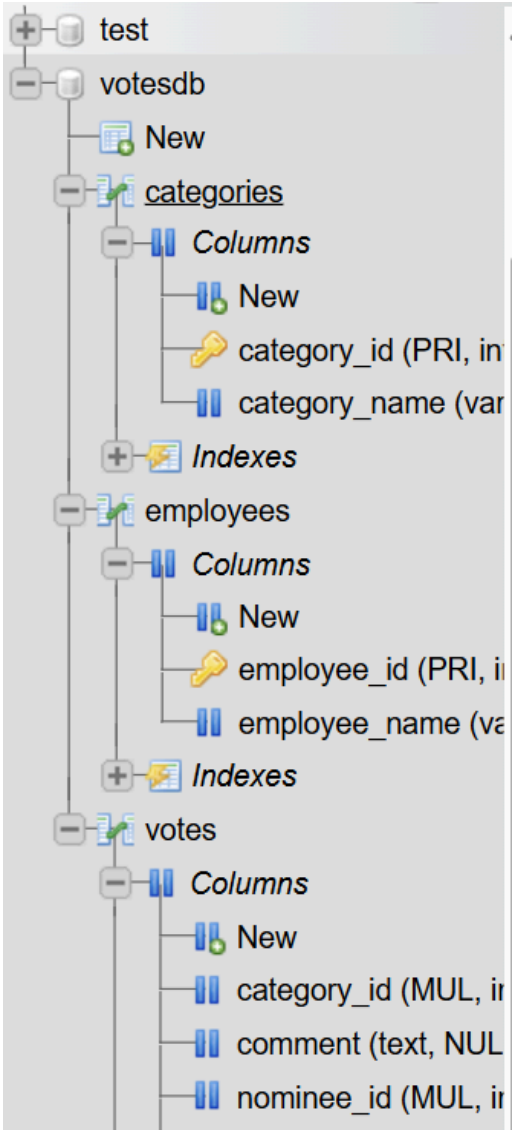
Employee Voting System by Category

To make the app possible, I started by using XAMPP to generate an Apache server and MySQL DB on /phpmyadmin.

For the project environment, I initialized the entirety of the project on a folder called votingAppAssignment that must be stored within the **htdocs** located in the XAMPP directory.

Tables and necessary queries

For the app function we need to have 3 tables that store necessary data which will help us sum up the winner of each category. I stored these 3 tables in a database that I initialized in /phpmyadmin page.



Firstly - we have a table for the **employees** which stores an employee ID and the name for the employee.

CREATE TABLE employees
(employee_id INT AUTO_INCREMENT PRIMARY KEY,
employee_name VARCHAR(100) NOT NULL);

	employee_name	employee_id
Edit Copy Delete	John	5
Edit Copy Delete	James	6
Edit Copy Delete	Kate	7
Edit Copy Delete	Jimmy	8
Edit Copy Delete	Sarah	9
Edit Copy Delete	Tim	10

Adding employees into the table
INSERT INTO employees(employee_name)
VALUES ('John'), ('James'), ('Kate'), ('Jimmy'), ('Sarah'), ('Tim);

The ID for each employee is auto-incremented and thus assigned automatically.

Then there is the **categories** table which stores only 4 values which are used to store the possible categories for voting.

CREATE TABLE categories (category_id INT AUTO_INCREMENT PRIMARY KEY,
category_name VARCHAR(100) NOT NULL UNIQUE);

	category_name	category_id
Edit Copy Delete	Makes Work Fun	1
Edit Copy Delete	Team Player	2
Edit Copy Delete	Culture Champion	3
Edit Copy Delete	Difference Maker	4

INSERT INTO categories (category_name)
VALUES ('Makes Work Fun'), ('Team Player'), ('Culture Champion'), ('Difference Maker');

Lastly, we have the table for the **votes** which will have 3 foreign keys that connect it to the categories table and the employee table.

