#### 1. Introduction

#### 1.1. Test processes

This document describes the test activities and tasks that shall be performed to ensure that the KitchenSync system accomplishes its purpose as a kitchen aid. The test activities and tasks that will be performed are testing receipt and barcode scanning, updating ingredient information, creating ingredient list, delete ingredient from inventory, system tracking, recipe organizing, recipe filtering, recipe sorting, recipe creation, recipe posting, recipe rating, recipe feedback, adding recipes, modifying recipes, deleting recipes, adding to menu, deleting from menu, modifying a meal, move prep and cook phases, sharing menus, ingredient list to be purchased, shopping list creation, sharing shopping lists, prices of items, retailer sign in, store filter, unit price comparison, serving estimated prices, quick creation option for shopping list, administrator's user management, filtering and search of user content, content moderation, automated screening, bulk recipe seeding, admin user communication, reporting of content, and content and admin reports.

#### 2. Test Tasks

#### 2.1. Inventory tracking

#### Scanning

| Task    | Scanning  |
|---------|---|
| Methods | Ensure that the scanner correctly retrieves information regarding food items from receipts or barcodes by utilizing Tesseract.  |
| Inputs  | Receipt containing nonfood items or a barcode.  |
| Outputs | All food related information on the receipt is added to default locations unless specified otherwise and nonfood items are tossed. The information of a food item that is scanned on a barcode will be retrieved by the barcode |

|                            | lookup api and an error message is given if the barcode of a nonfood item is scanned.  |
|----------------------------|--|
| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.   |
| Resources                  | Tesseract and Open Food Facts  |
| Risk(s) and assumptions    | Risk: the system does not correctly read the receipt and differentiate food and nonfood items.  Assumption: Tesseract, barcode                       |
|                            | lookup api, and Open Food Facts work as intended.  |
| Roles and responsibilities | Primary responsibilities: receipt scanner, barcode scanner, and Tesseract. The role they play is that they allow for the input to be processed.      |
|                            | Secondary responsibilities:<br>barcode lookup api and Open<br>Food Facts. The role they play is<br>they retrieve the information for the<br>outputs. |

# • Update Ingredient Information

| Task    | Update Ingredient Information   |
|---------|---|
| Methods | Ensure that the location of the ingredient changes based on what the user inputs.                                     |
| Inputs  | User clicks/taps onto an ingredient in their inventory to modify location such as chips from the pantry to a cabinet. |
| Outputs | The ingredient is checked to see if it is valid to move to the new location and if it is allowed, it tells            |

|                            | the user that the item has been moved and if it is not allowed, it tells the user that this move cannot be done and specifies why. |
|----------------------------|--|
| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.                       |
| Resources                  | N/A  |
| Risk(s) and assumptions    | Risks: N/A  Assumptions: the system is aware of the valid locations to place food in.  |
| Roles and responsibilities | Primary responsibilities: input box where its role is to allow the user to modify the location of an item.                         |

# • Create a list of ingredients

| Task                    | Create a list of ingredients   |
|-------------------------|--|
| Methods                 | Ensure that a list of ingredients is created.  |
| Inputs                  | A "create list" button is tapped by the user.  |
| Outputs                 | A list is created.   |
| Schedule                | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3. |
| Resources               | N/A  |
| Risk(s) and assumptions | Risks: The button does not respond to being tapped by the user.  |
|                         | Assumptions: A GUI implementation is used for the button.  |

| · | Primary Responsibility: The button serves as the main role in this function as it is used to create the list. |
|---|---|
|---|---|

