Assignment 3

Contents

Connection

To be able to store and view the database on the website I had to connect phpMyAdmin on Selene.

To do this I set values of the server's name, my username, password and the database name. This meant they could now be used to create a connection to the database.

The code then creates the connection and runs a check to make sure its working.

```php
<?php
$servername = "localhost";
$username = "u2256488";
$password = "JM10may04jm";
$dbname = "u2256488";

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

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

This script can then be included in any other scripts to establish a connection later that need to use the SQL database.

Login

The login page then used a table called "my_users" to validify who logged in.

```sql
$query = "SELECT ids
        FROM my_users
        WHERE ids = '$username' and passwords = '$password';";
```

This query selects ids from a "my_users" table where the columns "ids" and "passwords" matches with the variables passed in by the user.

Therefore I made that table in phpMyAdmin and created a set of values I could use to login

⊢ Options
ids	passwords
jmeach	hello

This then meant that only someone who has these details could log in to the rest of the website. More details could also be added to allow more users into the database.

```
<!DOCTYPE html>
<html>
<head>
    <title>Competitions</title>
    <link rel="icon" type="image/png" href="./images/dog-seating.png"/>
    <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1"/>
    <link rel="stylesheet" type="text/css" href="styles/styles.css"/>
</head>
```

I also changed the icon and title to be topical on what the website is about.

Final page view:

Header

In the header code it currently displayed a logo of a house and said "dream home".

This was not topical for the website that was being made so I changed it to say "Competitions" as well as using the dog logo below instead of the house one.

The code below shows where I changed the title to Competitions and referenced the dog-seating.pnp that I uploaded into the images folder.

```html
<!DOCTYPE html>
<html>
<head>
    <!-- Setting title, icon and styles -->
    <title>Competitions</title>
    <link rel="icon" type="image/png" href="./images/dog-seating.png"/>
    <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1"/>
```

The new header:

Navigation

I also removed all the pages that weren't being used so now the only page that is displayed is the welcome page. This removed excess code that was not needed.

```php
// Associative map: Option => Output Message
$menu = [
    "Welcome" => "Welcome"];
```

Right Column

I did the same in right Column as the welcome page is the only page that is needed.

```php
if (!empty($_GET['page'])) {
    $page = $_GET['page'];

    if($page == "Welcome")
    {
        include "./Welcome.php";
    }
}
```

This meant there want unnecessary code that wouldn't ever be reached due to only the welcome page being used.

Welcome Page

Initially to be able to use phpMyAdmin I required the "connection.php" script which set up the connection ready to be used.

```php
require_once("connection.php");
```

After this on the welcome page I started with the first header. This header displays the amount of owners out of the total 50 who entered dogs. The amount of dogs out of the total who actually did an event and then the amount of the events that were done too.

This was done through 3 separate lines of SQL. Which after being sent the values where stored as 3 separate variables to be used later.

```
$query = "SELECT COUNT(DISTINCT owner_id) AS 'owner_no' FROM dogs WHERE id IN (SELECT DISTINCT dog_id FROM entries)";
$result = mysqli_query($conn, $query);
$x = mysqli_fetch_assoc($result)['owner_no'];
```

The first query counts the amount of unique owner ids in the table "dogs" where the dogs id is in the "entries" table. This gets how many owners had entered a dog in an event.

```
$query = "SELECT COUNT(DISTINCT dog_id) AS 'dogs_no' FROM entries WHERE 1";
$result = mysqli_query($conn, $query);
$y = mysqli_fetch_assoc($result)['dogs_no'];
```

The second query counts the amount of unique dog ids there are in the "entries" table. This returns how many unique dogs entered any events.

```
$query = "SELECT COUNT(DISTINCT event_id) AS 'events_no' FROM competitions WHERE 1";
$result = mysqli_query($conn, $query);
$z = mysqli_fetch_assoc($result)['events_no'];
```

The third query counts the number of unique evets in the "competitions" table. This would return how many events were done.

Now that there are 3 variables with the values stored that is shown in the header of the page.