CREATE TABLE votes (vote_id INT AUTO_INCREMENT PRIMARY KEY, voter_id INT, nominee_id INT, category_id INT, comment TEXT, timestamp TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
FOREIGN KEY (voter_id) REFERENCES employees(employee_id),
FOREIGN KEY (nominee_id) REFERENCES employees(employee_id),
FOREIGN KEY (category_id) REFERENCES categories(category_id));

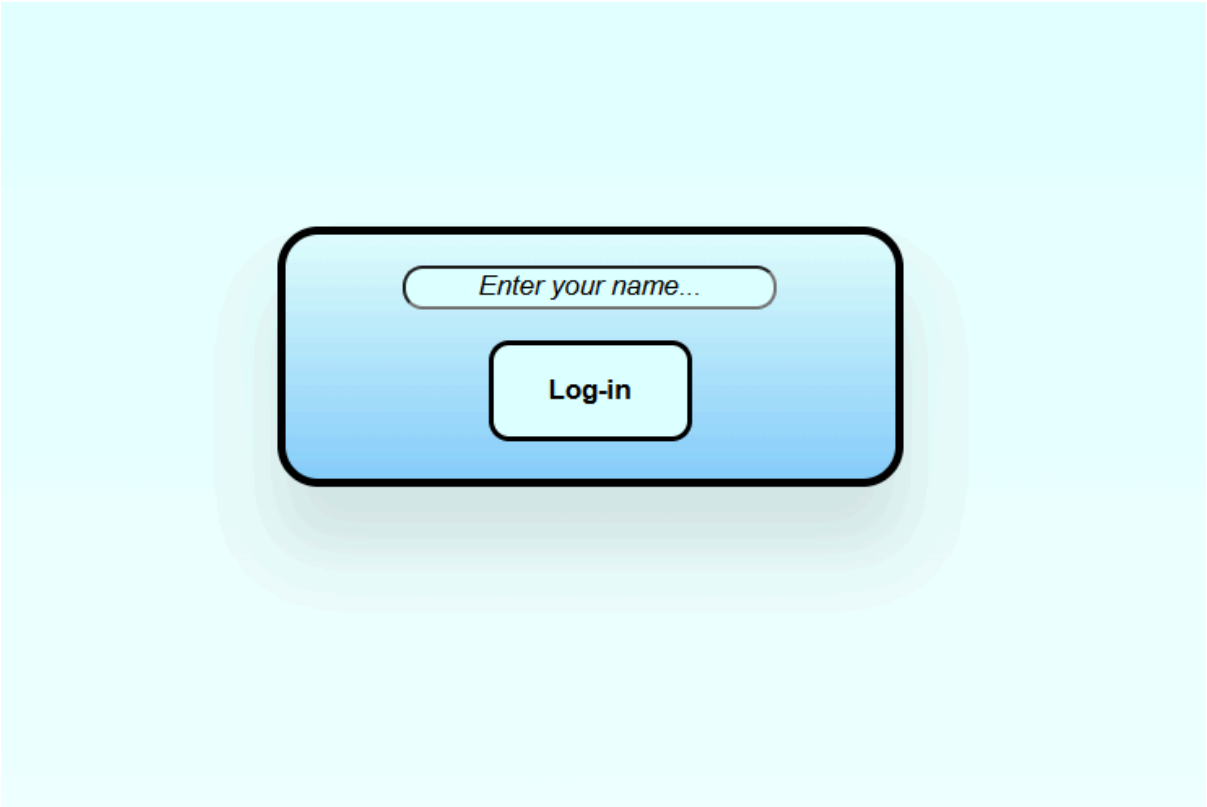
←T→	vote_id	voter_id	nominee_id	category_id	comment	timestamp
Edit Copy Delete	4	7	5	1	asd	2024-11-28 01:21:19
Edit Copy Delete	5	7	6	1	sadasd	2024-11-28 01:22:22
Edit Copy Delete	6	7	6	1	sadasd	2024-11-28 01:32:57
Edit Copy Delete	7	7	6	1	sadasd	2024-11-28 01:33:11
Edit Copy Delete	8	8	5	1	asdsd	2024-11-28 01:42:54
Edit Copy Delete	9	9	5	3	asd	2024-11-28 02:27:15
Edit Copy Delete	10	6	5	3	Asd	2024-11-28 02:27:35
Edit Copy Delete	11	9	10	4	asdasd	2024-11-28 02:40:05
Edit Copy Delete	12	8	9	2	Helpful	2024-11-28 04:24:03
Edit Copy Delete	13	8	5	1	Hilarious	2024-11-28 04:24:46
Edit Copy Delete	14	7	5	1	Lively	2024-11-28 04:28:09