# • Delete ingredients from inventory

| Delete ingredients from inventory   |
|---|
| Ensure that the system correctly deletes the ingredients the user desires.  |
| User taps on a button to modify the ingredient and then taps on a button for deleting the ingredient. The system will prompt for either partial or full deletion of the ingredient.   |
| The system will update the user's inventory accordingly and add the deleted item to the shopping list if the user wants.  |
| Initiate immediately after the start of milestone 2. Deletion of an ingredient must be completed before the initiation of milestone 3. Updating the shopping list must be completed by the end of milestone 3.                |
| N/A   |
| Risks: the system does not correctly update the inventory to exclude the deleted item. The system does not correctly add the deleted item to the shopping list.  Assumptions: The implementation of the shopping list will be |
|   |

|                            | ingredients.  |
|----------------------------|---|
| Roles and responsibilities | Primary Responsibility: The button serves as the main role in this function as it is used to modify and delete the ingredient. The shopping list also serves a primary role in that it allows the user to shop for the recently removed ingredient. |

• System tracking and adjustment of highly consumed items

| Task                    | System tracking and adjustment of highly consumed items   |
|-------------------------|---|
| Methods                 | Ensures that the system correctly updates how much an item is being consumed and correctly informs the user if the item is close to running out.  |
| Inputs                  | Users use an item and periodically updates inventory when they go shopping and adds the new item to the system by manual input or scanning.   |
| Outputs                 | System updates the quantity of commonly consumed items and if the old item was used or tossed, it resets the consumption trend based on the new quantity. If the old item was not discarded, the system adjusts the expiration date and quantity. |
| Schedule                | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.  |
| Resources               | Tesseract.  |
| Risk(s) and assumptions | Risks: user fails to log item consumption. The system fails to track the trend of depletion. The  |

|                            | system does not detect the correct estimate of the item that is remaining.  Assumption: The system assumes that the previous item was used or discarded.   |
|----------------------------|--|
| Roles and responsibilities | Primary Responsibilities: the periodic updates to inventory and logging item consumption serve the biggest roles as the updated inventory allows for the tracking of item consumption to inform the system of what the current inventory looks like. |

## 2.2. Recipe manager

Recipes Organizing

| Task                    | Recipes Organizing   |
|-------------------------|--|
| Methods                 | Ensures that the system neatly displays the recipes that the user wants to see.  |
| Inputs                  | Users type what recipes they want to see in a search box.  |
| Outputs                 | The system provides a neat display of recipes that satisfy the search query.   |
| Schedule                | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.   |
| Resources               | N/A  |
| Risk(s) and assumptions | Risks: the system does not correctly interpret the query. The GUI is disorganized, causing the recipes to be mismanaged.  Assumptions: there will be recipes |

|                            | seeded into the system by default.   |
|----------------------------|--|
| Roles and responsibilities | Primary Responsibility: the search box serves the main role as it gives a query for recipes.   |
|                            | Secondary Responsibility: the initial seeding of recipes serves as a secondary role as it gives a default list of recipes for the user to work with. |

## • Recipe Filtering

| Task                       | Recipe Filtering   |
|----------------------------|--|
| Methods                    | Ensures that the user can filter recipes based on their preferences or needs.  |
| Inputs                     | The user enables a filter that they want.  |
| Outputs                    | The system returns a list of recipes that satisfies their filter.  |
| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.   |
| Resources                  | N/A  |
| Risk(s) and assumptions    | Risk: the system returns recipes that do not follow the restriction placed by the filter.  Assumptions: there will be a recipe that does satisfy the filter. There |
|                            | will be recipes seeded into the system by default.   |
| Roles and responsibilities | Primary Responsibility: the filter buttons serve the main role as those are what will be used to place filters on the recipes.                                     |

|  | Secondary Responsibility: the initial seeding of recipes serves as a secondary role as it gives a default list of recipes for the user to work with. |
|--|--|
|--|--|

