MasterChef - Portions Calculations

Status: Current ▾
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Tracking bug link: *insert link with detailed information about implementation progress*
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Objective

The user will have the option to choose the number of dishes he wants according to his needs. In this way, another page will generate the necessary quantities for each recipe and its corresponding ingredients. The main objective is to waste as little food as possible and use the ingredients for future cooking. Accompanied by a calorie counter for portions.

Background

When cooking, people often don't know the exact amount of food they need. That's why with this website, they will have the opportunity to incorporate a dish counter to calculate exactly the necessary ingredients and avoid wasting food.
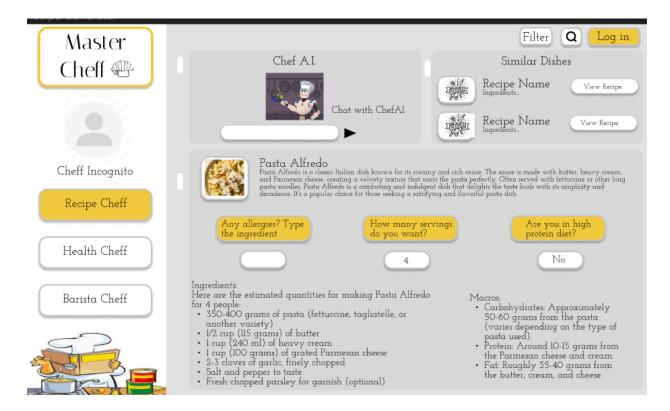
Additionally, they will have access to alternative ingredients based on their availability in the kitchen, ensuring balanced quality and quantity.

Requirements

The ingredients will closely match the original dish to avoid problems in the final result.
There will be a calorie counter for each dish that will change as more portions are added.
Recommended quantities cannot be entered if the ingredient is essential for the dish.
It is necessary to specify the correct portion for each ingredient when changing the number of dishes, otherwise it may affect the result.

Design

The following will be the way to present the different available dishes along with their ingredients.

Figure 1. Figma Design

There will be a section where users can share experiences related to the ingredients to offer a better understanding of how to use them and also to advise others on how to do so.

Alternatives Considered

Inline Display
We can store emojis as images in Drive and display them inline next to the selected text. Unfortunately that makes the document surface very crowded and further consultation with UX determined that it was better to display the emojis in the right margins of the document.

Pop-up
The method for inserting the quantity of dishes will be done via a pop-up, which will disappear once the user enters a quantity. Additionally, if the user inputs a large number of dishes and the available ingredients are insufficient, a notification will appear indicating that it is not possible to prepare the dish with those specifications.

Implementation Details
Let's add an alphabetically organized grid of dishes, featuring an illustrative image, the dish name, and the rating provided by those who have tried it.
- To enhance user experience, we'll also implement dynamic resizing code within the

isDishAvailable() method in MasterChef.java. This will allow us to efficiently adapt to the quantity of ingredients entered and the dish being prepared.
- Furthermore, to facilitate tracking of missing ingredients for our dish and their respective quantities, we'll add resizing code to the missingIngredients() function in MasterChef.java. This will help us maintain a detailed overview of what we need to complete our recipe.

With these enhancements, our system will provide a more intuitive and efficient experience for users when searching for and preparing dishes.

Timeline

Date	Task	Eng Estimate (days)	Status
02/14	Design and texts.	0.5	Done ⌄
02/14	Images.	0.5	Done ⌄
02/14	Functionality.	5	In progress ⌄
02/15	Database.	3	In progress ⌄
02/16	AI Calls.	1	In progress ⌄

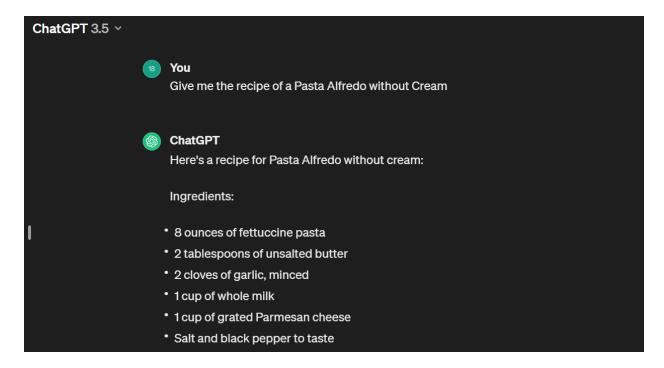# Database Query
- Collect a database or dataset of recipes along with their ingredients, quantities, and nutritional information.
- Implement a search feature where users can search for recipes based on various criteria such as cuisine type, dietary restrictions, ingredients available, etc.
- Use data query techniques to fetch and display relevant recipes to the user based on their search criteria.

GenAI Calls
- Train a generative AI model using recipe datasets to generate alternative recipes based on available ingredients.

