

Process for creating my dynamic web app

I wanted to create a database to manage users, for example an employee management database.

Basically the interface will be form-based. Input fields will be used to enter:

- First Name
- Last Name
- Email
- Employee ID

The form will be connected to a MySQL database created on a server. The database will have a table with columns for each value. phpMyadmin will be used to create and manage the tables.

Here is what I want to be able to do with this database,

(Let's call this pseudo code):

- To be able to add employee information (the 4 items mentioned above) to the database by filling up a form (create a profile)
- To be able to update the employee information using their existing employee ID, also by filling up a form (updating an existing profile)
- To be able to search for a specific employee by first or last name (for example to find their email address or their employee ID).
- To show errors, when adding a new employee and using an email or an ID that already exists in the database and when updating an employee profile by entering an ID that does NOT exist in the database.

This app will be a webpage with a form or different forms where a user can enter different values.

HTML, PHP and JavaScript will be used to create this app.

This is a framework of how the app would look like. It's a simple dynamic web app that is based on "Forms" and I want to keep it as simple as possible.

Add employee to database

show errors here

First Name

Last Name

Email

Employee ID

submit

Update employee info on database

show errors here

First Name

Last Name

Email

Employee ID

submit

Search for an employee by First Name or Last Name

Search by first name or last name

Show employee list here:

First I created the html page with the forms for adding, updating and searching the employee information.

Then I had to use PHP to process the user submitted information on the server side and to send SQL commands to fetch information from the database.

JavaScript was used to communicate the information back to the webpage and to handle the user interaction.

I had to do a lot of searching, follow online tutorials and use AI to be able to get some useful code in PHP and JavaScript.

I also wanted to show some error reporting for example if a user tries to add an employee to the database using an existing employee ID or existing email. To trigger that error I used phpMyadmin and switched those two table columns to “unique” which solved the problem and made the database generate an error when the user enters an existing email or employee ID. The error message is displayed on the webpage.

Another error reporting idea was to stop the user from updating employee info using an employee ID that does not exist in the database and display an error if that happens. A PHP script was used for that (an “if” conditional) then JavaScript was used for reporting back the errors that came from the database and communicating them back in the form of html to be shown on the webpage.

Finally the employee search function was created to allow for searching the database for employee info by first name or last name, the idea is to be able to find an employee’s ID or maybe their email address if you know their name!