#### Recipe Sorting

| Task                       | Recipe Sorting   |
|----------------------------|--|
| Methods                    | Ensures that the recipes are correctly sorted based on a given query.  |
| Inputs                     | The user searches for recipes based on a query.  |
| Outputs                    | The system provides a list of recipes that satisfies the query and organizes the query by ascending order if applicable.   |
| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.   |
| Resources                  | N/A  |
| Risk(s) and assumptions    | Risk: the system fails to correctly sort the information based on the query.   |
|                            | Assumptions: the recipe organizing function will work correctly. There will be recipes seeded into the system by default.  |
| Roles and responsibilities | Primary Responsibilities: the query and the sorting function serve the main roles in this function because the query informs the sorting function what criteria to sort with and the sorting function will sort the items. |
|                            | Secondary Responsibility: the  |

|  | initial seeding of recipes serves as a secondary role as it gives a default list of recipes for the user to work with. |
|--|--|
|--|--|

# Recipe Creation

| Task                       | Recipe Creation  |
|----------------------------|--|
| Methods                    | Ensure that the user can form their own recipe cards.  |
| Inputs                     | User taps on the "create a recipe" button and fills in all the data necessary to form the recipe.  |
| Outputs                    | The system will prompt the user to fill in the data needed and once that data is filled in, the system will return the newly created recipe. |
| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.                                 |
| Resources                  | N/A  |
| Risk(s) and assumptions    | Risk: the system does not produce a recipe after the user correctly inputs all necessary data.  Assumptions: N/A                             |
| Roles and responsibilities | Primary Responsibility: the database of recipes serves the main role of storing new recipes that the user creates.                           |

## • Recipe Posting

| Task | Recipe Posting  |
|------|---|
|      | Ensure that the user can display a recipe for other users to see. |

| Inputs                     | User taps on a recipe that they made and they tap on a "post to public" button.   |
|----------------------------|---|
| Outputs                    | The system checks if the recipe is valid and if it is valid, it will be posted to the public. Invalid recipes will be rejected.   |
| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.  |
| Resources                  | N/A   |
| Risk(s) and assumptions    | Risk: the system will not reject an invalid recipe.   |
|                            | Assumption: the admin backend for recipe screening will work.   |
| Roles and responsibilities | Primary Responsibilities: the "post to public" button serves the role of allowing the user to post their recipes. The admin backend also serves an important role as it checks the validity of recipes. |

#### Recipe Rating

| Task     | Recipe Rating   |
|----------|---|
| Methods  | Ensure that the user can give a rating on their recipes.  |
| Inputs   | The user chooses a recipe that they made and gives a rating.  |
| Outputs  | The system screens the recipe to ensure that it is valid and posts to the public if it is valid. If it is invalid, the system will reject the rating. |
| Schedule | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.  |

| Resources                  | N/A   |
|----------------------------|---|
| Risk(s) and assumptions    | Risks: The system allows ratings from users that did not make the recipe. The system does not correctly identify inappropriate language.  Assumption: the admin backend for recipe screening will work. |
| Roles and responsibilities | Primary Responsibility: the admin backend serves the important role as it checks the validity of ratings.   |

#### • Recipe Feedback

| Task                    | Recipe Feedback   |
|-------------------------|---|
| Methods                 | Ensure that the user can provide feedback for the recipes that they made.   |
| Inputs                  | User selects a recipe that they made and they provide feedback.   |
| Outputs                 | The system screens the feedback for inappropriate language and if the feedback is valid, it will post the feedback and rating. If it is invalid, the system will reject the feedback. |
| Schedule                | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.  |
| Resources               | N/A   |
| Risk(s) and assumptions | Risks: The system allows feedback from users that did not make the recipe. The system does not correctly identify inappropriate language.   |
|                         | Assumption: the admin backend for recipe screening will work. The   |

|                            | recipe rating function will work.   |
|----------------------------|---|
| Roles and responsibilities | Primary Responsibility: the admin backend serves the important role as it checks the validity of feedback.  |
|                            | Secondary Responsibility: the recipe rating serves the secondary role of giving the users the option to provide a rating along with the feedback. |

