ($row['author']);

**echo** ("</td><td>");

**echo** "<a href=remove.php?title=" . **urlencode**($row['bookTitle']) . ">Remove</a>";

**echo** ("</tr>\n");

}

**echo** "</table>\n";

}

**else**{

**echo** "You currently have no books reserved";

}

?>

<footer>

<p> **Site by: Artyom McNiff** *&copy;* **2021** </p>

</footer>

</body>

</html>

search.php

<?php

//Starts the session for the browser

**session\_start**();

//Checks if the user is logged in, redirected to the login page if not

**if** (!**isset**($\_SESSION['login']) || $\_SESSION['login'] == 'n') {

**header**("Location: login.php");

}

?>

<html>

<!--

Search for a book by book title and/or by author

or by book category description in a dropdown menu (retrieved from database)

Results of the search display as a list from which the user can then

reserve a book if available. If the book is already reserved, the user can't

not be allowed to reserve the book.

-->

<head>

<title> **Artyom's Library - Search** </title>

<link rel=**"stylesheet"** type=**"text/css"** href=**"Assets/CSS/site.css"**>

</head>

<header>

<nav>

<ul>

<li><a href=**"home.php"**>**Home**</a></li>

<li><a href=**"search.php"**>**Search**</a></li>

<li><a href=**"view.php"**>**View**</a></li>

<li><a href=**"logout.php"**>**Log out**</a></li>

</ul>

</nav>

</header>

<body>

<h2> **Artyom's Library** </h2>

<?php

// Removes any slashes and leading whitespace

**function** process\_input($data) {

$data = **trim**($data);

$data = **stripslashes**($data);

$data = **htmlspecialchars**($data);

**return** $data;

}

//Connects to database

**require\_once** "mysqlconnect.php";

//Initializing variables

$errFlag = 0;

$t = $empty = "";

$title = "";

$selectAll = "SELECT \* FROM Category";

$book\_category = $conn->query($selectAll);

$number\_of\_pages = 0;

$count = 0;

//Gets page number

**if** (**isset**($\_GET['page']) && $\_GET['page'] !=""){

$page = $\_GET['page'];

} **else** {

$page = 1;

}

//Specifies number of results per page

$results\_per\_page = 5;

//Calculates which page to display results to

$page\_first\_result = ($page-1)\*$results\_per\_page;

// If search category has been entered

**if** ( **isset**($\_GET['searchby']) && **isset**($\_GET['title'])){

$search = $\_GET['searchby'];

**if** (**empty**($\_GET['title'])) {

$empty = "Please enter a search query";

$errFlag = 1;

} **else** {

$t = process\_input($\_GET['title']);

}

**switch** ($search) {

**case** "Title":

**if** ($errFlag != 1) {

// Initial statement to get total number of results

$sql = "SELECT bookTitle, author FROM Books WHERE bookTitle LIKE CONCAT( '%', ?, '%')";

// Prevents sql injection

$stmt = $conn->prepare($sql);

$stmt->bind\_param('s', $t); // 's' specifies the var type 'string'

$stmt->execute();

// Gets result

$result = $stmt->get\_result();

// Gets the number of rows

$number\_of\_results = $result->num\_rows;

// Calculates the amount of pages to display

$number\_of\_pages = **ceil**($number\_of\_results / $results\_per\_page);

//Selects books which partially match the search query

$sql = "SELECT bookTitle, author FROM Books WHERE bookTitle LIKE CONCAT( '%', ?, '%')

LIMIT " . $page\_first\_result . ',' . $results\_per\_page;

// Calls page which displays the result

**require\_once** "getResult.php";

}

**break**;

**case** "Author":

**if** ($errFlag != 1){

// Initial statement to get total number of results

$sql = "SELECT bookTitle, author FROM Books WHERE author LIKE CONCAT( '%', ?, '%')";

// Prevents sql injection

$stmt = $conn->prepare($sql);

$stmt->bind\_param('s', $t); // 's' specifies the var type 'string'

$stmt->execute();

// Gets result

$result = $stmt->get\_result();

// Gets the number of rows

$number\_of\_results = $result->num\_rows;

// Calculates the amount of pages to display

$number\_of\_pages = **ceil**($number\_of\_results / $results\_per\_page);

//Selects books which partially match the search query

$sql = "SELECT bookTitle, author FROM Books WHERE author LIKE CONCAT( '%', ?, '%')

