**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

**Part 1: Brainstorming**

**Step 1: Document items to track**

user id

email

password

post comments

recipe post

existing recipes

public or private recipe post

grocery list

ingredients

occasions

assign recipe occasions

**Step 2: Table Ideas**

1. **Users:** This table will hold information about the grocery app users. Each row will be an individual user of the grocery app.
2. Recipes: This table will hold information about the recipes in the grocery app. Each row will be an individual recipe in the grocery app.
3. Grocery Lists: This table will hold information about the grocery list in the grocery app. Each row will be an individual grocery items.
4. Ingredients: This table will hold information about the ingredients in the grocery app that will be associated with recipes.
5. Occasions: This table will hold information about occasions associated with recipes in the grocery app.
6. Grocery List Ingredients: This is a middle table between grocery list table and the ingredients table.
7. Occasions Recipes: This is a middle table between the occasions table and the recipes table.

**Step 3: Determine table relationships**

**One-to-One:**

None

**One-to-Many:**

* A user can be associated with many recipes and many recipes can be associated with one user.
* A user can be associated with one grocery list and many grocery list can be associated with one user.
* A user can be associated with many ingredients.
* A user can be associated with many occasions.

**Many-to-Many:**

* A grocery list can have many ingredients and an ingredient can be on many grocery lists.
* A user can be associated with many ingredients and many ingredients can be associated with many users.
* A recipe can be associated with many occasions and many occasions can be associated with many recipes.

**Step 4: Add additional tables**

**Added table:**

* Ingredients: This table will hold information about the ingredients in the grocery app that will be associated with recipes.
* Grocery List Ingredients: This is a middle table between grocery list table and the ingredients table.
* Occasions Recipes: This is a middle table between the occasions table and the recipes table.

**Part 2: Table Planning**

**Step 1: DB Designer**



**Step 2:** Relationships called Columns

* Sub-section:
* **List out each table’s respective columns in the table’s sub-section and explain for each column:**
  + why you’ll be storing that data
  + and why you chose the data type you did

**Part 3:** Create Tables in SQL – Postgres Sandbox

**User table:**

CREATE TABLE "users" (

"user\_id" serial NOT NULL,

"username" varchar(50) NOT NULL,

"name" varchar(100) NOT NULL,

"password" varchar(30) NOT NULL,

"email" varchar(30) NOT NULL,

CONSTRAINT "users\_pk" PRIMARY KEY ("user\_id")

) WITH (

OIDS=FALSE

);

**Recipe table**

CREATE TABLE "recipes" (

"recipe\_id" serial NOT NULL,

"name" varchar(50) NOT NULL,

"instructions" varchar(500) NOT NULL,

"public" BOOLEAN NOT NULL,

"user\_id" integer NOT NULL,

CONSTRAINT "recipes\_pk" PRIMARY KEY ("recipe\_id")

) WITH (

OIDS=FALSE

);

**Ingredients table**

CREATE TABLE "ingredients" (

"ingredient\_id" serial NOT NULL,

"name" varchar(50) NOT NULL,

CONSTRAINT "ingredients\_pk" PRIMARY KEY ("ingredient\_id")

) WITH (

OIDS=FALSE

);

**Grocery Lists table**

CREATE TABLE "grocery\_lists" (

"grocery\_list\_id" serial NOT NULL,

"name" varchar(50) NOT NULL,

"user\_id" integer NOT NULL,

"ingredient\_id" integer NOT NULL,

CONSTRAINT "grocery\_lists\_pk" PRIMARY KEY ("grocery\_list\_id")

) WITH (

OIDS=FALSE

);

**Occasions table**

CREATE TABLE "occasions" (

"occasion\_id" serial NOT NULL,

"name" varchar(50) NOT NULL,

"user\_id" integer NOT NULL,

"recipe\_id" integer NOT NULL,

CONSTRAINT "occasions\_pk" PRIMARY KEY ("occasion\_id")

) WITH (

OIDS=FALSE

);

**Recipe Ingredients table**

CREATE TABLE "recipe\_ingredients" (

"recipe\_ingredients\_id" serial NOT NULL,

"recipe\_id" integer NOT NULL,

"ingredient\_id" integer NOT NULL,

CONSTRAINT "recipe\_ingredients\_pk" PRIMARY KEY ("recipe\_ingredients\_id")

) WITH (

OIDS=FALSE

);

**Grocery List Ingredients table**

CREATE TABLE "grocery\_list\_ingredients" (

"grocery\_list\_ingredients\_id" serial NOT NULL,

"grocery\_list\_id" integer NOT NULL,

"ingredients\_id" integer NOT NULL,

CONSTRAINT "grocery\_list\_ingredients\_pk" PRIMARY KEY ("grocery\_list\_ingredients\_id")

) WITH (

OIDS=FALSE

);

**Occasions Recipe table**

CREATE TABLE "occasions\_recipes" (

"occasions\_recipes\_id" serial NOT NULL,

"occasions\_id" integer NOT NULL,

"recipes\_id" integer NOT NULL,

CONSTRAINT "occasions\_recipes\_pk" PRIMARY KEY ("occasions\_recipes\_id")

) WITH (

OIDS=FALSE

);