# • Adding Recipes to a User's account

| Task                       | Adding Recipes to a User's account   |
|----------------------------|--|
| Methods                    | Ensure that the user can add recipes to their personal recipe list.  |
| Inputs                     | User takes a recipe that they like and presses the "add" button.   |
| Outputs                    | The system adds the recipe card to the correct user account.   |
| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.   |
| Resources                  | N/A  |
| Risk(s) and assumptions    | Risk: the system does not add the recipe.  |
|                            | Assumption: there will be recipes seeded into the system by default.   |
| Roles and responsibilities | Primary Responsibilities: the "add" button serves the main role as it gives the user the ability to add more recipes to their personal database. The recipe database also serves a main role as that is the place the new recipe will be |

| stored in.   |
|--|
| Secondary Responsibility: the initial seeding of recipes serves as a secondary role as it gives a default list of recipes for the user to work with. |

# Modifying Recipes

| Task                       | Modifying Recipes   |
|----------------------------|---|
| Methods                    | Ensures that the user can change information regarding a recipe.  |
| Inputs                     | User selects a recipe that they created and taps on an "edit" button to modify the fields they want and taps a "save" button.   |
| Outputs                    | The system will change the information based on the provided updates and the updated recipe will appear on the recipe list.   |
| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.  |
| Resources                  | N/A   |
| Risk(s) and assumptions    | Risk: the system saves incomplete changes or incomplete data. The system does not update the recipe even if the user taps "save".  Assumption: N/A  |
| Roles and responsibilities | Primary Responsibilities: the "edit" and "save" buttons serve the main roles of the function as they give the user the ability to modify the recipe and allow the database to display the updated recipe. |

## • Deleting Recipes

| Task                       | Deleting Recipes   |
|----------------------------|--|
| Methods                    | Ensures that recipes the user wants to remove are removed from their database.   |
| Inputs                     | The user selects a recipe from their recipe list and taps on the delete button.  |
| Outputs                    | The system provides an "are you sure?" query and if the user says yes, the recipe is deleted. If the user says no, the recipe will not be deleted.   |
| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.   |
| Resources                  | N/A  |
| Risk(s) and assumptions    | Risks: the system does not delete the recipe if the user says yes or it does delete the recipe if the user says no or without even displaying the query.  Assumption: the user has a list of recipes where they can delete items from. |
| Roles and responsibilities | Primary Responsibilities: the "delete" button and the "are you sure?" query serves the main roles in the function because it allows the user to delete recipes and to be sure that they want to commit this action.                    |

#### 2.3. Meal Planner

• Adding Meals to Menu

| Task                       | Adding Meals to Menu   |
|----------------------------|--|
| Methods                    | Ensure that the user can add recipes to the planner.   |
| Inputs                     | User selects a recipe to be added. User inputs the day and time that the recipe will be made. Number of servings is entered.   |
| Outputs                    | The system adds the recipe to the meal planner according to the date and time. The ingredients needed to make the recipe per serving is updated and notifies users of missing ingredients if needed. Error messages are displayed if the user places invalid inputs. |
| Schedule                   | Initiate immediately after the start of milestone 3. Must be completed 30 days after initiation.   |
| Resources                  | N/A  |
| Risk(s) and assumptions    | Risks: the recipe is added regardless of input validity. The system does not inform the user of missing ingredients.  Assumptions: the inventory   |
|                            | manager will work correctly. The recipes are organized correctly.  |
| Roles and responsibilities | Primary Responsibilities: the planner serves the main role of allowing users to place recipes on the planner based on the time and day they want to cook that recipe. The list of recipes also serves the main role of providing the user recipes to add.            |
|                            | Secondary Responsibilities: the inventory manager serves the role of informing users of missing ingredients and what their   |

## Deleting Meals from Menu

| Task                       | Deleting Meals from Menu  |
|----------------------------|---|
| Methods                    | Ensure that the user can remove meals from the meal planner.  |
| Inputs                     | User selects a meal in their meal planner and confirms whether or not they want to remove that meal.  |
| Outputs                    | If the user selects yes, the meal is removed from the menu and the shopping list is updated to remove the no longer needed ingredients.   |
| Schedule                   | Initiate immediately after the start of milestone 3. Must be completed 30 days after initiation.  |
| Resources                  | N/A   |
| Risk(s) and assumptions    | Risks: the meal is not deleted from the planner if the user wants to. The shopping list is not updated correctly and inventory is not updated correctly to reflect the deletion.  |
|                            | Assumptions: the inventory manager will work correctly. The shopping list will work correctly.  |
| Roles and responsibilities | Primary Responsibilities: the deletion and confirmation buttons serve the main role in this function because they allow the user to remove recipes from the planner and to ensure that the user truly wants to do that. |

