**Hero Image**

Show hero image of final project.

Snapshot of the homepage in mobile, tablet, and deskptop.

**The Overview**

IDM 232 is a “Scripting 2” course where we explore moderns server-side scripting languages that allows user to interact with relational database content through browser web pages. The final project is to build a recipe website based off the large amount of recipe data including many images and pdf recipe files given to me.

IDM 241 is a “Micro Interaction” course where I learnt to identify and implement the elements required to design an incredible digital experience. I have explored many modern design theories and scripting languages to complete this project of creating 3 micro interactions, 2 of which I have merged to become my final complex micro interaction.

**Context and Challenge**

**Background**

In this course we learnt how to employ server-side technologies to pull data from a database and used php scripting language to build an interactive, data driven recipe site. We were given an individual project to build a dynamic recipe website.

The Problem: I was given a large amount of recipe data consisting of images of the finished meal, ingredients, images for each steps as well as 40 different pdf recipe files. The problem is that the client wanted me to sort out these files, take all these data and present them all on a website where it is easily accessible for users to get to any recipes they want. The client also wanted the website to be fully responsive.

Goal: To learn about php scripting language and server-side technologies to essentially build a fully responsive and data driven recipe site based off the large amount of data given to me.

The purpose of this class was to challenge myself to learn new scripting language to be able to tackle large data and organize and process them to be easily accessible by users on a data driven website.

Timeline: 9 weeks

**sI**

**Process and Insight**

**Persona Profiles**

I started off by building basic user personas. I geared my target users to be younger adults, rather than middle aged adults. I explored the different types of young adults user types from roughly age 20 to 35.

<3 images>

I found that the majority of my potential users seem to have a goal of learning new recipes when visiting the website. Some wants to find new healthy recipes; some just wants to be explorative and learn something new in general. Considering this, I came up with the idea of having a button on my homepage to generate a random recipe whenever the user is feeling explorative or is just unsure of what to cook. I also want to make sure the users are provided with a list of food categories to help them figure out where to start from. As time is valuable for busy young adults, I want to make sure the user can easily see the cook time for each meal to help them in their decision-making process.

**Style Guide/Branding**

I decided to make my website have a vibrant color scheme to make it look fun and energetic for my users. To match with this look, I chose my main font to be “Quicksand” font. This is a sans serif font with round edges, adding to the fun and joyful look. I have also created a logo that is a mascot for the website. The cute mascot gives the website a strong unique branding presence. The mascot is a based off my plushie dog called “Natsu”, which means summer in Japanese. I have also included some small illustrations of ingredients that can be used throughout my website.

<style tile>  
<natsu logo>

Wireframe

After understanding and establishing my style tile and targeted users, I began to make rough sketches on paper and turned them into wireframes using Adobe XD.

I wanted my results recipes to have the card designs that is currently popular. I felt like the round edges flows in with the overall image of the branding and the slight box shadow makes it look really smooth and 3D. The majority of the meal photos are on a plate and so I got this idea to crop each image into a circle to really make it look like it’s on a plate on the website. For the recipe page, I have also included a checklist button for each ingredient which can be useful especially for when the list is very long and difficult to keep track of what you have and don’t have.

<sketches first>

<Adobe XD wireframe designs>

**This section should elaborate on your design process. How did you go about developing the final solution. What were the steps that will help the reader to visualize the work and, more importantly, to see that it was created by human beings. We want see how the final came into being, not just what the piece looks like at the end. These could include (but not limited to) research:**

Code/Dev

For the first 4 weeks, other than building my personas and style tile, I began to develop my website. During this time, I only focused on developing the HTML, CSS, and JavaScript based off my wireframes. I had a mobile first approach when developing and made it fully responsive using media queries. I did not make a page for every recipe, except only developed one recipe page to be used as a template. This template will later be dynamic when inputting the data from server in. I made sure to focus a lot on making my backend code easy to read and understand when building the code. This is important because when I start putting php scripting in, it could change my layout a bit and going back and tweaking my CSS code will become necessary.

During the first 4 weeks, I also began to sort out all the data given to me into a spreadsheet which will eventually be imported into the myphpAdmin of my server as a MySQL database. The spreadsheet consisted of 40 rows of recipes and the several columns consisting of further data for each such as cook time, calories per serving, name of image files, instruction for each steps etc. In addition to necessary recipe datas, I have also divided the recipes into 7 categories: vegan, dinner, salad, potluck, Asian, Mexican, and Italian. These categories are made based on the most common types of food I found when analyzing all of the 40 recipes. I listed the category of meal in an additional column named “type”. This will be used for retrieving recipes with the specific category based on its “type” when clicking on the categories on the homepage.