```
<h1>
    <?php
        echo "Welcome to Poppleton Dog Show! This year $x owners entered $y dogs in $z events!"
    ?>
```

Welcome to Poppleton Dog Show! This year 46 owners entered 142 dogs in 8 events!

To do the table it began with a SQL query that would get all the values needed.

Next was the query that found the top 10 dogs based on their average scores if they had done over 1 competition.

```
$query = "SELECT d.id,o.id AS owner_id, o.name AS owner_name, o.email AS owner_email, b.name AS breed, d.name AS dog_name, AVG(e.score) AS avg
FROM dogs d INNER JOIN entries e ON d.id = e.dog_id INNER JOIN breeds b ON d.breed_id = b.id INNER JOIN owners o ON d.owner_id = o.id
GROUP BY d.id HAVING COUNT(e.dog_id) > 1 ORDER BY avg DESC LIMIT 10";
```

This query works by selecting multiple values and using "AS" to then label them to be able to easily access them later. This includes the dog's and owner's ids, their names, the dog breed, the owners' email and finally the average score for each dog. Some of these were used to calculate the output and others were needed later on when displaying the table of values.

Due to needed data from multiple tables I used "INNER JOIN" to connect the dogs table to other tables needed. This included the entries breeds and the owner's tables. This helped me get values from other tables that weren't in "dogs".

"GROUP BY" is used so that the average is for each individual dog grouped by their ids. This is followed by "HAVING" which makes sure that only dogs who have done more than one event can be included.

"ORDER BY avg DESC" orders the dogs in descending order by their average scores which were worked out earlier and is followed by "LIMIT 10" to just select the top 10 dogs.

I then checked these values by finding the dogs manually by their id and working out their average which then was the same as the averages found by the SQL script.

Now that I have all the values I need I need to put them inside a table and display them. This starts by setting up the table and the headers needed.
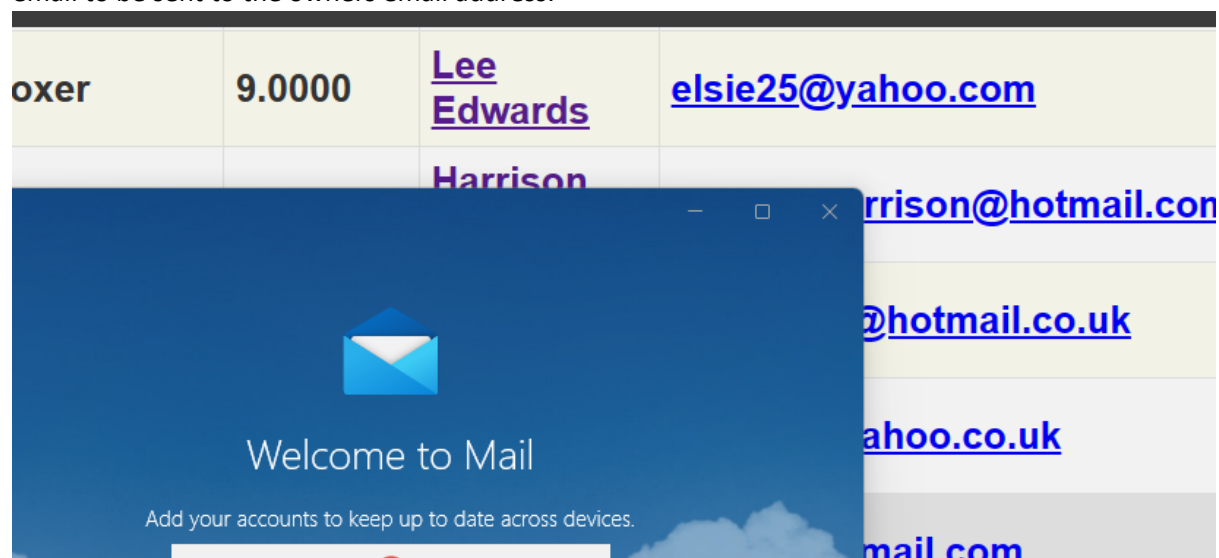
```
<br>
THE TOP 10 DOGS ARE
<table border = '1'>
    <th>Name</th>
    <th>Breed</th>
    <th>Average Score</th>
    <th>Owner Name</th>
    <th>Owner Email Address</th>";
```

After this I needed to add the values into the table.