LIMIT " . $page\_first\_result . ',' . $results\_per\_page;

// Calls page which displays the result

**require\_once** "getResult.php";

}

**break**;

**case** "Title and Author":

**if** ($errFlag != 1){

$a = $t;

// Initial statement to get total number of results

$sql ="SELECT bookTitle, author FROM Books WHERE bookTitle LIKE CONCAT ('%', ?, '%')

OR author LIKE CONCAT ('%', ?, '%')";

// Prevents sql injection

$stmt = $conn->prepare($sql);

$stmt->bind\_param('ss', $t, $a); // 's' specifies the var type 'string'

$stmt->execute();

// Gets result

$result = $stmt->get\_result();

// Gets the number of rows

$number\_of\_results = $result->num\_rows;

// Calculates the amount of pages to display

$number\_of\_pages = **ceil**($number\_of\_results / $results\_per\_page);

// Selects books which partially match the search query

$sql = "SELECT bookTitle, author FROM Books WHERE bookTitle LIKE CONCAT ('%', ?, '%')

OR author LIKE CONCAT ('%', ?, '%')

LIMIT " . $page\_first\_result . ',' . $results\_per\_page;

//Prevents sql injection

$stmt = $conn->prepare($sql);

$stmt->bind\_param('ss', $t, $a); // 's' specifies the var type 'string'

$stmt->execute();

// Gets result

$result = $stmt->get\_result();

// Displays result

**if** ($result->num\_rows > 0){

**echo** "<table border='1'>";

**echo** "<tr><th>";

**echo** "Book Title";

**echo** "</th><th>";

**echo** "Author";

**echo** "</th><th>";

**echo** "Reserve";

**echo** "</th></tr>";

**while**($row = $result->fetch\_assoc()) {

// Statement selects books that are reserved

$select = "SELECT bookTitle FROM Books WHERE bookTitle = ?

AND reserved = 'Y'";

// Prevents sql injection

$stmt = $conn->prepare($select);

$stmt->bind\_param('s', $row['bookTitle']); // 's' specifies the var type 'string'

$stmt->execute();

// Gets result

$select\_result = $stmt->get\_result();

**echo**"<tr><td>";

**echo** ($row['bookTitle']);

**echo** ("</td><td>");

**echo** ($row['author']);

**echo** ("</td><td>");

// If a result is received, the book is reserved

**if** ($select\_result->num\_rows > 0) {

**echo** "Reserved";

} **else** {

**echo** "<a href=reserve.php?title=" . **urlencode**($row['bookTitle']) . ">Reserve</a>";

}

**echo** ("</td></tr>\n");

}

**echo** "</table>\n";

} **else** {

**echo**"0 results";

}

}

**break**;

**default**:

**echo** "Something went wrong, try again";

}

**for** ($page = 1; $page <= $number\_of\_pages; $page++){

/\*

Where searchby is the form data,

title is the reservation variable

page is the page number

\*/

**echo**

'<a href = "search.php?searchby=' . $search . '

&title=' . $t . '

&page=' . $page . '">' . $page . '</a>';

}

}

// If search category has been entered

**if** ( **isset**($\_GET['searchcat'])) {

$s = $\_GET['searchcat'];

// Intial statement to get total number of results

$sql = "SELECT bookTitle, author FROM Books WHERE bookCategory = '**$s**'";

// Parameter is fixed, no sql injection possible

// Gets result

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

// Gets number of results

$number\_of\_results = $result->num\_rows;

// Calculates amount of pages needed

$number\_of\_pages = **ceil**($number\_of\_results / $results\_per\_page);

// Selects books from specified search category

$sql = "SELECT bookTitle, author FROM Books WHERE bookCategory = '**$s**'

LIMIT " . $page\_first\_result . ',' . $results\_per\_page;

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

**if** ($result->num\_rows > 0){

**echo** "<table border='1'>";

**echo** "<tr><th>";

**echo** "Book Title";

**echo** "</th><th>";

**echo** "Author";

**echo** "</th><th>";

**echo** "Reserve";

**echo** "</th></tr>";

**while**($row = $result->fetch\_assoc()) {

$count++;

//Checks for prior reservation

$select = "SELECT bookTitle FROM Books WHERE bookTitle = ?

