

# Specifications: Family Meal Planner

**Overview:** For this project, we'd like to automate something that families frequently do: plan meals for the week. The goal is to build a general purpose meal planner that any family can use. Every Saturday, it should ask the family a few questions, and based on the answers and the family training preferences, plan 7 days of lunches and dinners for this family.

**Details:** we'll explain everything this meal planner needs to do in a bullet list

- Let's call this project MealPlannerGPT.
- If you require an API key for OpenAI, please let us know. But you don't have to use GPT, you can use whichever LLM you want that you think will produce the best results.
- We'll need a simple interface where a family member can interact with MealPlannerGPT, meaning, this is the place where MealPlannerGPT will ask questions and where it will display results. The interface does not need to be fancy. In fact, this is the least important part of this test so please don't spend too much time trying to make it look nice. The important thing is that it works well!
- To start, we'll be doing one meal plan per week. The meal plan starts on Sunday and ends on Saturday of the following week. So the planning should be for 2 meals per day over 7 days. In other words, 14 meals.
- On each Saturday, a family member should receive an email with a link (one email address for now). Once they click that link, it should take them to the interface so they can answer the questions for the upcoming week. Don't overthink the errors here, if the person does not click the link and provide information on Saturday, too bad, they lose the meal planner for the week. Unless you have a more elegant and quick solution for this, please don't waste a lot of time on this part.
- When the link is clicked, the user should be taken to a simple interface. At that point they should be asked a few questions:
  - Will you be eating all meals at home this week? If not, please provide a list of days/meals on which you will not be eating at home (e.g. Saturday lunch)
  - How many adults and how many children will be eating meals this week? (For now, let's keep it simple and whatever the answer here is, we apply it for the whole week. We ask about adults and kids because of portion sizes)
  - Is there something in particular you would like to eat this week?
  - Is there something in particular that you don't want to eat this week?
  - Are there any allergies or dietary restrictions?
- Based on the answers to these questions and the previous training (explained below), MealPlannerGPT should create a meal plan for the user. The user should then be able to approve or reject the meal plan. For now, let's keep it simple and just create 14 new meal ideas if a plan is rejected. If it is rejected, it's ok to reuse some of the previous meals but let's try to change at least 2-3 of the 14 meals if the user does reject the plan.
- Here comes the tricky part: once a user approves a meal plan, MealPlannerGPT should prepare a shopping list for all the necessary ingredients for this meal plan. Here's where the portions part comes in. Assume that all adults will eat the same portion size and all children will eat the same portion size. But that children portion sizes are about 60% of adult portion sizes.
- Once the meal plan is approved and the ingredients list is prepared by MealPlannerGPT, the user should receive an email with the meal plan and all the ingredients required for this meal plan.
- Should MealPlannerGPT only suggest recipes that include the family's favourite ingredients/meals provided through training? Or should it also provide a variety of recipes with some new ingredients to try? Let's do it like this: 70% should be based on existing training and 30% should be based on similar ingredients but let's be adventurous and try something new.
- Then MealPlannerGPT waits until next Saturday and the whole thing starts all over again.
- For the training, there are a few items that we can provide as a starting point and MealPlannerGPT should ask some questions the first time it's used:
  - Attached is a list of lunches and dinners for the month of April. How do we import this as training into MealPlannerGPT? Assume that people would import a CSV file for their historical data. But for now, there is no need for an interface to upload this we can do it through the back-end.

- After this list is imported, MealPlannerGPT should ask if there are any allergies in this family? If yes, those ingredients should always be ignored when creating a meal plan.
- Then MealPlannerGPT should ask if there are any things that family members don't like? (e.g. broccoli) If yes, those ingredients should always be ignored when creating a meal plan.

I think that about covers the specifications. Remember, we're figuring this out together. If something is not clear, feel free to email me and ask me for clarifications. If you get ideas for simple additions to this, please let me know. And if you want to use this in your house when we're done, feel free to do so 😊