```
while($row = mysqli_fetch_assoc($result))
{
    echo "<tr>";
    echo "<td>".$row["dog_name"]."</td>";
    echo "<td>".$row["breed"]."</td>";
    echo "<td>".$row["avg"]."</td>";
    echo "<td><a href= owner_details.php?id=". $row["owner_id"] .">".$row["owner_name"]."</a></td>";
    echo "<td><a href='mailto:".$row["owner_email"]."'>".$row["owner_email"]."</a></td>";
    echo "</tr>";
}
echo "</table>";
```

This is done by adding the data into rows. All values are added using the labels assigned in the previous SQL statement.

For the owner email a hyperlink is used that opens the users default mail service and prepares an email to be sent to the owners email address.

For the owner id it links to the "owner_details.php" page and passes through the variable "id" as the owners id so it can be used to show the details in the page.

The final page is as follows

Welcome to Poppleton Dog Show! This year 46 owners entered 142 dogs in 8 events!
THE TOP 10 DOGS ARE

Name	Breed	Average Score	Owner Name	Owner Email Address
Emily	Rottweiler	10.0000	Dominic Stewart	freddie.saunders@gmail.com
Henry	Boxer	9.0000	Lee Edwards	elsie25@yahoo.com
Vicky	Mastiff	8.6667	Harrison Baker	georgia.harrison@hotmail.com
Craig	Bloodhound	8.5000	Sienna Hunt	victoria97@hotmail.co.uk
Jacob	Boxer	8.5000	Luke Wright	jodie90@yahoo.co.uk
Lucy	Labradoodle	8.0000	Carole Robertson	awalsh@gmail.com
Ruby	Mastiff	8.0000	Alfie Ellis	drose@hotmail.com
Amber	Pug	7.5000	Mark Morgan	selina.saunders@yahoo.co.uk
Rob	Mongrel	7.5000	Jasmine Lloyd	richards.jason@hotmail.co.uk
Daniel	Terrier	7.5000	Mark Morgan	selina.saunders@yahoo.co.uk

Owner Details Page

The first step is to get the id variable and set it as a local variable called "owner_id". If the variable isn't found for any reason it returns null instead.

```php
$owner_id = isset($_GET['id']) ? $_GET['id'] : "null";
```

I then need to do a sql statement that gets all of the owners details so I require the connection to the sql again and do a statement that would get the details.

```php
require_once('connection.php');
$query = "SELECT * FROM owners WHERE id = $owner_id";
$result = mysqli_query($conn, $query);
```

After that I set some local variables to the various bits of data so they can be displayed easily

```php
while($row = mysqli_fetch_assoc($result)){
    $name = $row['name'];
    $address = $row['address'];
    $email = $row['email'];
    $phone = $row['phone'];
}
```

I then displayed the name in the first header and all the other details of the owner below it in a clear format.

```php
<h1>
    <?php echo $name ?>
</h1>
    <?php
        echo "Address : $address <br>";
        echo "Email : $email <br>";
        echo "Phone Number : $phone <br>";
    ?>
</body>
```

The final page looks like

Harrison Baker

Address : 92 Edward Trace South Samanthachester BH11 9NE
Email : georgia.harrison@hotmail.com
Phone Number : +44(0)2467662852

Code

Connection.php

```php
<?php

$servername = "localhost";

$username = "u2256488";          // all personal details filled in

$password = "JM10may04jm";

$dbname = "u2256488";


