



April 11, 2025

# MealsMyWay



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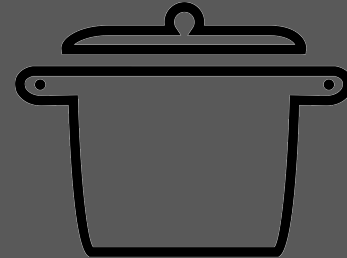
**Recorder:**  
Colin MacDonald



# Introduction

**MealsMyWay** is a web and mobile application that aims to give the user a detailed list of instructions for meal prep. Users will be able to add and edit recipes for the week on the fly for themselves and others to use as needed.

- Customizable Meal Planning
- Smart Shopping Lists
- Social Sharing & Collaboration
- AI Recommendations





# Problem Statement

## What is the issue?

- Existing apps lack flexibility, risk overspending, are mobile-only, and features

## Who is the sponsor

- Dr Ana Paula Chaves, Assistant Teaching Professor at NAU

## Why us?

- Save time, reduce waste, and eat healthier





# Solution Overview

Cross-platform meal-prepping application designed to simplify, customize, and socially enhance meal planning for busy individuals and families.

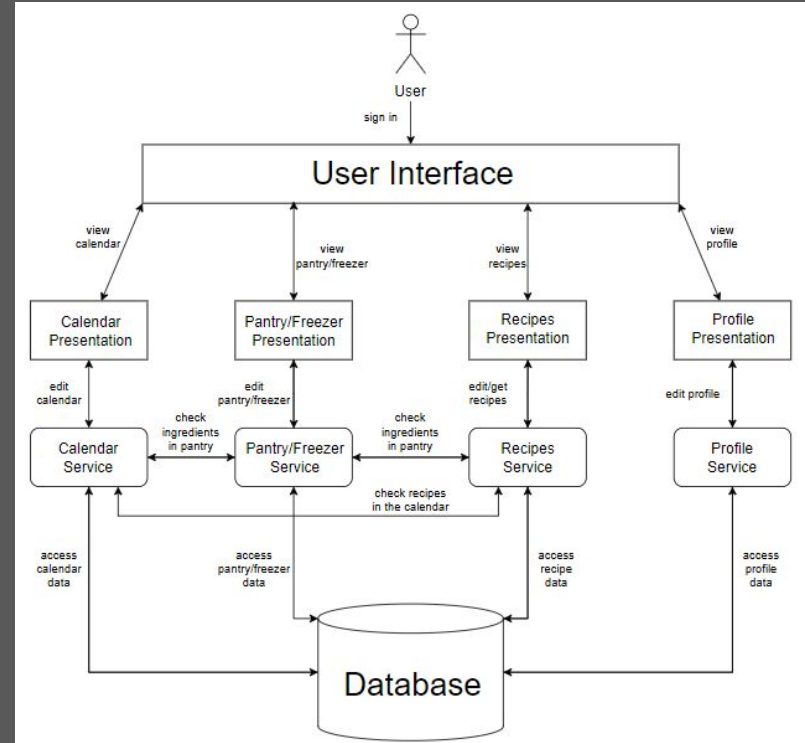
## Key Requirements:

- Comprehensive Calendar Management
- Recipe Selection/Generation
- Pantry and Freezer Management
- Grocery List Generation
- Prep List Generation
- Sharing Meal Plans/Schedules with Others