PHP code

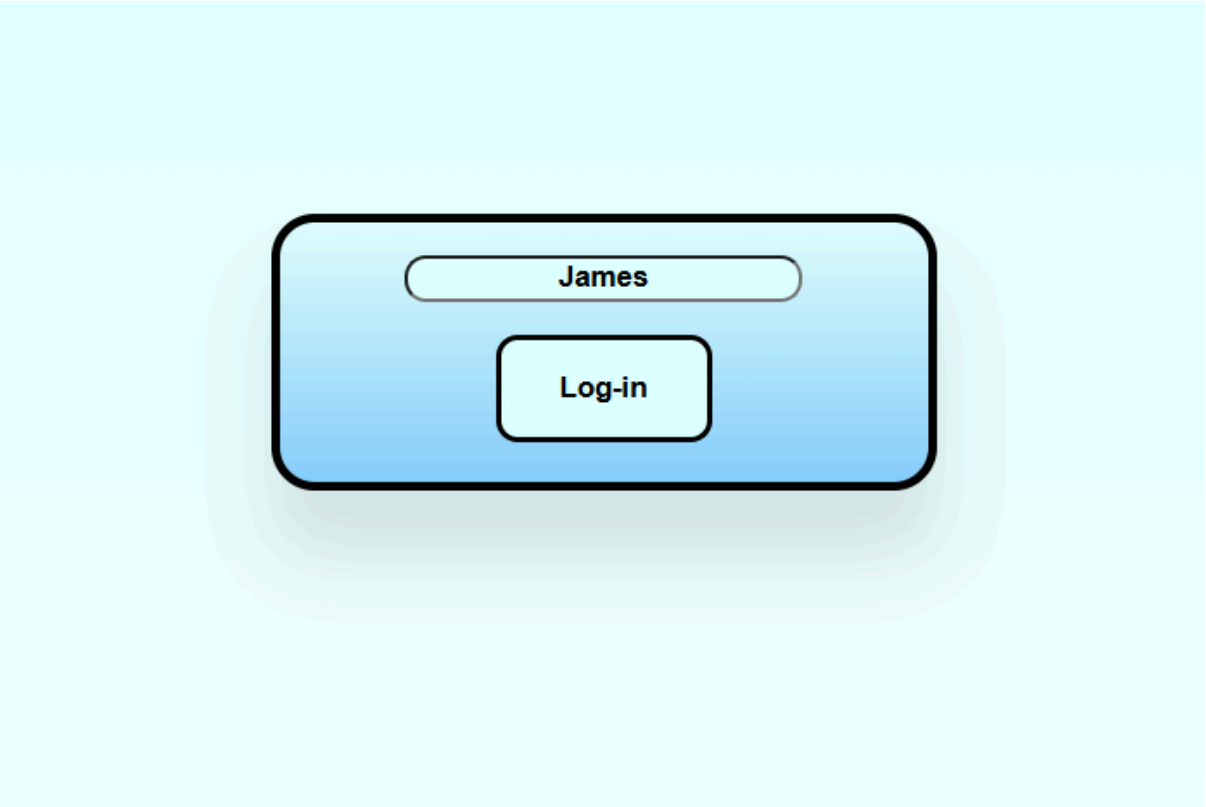
Firstly, I created a Database connection script that would allow me to establish a connection between my code and the database.

```php
<?php



    $host = 'localhost';
    $user = 'root';
    $pass = '';
    $db = 'votesdb';

    $connection = mysqli_connect(hostname: $host,username: $user,password: $pass,database: $db);
    if(mysqli_connect_errno())
    {
        echo 'Connection failed' . mysqli_connect_error();
    }

    else if(mysqli_connect_errno()==0)
    {/*
        echo 'Connection succesful';*/
    }
```