// Create connection

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


// Check connection

if ($conn->connect_error) {

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

}

?>
```

Header.php

```php
<!DOCTYPE html>

<html>

<head>

    <!-- Setting title, icon and styles -->

    <title>Competitions</title>

    <link rel="icon" type="image/png" href="./images/dog-seating.png"/>

    <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1"/>

    <link rel="stylesheet" type="text/css" href="styles/styles.css"/>
```

```html
</head>

<body>

<!-- Begin Wrapper -->

<div id="wrapper">

   <?php

   //separate file for uniform navigation

   include './navigation.php';

   ?>

      <!-- Begin Two Columns -->

      <div id="twocolumns">

</div>

</body>

</html>
```

Index.php

```php
<?php

session_start();


// If the user is not logged in, then redirect to login page

if(empty($_SESSION["username"])){

   echo $_SESSION["username"];

   header("location: login.php");

   die();

}


// separate file for uniform header

include './header.php';

// separate file for uniform left column

include './leftcolumn.php';

// separate file for uniform right column

include './rightcolumn.php';

// separate file for uniform footer
```

```php
include './footer.php';

?>
```

Login.php

```php
<?php
// Start the session
session_start();


// If the user is already logged in, then redirect to website
if (!empty($_SESSION["username"])) {

    header("location: index.php");

    die();

}


// If parameters username and password not properly set, redirect to home page
if (!empty($_POST['username']) && !empty($_POST['password'])) {


    // A separate file to hide login details
    include './connection.php';


    // username and password sent from form
    $username = $conn->real_escape_string($_POST['username']);

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


    $query = "SELECT ids

        FROM my_users

        WHERE ids = '$username' and passwords = '$password';";


    // Run Select SQL query
    $results = $conn->query($query);


    $count = $results->num_rows;
```

```php
    // Close connection after executing the query
    $conn->close();


    // If result matched given username and password, there must be 1 row
    if ($count == 1) {
        $_SESSION["username"] = $username;


        header("location: index.php");
        die();
    } else {
        $error = "Invalid username or password";
    }
}
?>
```

```html
<!DOCTYPE html>
<html>
<head>
    <title>Competitions</title>
    <link rel="icon" type="image/png" href="./images/dog-seating.png"/>
    <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1"/>
    <link rel="stylesheet" type="text/css" href="styles/styles.css"/>
</head>
<body class="login">
    <form class="login_form" action="login.php" method="POST">
        <label for="username">Username:</label><br/>
        <input type="text" name="username" required/><br/><br/>
        <label for="password">Password:</label><br/>
        <input type="password" name="password" required/><br/><br/>
        <?php
        if (!empty($error)) {
```

```
            ?>

            <p id="login_form_error"><?php echo $error ?></p><br>

            <?php

        }

        ?>

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

    </form>

</body>

</html>
```

Navigation.php

```php
<!-- Begin Navigation -->

<div id="nav">

    <?php

    // Check in parameter 'page' is set

    $page = (!empty($_GET['page']) ? $_GET['page'] : "branch");


    // Associative map: Option => Output Message

    $menu = [

        "Welcome" => "Welcome"];

    ?>

    <ul>

        <?php

        foreach ($menu as $p => $message) {

            echo "<li class=\"menu\"><a href=\"index.php?page=$p\"" .

                (($page == $p) ? " class=\"active\"" : "") . ">$message</a></li>";

        }

        ?>

        <li class="logout"><a href="logout.php">Logout</a></li>

        <li><p>Hello, <?php echo htmlspecialchars($_SESSION["username"]) ?>!</p></li>

    </ul>

</div>
```

<!-- End Navigation -->

owner_details.php

```php
<html>

  <body>

    <?php

      $owner_id =  isset($_GET['id']) ? $_GET['id'] : "null";    // gets the owner id and sets it as local variable

      require_once('connection.php');    // connects to SQL

      $query = "SELECT * FROM owners WHERE id = $owner_id";     // query to get owners details

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

      while($row = mysqli_fetch_assoc($result)){

        $name = $row['name'];

        $address = $row['address'];          // setting owners details as local variables to be used