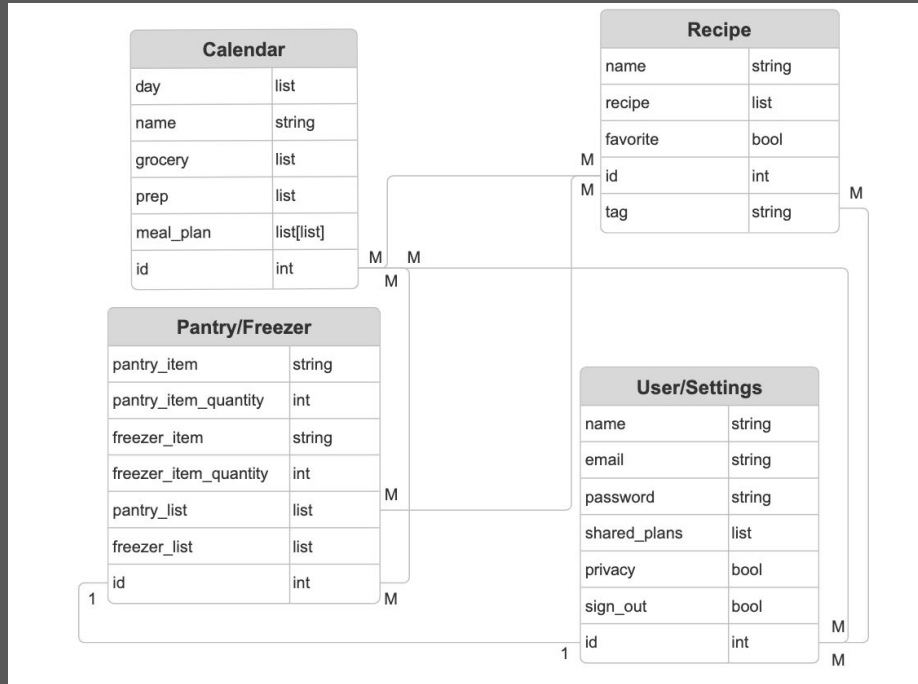
# Architecture

- **Calendar**
  - Weekly sections, holds recipes
- **Pantry/Freezer**
  - Present Inventory/Ingredients
- **Recipes**
  - Name, Author, Steps, Ingredients, Tags
- **Profile**
  - Security, Privacy





# Implementation Review



- **Backend**
  - Express
- **Frontend**
  - Ionic
- **Calendar**
  - Reads Recipes
  - Reads User ID
  - Reads Pantry/Freezer
- **Pantry/Freezer**
  - Reads User ID
- **Recipes**
  - Reads User ID
  - Reads Privacy Setting



Prototypes

## Weekly Meal Prep Calendar

[SELECT WEEK](#)

Week of: April 6, 2025

[SHARE CALENDAR](#)

Sunday

Kids Lunch  
Adults Lunch  
Family Dinner

Monday

Kids Lunch  
Adults Lunch  
Family Dinner

Tuesday

Kids Lunch  
Adults Lunch  
Family Dinner

Wednesday

Kids Lunch  
Adults Lunch  
Family Dinner

Thursday

Kids Lunch  
Adults Lunch  
Family Dinner

Friday

Kids Lunch  
Adults Lunch  
Family Dinner

Saturday

Kids Lunch  
Adults Lunch  
Family Dinner

### Recipe List

No recipes are selected.

### Add Meal

Select Meal ▼

Select Day ▼

Select Category ▼

[ADD MEAL](#)[GENERATE SHOPPING LIST](#)[VIEW SHOPPING LIST](#)[SAVE CALENDAR](#)[GENERATE PREP LIST](#)[VIEW PREP LIST](#)

## Recipe Details

**Title:** Chicken Salad

**Ingredients:**

- 32 oz Chicken
- 16 oz Lettuce
- 6 oz Cucumber
- 1 oz Olive Oil

**Instructions:** Cut the chicken into cubes, cook it in a pan with Olive Oil, wash Lettuce, cut Lettuce, wash Cucumber, cut Cucumber, mix all together.

CLOSE

## Shopping List

- 8 Beef
- 2 Hamburger Bun
- 2 Salt
- 2 Pepper
- 2 Garlic Powder
- 2 Onion Powder
- 2 Slice of American Cheese
- 2 Onion
- 32 oz Chicken
- 16 oz Lettuce
- 6 oz Cucumber
- 1 oz Olive Oil
- 2 (7 inch) spinach herbs tortillas such as Mission® Carb Balance Tortillas
- 2 leaf lettuce leaves washed and completely dried plus more for serving
- 2 (1 ounce) slices mozzarella
- 1 cucumber peeled
- 1 thin slice sweet onion separated into rings
- 1 oz purchased green goddess salad dressing such as Kraft®
- 2 green onion leaves or 2 chives (optional)
- grape tomatoes for garnish (optional)

