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## Description

Allow me to introduce you to Meal Master: a meal planning mobile app that integrates your grocery inventory with a recipe browser to create the easiest and most flexible meal schedule for your week.

For a lot of people, meal prep - and cooking in general - can be a very stressful experience. I strongly believe that one of the most commonly asked questions is, “what should we eat tonight?” Meal Master gives the user a simple solution to this question. It will take inventory of the user’s groceries and ingredients, and use them to create a list of meals that can be made with said items. The app will collect user preferences of meal categories or certain favorite foods and identify an appropriate meal plan for the week. Another problem that Meal Master solves is not knowing what you have at home. Often when at the store, one will buy ingredients for an upcoming meal that they actually already had at home, leading to excess items and likely spoiling of groceries before consumption. This app will also be capable of compiling a grocery list of desired recipes that contain ingredients you don’t already have in the pantry or fridge. Then, once you check the items off the grocery list while shopping, the app will update your inventory to include those items in the recipes that you can make.

This idea is designed for those of us with busy schedules who don’t desire to spend hours meal prepping the week on a Sunday night. All that will be required is a mobile device with the app downloaded to it, and bon appetit! With some preference surveys complete and a starting inventory of goods, Meal Master will be ready to prep your meals! This app will save users loads of time and wasted food.

## MVP

There are a few features this app will need in order to be functional in its purpose. First the user will log into or create an account. They will be able to preference certain food groups, allergies, and select favorite meal categories for the app to choose from when creating the meal plans. The user will then fill out the inventory tab of the app with all the stock they have. This will take awhile the first time, but once established, the user won’t have to come back very often. After these steps are complete, the app will generate lists of meals based on user preferences and user inventory. The intention of this app is to create a week’s worth of meals, but there will also be options to find just one meal at a time or choose which days to prepare meals for.

The absolute bare minimum requirements for this app to work are the inventory system and the meal generation based on that inventory. This solves the main problem of not knowing all that you can make with the ingredients you have at home. The grocery list integration is a feature I would like to include as well, but will not be necessary for the application to work as intended.

Features in this app will “communicate” through relationships. Utilizing OOP and classes, I will be able to support recipes with attributes that allow for sorting and collecting information.

For example, if a user inputs that they have a strong distaste for Chinese food, the app will filter out all recipes with the Chinese attribute. This framework will be the foundation of how this app selects recipes for the user. Along with that, names and quantities of ingredients will be stored in the app to be pulled from to find corresponding recipes.

I mentioned briefly throughout this write up, but there will be necessary data storage in this application. User preferences will need to be stored and referenced by the recipe selector function, as well as data related to the user's inventory. A grocery store database will not be necessary, as the grocery list creation will be generic ingredients and not specific brands (i.e., 4 sticks butter, not "Land O' Lakes Butter 4 stick pack"). This will keep users from being unable to buy items if their local store doesn't carry them.