Brainstorming:

- Need to keep track of a grocery cart
- Need to keep track of ingredients
- Need to compile recipes made up out of ingredients
- Need to allow occasion creation and assignment
- Need to keep track of basic user info (email, password, etc)

Table Ideas:

- User Table: This table will contain basic User information
- Ingredients Table: This table will categorize all available ingredients
- Grocery list table: This table will keep track of all the ingredients put in by the user
- Recipe table: This table will contain ingredients and instructions for individual recipes
- Occasions table: This table will hold custom occasions with recipes assigned to those occasions

Relationships:

- One to one
- One to many
  - User Table => Ingredients Table, Grocery List table, Recipe Table, Occasions Table
- Many to many
  - Grocery List ⇔ Ingredients
  - Recipe ⇔ ingredients
  - Occasions ⇔ Recipe

Columns:

- User Table:
  - User ID: Stored that, because we need to separate users to tell who is who
  - User_password: Users need to be able to log into their accounts
  - User_email: Users should have a unique email username that can help log them in
  - First_name: Make it more user friendly and prettier to look at, more personal (feels more standard when they sign up for an account)
  - Last_name: Same reasoning as first_name
- Ingredients Table:
  - Ingredient ID: Need to separate the ingredients to tell which is which
  - Ingredient_name: Need to know WHAT ingredient you're messing with
- Grocery list table:
  - groceryList_ID: Helps differentiate between different grocery lists
  - groceryList_owner: Actually ties the grocery list to the user that created it
  - groceryList_contents: Need to know what exactly is inside that grocery list
- Recipe Table:
  - Recipe_id: Need to be able to separate and differentiate between multiple different recipes

    - Recipe_name: Allows the user to set a custom name for each recipe, as they see fit
    - Recipe_contents: Need to know what ingredients are inside the recipe
    - Recipe_occasion: Users should be able to tie their recipes to the occasion that they want it tied to
    - Recipe_instructions: Users can input their precise and detailed instructions into the recipe so you actually know how to cook it
- Occasions table:
    - Occasion_id: Separates different occasions from one another
    - Occasion_name: Allows custom occasion names to be set by the user
    - Custom_occasion: Ties the occasion created to the user that created it
    - Occasion_recipe: Sets the recipe for this specific occasion

Code:

```
CREATE TABLE "users" (
  "user_id" SERIAL PRIMARY KEY,
  "user_password" VARCHAR(500),
  "user_email" VARCHAR(250),
  "first_name" VARCHAR(75),
  "last_name" VARCHAR(75)
);

CREATE TABLE "ingredients" (
  "ingredient_id" SERIAL PRIMARY KEY,
  "ingredient_name" VARCHAR(75)
);

CREATE TABLE "grocery_list" (
  "groceryList_id" SERIAL PRIMARY KEY,
  "groceryList_owner" INT NOT NULL,
  "groceryList_contents" INT NOT NULL
);

CREATE TABLE "recipes" (
  "recipe_id" SERIAL PRIMARY KEY,
  "recipe_name" VARCHAR(100),
  "recipe_contents" INT NOT NULL,
  "recipe_occasion" INT NOT NULL,
  "recipe_instructions" VARCHAR(5000)
);

CREATE TABLE "occasions" (
  "occasion_id" SERIAL PRIMARY KEY,
  "occasion_name" VARCHAR(100),
  "custom_occasions" INT NOT NULL,
  "occasion_recipe" INT NOT NULL
);
INSERT INTO users (user_password, user_email, first_name, last_name)
VALUES ('nicepassword','niceemail@email.com','Joseph','Al-Abudi');
```