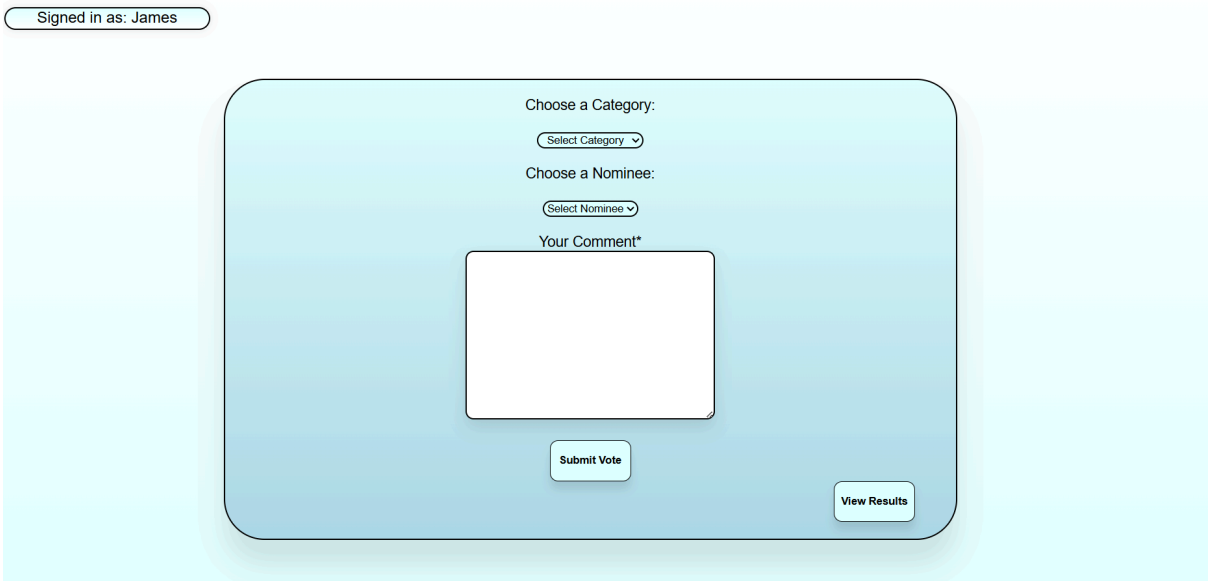
To get user credentials - we need to make sure that they are valid, this is done with a **log-in** feature where a session is started and the employee name written from input is checked and validated to see if there are any matches in the database.



Login.php



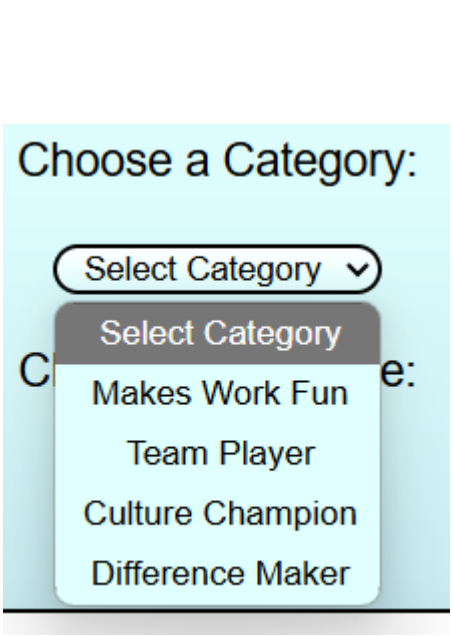
NOTE It's important that the session employee_id is stored and differentiated, this is to avoid any self voting.

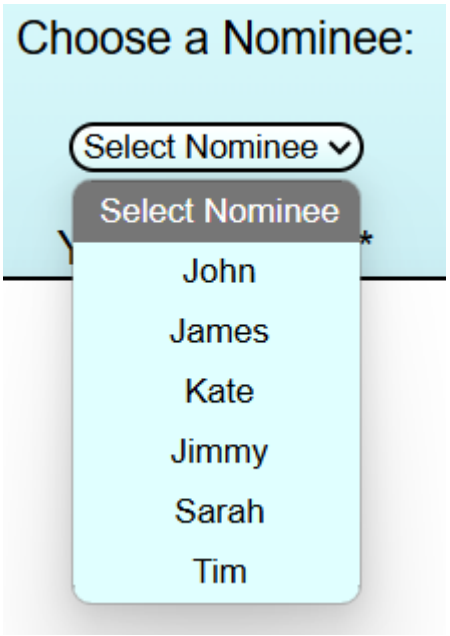


Votingpage.php

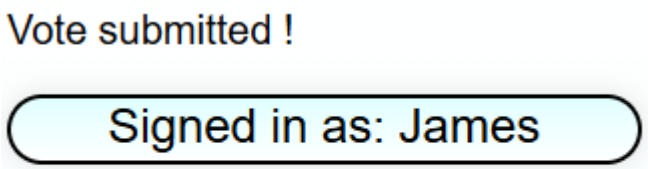
By logging in - we are redirected into the voting page. As we can see, the current session ID is stored as displayed by the "Signed in as: " element.