EDIT

CLOSE

## Prep List Shopping List

### Combined Prep List for Smash Burgers, Chicken Salad, and Green Goddess Chicken & Cucumber Wraps

#### Proteins

1. **Beef (Smash Burgers)** – 8 oz (2 servings)
  - Mix with salt, pepper, garlic powder, and onion powder. Form into balls.
2. **Chicken (Chicken Salad & Wraps)** – 32 oz (for salad) + 2/3 cup shredded (for wraps)
  - Cube and cook 32 oz for salad (reserve 2/3 cup shredded for wraps).
3. **Mozzarella (Wraps)** – 2 (1 oz) slices

#### Vegetables

4. **Onions**
  - **Sweet Onion (Wraps)** – 1 thin slice (separated into rings)
  - **Yellow Onion (Smash Burgers)** – 1 onion (sliced for burgers)
5. **Lettuce**
  - **Leaf Lettuce (Wraps)** – 2 leaves (plus extra for serving)
  - **Lettuce (Chicken Salad)** – 16 oz (washed and chopped)
6. **Cucumber**
  - **Chicken Salad** – 6 oz (washed and diced)
  - **Wraps** – 1 cucumber (peeled, half speared, half shaved)
7. **Avocado (Wraps)** – ½ (thinly sliced)
8. **Green Onion/Chives (Wraps, optional)** – 2 leaves

## Pantry and Freezer

### PANTRY

3 Egg

16 oz - Milk

New Item

EDIT PANTRY

### FREEZER

Lasagna - 2 Portions + -

Salad - 1 Portion + -

New Item

EDIT FREEZER

### SPICE RACK

Onion Powder

Garlic Salt

Parsley

New Item

EDIT SPICE RACK

## Recipes

## Recipe Creation and Information

CREATE RECIPE

Author

Title

Ingredients

Instructions

Tag

## Selected Recipes

## Apple &amp; Blackberry Crumble

Category: Dessert

Area: British

Ingredients:

- Plain Flour - 120g
- Caster Sugar - 60g
- Butter - 60g
- Braeburn Apples - 300g
- Butter - 30g
- Demerara Sugar - 30g
- Blackberries - 120g
- Cinnamon - ¼ teaspoon
- Ice Cream - to serve

Instructions:

Heat oven to 190C/170C fan/gas 5. Tip the flour and sugar into a large bowl. Add the butter, then rub into the flour using your fingertips to make a light breadcrumb texture. Do not overwork it or the crumble will become heavy. Sprinkle the mixture evenly over a baking sheet and bake for 15 mins or until lightly coloured. Meanwhile, for the compote, peel, core and cut the apples into 2cm dice. Put the butter and sugar in a medium saucepan and melt together over a medium heat. Cook for 3 mins until the mixture turns to a light caramel. Stir in the apples and cook for 3 mins. Add the blackberries and cinnamon, and cook for 3 mins more. Cover, remove from the heat, then leave for 2-3 mins to continue cooking in the warmth of the pan. To serve, spoon the warm fruit into an ovenproof gratin dish, top with the crumble mix, then reheat in the oven for 5-10 mins. Serve with vanilla ice cream.

Tags: Pudding

EDIT

DELETE

CLOSE

## Choose Recipes

Search...

☒ Apple & Blackberry Crumble☐ Chicken Salad☐ Massaman Beef Curry☐ Strawberry Oatmeal☐ Fry Bread☐ Smash Burger

ADD SELECTED TO CALENDAR

## Log In

Username

Password

LOGIN

Don't have an account?

CREATE ONE HERE

## Sign Up

Username

Password

Email

SIGN UP

Already have an account?

LOG IN

Welcome, laura123!



Email

laura@yahoo..com



Password

Old Password

New Password

UPDATE PASSWORD



Privacy



Shared Plans

You are sharing with:

No shared plans yet.

Shared with you:

No plans are shared with you.



