Brainstorm:

- **Username**
- **Email**
- **Password**
- **Recipes**
- **Ingredients**
- **Instructions**
- **Public or private (boolean)**
- **Grocery list**
- **Occasions**

Table Ideas:

- **user**
    1. **Username**
    2. **Email**
    3. **password**
- **recipes:**
    1. **Ingredients**
    2. **User forign key**
    3. **Instructions**
    4. **Public or private**
    5. **Occasion forign key**
- **Grocery list:**
    1. **Ingredients**
    2. **Public or private**
    3. **User forign key**

- **occasions:**
    1. **Recipes forign key**
- **Ingredients;**
    1. **Recipe forign key**
- **Instructions:**
    - **Recipe key**

Relationships:

- **One-to-one**
    - **Instructions - instructions are specifically for one recipe only.us**
- **One-to-many**

    - **Occasions - each occasion has multiple recipes, but each recipe only has one occasion**
    - **Users**
    - **Grocery lists - multiple ingredients will be in one grocery list but not multiple grocery lists for each ingredient**
- **Many-to-many**
    - **Recipes - recipes accept multiple ingredients, also users and grocery lists.**
    - **Ingredients - each recipe has ingredients, and grocery lists, but there not exclusive and can be used in any recipe.**

Columns :

- **user**
    1. **User_id - unique to each user**
    4. **Username - everyone needs a username to differentiate on the website, VARCHAR(50) dont want to long**
    5. **Email - each person has an email linked to them, VARCHAR - sets specific amount of space allocated**
    6. **Password - needed to login, storing for authentication - VARCHAR - need to save the password**
- **Recipes:**
    - **Recipe_id - unique to each recipe**
    6. **Ingredient_id - linked to specific ingredients**
    7. **User forign key - linked to specific user**
    8. **Instruction_id - linked to the specific instructions**
    9. **Public or private - set so users can share or not**
    10. **Occasion forign key - linked to a specific occasion**
    11. **Actual recipe - they need the actual recipe**
- **Grocery list**
    - **Grocery_list_id - unique to each grocery list**
    4. **Ingredients forign key - linked to the ingredient table**
    5. **Public or private - accessability**
    6. **User forign key - linked to a specific user**

- **Occasions:**
    - **Occasion_id - unique to each occasion**
    2. **Recipes forign key - link to a specific recipe**
- **Ingredients;**
    - **Ingredient_id - unique id for each ingredient**

2. Recipe forign key

- Instructions:
    - Recipe key

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


CREATE TABLE recepies(
  recepies_id SERIAL PRIMARY KEY,
  user_id INT NOT NULL REFERENCES users(user_id),
  instructions_id INT NOT NULL REFERENCES instructions(instructions_id),
  public_or_private NOT NULL DEFAULT private,
  occasions_id INT NOT NULL REFERENCES occasions(occasions_id),
  ingredients_id INT NOT NULL REFERENCES ingredients(ingredients_id)
);

CREATE TABLE groceryList(
  groceryList_id SERIAL PRIMARY KEY,
  user_id INT NOT NULL REFERENCES users(user_id),
  ingredients_id INT NOT NULL REFERENCES ingredients(ingredients_id)
);

CREATE TABLE occasions(
  occasions_id SERIAL PRIMARY KEY,
  recepies_id INT NOT NULL REFERENCES recepies(recepies_id)
);

CREATE TABLE ingredients(
  ingredients_id SERIAL PRIMARY KEY,
  recepies_id INT NOT NULL REFERENCES recepies(recepies_id)
);

CREATE TABLE instructions(
  instructions_id SERIAL PRIMARY KEY,
  recepies_id INT NOT NULL REFERENCES recepies(recepies_id)
```

);