With this UI we are allowed to pick between the categories and nominees which are options that have been populated in the HTML using the data from our categories and employees table.



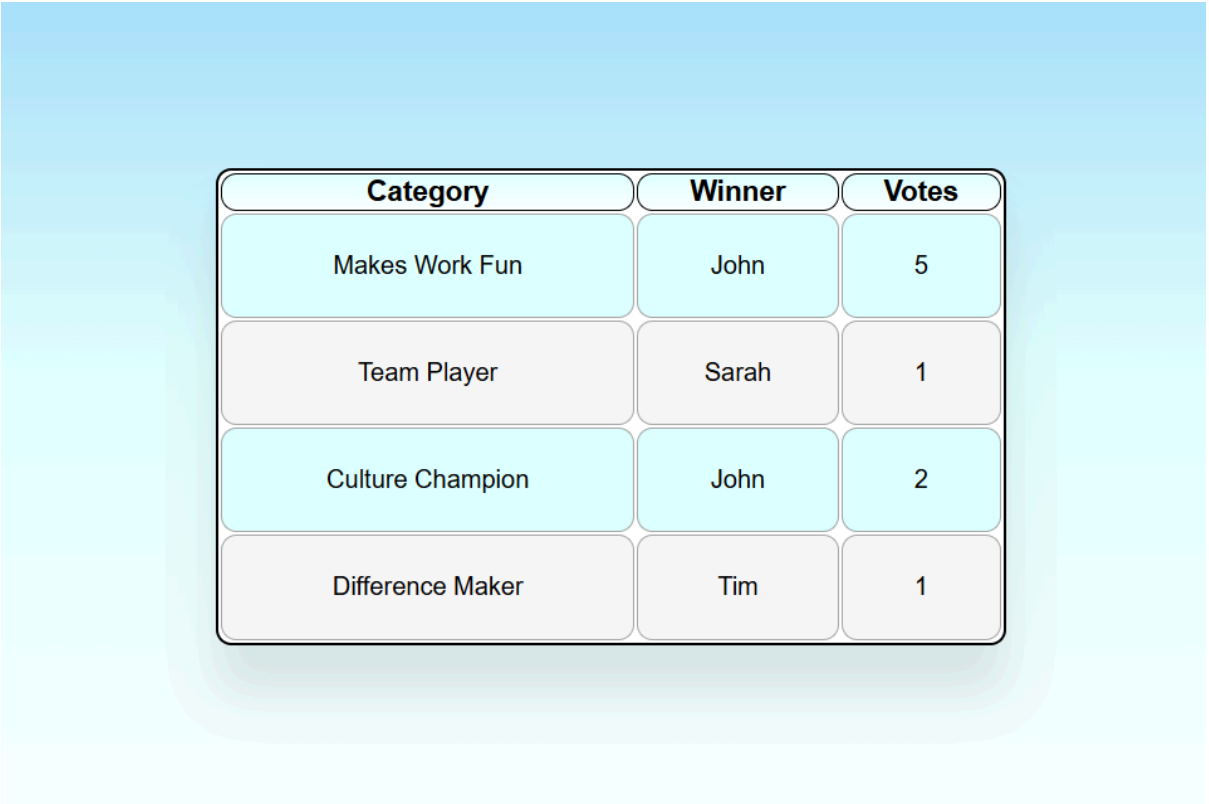


The text area at the end is mandatory and the user must write a comment to make sure their vote is legitimate.



If the vote is validated and passes through - we get a notification that lets us know it has been submitted.

We can then use the View Results button on the voting page to access a UI that displays the winner of each category - along with their vote count.



Category	Winner	Votes
Makes Work Fun	John	5
Team Player	Sarah	1
Culture Champion	John	2
Difference Maker	Tim	1