        $email = $row['email'];

        $phone = $row['phone'];

      }

    ?>

  <h1>

    <?php echo $name      // displays name in the header?>

  </h1>

    <?php

      echo "Address : $address <br>";

      echo "Email : $email <br>";        // displays the rest of the details in the body

      echo "Phone Number : $phone <br>";

    ?>

  </body>

</html>
```

rightColumn.php

```php
<!-- Begin Right Column -->

<div id="rightcolumn">

  <div class="clear">

    <?php
```

```php
      // Check if error occurred

      if (!empty($_GET['error'])) {

         echo $_GET['error'];

         die();

      }


      // Check if parameter 'page' is set

      if (!empty($_GET['page'])) {

         $page = $_GET['page'];


         if($page == "Welcome")

         {

            include "./Welcome.php";

         }

      }

      ?>

   </div>

</div>

<!-- End Right Column -->
```

Welcome.php

```php
<html>

   <body>

      <?php

         require_once("connection.php");     // connects to SQL


         $query = "SELECT COUNT(DISTINCT owner_id) AS 'owner_no' FROM dogs WHERE id IN
(SELECT DISTINCT dog_id FROM entries)";

         $result = mysqli_query($conn, $query);     // SQL statement to get the value for amount of
owners who entered a dog and store it in x

         $x = mysqli_fetch_assoc($result)['owner_no'];


         $query = "SELECT COUNT(DISTINCT dog_id) AS 'dogs_no' FROM entries WHERE 1";
```

```php
        $result = mysqli_query($conn, $query);     // SQL statement to get the number of dogs
entered into events and store in y

        $y = mysqli_fetch_assoc($result)['dogs_no'];


        $query = "SELECT COUNT(DISTINCT event_id) AS 'events_no' FROM competitions WHERE 1";

        $result = mysqli_query($conn, $query);     // SQL statement to get the number of events that
had competitions and store in z

        $z = mysqli_fetch_assoc($result)['events_no'];


        $query = "SELECT d.id,o.id AS owner_id, o.name AS owner_name, o.email AS owner_email,
b.name AS breed, d.name AS dog_name, AVG(e.score) AS avg FROM dogs d INNER JOIN entries e ON
d.id = e.dog_id INNER JOIN breeds b ON d.breed_id = b.id INNER JOIN owners o ON d.owner_id =
o.id GROUP BY d.id HAVING COUNT(e.dog_id) > 1 ORDER BY avg DESC LIMIT 10";

        $result = mysqli_query($conn, $query);        // Collects the different values needed for the
table as well as finding the average score of each individual dog grouped by id and then ordered by
score in descneding order, then only returns the top 10


    ?>
    <h1>
      <?php
        echo "Welcome to Poppleton Dog Show! This year $x owners entered $y dogs in $z events!"
// displays the values calculated earlier.
      ?>
    <?php
      echo "
      <br>
      THE TOP 10 DOGS ARE
      <table border = '1'>
        <th>Name</th>
        <th>Breed</th>
        <th>Average Score</th>
        <th>Owner Name</th>
        <th>Owner Email Address</th>";          // setting the headers for each column of data to
be shown
```

```php
        while($row = mysqli_fetch_assoc($result))

        {

          echo "<tr>";

          echo "<td>".$row["dog_name"]."</td>";

          echo "<td>".$row["breed"]."</td>";        // adding the data from the labels created in the
SQL script earlier.

          echo "<td>".$row["avg"]."</td>";

          echo "<td><a href= owner_details.php?id=". $row["owner_id"]
.">".$row["owner_name"]."</a></td>";   // hyperlink that displays the owners name and to redirect
to the owner details while passing in the owner id as well

          echo "<td><a
href='mailto:".$row["owner_email"]."'>".$row["owner_email"]."</a></td>";        // hyperlink that
displays the email and is a link to open the users email service and prepare an email to the owner

          echo "</tr>";

        }

        echo "</table>";

    ?>

  </body>

</html>
```