AND reserved = 'Y'";

// Prevents sql injection

$stmt = $conn->prepare($select);

$stmt->bind\_param('s', $row['bookTitle']); // 's' specifies the var type 'string'

$stmt->execute();

// Gets results

$select\_result = $stmt->get\_result();

**echo** "<tr><td>";

**echo** ($row['bookTitle']);

**echo** ("</td><td>");

**echo** ($row['author']);

**echo** ("</td><td>");

// If statement returns results, the book is therefore reserved

**if** ($select\_result->num\_rows > 0) {

**echo** "Reserved";

} **else** {

**echo** "<a href=reserve.php?title=" . **urlencode**($row['bookTitle']) . ">Reserve</a>";

}

**echo** ("</td></tr>\n");

}

**echo** "</table>\n";

}

**else**{

**echo**"0 results";

}

**for** ($page = 1; $page <= $number\_of\_pages; $page++){

/\*

Where searchby is the form data,

title is the reservation variable

page is the page number

\*/

**echo** '<a href = "search.php?searchcat=' . $s . '&page=' . $page . '">' . $page . '</a>';

}

}

$conn->close();

?>

<div class=**"container"**>

<p> **Search By:** </p>

<form method=**"get"** action=**"**<?php **echo** **htmlspecialchars**($\_SERVER["PHP\_SELF"]);?>**"**>

<div class=**"row"**>

<div class=**"col-25"**>

<select name=**"searchby"**>

<option value=**"Title"** <?php **echo** (**isset**($\_GET['searchby']) && $\_GET['searchby']

== "Title") ? "selected" : ""; ?>>**Title**</option>

<option value=**"Author"** <?php **echo** (**isset**($\_GET['searchby']) && $\_GET['searchby']

== "Author") ? "selected" : ""; ?>>**Author**</option>

<option value=**"Title and Author"** <?php **echo** (**isset**($\_GET['searchby']) && $\_GET['searchby']

== "Title and Author") ? "selected" : ""; ?>>**Title and Author**</option>

</select>

</div>

<div class=**"col-75"**>

<input type=**"text"** name=**"title"**, value=**"**<?php **echo** $t; ?>**"**>

<span class=**"errorMessage"**><?php **echo** $empty;?></span>

</div>

</div>

<div class=**"row"**>

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

</div>

</form>

</div>

<div class=**"container"**>

<p> **Search using book category**</p>

<form method=**"get"** action=**"**<?php **echo** **htmlspecialchars**($\_SERVER["PHP\_SELF"]);?>**"**>

<div class=**"row"**>

<div class=**"col-75"**>

<select name=**"searchcat"**>

<option disabled selected value> **select a category** </option>

<?php

// Gets search categories from the database

**while**($row = $book\_category->fetch\_assoc()){

**echo** "<option value=**$row**[categoryID]>**$row**[categoryDescription]</option>";

}

?>

</select>

</div>

</div>

<div class=**"row"**>

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

</div>

</form>

</div>

<footer>

<p> **Site by: Artyom McNiff** *&copy;* **2021** </p>

</footer>

</body>

</html>

home.php

<?php

//Starts the session for the browser

**session\_start**();

//Checks if the user is logged in, redirected to the login page if not

**if** (!**isset**($\_SESSION['login']) || $\_SESSION['login'] == 'n') {

**header**("Location: login.php");

}

?>

<html>

<!--

Home page: The main hub for the website

-->

<head>

<title> **Artyom's Library - Home** </title>

<link rel=**"stylesheet"** type=**"text/css"** href=**"Assets/CSS/site.css"**>

</head>

<header>

<nav>

<ul>

<li><a href=**"home.php"**>**Home**</a></li>

<li><a href=**"search.php"**>**Search**</a></li>

<li><a href=**"view.php"**>**View**</a></li>

<li><a href=**"logout.php"**>**Log out**</a></li>

</ul>

</nav>

</header>

<h2> **Artyom's Library** </h2>

<body>

<section class=**"content"**>

<p><a href=**"search.php"**> **Search for a book to reserve** </a></p>

</section>

<section class=**"content"**>

<p><a href=**"view.php"**> **View reserved books** </a></p>

</section>

<footer>

<p> **Site by: Artyom McNiff** *&copy;* **2021** </p>

</footer>

</body>

</html>

logout.php

<?php

//Starts the session for the browser

**session\_start**();

//Checks if the user is logged in, redirected to the login page if not

**if** (!**isset**($\_SESSION['login']) || $\_SESSION['login'] == 'n') {

**header**("Location: login.php");

}

?>

<html>

<head>

<title> **Artyom's Library - View** </title>

<link rel=**"stylesheet"** type=**"text/css"** href=**"Assets/CSS/site.css"**>

</head>

<header>

<body>

<?php

// If the user clicks "Yes"

