

Overview

For IDM 232, Scripting For Digital Media II, I designed and programmed a recipe website from scratch using PHP and MySQL to manage and manipulate the database, in conjunction with HTML and CSS basics. For my first time working with databases, I not only had to learn a new code language, but how to set up a database and interact with that through PHP on a live domain. Through incremental steps building different aspects of this website over the ten week term, I developed a foundational knowledge of how every aspect of my website works. This was completed over the course of three months in the fall term of 2022.

Context and Challenge

Background

This was a solo project for my IDM 232 Scripting class. The class was focused on PHP/mysql fundamentals and ran for ten weeks, from September to December. The focus of this class was to be able to dynamically create, edit, delete, and display a database or aspects of a database through a frontend perspective. It also introduced the concept of login systems, and how they worked as sessions.

Problem

While HTML and CSS are great base level tools for building a website, building interactive, dynamic, and complex websites works much better with PHP. PHP allows me to build out components of my website, to save time and increase organization while coding. With these components, I also have the ability to build templates and fill that with content from a database, rather than filling in content and code for static pages. This language is the baseline for understanding the current landscape of website development, so learning it only expands my capabilities and knowledge as a designer and developer.

Goals

- Implement the fundamentals of PHP into a multi-page dynamic website
- Utilize MySQL to store recipe and user data
- Preview website locally through MAMP and transfer files and database to Bluehost domain
- Overcome challenges that arise with PHP and MySQL implementations to earn a better understanding of the languages.

Process and Insight

1. Styles

Before starting the development at all, I wanted to define some general guidelines for the site to work off of. These styles would inform my alpha design. I wanted something bright and minimal with a clear text hierarchy.

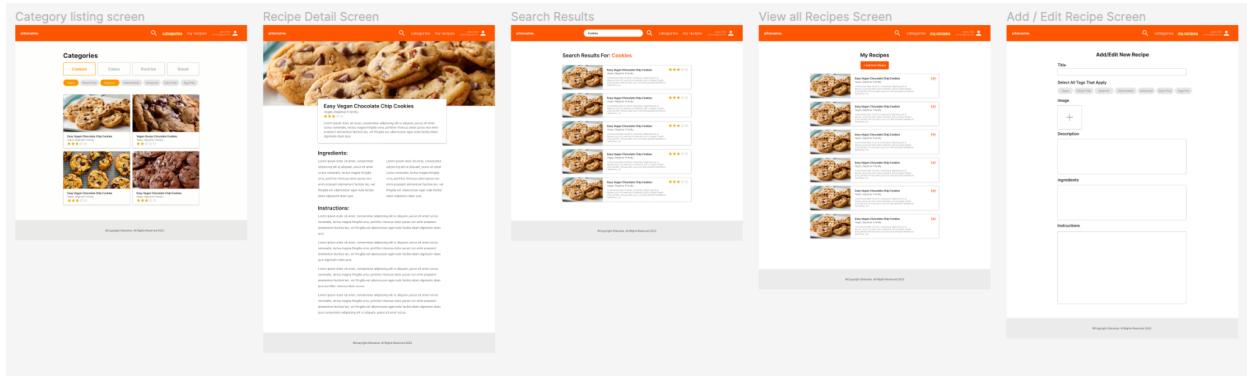


FONT: INTER

87% Opacity for high importance
60% Opacity for medium importance
38% Opacity for disabled states

2. Alpha Design

I then planned out what my major site pages would look like in Figma. This did not translate one to one for my final results but helped me in informing how I might go about setting this up before getting into the code. Here is a screenshot of the designs.



3. Coding Out the Pages

With all of my pages designed, I layed out a few base HTML pages to work off of. This included a responsive header with a navigation bar. I then gave some basic CSS to these elements to give the site some styling and bring it similar to what my designs were for the alpha. This was useful in building on my knowledge of HTML/CSS and building templates for my database content to fit into.

4. Implementing PHP

After learning more about PHP, I understood that my HTML pages should be broken up or changed to PHP. I made components for aspects of all of my pages, then set up templates for the database previewing all of this using MAMP, a local server. I followed along with weekly assignments creating header, footer, navigation, search, and table components until I had all of the aspects to implement this code into my templates. The PHP was broken up into user side and admin side responsibilities. Admins would be able to manipulate the database after logging in, while normal users would only be able to view recipes. Locally, my project was working and functional.

Recipes

A list of all the recipes in the site.



Ancho-Orange Chicken with Kale Rice & Roasted Carrots

We're amping up chicken breasts with a glaze of smoky ancho chile paste and fresh orange juice in this recipe. On the side, roasted carrots and lightly creamy, golden raisin-studded rice perfectly accent the sweetness of the glaze.



Beef Medallions & Mushroom Sauce with Mashed Potatoes

In this easy recipe, inspired by steak Diane (an American restaurant classic), we're searing beef medallions, then using the fond in the pan to make a rich, bright mushroom sauce for spooning on top. Garlic mashed potatoes and sautéed kale make for delicious, simple sides.

5. Connecting to Bluehost

While working locally, I was also working with a local MySQL database, so going live meant exporting that database to my bluehost MySQL. It also meant that I had to ensure my .env files contained the right information and were getting uploaded to Cyberduck, as they often are invisible files. Another problem I ran into was that Bluehost would not respond to some of the functions set up, so we had to find a work around. After discussing with a professor about why my database processing files were not redirecting, he helped me understand a work around using JavaScript rather than the header function in PHP. This fixed my problem, however even upon completing the project, there were issues with logging out that I could not find any help for, whether online or through faculty. This was unfortunately something I could not address.

The Solution

Final Project

The more I struggled with the project, the more I learned. When things broke, I found out how they were connected. I think this trial and error implementation was the most useful was for me to learn this language. Through examples, I was able to gain a base understanding of inputting, recalling, and deleting content from a database, then implement that into my own website with over 40 recipes. Working incrementally with this, by building on designs, then an alpha, then a beta, then a final allowed me to slowly learn different aspects and why they work the way they do. Styling elements became easier with components, and I feel confident that I could return to this code and understand its function even a year from now.

Visit the project here: <https://danelegassick.com/idm232/final/>

The Results

I learned that PHP is a necessary extension of HTML and CSS. As a UI designer, I think being able to build and understand complex and dynamic websites is the future of my career. Building components and communicating with a database are two of the most important tools for development and make developing management systems so much easier. I look forward to taking these skills into future projects for the next term.