# Modifying a Meal

| Task                       | Modifying a Meal  |
|----------------------------|---|
| Methods                    | Ensure that the user can edit a meal in the meal planner.   |
| Inputs                     | User selects a meal in the planner and changes the recipe, date, time, or serving count.  |
| Outputs                    | The meal details are updated in the meal planner and shopping list is updated accordingly.  |
| Schedule                   | Initiate immediately after the start of milestone 3. Must be completed 30 days after initiation.  |
| Resources                  | N/A   |
| Risk(s) and assumptions    | Risks: the user attempts changes that are invalid. The system does not correctly process changes.  Assumptions: the inventory manager works correctly. The              |
|                            | shopping list works correctly.  |
| Roles and responsibilities | Primary Responsibility: the editing box serves the main role as it provides the information necessary to update the meal planner, inventory manager, and shopping list. |
|                            | Secondary Responsibilities: the inventory manager and shopping list serve the roles of updating their   |

## Move Prep and Cook Phases

| Task                       | Move Prep and Cook Phases  |
|----------------------------|--|
| Methods                    | Ensure that the user can adjust time for prep and cook phases.   |
| Inputs                     | User selects a meal from the planner and holds/drags time for prep and cook phases to new time.  |
| Outputs                    | The system will update meal timing on the planner and change reminders and notifications to accurately reflect the new times.              |
| Schedule                   | Initiate immediately after the start of milestone 3. Must be completed 30 days after initiation.   |
| Resources                  | N/A  |
| Risk(s) and assumptions    | Risk: the user attempts to change the times to invalid values.   |
|                            | Assumption: the user has meals that they can update prep and cook phases.  |
| Roles and responsibilities | Primary Responsibility: the time slots serve the main role as it allows the user to adjust the time of the prep and cook phases as needed. |

## Sharing Menus

| Task    | Sharing Menus  |
|---------|--|
| Methods | Ensures that the user can share their menu with other users. |

| Inputs                     | Users select a menu or meal plan, users to share it with, and permissions for other users (edit or view).   |
|----------------------------|---|
| Outputs                    | Menu is shared with selected users and notifies the other users that the menu was shared with them.   |
| Schedule                   | Initiate immediately after the start of milestone 3. Must be completed 30 days after initiation.  |
| Resources                  | N/A   |
| Risk(s) and assumptions    | Risks: the user selects invalid menu or users.  |
|                            | Assumptions: the user has a menu or meal plan to share with other users. There are other users that the user can share with.  |
| Roles and responsibilities | Primary Responsibilities: the selection of menu or meal plan and users serves the main role of the user having the option to share their meal plan with other people. |
|                            | Secondary Responsibilities: the meal plan and permissions setting serve the role of providing a meal plan that the users can see and if they are allowed to edit it.  |

# • Ingredient List to be Purchased

| Task    | Ingredient List to be Purchased  |
|---------|--|
| Methods | Ensure that the user can see the ingredients needed to make recipes in the meal planner. |
| Inputs  | The needed ingredient list created from meals on the menu.                               |

| Outputs                    | List of ingredients needed based on the current inventory and menu needs.  |
|----------------------------|--|
| Schedule                   | Initiate immediately after the start of milestone 3. Must be completed 30 days after initiation.   |
| Resources                  | N/A  |
| Risk(s) and assumptions    | Risks: user makes an invalid selection. The ingredient list is not correctly formed.  Assumptions: The inventory manager works correctly. The shopping list works correctly.   |
| Roles and responsibilities | Primary Responsibilities: the inventory manager and shopping list serve the main roles of finding the ingredients that need to be purchased to fit menu needs and update their database and lists based on the menu needs. |