**if** ($\_SERVER['REQUEST\_METHOD'] == 'POST')

{

// Login state set to "No"

$\_SESSION['login'] = 'n';

// User is sent back to the login page

**header**("Location: login.php");

}

?>

<div class=**"container"**>

<form method=**"post"** action=**"**<?php **echo** **htmlspecialchars**($\_SERVER["PHP\_SELF"]);?>**"**>

<div class=**"row"**>

<div class=**"col-25"**>

<label for=**"choice"**>**Are you sure you wish to log out?**</label>

<input type=**"submit"** value=**"Yes"**/>

</div>

</div>

</form>

<p><a href=**"home.php"**>**Back to the home page**</a></p>

</div>

</body>

</html>

mysqlconnect.php

<?php

$servername = "localhost";

$username = "root";

$password = "";

$dbname = "librarydb";

// Create connection

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

//Check connection

**if** ($conn->connect\_error) {

**die**("Connection failed: " . $conn->connect\_error);

}

?>

remove.php

<?php

//Starts the session for the browser

**session\_start**();

//Checks if the user is logged in, redirected to the login page if not

**if** (!**isset**($\_SESSION['login']) || $\_SESSION['login'] == 'n') {

**header**("Location: login.php");

}

?>

<html>

<head>

<title> **Artyom's Library - Search** </title>

<link rel=**"stylesheet"** type=**"text/css"** href=**"Assets/CSS/site.css"**>

</head>

<header>

<h2> **Artyom's Library** </h2>

<nav>

<ul>

<li><a href=**"home.php"**>**Home**</a></li>

<li><a href=**"search.php"**>**Search**</a></li>

<li><a href=**"view.php"**>**View**</a></li>

<li><a href=**"logout.php"**>**Log out**</a></li>

</ul>

</nav>

</header>

<body>

<?php

// Connects to database

**require\_once** "mysqlconnect.php";

$title = "";

// Gets book title

$title = $\_GET['title'];

// Selects book title to be removed from the reserved list

$sql1 = "SELECT isbn FROM Books WHERE bookTitle = '**$title**'";

// Gets result

$result = $conn->query($sql1);

// Gets data from row

$book = $result->fetch\_assoc();

$b = $book['isbn'];

// Deletes book from reserved list using its isbn

$sql2 = "DELETE FROM booksReserved WHERE reservedisbn = '**$b**' ";

// Updates the books reserved status

$sql3 = "UPDATE Books SET reserved = 'N' WHERE bookTitle = '**$title**'";

$conn->query($sql3);

$conn->query($sql2);

**echo** "Resevation successfully removed";

?>

</body>

</html>

success.php

<html>

<head>

<title> **Artyom's Library - Success** </title>

<link rel=**"stylesheet"** type=**"text/css"** href=**"Assets/CSS/site.css"**>

</head>

<body>

<p> **New account successfully created** </p>

<p><a href=**"login.php"**>**Back to login page** </a></p>

</body>

</html>

reserve.php

<?php

//Starts the session for the browser

**session\_start**();

//Checks if the user is logged in, redirected to the login page if not

**if** (!**isset**($\_SESSION['login']) || $\_SESSION['login'] == 'n') {

**header**("Location: login.php");

}

?>

<html>

<!--

Allows a user to reserve a book providied no one else has reserved

the book in question.

-->

<head>

<title> **Artyom's Library - Reserve** </title>

<link rel=**"stylesheet"** type=**"text/css"** href=**"Assets/CSS/site.css"**>

</head>

<header>

<h2> **Artyom's Library** </h2>

<nav>

<ul>

<li><a href=**"home.php"**>**Home**</a></li>

<li><a href=**"search.php"**>**Search**</a></li>

<li><a href=**"view.php"**>**View**</a></li>

<li><a href=**"logout.php"**>**Log out**</a></li>

</ul>

</nav>

</header>

<body>

<?php

**require\_once** "mysqlconnect.php";

// Gets the title the user reserved

$title = $\_GET['title'];

// Gets the username

$n = $\_SESSION["user"];

// Selects the isbn for the book being reserved

$select1 = "SELECT isbn FROM Books WHERE bookTitle = ?";