Sign Out



# Testing Plan

- **Unit Testing**
  - Jasmine testing framework paired with the Karma test runner
- **Integration Testing**
  - Ionic Frontend & Express Backend
- **Usability Testing**
  - Real peoples thoughts on the system

```
Jasmine 4.6.1
xx • xxxxx ..... xxxxx
52 specs, 10 failures, randomized with seed 18209
Spec List | Failures

RecipeService
  x should be created

UserService
  x should be created

TabsPage
  x should create

PantryPage
  x should create

CalendarService
  x should be created

Tab3Page
  x should create

SignupPage
  x should create

Tab2Page
  x should not call loadCalendar service if user is missing
  x should clone and add selectedMeal to the calendar in pushMeal()
  x should send calendar invite and show success alert
  x should populate hoveredRecipe and selectedEvent on onRecipeClick()
  x should call saveCalendar with correct payload if user is present
  x should generate 20 weeks of plans including current week
  x should load recipes from navigation state if available

Utility & Lifecycle Functions
  x should reload recipes when view is about to enter
  x should return ingredients from array format
  x should return parsed ingredients from comma-separated string
  x should initialize with stored plan and user and call loadCalendar
  x should format category keys to readable strings
  x should return null if no numeric value is found
  x should correctly convert different units to ounces
  x should parse simple ingredient strings with dash format
```



# Challenges and Resolutions

## Units for the Pantry

- **Challenge:** Some pantry items can't be measured in ounces, making it difficult to track usage.
- **Resolution:** Add pop-ups asking users how much of an item is used. This keeps pantry and grocery lists accurate.

## Sharing Calendars

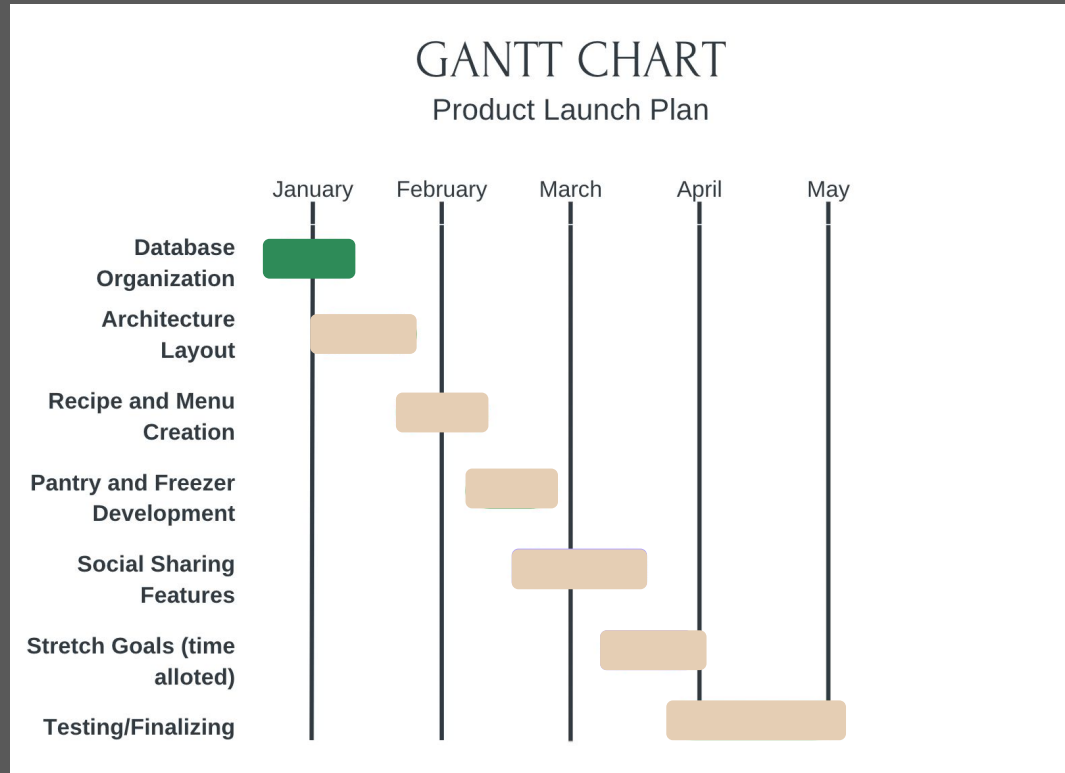
- **Challenge:** Allowing multiple users to edit the same calendar at the same time.
- **Resolution:** Assign multiple users to the same calendar and update the database with all saved information that would then update on another users view.

## Creating the Spice Rack

- **Challenge:** Spices are used in small amounts and last much longer than other items.
- **Resolution:** Create a spice rack where each spice starts with 100 uses and decreases by 1 each time it's used in a recipe.