## 2.4. Shopping Aid

Shopping List Creation

| Task      | Shopping List Creation   |
|-----------|--|
| Methods   | Ensure that a shopping list can be formed with given information.                                      |
| Inputs    | Menu, user inventory, and store preferences.   |
| Outputs   | Generated Shopping list with items categorized by store and section ie Meat, Produce, Dairy, and so on |
| Schedule  | Initiate immediately after the start of milestone 3. Must be completed 30 days after initiation.       |
| Resources | N/A  |

| Risk(s) and assumptions    | Risk: the system does not correctly form the shopping list.  Assumptions: the inventory manager and meal planner work  |
|----------------------------|--|
|                            | correctly.   |
| Roles and responsibilities | Primary Responsibilities: the meal planner and inventory manager serve the main roles of providing the most updated inventory to inform the shopping list creator of what needs to be purchased. |

## • Sharing Shopping Lists

| Task                       | Sharing Shopping Lists  |
|----------------------------|---|
| Methods                    | Ensure that the shopping list can be shared with other users.   |
| Inputs                     | User selects other users to share the shopping list with.   |
| Outputs                    | Shopping list is shared with the selected users.  |
| Schedule                   | Initiate immediately after the start of milestone 3. Must be completed 30 days after initiation.                          |
| Resources                  | N/A   |
| Risk(s) and assumptions    | Risk: invalid users are selected.  Assumption: a shopping list is available to be shared with.                            |
| Roles and responsibilities | Primary Responsibility: the selection of users serves the main role of allowing other users to receive the shopping list. |

#### Prices of Items

| Task                       | Price of Items   |
|----------------------------|--|
| Methods                    | Ensure that the user can see the price per serving of a given recipe.  |
| Inputs                     | User selects a recipe to add to the menu   |
| Outputs                    | Displays the current cost per serving based on the available ingredient prices   |
| Schedule                   | Initiate immediately after the start of milestone 3. Must be completed 30 days after initiation.   |
| Resources                  | N/A  |
| Risk(s) and assumptions    | Risks: the ingredients that are from the recipe may be invalid. It may not be possible to retrieve prices.  Assumption: the recipe manager works as intended.  |
| Roles and responsibilities | Primary Responsibilities: the recipe manager serves the main role of providing the recipes that contain the ingredients to find prices for. In addition, the menu planner contains the recipe that the price of ingredients must be found for. |

## • Retailer Sign in

| Task     | Retailer Sign in                               |
|----------|--|
| Methods  | Ensure that retailers can log in.              |
| Inputs   | User inputs retailer login credentials         |
| Outputs  | Successful sign, access to member only pricing |
| Schedule | Initiate immediately after the start           |

|                            | of milestone 3. Must be completed 30 days after initiation.  |
|----------------------------|--|
| Resources                  | N/A  |
| Risk(s) and assumptions    | Risks: N/A Assumptions: user has retailer login credentials.   |
| Roles and responsibilities | Primary Responsibility: the login function serves the main role of giving the user the ability to login. |

# • Store Filter

| Task                       | Store Filter  |
|----------------------------|---|
| Methods                    | Ensure that a list of stores are provided that satisfy the given filters.   |
| Inputs                     | User inputs store preferences.  |
| Outputs                    | Filtered list of stores.  |
| Schedule                   | Initiate immediately after the start of milestone 3. Must be completed 30 days after initiation.  |
| Resources                  | N/A   |
| Risk(s) and assumptions    | Risk: invalid store filters are given.  Assumption: there are stores that will satisfy the given filters.                                 |
| Roles and responsibilities | Primary Responsibility: the store preference options serve the main role of giving the user the ability to filter stores to their liking. |