// Prevents sql injection

$stmt = $conn->prepare($select1);

$stmt->bind\_param('s', $title);

$stmt->execute();

// Gets result

$result1 = $stmt->get\_result();

// Gets data from row

$isbn = $result1->fetch\_assoc();

// Selects user's username

$select2 = "SELECT username FROM Users WHERE username = ?";

$stmt = $conn->prepare($select2);

$stmt->bind\_param('s', $n);

$stmt->execute();

$result2 = $stmt->get\_result();

$user = $result2->fetch\_assoc();

// Gets date format

$curr\_date = **date**('d-M-Y');

$i = $isbn['isbn'];

$u = $user['username'];

// Already been tested so no need for parsing

$sql1 = "INSERT INTO booksReserved (reservedisbn, reservedUsername,

reservedDate) VALUES ('**$i**', '**$u**', '**$curr\_date**' )";

// Sets reserved status to "Yes"

$sql2 = "UPDATE Books SET reserved = 'Y' WHERE isbn = '**$isbn**[isbn]'";

**if**($conn->query($sql1) && $conn->query($sql2) === **TRUE**){

**echo** "Reservation successful";

}

**else**{

**echo** "An error has occured: book cannot be reserved";

}

$conn->close();

?>

<footer>

<p> **Site by: Artyom McNiff** *&copy;* **2021** </p>

</footer>

</body>

</html>

getResult.php

<?php

//Prevents sql injection

$stmt = $conn->prepare($sql);

$stmt->bind\_param('s', $t); // 's' specifies the var type 'string'

$stmt->execute();

// Gets result

$result = $stmt->get\_result();

// Displays results

**if** ($result->num\_rows > 0){

**echo** "<table border='1'>";

**echo** "<tr><th>";

**echo** "Book Title";

**echo** "</th><th>";

**echo** "Author";

**echo** "</th><th>";

**echo** "Reserve";

**echo** "</th></tr>";

**while**($row = $result->fetch\_assoc()) {

//Checks for prior reservation

$select = "SELECT bookTitle FROM Books WHERE bookTitle = ?

AND reserved = 'Y'";

$stmt2 = $conn->prepare($select);

$stmt2->bind\_param('s', $row['bookTitle']); // 's' specifies the var type 'string'

$stmt2->execute();

$select\_result = $stmt2->get\_result();

**echo**"<tr><td>";

**echo** ($row['bookTitle']);

**echo** ("</td><td>");

**echo** ($row['author']);

**echo** ("</td><td>");

**if** ($select\_result->num\_rows > 0){

**echo** "Reserved";

} **else** {

**echo** "<a href=reserve.php?title=" . **urlencode**($row['bookTitle']) . ">Reserve</a>";

}

**echo** ("</td></tr>\n");

}

**echo** "</table>\n";

} **else** {

**echo**"0 results";

}

?>

register.php

<html>

<!--

Register page: validate all details entered, phone numbers (numeric, 10 in length),

(tele + mobile), password(6 in length, confirm(enter twice), username (check unique)

Page status: ok

-->

<head>

<title> **Artyom's Library - Register** </title>

<link rel=**"stylesheet"** type=**"text/css"** href=**"Assets/CSS/site.css"**>

</head>

<header>

<h2> **Artyom's Library** </h2>

</header>

<body>

<?php

**require\_once** "mysqlconnect.php";

// Removes leading whitespace, slashes

**function** process\_input($data) {

$data = **trim**($data);

$data = **stripslashes**($data);

$data = **htmlspecialchars**($data);

**return** $data;

}

// Initialisng variables

$n = $p = $con = $f = $l = $a1 = $a2 = $c = "";

$m = $t = **NULL**;

$fnameErr = $lnameErr = $userErr = $passErr = $conErr = "";

$mobileErr = $teleErr = $addr1Err = $addr2Err = $cityErr = "";

// Password length must be 6 characters in length

$pass\_req = 6;

$errFlag = 0;

// Checks if form data has been entered

**if** ( **isset**($\_POST['username']) && **isset**($\_POST['password'])

&& **isset**($\_POST['confirm']) && **isset**($\_POST['fname'])

&& **isset**($\_POST['mobile']) && **isset**($\_POST['telephone'])

&& **isset**($\_POST['lname']) && **isset**($\_POST['address1'])

