1. Risk Analysis

Risk: No set weekly meeting times
Description: No consistent time every week set aside for work meetings, all of our meetings are planned week-by-week due to varying personal/school/work schedules
Severity: High
Resolution: Weekly leaders should plan meetings early in the week (Monday), and send out when2meets through the group chat. Asynchronous work can be organized as well, so they can be done without schedules matching up.
Status: Resolved

Risk: Database Knowledge Risk
Description: We only have basic experience with using databases in isolation, not with an actual project with multiple components and communication with a frontend site.
Severity: Low
Resolution: Learn database while developing the project, should be straightforward to find necessary syntax help during the process.
Status: Resolved

Velocity

4-unit class = 12 hours of total work

-3 hours for class

-3 hours for lab

-1 hour for discussion

= 5 hours left every week for project work

Each person is expected to put in around 5 hours of work every week, so with 6 people, we will be putting in 5 * 6 = 30 hours of work per week.

Out of these 30 hours, we can expect to have a velocity of 0.7 because we are a beginner team, and thus we won't be as efficient as the super coordinated ideal teams mentioned in the book (velocity 0.9). Below are some of the reasons that could impact our efficiency:
- Travel time / lateness

- Sick time
- Time coordinating weekly meetings
- Midterm weeks
- Tasks with a lot of overlap, not everyone has something to do during meetings

Overall, we can expect to put in 30 * 0.7 = 21 hours of work into the project each week. Therefore, our first iteration length (1 week) should only have up to 21 hours worth of work.

2. Planning Poker

S#	Name	Hand	False Assumptions Uncovered
1	1 - Recipe List	3 3 2 2 3 8	can hard-code display data for this feature; no need to implement full database
2	1 - Recipe List	3 1.5 2 3 3 3	work for this story is mainly UI, so UI will be more time-consuming here than just re-using past code
3	1 - Recipe List	3 3 3 3 3 3	
1	2 - Voice Input	4 1 3 1 1 2	not a new technique, lab has all voice recognition code
2	2 - Voice Input	1 1 1 1 1 1	

1	3 - Open Recipe Details	3 3 3 1 3 3	a lot of UI work is needed for a whole new display tab
2	3 - Open Recipe Details	3 3 3 3 3 3	
1	4 - Meal Type	2 2 2 3 2 3	this dropdown is text only (voice input is figured out with voice input feature)
2	4 - Meal Type	2 2 2 2 2 2	
1	5 - Save Button	8 1 8 1 7 8	this is all the database setup work, not just a button
2	5 - Save Button	8 8 8 8 8 8	
1	6 - Back Button	2 1 2 2 2 1	back button involves routing
2	6 - Back Button	2 2 2 2 2 2	
1	7 - Delete Recipes	1 1 2 1 2 3	should plan extra time for testing (deletions can be messy)
2	7 - Delete Recipes	2 2 2 2 2 2	
1	8 - Viewing Recipe Details	3 2 2 1 3 1	a lot more UI boxes, different from all previous lists
2	8 - Viewing Recipe Details	3 3 3 3 3 3	
1	9 - Edit Recipes	1 2 2 1 1 4	editing can be in-built like contact list
2	9 - Edit Recipes	1 1 1 1 1 1	
1	10 - New Recipe Creation	2 1 2 3 2 3	only a little UI work, but everything else is already implemented in other features
2	10 - New Recipe Creation	2 2 2 2 2 2	

3. User Stories/Features

Story 1.

Title: **Recipe List** [3 hours, H]

As a [cook who remakes recipes]

I want to [have a record of my previous recipes]

So that [I can cook the same dishes that I've tried before and not have to worry about forgetting it from last time]

Bdd Scenario:

Given I have 15 recipes that were saved previously

And my screen only has the height for 10 recipe overviews

When I look at my recipe list

Then I see the first ten recipes on the screen

And I see the index number, recipe name, and meal type for each

And there is a scroll bar on the side for me to scroll down

When I scroll down to the bottom

Then I'll see the last 10

Story 2.

Title: **Voice Input** [1 hour, L]

As a [busy college student]

I want to [use spoken words to give directions]

So that [I can get recipes and instructions quicker without having to stop in the middle of food prepping]

Bdd Scenario:

Given a voice input feature

And a button to click to record voice

When the button is clicked we can record our meal type and ingredients

Then voice message is quickly proceed by Whisper

And a recipe that can be prepared by given ingredients is displayed

And a step-by-step directions is provided

Story 3.

Title: **Open Recipe Details** [3 hours, M]

As a [student with leftover ingredients]

I want to [click on the recipe title]

So that [I can see a popup window with detailed instructions of the recipe and its ingredient list to figure out if I have the ingredients to make the recipe]

Bdd Scenario:

Given a recipe title on my recipe list

And I want to open up the recipe for the ingredients and instructions

When I click the recipe title

Then it opens up a popup window of the recipe

And I see the ingredients for the recipe

And detailed instructions on how to recreate the recipe

Story 4.