## • Unit Price Comparisons

| Task | Unit Price Comparisons |
|------|------------------------|
|------|------------------------|

| Methods                    | Ensure that prices can be compared between different stores.  |
|----------------------------|---|
| Inputs                     | User selects a recipe and adds it to the menu.  |
| Outputs                    | System compares prices of stores to show an estimate of price per serving.  |
| Schedule                   | Initiate immediately after the start of milestone 3. Must be completed 30 days after initiation.  |
| Resources                  | N/A   |
| Risk(s) and assumptions    | Risk: the system is unable to retrieve prices to compare.  Assumptions: The meal planner and recipe manager will work.  |
| Roles and responsibilities | Primary Responsibility: the price of items function serves the main role as it can find the prices across multiple stores.  Secondary Responsibilities: the meal planner and recipe manager serve the roles of processing the |

## • Serving Estimated Price

| Task    | Serving Estimated Price  |
|---------|--|
| Methods | Ensure that the user can see the estimated price per serving.  |
| Inputs  | Menu of planned meals with current price data for the week.    |
| Outputs | Estimated price per serving based on current ingredient prices |

| Schedule                   | Initiate immediately after the start of milestone 3. Must be completed 30 days after initiation.  |
|----------------------------|---|
| Resources                  | N/A   |
| Risk(s) and assumptions    | Risks: the price data is missing or invalid meals are given.  Assumption: the meal planner will be working.   |
| Roles and responsibilities | Primary Responsibility: the unit price comparison serves the main role of giving price comparisons based on the ingredients.  Secondary Responsibilities: the meal planner serves the role of storing the recipes that will be made which contains the ingredients that will be used. |

## • Quick Create Option for Shopping Lists

| Task                    | Quick Create Option for<br>Shopping Lists   |
|-------------------------|---|
| Methods                 | Ensure that the user can quickly generate a shopping list.  |
| Inputs                  | Menu of planned meals.  |
| Outputs                 | Automatically generated list of ingredients needed optimized for fewest stops and shortest distance while balancing cost. |
| Schedule                | Initiate immediately after the start of milestone 3. Must be completed 30 days after initiation.                          |
| Resources               | N/A   |
| Risk(s) and assumptions | Risk: invalid menu is given.  |

|                            | Assumption: the meal planner will work.   |
|----------------------------|---|
| Roles and responsibilities | Primary Responsibility: the store filter serves the main role of providing the optimized shopping list. |
|                            | Secondary Responsibility: the meal planner's role is to feed the input into this function.              |

#### 2.5. Admin Backend

• Administration User Management

| Task                       | Administration User<br>Management  |
|----------------------------|--|
| Methods                    | Ensure that the admin can manage users.  |
| Inputs                     | Search criteria such as usernames, registration date, and account status.  |
| Outputs                    | Display list of users matching the search criteria.  |
| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed 58 days after initiation.                           |
| Resources                  | N/A  |
| Risk(s) and assumptions    | Risk: an invalid search criteria is given.   |
|                            | Assumption: there are users that can be found with a valid search criteria.  |
| Roles and responsibilities | Primary Responsibility: the search criteria options serve the main role of giving the admin a way to filter through users. |

#### • Filtering and Search of User content

| Task                       | Filtering and Search of User content   |
|----------------------------|--|
| Methods                    | Ensure that the admin can see what users have been posting.  |
| Inputs                     | Search criteria such as keywords, content types, or date range.  |
| Outputs                    | Display list of content matching the search criteria and filters.  |
| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed 58 days after initiation.   |
| Resources                  | N/A  |
| Risk(s) and assumptions    | Risk: invalid search criteria is given.  |
|                            | Assumption: there is content that satisfies the search criteria.   |
| Roles and responsibilities | Primary Responsibility: the search criteria serves the main role of allowing the admin to input what user content they want to look through. |