&& **isset**($\_POST['address2']) && **isset**($\_POST['city']) ) {

// Checks if username already exists

$sqlu = "SELECT \* FROM Users WHERE username = ?";

// Prevents sql injection

$stmt = $conn->prepare($sqlu);

$stmt->bind\_param('s', $\_POST['username']);

$stmt->execute();

// Gets result

$resultu = $stmt->get\_result();

// Checks if mobile number already exists

$sqlm = "SELECT \* FROM Users WHERE mobile = ?";

$stmt = $conn->prepare($sqlm);

$stmt->bind\_param('i', $\_POST['mobile']);

$stmt->execute();

$resultm = $stmt->get\_result();

// Checks if field is blank

**if** (**empty**($\_POST['username'])) {

$userErr = "Username is required";

$errFlag = 1;

} **elseif** ($resultu->num\_rows > 0){

$userErr = "Username already exists";

$errFlag = 1;

} **else** {

$n = process\_input($\_POST['username']);

}

**if** (**empty**($\_POST['password'])) {

$passErr = "Password is required";

$errFlag = 1;

} **elseif**( **strlen**($\_POST['password']) != $pass\_req ) {

$passErr = "Password must be 6 characters in length";

$errFlag = 1;

} **else** {

$p = process\_input($\_POST['password']);

}

**if** (**empty**($\_POST['confirm'])){

$conErr = "Password must be entered twice to be confirmed";

$errFlag = 1;

// if the two passwords don't match

} **elseif** (**strcmp**($p, $\_POST['confirm'])!= 0) {

$conErr = "Password entered does not match previous entry";

$errFlag = 1;

} **else** {

$con = process\_input($\_POST['confirm']);

}

**if** (**empty**($\_POST['address1'])) {

$addr1Err = "Line 1 of the address is required";

$errFlag = 1;

} **else** {

$a1 = process\_input($\_POST['address1']);

}

**if** (**empty**($\_POST['address2'])) {

$addr2Err = "Line 2 of the address is required";

$errFlag = 1;

}

**else**{

$a2 = process\_input($\_POST['address2']);

}

**if** (**empty**($\_POST['fname'])) {

$fnameErr = "First name is required";

$errFlag = 1;

} **else** {

$f = process\_input($\_POST['fname']);

**if** (!**preg\_match**("/^[a-zA-Z-' ]\*$/",$f)) {

$fnameErr = "Only letters and white space allowed";

$errFlag = 1;

}

}

**if** (**empty**($\_POST['lname'])) {

$lnameErr = "Last name is required";

$errFlag = 1;

} **else** {

$l = process\_input($\_POST['lname']);

**if** (!**preg\_match**("/^[a-zA-Z-' ]\*$/",$l)) {

$lnameErr = "Only letters and white space allowed";

$errFlag = 1;

}

}

**if** (**empty**($\_POST['mobile'])) {

$mobileErr = "Mobile number is required";

$errFlag = 1;

} **elseif** ($resultm->num\_rows > 0) {

$mobileErr = "Mobile number already exists";

$errFlag = 1;

} **elseif** (**strlen**(**strval**($\_POST['mobile'])) != 10) {

$mobileErr = "Mobile number must be 10 numbers in length";

$errFlag = 1;

}

**else** {

$m = process\_input($\_POST['mobile']);

}

**if** (**empty**($\_POST['telephone'])) {

$teleErr = "Telephone number is required";

$errFlag = 1;

}

**else** {

$t = process\_input($\_POST['telephone']);

}

**if** (**empty**($\_POST['city'])) {

$cityErr = "City of residence is required";

$errFlag = 1;

} **else** {

$c = process\_input($\_POST['city']);

}

**if** ($errFlag != 1){

$sql = "INSERT INTO Users (username, password, fname, lname,

address1, address2, city, telephone, mobile) VALUES

('**$n**', '**$p**', '**$f**', '**$l**', '**$a1**', '**$a2**', '**$c**', **$t**, **$m**)";

**if** ($conn->query($sql) === **TRUE**) {

**header**("Location: success.php");

} **else** {

**echo** "Error: " . $sql . "<br>" . $conn->error; }

}

$conn->close(); }

?>

<span>**Register**</span>

<div class=**"container"**>

<form method=**"post"** action=**"**<?php **echo** **htmlspecialchars**($\_SERVER["PHP\_SELF"]);?>**"**>