Title: **Meal Type** [2 hours, M]

As a [student who wants meal variety]

I want to [specify meal types]

So that [I can find recipes for the specific meal I am trying to make]

Bdd Scenario:

Given I have selected the New Recipe Button

And the application prompts to specify meal type

When I say "lunch"

Then a program asks for the ingredients,

When I say the ingredients

Then the program constructs a recipe of type "lunch"

Story 5.

Title: **Save Button** [8 hours, M]

As a [recipe reuser]

I want to [save the new or edited recipe to my list, and display only the title at the top of the list

So that in the future I can reopen the recipe and view the instructions again.]

Bdd Scenario:

Given that I currently have open a new or edited recipe

And I want to save the recipe for future use

When I click on the save button

Then I will be taken back to my recipe list screen

And I will see the saved recipe added to my recipe list

And it will be on the top of my recipe list

Story 6.

Title: **Back Button** [2 hours, M]

As a [recipe finder]

I want to [go back to my recipe list]

So that [I can continue to search for a recipe I want to make]

Bdd Scenario:

Given I am on the detailed recipe list

And I have no unsaved edits to the recipe

When I select the back button

Then the screen returns to the list of recipes

Given I am on the detailed recipe list

And I have unsaved edits to the recipe

When I select the back button

Then the edits should not be saved

And the screen returns to the list of recipes

Given I have just generated a new recipe

And I am on the recipe details page

When I select the back button

Then I should be taken back to the main page

And the newly created recipe should be on top of the list

Story 7.

Title: **Delete Recipes** [2 hours, M]

As a [student who wants meal variety]

I want to [remove old recipes]

So that [I don't cook meals that I no longer want to eat]

Bdd Scenario:

Given a recipe I do not use anymore

And I want to remove it from my list

When I click the delete recipe button

Then the recipe will be removed from my recipe list

And the rest of the recipes will move up in the list

And we will update the index

Story 8.

Title: **Viewing Recipe Details** [3 hours, H]

As a [student who needs exact details to cook]

I want to [see the instructions and ingredient list of the recipes]

So that [I can follow the steps exactly to succeed]

Bdd Scenario:

Given I am in the recipe list

And that there exists at least one recipe in the details.

When I select a recipe on the list,

Then a new screen appears with ingredients and instructions.

Story 9.

Title: **Edit Recipes** [1 hour, M]

As a [a cook dedicated to improving]

I want to [edit existing recipes]

So that [I can personalize them to my tastes and record the amounts of seasoning I want to add]

Bdd Scenario:

Given that I currently have open a new or edited recipe

And I want to edit the recipe to modify the current recipe

When I click on the ingredient text field I want to change

Then I will be able to directly edit the ingredient

And I will see the change instantaneously as I type

And I will click on the save button to save my edits permanently
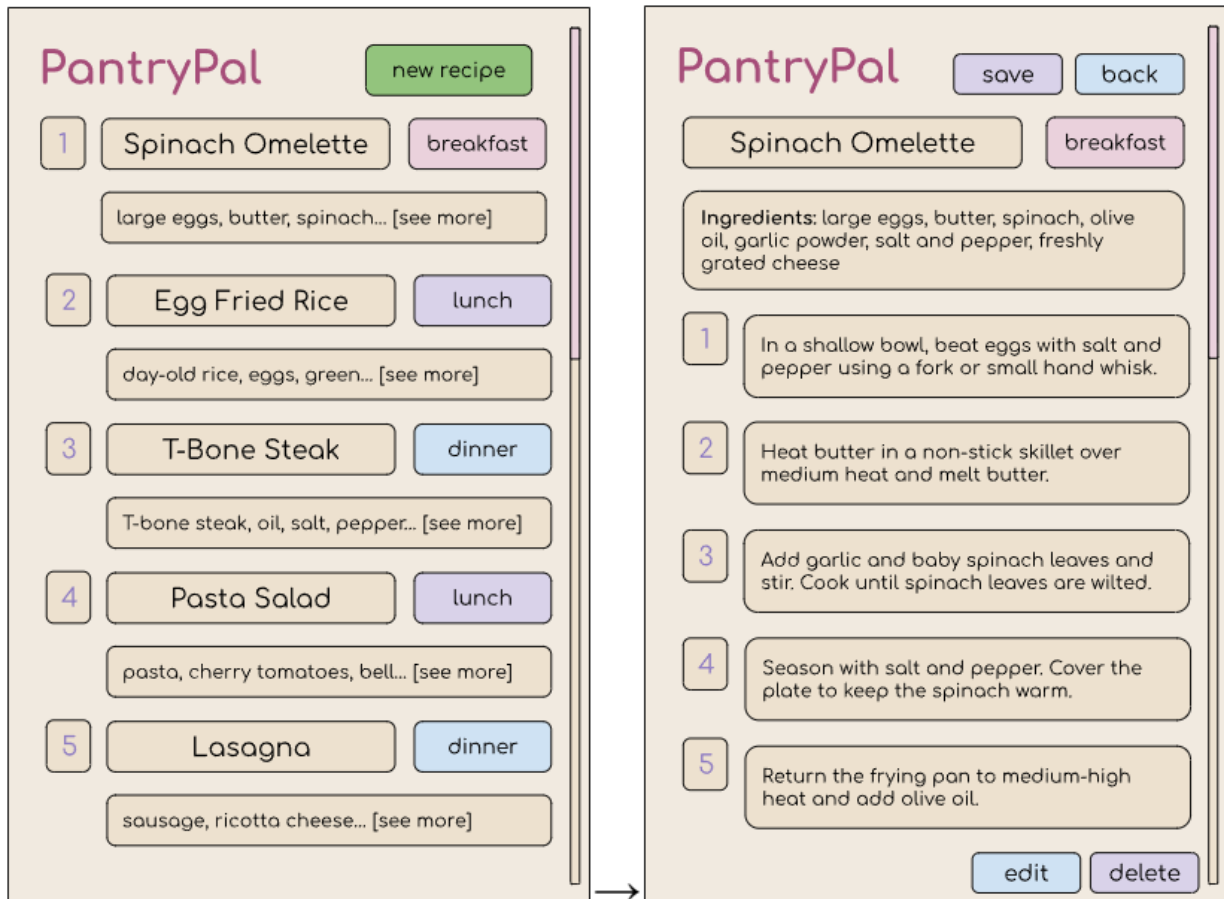
Story 10.

Title: **New Recipe Creation** [2 hours, M]

As a [cook with a bundle of random ingredients]

I want to [create a new recipe]

So that [I can use all the ingredients in one recipe, as none of the recipes I know use this combination]

Bdd Scenario:

Given I am in the recipe list

And I selected the new recipe option

And the prompt asks me for the meal type and the ingredients

When I say the meal type and ingredients

Then the application requests a recipe with that meal type and ingredients towards ChatGPT

And a recipe is generated using that meal type and ingredients.

Wired UI Screens

Screen 1

PantryPal   [new recipe]

| 1 | Spinach Omelette | breakfast |

large eggs, butter, spinach... [see more]

| 2 | Egg Fried Rice | lunch |

day-old rice, eggs, green... [see more]

| 3 | T-Bone Steak | dinner |

T-bone steak, oil, salt, pepper... [see more]

| 4 | Pasta Salad | lunch |

pasta, cherry tomatoes, bell... [see more]

| 5 | Lasagna | dinner |

sausage, ricotta cheese... [see more]

→

Screen 2

PantryPal   [save] [back]

| Spinach Omelette | breakfast |

Ingredients: large eggs, butter, spinach, olive oil, garlic powder, salt and pepper, freshly grated cheese

1. In a shallow bowl, beat eggs with salt and pepper using a fork or small hand whisk.

2. Heat butter in a non-stick skillet over medium heat and melt butter.

3. Add garlic and baby spinach leaves and stir. Cook until spinach leaves are wilted.

4. Season with salt and pepper. Cover the plate to keep the spinach warm.

5. Return the frying pan to medium-high heat and add olive oil.

[edit] [delete]

Screen 1: PantryPal (Recipe List)

PantryPal [new recipe]

1. Spinach Omelette [breakfast]
   large eggs, butter, spinach... [see more]

2. Egg Fried Rice [lunch]
   day-old rice, eggs, green... [see more]

3. T-Bone Steak [dinner]
   T-bone steak, oil, salt, pepper... [see more]

4. Pasta Salad [lunch]
   pasta, cherry tomatoes, bell... [see more]

5. Lasagna [dinner]
   sausage, ricotta cheese... [see more]

Screen 2: PantryPal (Recipe Detail)

PantryPal [save] [back]

Spinach Omelette [breakfast]

Ingredients: large eggs, butter, spinach, olive oil, garlic powder, salt and pepper, freshly grated cheese

1. In a shallow bowl, beat eggs with salt and pepper using a fork or small hand whisk.
2. Heat butter in a non-stick skillet over medium heat and melt butter.
3. Add garlic and baby spinach leaves and stir. Cook until spinach leaves are wilted.
4. Season with salt and pepper. Cover the plate to keep the spinach warm.
5. Return the frying pan to medium-high heat and add olive oil.

