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

Data:

- Password
- Email
- Ingredients
- Instructions
- Public/Private Boolean
- Grocery list
- Occasions

Tables:

Users

- User email
- User password
- Username

Recipes

- Instructions
- Link to Users
- Recipe name
- Private/Public Bool
- Date created

RecipeIngredients

- Recipe id
- Ingredient

Groceries

- Link to Users
- Ingredient

Occasions

- User id
- Occasion name

- Date of occasion

OccasionRecipes
- Recipe id
- Occasion id

Relationships
- One to one
- One to many
    - Users => Recipes
        - One user can have many recipes
    - Users => Occasions
        - One user can create many occasions
    - User => Groceries
        - One user can have many groceries
    - Recipes => RecipeIngredients
        - One recipe can have many ingredients
    - Recipes => Occasions
        - One recipe can have many occasions
- Many to many

Columns

Users
- User email TEXT
    - Needed for sign in, emails are in text
- User password TEXT
    - Needed for sign in, passwords will be text
- Username
    - Needed for screen name, screen names are text

Recipes
- Instructions TEXT
    - A series of instructions in text form.
- Users id INT
    - So we know what user created it, ids are always numbers
- Recipe name TEXT
    - The name of the recipe to display is in text
- Private/Public Bool BOOLEAN
    - Default of private, used to hide from other users
- Date created DATE
    - Just the date created for future reference

RecipeIngredients

- Recipe id INT
    - So we know what recipe this ingredient belongs to
- Ingredient TEXT
    - The text of an ingredient that is in the recipe

Groceries

- Users id INT
    - So we know what user this grocery is for
- Ingredient TEXT
    - The text of the ingredient that is in the user's grocery list

Occasions

- User id INT
    - So we know what user created this occasion
- Occasion name TEXT
    - The name of the occasion in text form
- Date of occasion DATE
    - So that it can be planned ahead as a date

OccasionRecipes

- Recipe id INT
    - So we know what recipe belongs to the occasion
- Occasion id INT
    - So we know what occasion has the recipe

```
CREATE TABLE users (
  user_id SERIAL PRIMARY KEY,
  user_email VARCHAR(50),
  username VARCHAR(50),
  user_password VARCHAR(500)
);

CREATE TABLE recipes (
  recipe_id SERIAL PRIMARY KEY,
  user_id INT NOT NULL REFERENCES users(user_id),
  recipe_name VARCHAR(50),
  instructions TEXT,
  date_created TIMESTAMP,
  is_public BOOLEAN DEFAULT false
);

CREATE TABLE recipeIngredients (
  recipe_ingredients_id SERIAL PRIMARY KEY,
  recipe_id INT NOT NULL REFERENCES recipes(recipe_id),
  ingredient VARCHAR(300)
);

CREATE TABLE groceries (
  grocery_id SERIAL PRIMARY KEY,
  user_id INT NOT NULL REFERENCES users(user_id),
  ingredient VARCHAR(300)
);

CREATE TABLE occasions (
  occasion_id SERIAL PRIMARY KEY,
  user_id INT NOT NULL REFERENCES users(user_id),
  occasion_name VARCHAR(50),
  date_of_occasion TIMESTAMP
);

CREATE TABLE occasionRecipes (
  occasion_recipes_id SERIAL PRIMARY KEY,
  recipe_id INT NOT NULL REFERENCES recipes(recipe_id),
  occasion_id INT NOT NULL REFERENCES occasions(occasion_id)
);
```