Features

- users can sign into the app with their email and password
- users can create recipes with ingredients and instructions
- recipes can be marked as public or private
- users can view other people's recipes
- ingredients from recipes can be added to user's grocery lists
- users can create their own occasions and assign recipes to occasions

Brainstorming:

- Username
- Email
- Password
- First name
- Last name
- Recipes
- Ingredients
- Instructions
- Is public? Boolean
- Recipe author
- User grocery list
- Occasions

Table ideas:

- Users
  - Will be a table to hold information about users, each row will be a user
- Recipes
  - A table which will hold information about recipes, and will have foreign keys for what ingredients are contained and what instructions are required, each row will be a recipe
- Ingredients
  - A table which will hold all ingredients
- Ingredients list
  - A table which holds lists of ingredients
- Instructions
  - A table which will hold all instructions
- Grocery lists
  - A table which will hold all information for users grocery lists such as a foreign key for the user id to know who the list belongs to
- Occasions
  - It is a table which holds all occasions and which recipes are in those occasions

Relationships:

- One-to-one
- One-to-many
    - Users: I selected users as one to many because the user id can be used as identification in several places, but those places can only use one id
    - Grocery list ingredients: this only uses ingredients to make a list which is referenced in the grocery lists
    - Ingredients: This is one to many because it only gives its id to other tables
- Many-to-many
    - Recipes: This is because recipes can be shown in multiple places, and recipes uses multiple tables to make its own contents
    - Instructions: The reason for this is that instructions are used in recipes and recipes have many ingredients
    - Grocery lists: This is this way because grocery lists uses users info and grocery list ingredients info to pair them as a grocery list owner
    - Occasions: Is many to many because the occasions have a user id and a recipe attached to them

Columns:

- Users
    - Email: I chose this so the front end could pull to allow user to log in, chose varchar so that it could limit email length
    - Password: chose this so the front end could pull to allow user to log in, chose varchar so that it could limit password length
    - User first name: chose this so people can identify the user on the site, chose varchar to limit name length
    - User last name: chose this so people can identify the user on the site, chose varchar to limit name length
- Ingredients
    - Ingredient name: Chose this so each ingredient id also has a name to be identified by, chose varchar to limit name length
- Ingredients lists
    - Ingredient list numt: I did this so different ingredients could be created into lists for recipes, chose INT because you will have to select which list you want the ingredient to be in
    - Ingredient name: this is so you can tell which ingredient is going into a list, chose INT because it uses an ingredient id
- Instructions
    - Instructions name: This is so the instructions can be identified easier, chose varchar to limit string length
    - Instructions ingredients: this is so you know what ingredients you need for these instructions, I chose INT because it is pulling from the ingredients lists id
    - Instructions text: this is for the actual body of instructions, VARCHAR so you can enter text instructions

- Recipes
    - Recipe name: This is so you know what the name of the food is to be made, varchar to limit length
    - Recipe author: This is so you can identify the user who wrote it, INT because it is using the user id
    - Recipe instructions: This is so the recipe knows which instructions belong to it, INT because it is pulling from the instructions id
- Grocerylists
    - User_id: This is so you can identify whose grocery list it is, INT because it pulls from user id
    - Grocery list ingredients: So you can know which ingredients are in the grocery list, INT because it pulls from ingredients list id
- Occasions
    - User_id: So you can identify which use created the occasion, INT because it uses the user id
    - Recipe_id: This is to know which recipes are in the occasion, INT because is uses the recipe id