[edit] [delete]

Screen 3: PantryPal (Updated List)

PantryPal [new recipe]

1. Egg Fried Rice [lunch]
   day-old rice, eggs, green... [see more]

2. T-Bone Steak [dinner]
   T-bone steak, oil, salt, pepper... [see more]

3. Pasta Salad [lunch]
   pasta, cherry tomatoes, bell... [see more]

4. Lasagna [dinner]
   sausage, ricotta cheese... [see more]

5. Breakfast Muffin [breakfast]
   dried blueberries, flour, butter... [see more]

Screen 4: PantryPal (Meal Type)

PantryPal

[Click to speak meal type]

Just say, "Breakfast", "Lunch", or "Dinner".

Screen 5: PantryPal (Ingredients)

PantryPal

[Click to Speak List of Ingredients]

For ex. "Broccoli", "Carrot", or "Pepper".

4. Tasks

Iteration 1: MVP

High Priority:

Story 1. Recipe List [3 hours, H]

- UI display of all recipes (basic details) in database

Story 8. Viewing Recipe Details [3 hours, H]

- Accesses database and gets the recipe details
- UI format for displaying details

Medium Priority:

Story 3. Open Recipe Details [3 hours, M]

- UI: create a new window that opens when a recipe title is selected

Story 4. Meal Type [2 hours, M]

- For meal class, add a field named "type" and necessary methods supporting that.
- UI dropdown menu so that user can select meal type

Story 10. New Recipe Creation [2 hours, M]

- Takes in input about existing ingredients and meal type
- Generates new recipe using ChatGPT
- Displays ChatGPT's step-by-step recipe

Low Priority:

Story 2. Voice Input [1 hour, L]

- Implement speech-to-text recognition
- Automatically plug text into search engine

5. Iterations/Milestone

Iteration 1: MVP

High Priority:

Story 1. Recipe List [3 hours, H]

- UI display of all recipes (basic details) in database

Story 8. Viewing Recipe Details [3 hours, H]

- Accesses database and gets the recipe details
- UI format for displaying details

Medium Priority:

Story 3. Open Recipe Details [3 hours, M]

- UI: create a new window that opens when a recipe title is selected

Story 4. Meal Type [2 hours, M]

- For meal class, add a field named "type" and necessary methods supporting that.
- UI dropdown menu so that user can select meal type

Story 10. New Recipe Creation [2 hours, M]

- Takes in input about existing ingredients and meal type
- Generates new recipe using ChatGPT
- Displays ChatGPT's step-by-step recipe

Low Priority:

Story 2. Voice Input [1 hour, L]

- Implement speech-to-text recognition
- Automatically plug text into search engine

Total: 14 hours of work

Iteration 2: Additional Functions

Medium Priority:

Story 5. Save Button [8 hours, M]

- Create SQL save query to save recipe to database
- Implement a Database for storing recipes
- Create UI for save button

Story 6. Back Button [2 hours, M]

- Create a function that takes you out of viewing the recipe list screen into the general recipe list screen
- Create UI for back button

Story 7. Delete Recipes [2 hours, M]
- Removes recipes from the database
- Create a delete option button

Story 9. Edit Recipes [1 hour, M]
- Enable editing, either by a separate edit button or like TextFile in lab 1 which can be directly edited.

Total: 13 hours of work

6. Scenario-Based Milestone Tests

Iteration 1 Tests:

1. Open the application by launching from computer. You should be met with a main page screen that displays no recipes

2. We click the new recipe button. We get a popup to create a new recipe

3. We are prompted to specify a meal type which can be breakfast, lunch, or dinner

4. Click the voice recording button and specify the meal type

5. We are then prompted to list out our ingredients and we use voice recording button to list our ingredients

6. ChatGPT generates our recipe with our two prompts and we can view the details

7. I click the save button and I will be taken back to the main recipe list with the saved recipe on the top of my list

8. I click the recipe title and I am able to see the ingredients list and step-by-step instructions on how to cook the recipe

9. I click the edit button and I am allowed to edit the instructions and ingredients inside the recipe

10. I click the save button and I will be taken back to the main recipe list with the edited recipe at the same position in the list

Iteration 2 Tests:

1. Open the application by launching from computer. You should be met with a main page screen that displays our previously saved recipes with the newest at top and oldest at bottom

2. Click the recipe title and we will see a popup that displays the recipe details which include the ingredients and the step-by-step instructions

3. We click the back button on the details page and we are brought back to the main recipe list page

4. Click the same recipe title and we will see the same popup that displays the recipe details which include the ingredients and the step-by-step instructions

5. Click the delete button which will bring me back to the main recipe list page and remove the recipe from the list

7. GitHub Project

Link: https://github.com/orgs/ucsd-cse110-fa23/projects/27