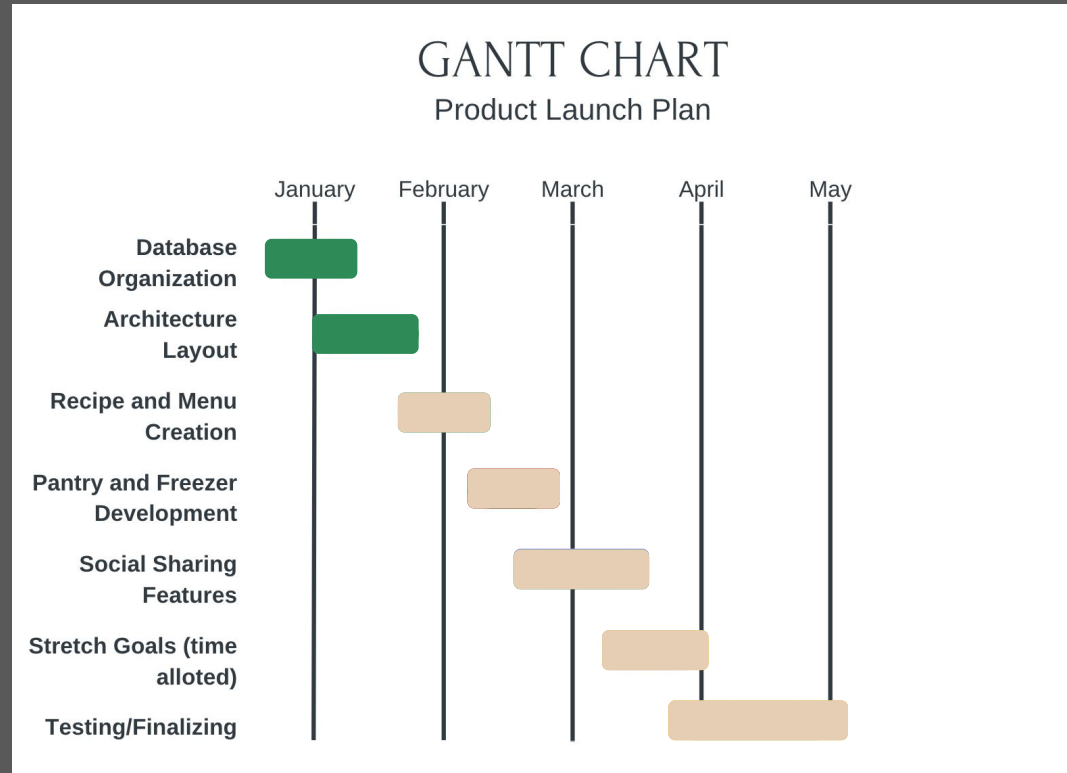


# Schedule



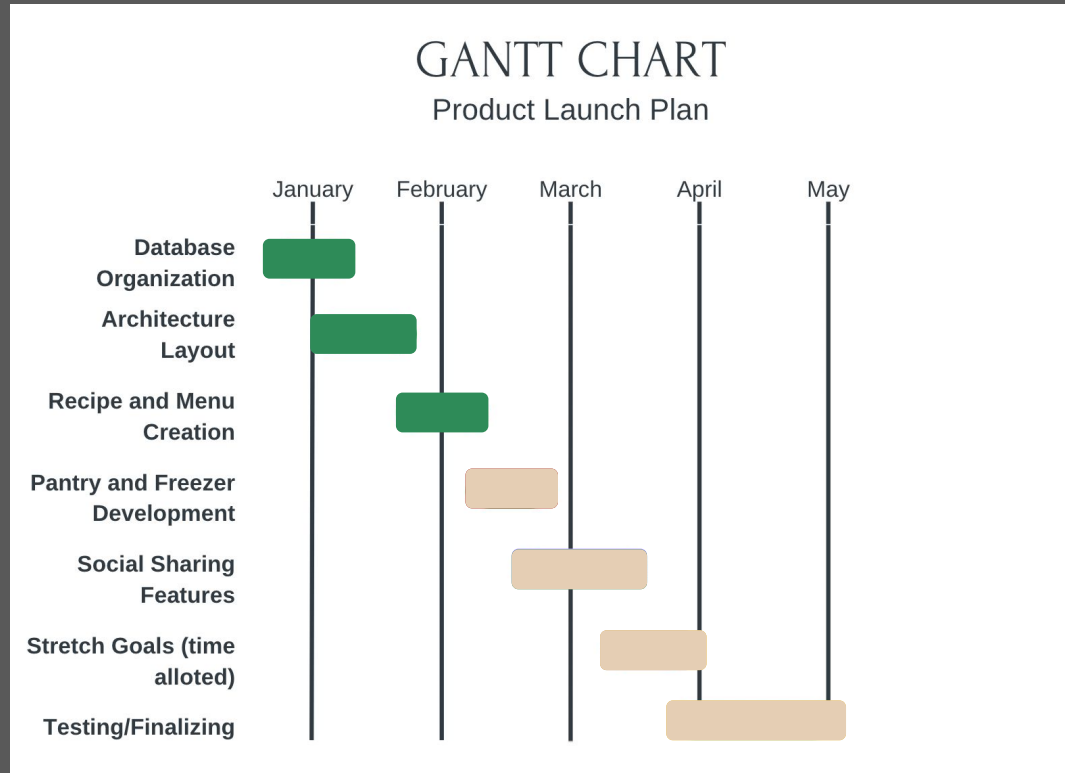


# Schedule



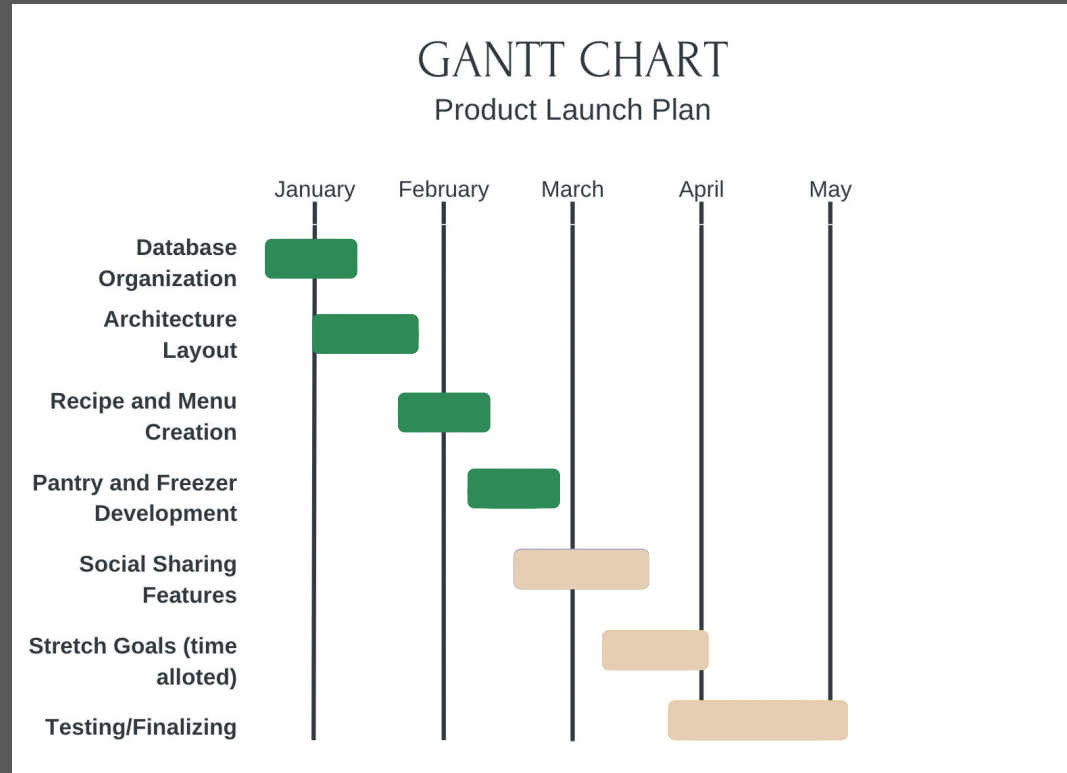


