Data Modeling

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

Brainstorm

- username
- first name
- last name
- password
- email
- recipes
- ingredients
- instructions
- recipe image
- grocery lists
- occasions posts
- public recipes
- private recipes
- viewing users (traffic on recipe)
- timestamp of when recipe was posted

Table Ideas

- **Users:** This table will house all information on the individual user. This table will have a serial primary key (user id) and all other keys will have VARCHAR data types for users to input a select number of characters to satisfy the amount of info needed but not enough to take up wasted space in the database.
    - User id: serial primary key
    - Username: VARCHAR
    - First name: VARCHAR
    - Last name: VARCHAR
    - Email: VARCHAR
    - Password: VARCHAR
- **Recipes:** This table will store all information on public recipes stored by users. This table will have a serial primary key, VARCHAR for select number of characters to satisfy the amount of info needed but not enough to take up wasted space in the database, and a timestamp for when the recipe was posted.
    - Recipes id: serial primary key
    - User id : integer referencing users
    - Instructions : VARCHAR
    - Recipe image: VARCHAR
    - Is public: BOOLEAN
    - Viewing users: INTEGER references user id
    - Timestamp: TIMESTAMP
- **Grocery Lists:** This table will store data for grocery list information created by the users.
    - Grocery list id: serial primary key
    - User id: INTEGER references user id
    - Ingredients: VARCHAR references ingredients
    - Timestamp: TIMESTAMP

- **Occasions:** This table will store data for information on occasions posted by the users.
    - Occasions id: serial primary key
    - User id: INTEGER references user id
    - Recipes id: INTEGER references recipe id
    - Timestamp: TIMESTAMP
- **Ingredients:** This table will store information on ingredients and their respective measurements users have posted in association with recipes and grocery lists.
    - Ingredient id: serial primary key
    - Ingredient name: VARCHAR
    - Ingredient quantity: VARCHAR
- **Recipe Ingredients:**
    - Recipe ingredient id: serial primary key
    - Recipe id: INTEGER REFERENCES recipe id
    - Ingredient id: INTEGER REFERENCES ingredient id
    - Ingredient quantity: VARCHAR REFERENCES ingredient quantity

Relationships

- One to One
    -
- One to Many
    - Users to recipes
    - Users to grocery lists
    - Users to occasions
- Many to Many

SQL CODE

```
CREATE TABLE users (
user_id SERIAL PRIMARY KEY,
username VARCHAR(30) NOT NULL,
user_firstname VARCHAR(40) NOT NULL,
user_lastname VARCHAR(100) NOT NULL,
user_email VARCHAR(100),
user_password VARCHAR(2000)
);

CREATE TABLE recipes (
recipe_id SERIAL PRIMARY KEY,
author_id INTEGER NOT NULL REFERENCES users(user_id),
instructions VARCHAR(2000),
recipe_image_url VARCHAR(5000),
time_of_private_recipe_post TIMESTAMP,
is_public BOOLEAN DEFAULT false
);

CREATE TABLE occasions (
occasions_id SERIAL PRIMARY KEY,
author_id INTEGER NOT NULL REFERENCES users(user_id),
recipe_id INTEGER NOT NULL REFERENCES recipes(recipe_id),
time_of_occasions_post TIMESTAMP
);

CREATE TABLE ingredients (
ingredient_id SERIAL PRIMARY KEY,
ingredient_name VARCHAR(20),
ingredient_quantity VARCHAR(20)
);

CREATE TABLE recipeingredients (
recipeingredients_id SERIAL PRIMARY KEY,
recipe_id INTEGER NOT NULL REFERENCES recipes(recipe_id),
ingredient_id INTEGER NOT NULL REFERENCES ingredients(ingredient_id),
ingredient_quantity INTEGER NOT NULL
);


CREATE TABLE grocerylists (
grocerylist_id SERIAL PRIMARY KEY,
author_id INTEGER NOT NULL REFERENCES users(user_id),
ingredient_id INTEGER NOT NULL REFERENCES recipeingredients(recipeingredients_id),
```

```
time_of_grocerylist_post TIMESTAMP
);
```