<here is a snippet of my spreadsheet>

**Connecting to Database**

From week 4 to 9 is when I began to make it data driven. First, I need a local server environment to serve up the web files that I will look back at in my browser. I am using MAMP which will install a local server environment for me. It is a useful tool where I can easily test my website locally. Next I imported my spreadsheet to the local host myphpAdmin as a csv file where all the data will be stored there. Now I have a MySQL database ready to retrieve data from.

To retrieve the data, I need to first have my website connected to my local database. As this is for local only, the dbuser and dbpass is for the root user who has the full privileges. For my remote server, I used bluehost and created it’s own dbuser and dbpass so the value for these will be different from the local server. After this, I identified dbname for both the local and remote server. Last, to finally connect to my database, I used the “mysqli\_connect” key line. I have also added the “mysqli\_connect\_errno” key line so in case there is an error with my php code for example, it will inform me there is a database connection error. In result, this is what my database connection looks like:

<database connection code from \_database image>

For clear organization purposes, I have created an includes folder that consists of my \_header.php, \_footer.php, database.php, and form\_processing.php. This will help in preventing repeating lines of code in every page.

**Search Function**

The search bar in the html page is in a form and everytime a form is submitted, in this case, a search value is inputted, it is going to send a POST request. All the values posted will be in an associative array that is ready for us to access. I added the “action” attribute to send the form data to “searchresults.php” where the results will appear. I put all these values in a variable called $search and $search will be the values used when performing the database query in the “searchresults.php” page. This is how my search results appear. To get to the recipe page form the search results, I used the super variable $\_GET so that whatever recipe is clicked on, the GET method will access the “id” of that recipe and show its recipe page. In the recipe page the “id” is set as a variable that is equal to $\_GET[‘id’].

**Challenges**

**Random Recipe Generator**

One of my challenges was implementing the random recipe generator button in my homepage. I was unsure as to how I should make it work. After doing my research, I learnt about the \_rand php code which will generate a random number. I figured I could use this for generating a random “id” number to show a random recipe. At first, I put this in the recipe page but I realized that “id” is already made into a variable equaled to $\_GET[‘id’]. If I were to put another “id” variable with the \_rand php code, it’s impossible as you can’t have two of the same variable existing.

To solve this, I duplicated the recipe page and called it random\_recipe.php. It has the exact same HTML and CSS code, but the only difference will be that the “id” variable will equal to “rand (1, 40)”. The two numbers in the parameters represent the minimum and maximum number of “id” there is.

**The Z-index**

For the first 8 weeks, I had an issue with not being able to click on any of the category buttons in my homepage. They each had an anchor tag around them, yet none of them were clickable and none of them had the cursor pointer even when I added cursor:pointer to each button. To solve this issue, I started off by commenting out the different CSS file linked to the homepage. I had three links. After commenting two out of the three for each link to see which link is affecting the ability to click on the button, I found out that the issue lies in the index.css file. I went through my CSS and try to search for an issue and still could not find any pressuring mistake. So I tried to play around with the values of different properties such as position, cursor, on hover etc. Later, when I changed the z-index for the div the buttons reside in from – 1 to 10 it worked! I didn’t know this, but I learnt that if the z-index is a negative number, it means that it is ways behind the screen of interaction and therefore cannot be clicked.

**The Solution**

Color Branding

Responsive Design

Easy to see cook time and calorie.

Checkmark for easy access.

Type for Categories made it less messy in creating recipe page for each.

Result : Link

Solution

This is where you get to show off your final design with detailed images and videos, and a link to the live project if available. Describe your design work. Take the time to explain in detail your site’s defining features like its UX, navigation structure, content strategy, or unique mobile attributes. If you put the effort into crafting descriptions that complement your visual assets, your readers will feel much more confident in your decisions as a designer/developer.

**The Results**

A quick wrap up. Was the project a success and why. Do you have qualitative and quantitative success metrics from your project? These should directly address the objectives you established in The Context and Challenge section. If this is client work, include a client testimonial. This also is an opportunity to define the lessons learned and what you would change about your process / approach in the future.