Plan & Pantry

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Summary

Getting and keeping track of your favorite recipes has always been a mess. Either you have your favorites written in a notes app on your phone, scribbled on a notecard somewhere, or you just keep flipping to the same 2 or 3 pages in a giant cookbook. None are great solutions for keeping track of your recipes. If you're cooking extra for guests, you have to multiply all the ingredients in the recipe and calculate fractions. After dealing with all of that, the worst thing that could happen is you thought you had a certain spice, or enough chicken to make all the filets, but after you start cooking you realize you don't have enough.

Plan & Pantry solves all of those problems. It's a simple web app that makes it easy to keep track of your favorite recipes, edit them, add new ones, share with friends and family, and even print them out if you'd like. Recipes can be made private, so only you and people you share them with can see them. You can set the number of servings you'd like to make for any recipe, and *Plan & Pantry* will do the math for you. If you don't know what you want to make, *Plan & Pantry* will have the ability to search by tags or browse by category. You can then add all the ingredients to a grocery list, or even filter only for recipes that you already have all the ingredients for. *Plan & Pantry* makes the planning part of cooking easy.

Stakeholder/User Analysis

There are a few expected stakeholders for our product. People who like to cook and people who like to do meal prep/plan, either for organization or to save money, would be the primary users of *Plan & Pantry*. It would also be useful for parents and grandparents who are interested in preserving their well-used family recipes for their children and grandchildren, as well as children and grandchildren who want to have those recipes for themselves.

The value of *Plan & Pantry* for the first two groups mentioned is in the organization and efficiency that our website would provide. Being able to have all your recipes in one place that's accessible from phone, tablet, or computer is useful and also prevents them from being lost. People interested in cooking would find good value in a simple, standardized interface and the ability to search for new recipes by tag/category, as well as filter for recipes they can cook without needing to make a trip to the store.

Possible future paid features like price/serving and estimated caloric/nutritional information would also be incredibly useful for saving money and staying healthy.

For parents, grandparents, children, and grandchildren, the value of *Plan & Pantry* lies mostly in the ability to share recipes with others through URLs or share codes, as well as export the recipes in a standardized format for printing.

Competitors

There are a few possible competitors to *Plan & Pantry* that have similar features. *Out of Milk*, a grocery shopping list application, already has barcode scanning functionality that allows the users to add new products into their shopping list, making it a very easy-to-use and time-saving app. *Out of Milk* allows users to share grocery lists with each other, which is a feature we aren't planning to add initially. However, *Out of Milk* doesn't deal with any recipes, so you can't search, view, or automatically add ingredients from a specific recipe to your shopping list. It also doesn't seem to keep track of what you already have at home. *Plan & Pantry* would be able to keep an inventory, and reduce/remove items appropriately as they get used when you indicate you're making a specific recipe on the website.

Another, more comprehensive competitor is *Whisk*. *Whisk* is a website and application that has recipe sharing, searching, and saving, as well as meal planning and grocery shopping. It can also add the ingredients from a recipe to your shopping list and integrates with some grocery stores. *Whisk* is probably the closest alternative to what we plan to create. However, it doesn't seem to have a barcode scanning feature or the ability to search for recipes you already have ingredients for.

Summary of Technologies

Plan & Pantry will be built using the MEAN stack that we'll be learning in this course. MEAN is based on using Angular for frontend development, ExpressJS running on NodeJS for backend, and MongoDB for database storage. Additionally, we'll utilize CSS/Bootstrap with the Angular javascript framework to style and accurately portray the vision we have for *Plan & Pantry*. Using Bootstrap will allow us to more easily make our project for desktop and mobile environments. ExpressJS will be used for login authentication and sessions as well as database communication, and MongoDB will be used to store grocery lists and the various forms of recipes on *Plan & Pantry.*

Functional vs Non-Functional Requirements

The core functionality of *Plan & Pantry* is rather simple: it's just a website that allows you to upload your own recipes and find new ones. Therefore there are pretty minimal "functional" requirements. However, since that core functionality is very simple the real meat of *Plan & Pantry* is in the non-functional requirements. This means that for

our project to be fully featured and competitive with other offerings, we should implement most, if not all, of the non-functional requirements. Those "non-functional" requirements will really fill out our *Plan & Pantry's* functionality and make it a lot more interesting to users and stakeholders. Also, we don't have a proper semester project with just the functional requirements.

Functional:
- Search all recipes regardless of what ingredients you have
- View popular public recipes (sort by most made, most viewed, recently added, ect.)
- Add your own recipes publicly/privately
- List of ingredients needed for recipes

Non-Functional:
- List of ingredients user has at home
- Search recipes you can make with ingredients you currently have
- Ability to print out recipes
- Scan barcodes to add ingredients
- Scale ingredient amounts to recipe servings
- Add ingredients from a recipe to a grocery list
- Like recipes that will be stored in a "like-list" users can view later
- Quick response time
- Easy to navigate for all age groups
- Intuitive to input recipes

Estimated Project Schedule

Milestone	Deadline
Project proposal and presentation	1/25/2022
Final sitemap	2/12/2022
Final wireframes (Figma)	2/12/2022
Main website pages in HTML/CSS	2/19/2022

Basic JS/DB/API functionality	2/28/2022
Midterm presentation	3/4/2022
All website pages created	3/18/2022
Most JS/DB/API functional	3/25/2022
Website nearly (95%) complete	4/17/2022
Final project presentation	4/27/2022

Project Notes:

Recipe website

- Search what recipes can you make with the ingredients you have
- General search functionality (by title and tags)
- Ability to scale ingredients for more/less people

Recipe sharing/public and private recipes

- top recipes view - maybe a few different categories (most viewed, most saved)
- Recipes possible based on what you currently have
- Ability to print out recipes in a standard format

Grocery shopping list utility

- Adds into your pantry for ingredients you have
- Possible ability to scan barcodes?
- Separate list for what you need - reference which recipes need which ingredients