- Implement a feature where users can input the ingredients they have, and the AI model generates recipe suggestions using those ingredients.
- Ensure that the generated recipes closely match the user's preferences and dietary requirements.
- Use the generative AI model to suggest alternative ingredients for recipes based on availability in the kitchen while maintaining the balance of quality and quantity.

ChatGPT 3.5 ⌄

You
Give me the recipe of a Pasta Alfredo without Cream

ChatGPT
Here's a recipe for Pasta Alfredo without cream:

Ingredients:

- 8 ounces of fettuccine pasta
- 2 tablespoons of unsalted butter
- 2 cloves of garlic, minced
- 1 cup of whole milk
- 1 cup of grated Parmesan cheese
- Salt and black pepper to taste

Instructions:

1. Cook the fettuccine pasta according to the package instructions until al dente. Drain and set aside, reserving about 1/2 cup of pasta water.
2. In a large skillet, melt the butter over medium heat. Add the minced garlic and sauté until fragrant, about 1-2 minutes.
3. Pour the whole milk into the skillet and bring it to a simmer. Reduce the heat to low.
4. Gradually add the grated Parmesan cheese to the skillet, stirring constantly until the cheese is melted and the sauce is smooth and creamy. If the sauce is too thick, you can add some of the reserved pasta water to thin it out to your desired consistency.
5. Season the Alfredo sauce with salt and black pepper to taste.
6. Add the cooked fettuccine pasta to the skillet with the sauce, tossing well to coat the pasta evenly with the sauce.
7. Serve the Pasta Alfredo hot, garnished with chopped fresh parsley if desired.

↓

Enjoy your creamy and delicious Pasta Alfredo without using cream!

You
What are the quantities if we are 6 people

ChatGPT
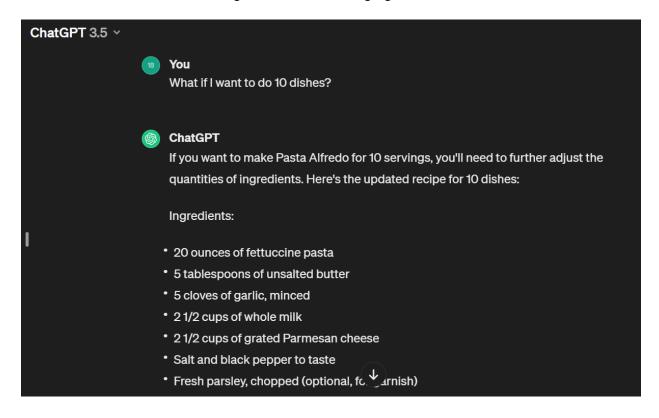To make Pasta Alfredo for 6 people, you can adjust the quantities of the ingredients accordingly. Here's the modified recipe:

Ingredients:

- 12 ounces of fettuccine pasta
- 3 tablespoons of unsalted butter
- 3 cloves of garlic, minced
- 1 1/2 cups of whole milk
- 1 1/2 cups of grated Parmesan cheese
- Salt and black pepper to taste
- Fresh parsley, chopped (optional, for ↓ arnish)

Integration with Dish Counter and Calorie Counter

- Integrate the data query and generative AI functionalities with the dish counter feature so that users can adjust the number of dishes they want and get corresponding ingredient quantities.
- Update the calorie counter dynamically as users change the number of portions, ensuring accurate calorie calculations for each dish.
- Validate user inputs to ensure that recommended quantities are not entered for essential ingredients and that correct portions are specified for each ingredient when changing the number of dishes.

ChatGPT 3.5 ⌄

You
What if I want to do 10 dishes?

ChatGPT
If you want to make Pasta Alfredo for 10 servings, you'll need to further adjust the quantities of ingredients. Here's the updated recipe for 10 dishes:

Ingredients:

- 20 ounces of fettuccine pasta
- 5 tablespoons of unsalted butter
- 5 cloves of garlic, minced
- 2 1/2 cups of whole milk
- 2 1/2 cups of grated Parmesan cheese
- Salt and black pepper to taste
- Fresh parsley, chopped (optional, for garnish)

ChatGPT 3.5 ⌄

You
can you include calories?

ChatGPT
Sure, here's an approximate calorie breakdown for the Pasta Alfredo recipe without cream, based on the quantities provided for 10 servings:

- Fettuccine pasta (20 ounces): Approximately 1600 calories
- Unsalted butter (5 tablespoons): Approximately 450 calories
- Garlic (5 cloves): Approximately 20 calories
- Whole milk (2 1/2 cups): Approximately 300 calories
- Grated Parmesan cheese (2 1/2 cups): Approximately 1000 calories
- Salt, pepper, and parsley: Negligible calorie contribution

Total approximate calories for the entire dish: 3370 calories