<div class=**"row"**>

<div class=**"col-25"**>

<label for=**"username"**>**Username**</label>

</div>

<div class=**"col-75"**>

<input type=**"text"** name=**"username"** value=**"**<?php **echo** $n;?>**"**>

<span class=**"errorMessage"**><?php **echo** $userErr;?></span>

</div>

</div>

<div class=**"row"**>

<div class=**"col-25"**>

<label for=**"password"**>**Password**</label>

</div>

<div class=**"col-75"**>

<input type=**"password"** name=**"password"** value=**"**<?php **echo** $p;?>**"**>

<span class=**"errorMessage"**><?php **echo** $passErr;?></span>

</div>

</div>

<div class=**"row"**>

<div class=**"col-25"**>

<label for=**"confirm"**> **Confirm Password** </label>

</div>

<div class=**"col-75"**>

<input type=**"password"** name=**"confirm"** value=**"**<?php **echo** $con;?>**"**>

<span class=**"errorMessage"**><?php **echo** $conErr;?></span>

</div>

</div>

<div class=**"row"**>

<div class=**"col-25"**>

<label for=**"fname"**>**First name**</label>

</div>

<div class=**"col-75"**>

<input type=**"text"** name=**"fname"** value=**"**<?php **echo** $f;?>**"**>

<span class=**"errorMessage"**><?php **echo** $fnameErr;?></span>

</div>

</div>

<div class=**"row"**>

<div class=**"col-25"**>

<label for=**"lname"**>**Last name**</label>

</div>

<div class=**"col-75"**>

<input type=**"text"** name=**"lname"** value=**"**<?php **echo** $l;?>**"**>

<span class=**"errorMessage"**><?php **echo** $lnameErr;?></span>

</div>

</div>

<div class=**"row"**>

<div class=**"col-25"**>

<label for=**"address1"**>**Address line 1**</label>

</div>

<div class=**"col-75"**>

<input type=**"text"** name=**"address1"** value=**"**<?php **echo** $a1;?>**"**>

<span class=**"errorMessage"**><?php **echo** $addr1Err;?></span>

</div>

</div>

<div class=**"row"**>

<div class=**"col-25"**>

<label for=**"address2"**>**Address line 2**</label>

</div>

<div class=**"col-75"**>

<input type=**"text"** name=**"address2"** value=**"**<?php **echo** $a2;?>**"**>

<span class=**"errorMessage"**><?php **echo** $addr2Err;?></span>

</div>

</div>

<div class=**"row"**>

<div class=**"col-25"**>

<label for=**"city"**> **City:** </label>

</div>

<div class=**"col-75"**>

<input type=**"text"** name=**"city"** value=**"**<?php **echo** $c;?>**"**></p>

<span class=**"errorMessage"**><?php **echo** $cityErr;?></span>

</div>

</div>

<div class=**"row"**>

<div class=**"col-25"**>

<label for=**"telephone"**> **Telephone number** </label>

</div>

<div class=**"col-75"**>

<input type=**"number"** name=**"telephone"** value=**"**<?php **echo** $t;?>**"**></p>

<span class=**"errorMessage"**><?php **echo** $teleErr;?></span>

</div>

</div>

<div class=**"row"**>

<div class=**"col-25"**>

<label for=**"mobile"**> **Mobile number** </label>

</div>

<div class=**"col-75"**>

<input type=**"number"** name=**"mobile"** value=**"**<?php **echo** $m;?>**"**>

<span class=**"errorMessage"**><?php **echo** $mobileErr;?></span>

</div>

</div>

<div class=**"row"**>

<input type=**"submit"** value=**"Enter details"**/>

</div>

</form>

</div>

<footer>

<p> **Site by: Artyom McNiff** *&copy;* **2021** </p>

</footer>

</body>

</html>

Screenshots

login.php

Graphical user interface, application

Description automatically generatedregister.php

Table

Description automatically generated

home.php

Graphical user interface, application

Description automatically generated

search.php

Graphical user interface, application

Description automatically generated

view.php

Graphical user interface, application

Description automatically generated

logout.php

Graphical user interface, text, application, Word, email

Description automatically generated

reserve.php

Graphical user interface, application

Description automatically generated

remove.php

Graphical user interface, application, Word

Description automatically generated

success.php

Graphical user interface, text, application

Description automatically generated

Design Document – Page prototypes

Graphical user interface, application

Description automatically generated

Graphical user interface, application

Description automatically generated

Graphical user interface, application

Description automatically generated