#### • Content Moderation

| Task    | Content Moderation   |
|---------|--|
| Methods | Ensure that the admin can inspect content.                                   |
| Inputs  | Selection of content for moderation.   |
| Outputs | Confirmation of actions taken, updated on the content status, and log entry. |

| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed 58 days after initiation.  |
|----------------------------|---|
| Resources                  | N/A   |
| Risk(s) and assumptions    | Risk: invalid selection of content is provided.  Assumption: there is content that can be selected.   |
| Roles and responsibilities | Primary Responsibility: the log status for the given content serves the main role of providing the admin information regarding the content. |

#### Automated Screening

| Task                       | Automated Screening   |
|----------------------------|---|
| Methods                    | Ensure that recipes and recipe feedback is screened.  |
| Inputs                     | Keywords to be flagged are in a list.   |
| Outputs                    | Content with flagged keywords are prevented from being posted until those words are removed by user   |
| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.                                |
| Resources                  | N/A   |
| Risk(s) and assumptions    | Risks: content is not correctly screened and inappropriate content bypasses screening.  Assumption: user content is inputted for screening. |
| Roles and responsibilities | Primary Responsibility: the   |

|  | keyword list serves the main role of determining what words are unacceptable. |
|--|---|
|--|---|

#### • Bulk Recipe Seeding

| Task                       | Bulk Recipe Seeding   |
|----------------------------|---|
| Methods                    | Ensure that a list of recipes can be provided to serve as a default for new users.                              |
| Inputs                     | CSV or other structured file containing recipes with the required fields.                                       |
| Outputs                    | Confirmation to upload/import recipe list, display newly added recipes to the DB and log entry into admin logs. |
| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.    |
| Resources                  | CSV or other structured file containing recipes.  |
| Risk(s) and assumptions    | Risk: the file is not processed correctly.  Assumption: there exist recipe files that can be used.              |
| Roles and responsibilities | Primary Responsibility: the recipe list serves the main role of setting the default recipe database.            |

#### • Admin User Communication

| Task | Admin User Communication                    |
|------|---|
|      | Ensure that the admin can talk to the user. |

| Inputs                     | Selection of user(s) to send a message to, message content.   |
|----------------------------|---|
| Outputs                    | Confirmation of message being sent, display the message in the User(s) notifications.                                   |
| Schedule                   | Initiate immediately after the start of milestone 3. Must be completed 30 days after initiation.                        |
| Resources                  | N/A   |
| Risk(s) and assumptions    | Risk: messages are unable to be sent between the admin and the uses.  Assumption: there will be users for               |
|                            | the admin to communicate with.  |
| Roles and responsibilities | Primary Responsibility: the message box serves the main role of providing the admin and user a place to communicate on. |

# • Reporting of content

| Task                    | Reporting of content   |
|-------------------------|--|
| Methods                 | Ensure that the user can report inappropriate content.   |
| Inputs                  | User selects content such as user, recipe, or a feedback message to report as inappropriate.                 |
| Outputs                 | System flags and does a secondary screening of content.  |
| Schedule                | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3. |
| Resources               | N/A  |
| Risk(s) and assumptions | Risk: user reports a nonexistent   |

|                            | user or a message that is deleted.  |
|----------------------------|---|
|                            | Assumption: the user will be reporting content that is inappropriate.   |
| Roles and responsibilities | Primary Responsibility: the screening function serves the main role of checking if the reported content is inappropriate. |

## • Content and Admin Reports

| Task                       | Content and Admin Reports  |
|----------------------------|--|
| Methods                    | Ensure that the admin can generate reports involving a user's activity.  |
| Inputs                     | User activity logs, recipes posted, feedback.  |
| Outputs                    | Admin generates a report of recipes posted between a set of dates and has feedback from a certain user.  |
| Schedule                   | Initiate immediately after the start of milestone 2. Must be completed before the initiation of milestone 3.                                   |
| Resources                  | N/A  |
| Risk(s) and assumptions    | Risks: the user does not have any feedback or they are inactive.  Assumption: N/A  |
| Roles and responsibilities | Primary Responsibility: the administrative user management function serves the main role of finding the user that the admin wants a report on. |