# Schedule



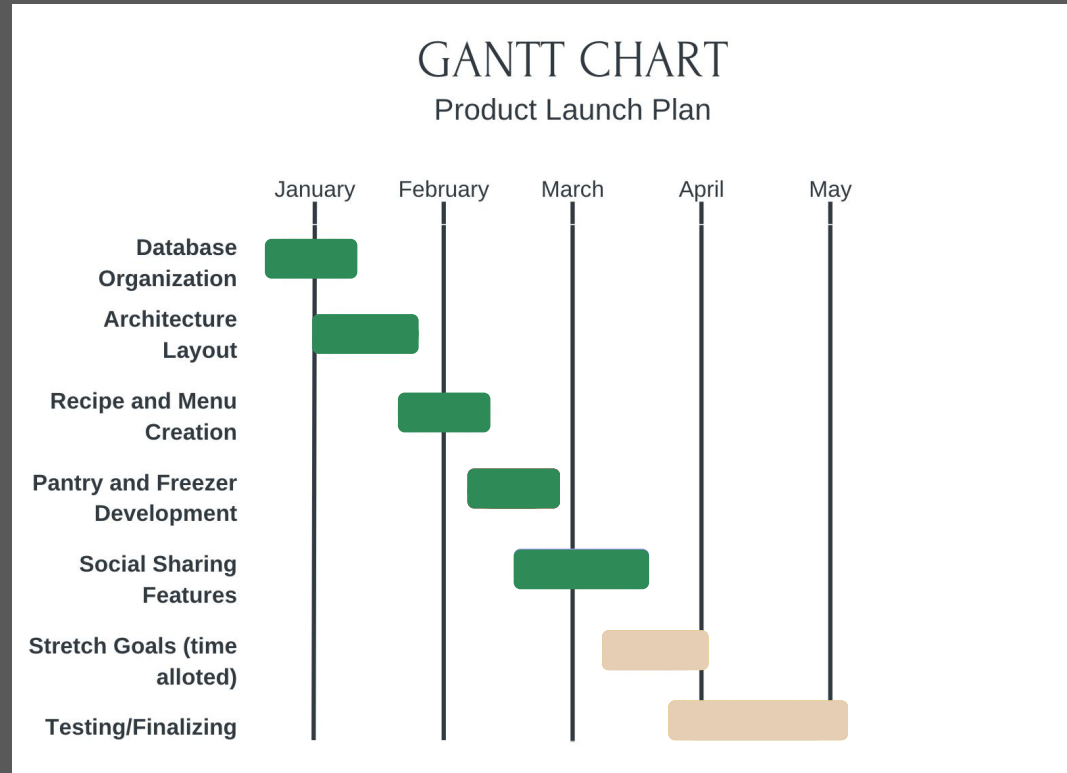


# Schedule



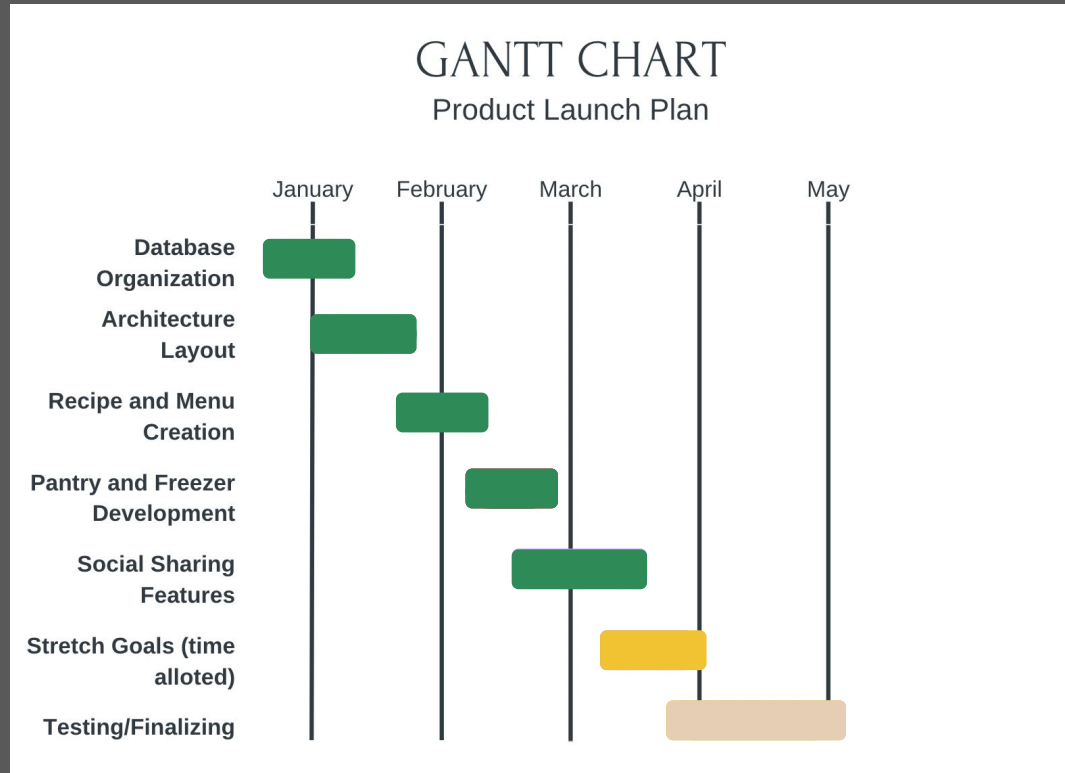


# Schedule



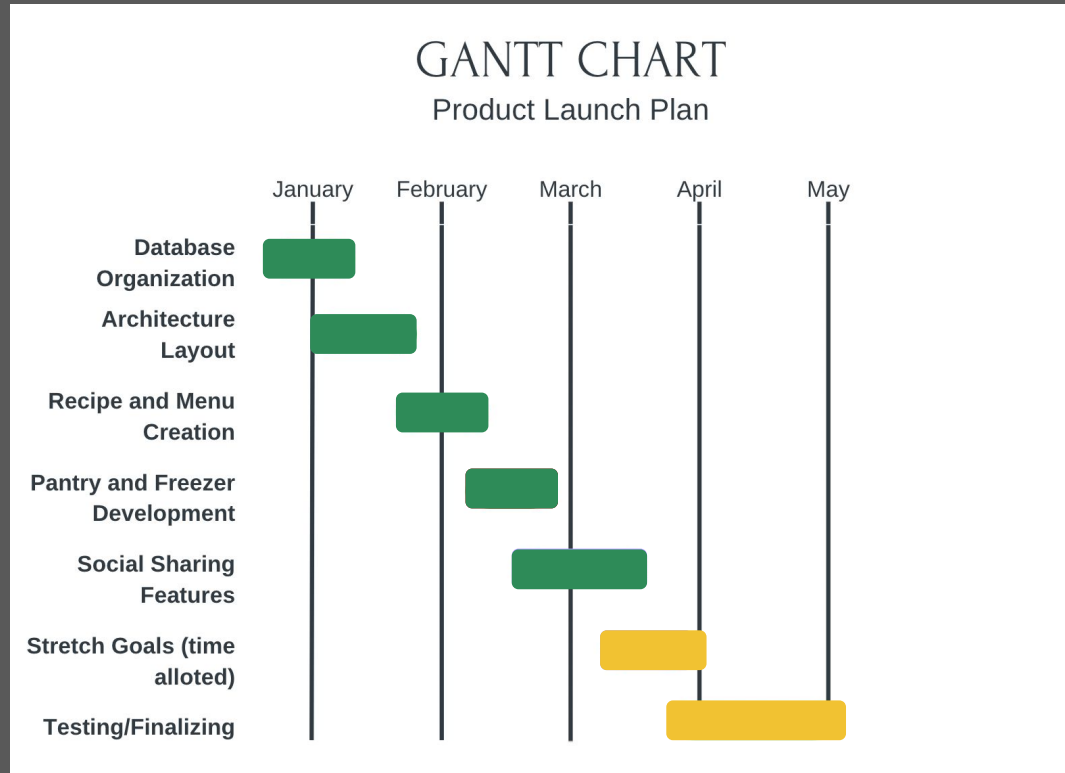


# Schedule





# Schedule





# Conclusion

- Existing tools lack flexible features
- Streamlines meal planning with features designed to make life easier
- Our team has a well structured plan and feel prepared for the coming steps in development
- Next steps are designing the mobile app view and polishing existing features.

**Thank You!**  
**Any Questions?**