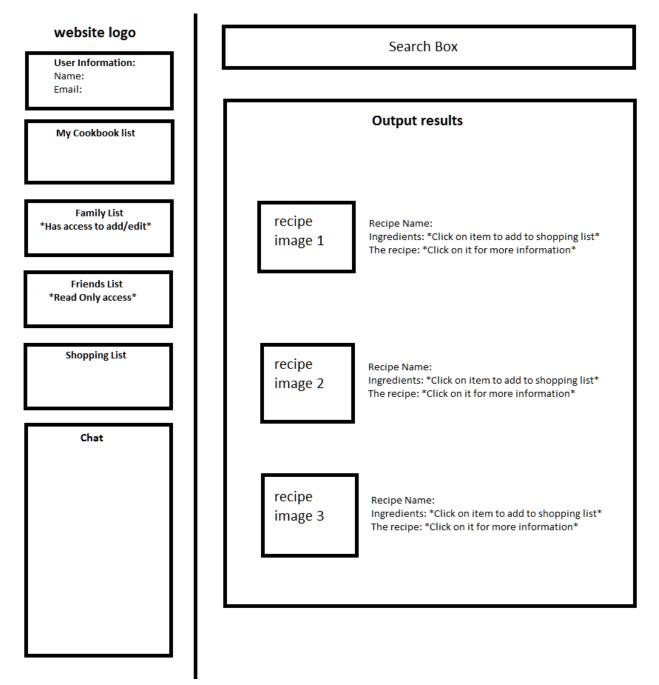
1. Overview

- a. This application will be a web cookbook where users can create new accounts and login to create digital cookbooks to collect and organize recipes. This application will also feature social features such as chatting with friends and linking to cookbooks to collaborate and share with one another.
- b. Users can create a CookBook where they can add and organize recipes that can be searchable by keywords. Users can author or copy a recipe from someone else's CookBook to build their collection. Users can also add others to their CookBooks as either 'Family' or 'Friend'. "Family" list members are users who have permission to edit recipes or add new ones to the collection. Friends are users who are allowed to read through the collection and can copy recipes but cannot edit or add to the collection.
- c. Users will also be able to browse through the collection of cookbooks made by other users. Users can set their CookBook to public and it can be searchable and readable by anyone. Setting the CookBook to private will reserve the book for only users on their Family and Friends list.
- d. Once ready to cook; users can create grocery lists from selected recipes to create the ultimate cooking companion.
- e. Features and functionality:
 - i. Chat with online friends
 - ii. Make grocery list from selected recipes
 - iii. Organize recipes in cookbooks
 - iv. Link friends to cookbooks

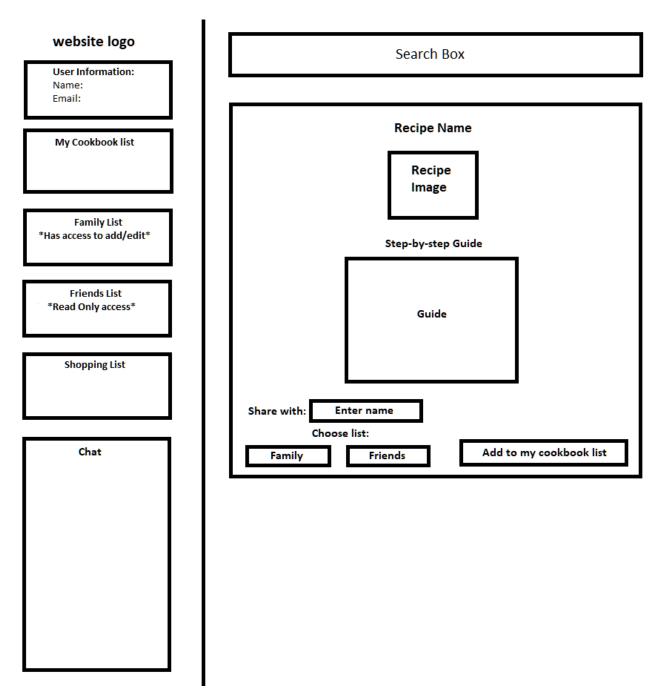
2. Frontend

- a. UI layout and design
 - Login Page Login page will request the user to create an account or login to an existing account (similar to what we have seen in class during the responsibilities example) which will be followed by the home page if the login was successful.
 - ii. Main Page The home page will be split into two main divs a left sidebar and a main right bar. The left side bar will show the website logo, along with the logged user credentials, his cookbook list, family members list (which have access to add/modify recipes), friends list (who can only view the recipes without the option to edit them) and a chat, where the user can communicate with his friends or family members. On the right side, at the top of the text there will be a search box where the user can search for recipes based on keywords and under the search box he can find the output results, which will be shown as a list of recipes with pictures on the left with a short description about the recipe. The user can click on an ingredient which will automatically add it to the shopping list. Under the

ingredients list, there will be a link to a page with more information about the recipe.



iii. Recipe Page - This page shows more information about the recipe, which includes an image and a step-by-step guide on how to create that recipe. Under the guide, the user can choose to add this recipe to his cookbook list, and also to share it with others by choosing the name and a list to add the name to.



- b. Client Functions
 - i. User clicks on Cookbook name from list it brings up the recipes in that book
 - ii. User clicks on a name in friend list and it brings up their books
 - iii. User can bring up all recipes, by category or by name or y keyword

3. Backend

- a. Database
 - i. Schemas
 - 1. Users: this scheme will track the friends the user knows, a list of cookbooks associated with them, and recipes they authored.
 - a. Username
 - b. Password
 - c. List of cookbooks[]
 - d. List of friends[]
 - e. List of recipesAuthored[]
 - 2. Recipe: this scheme aside from the recipe credentials will also track all editors and books it has been put it
 - a. Original author
 - i. String
 - b. Contributors[] (if a user edits a copied recipe)
 - i. Array of strings
 - c. Instructions
 - i. String
 - d. Ingredients
 - i. Strings
 - e. Difficulty
 - i. Int rating
 - f. List of books its in []
 - i. Array of book ids
 - g. RecipeID
 - CookBook: is a collection of recipes and hold collection of all users who can edit(Family) and readonly(Friends) as well as whether the book is publicly available.
 - a. List of recipe categories[]
 - This may be hard coded, using all the classic cookbook sections and should be editable to add custom sections
 - b. List of recipes []
 - These should appear in alphabetical order in their sections
 - c. Visibility: public or private
 - i. Bool / state
 - d. Family[] editors
 - e. Friends[] readonly

f. CookBookID

b. Server Functions

- i. The server will handle database processes such as
 - 1. Adding new recipes to db
 - 2. Searching/getting for recipes
 - 3. Adding new cookbooks to db
 - 4. Searching/getting for cookbooks
 - 5. Searching/adding users to friend list
 - 6. Using cookies to keep a user log in

4. Timeline

- a. 11/23 finish all html and css
- b. 11/30 finish all js and server
- c. 12/8 Due Date