Data

User_id
Email
Password
Name

Recipe_id
Recipe name
Recipe ingredients
Recipe instructions
Recipe visibility
User clearance

Grocery list

Occasion
Occasion recipes

Table Ideas

Users: contains user data

Recipes: contains submitted recipes and displays them

Grocery list: contains ingredients saved from recipes

Occasion: contains submitted occasions and recipes assigned to occasions

User-Recipe - Acts as middle table between users and recipes taking in the user id foreign and recipe id foreign for the appropriate creator

Recipe-Occasion - Acts as middle table between occasions and recipes

Recipe-Grocery - Acts as middle table between recipes and grocery list

Relationships

One-to-one

User to grocery list: One user can have one grocery list and each grocery list can have one user

One-to-many

User to occasion: User can create many occasions but each occasion can only have one creator

Many-to-many

Users to Recipes: User can interact with many recipes and one recipe can have many people interacting with it

Recipe to Occasion: Recipes can be assigned to multiple occasions and occasions can have multiple recipes

Recipes to Ingredient: One recipe can have many ingredients and one ingredient can have many grocery lists

Ingredients to Grocery:One ingredient can be in multiple grocery lists and one grocery list can have multiple ingredients

Columns

- **Users:**
  - User ID is an integer since the serial primary key for each table has to be an integer.
  - Email is a varchar to allow user to input email for contact and account access. Its set as a unique VarChar to limit characters and prevent confusion
  - Password is a VarChar to allow user input for account access
  - Name is a VarChar to allow for display name separate from username. VarChar also allows a character limit
  - Grocery list to user is a one to one relationship so grocery id is a foreign integer to connects directly to the grocery list table
- **User Recipe:**
  - User recipe ID is an integer since the serial primary key for each table has to be an integer.
  - User ID connects to the ID from the user table
  - Recipe ID connects to the ID from the recipe table

- **Recipe:**
    - Recipe ID is an integer since the serial primary key for each table has to be an integer.
    - Recipe name is a VarChar to allow user to title their recipes as well as allow a character limit for the recipe
    - Recipe instructions is a string to allow for a larger field of text to be used for instructions instead of VarChar which has a hard limit of 255 characters
    - Recipe visibility is a boolean to allow recipes to be made public or left private. Since theres only two states the visibility can be in its best to use a boolean for a true or false.
- **Recipe Ingredient:**
    - Recipe ingredient ID is an integer since the serial primary key for each table has to be an integer.
    - Recipe ID connects to the ID from the recipe table
    - Ingredients ID connects to the ID from the ingredients table
- **Ingredients:**
    - Ingredients ID is an integer since the serial primary key for each table has to be an integer.
    - Ingredients is a Varchar to allow user to input an ingredient and a character limit for each entry.
- **Ingredients Grocery:**
    - Ingredients Grocery ID is an integer since the serial primary key for each table has to be an integer.
    - Ingredients ID connects to the ID from the ingredients table
    - Grocery ID connects to the ID from the grocery table

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CREATE TABLE grocery_list(
  grocery_list_id SERIAL PRIMARY KEY
  );

CREATE TABLE users(
        users_id SERIAL  PRIMARY KEY,
  email VARCHAR(200) UNIQUE,
  username VARCHAR(200) UNIQUE,
  password VARCHAR(250),
  name VARCHAR(50),
  grocery_list_id INTEGER REFERENCES grocery_list(grocery_list_id)
);

CREATE TABLE recipe (
recipe_id SERIAL  PRIMARY KEY,
  recipe_name VARCHAR(200) UNIQUE,
  recipe_instructions VARCHAR(200),
  recipe_visibility boolean
);

CREATE TABLE ingredients (
ingredients_id SERIAL PRIMARY KEY,
  ingredients VARCHAR(200) UNIQUE
);

CREATE TABLE occasion (
occasion_id SERIAL PRIMARY KEY,
  occasion_name VARCHAR(255)
);

CREATE TABLE users_recipe (
users_recipe_id SERIAL  PRIMARY KEY,
users_id INTEGER REFERENCES users(users_id),
recipe_id INTEGER REFERENCES recipe(recipe_id)
);

CREATE TABLE recipe_ingredient (
recipe_ingredient_id SERIAL  PRIMARY KEY,
recipe_id INTEGER REFERENCES recipe(recipe_id),
ingredients_id INTEGER REFERENCES ingredients(ingredients_id)
);

CREATE TABLE ingredient_grocery (
ingredient_grocery_id SERIAL  PRIMARY KEY,
ingredients_id INTEGER REFERENCES ingredients(ingredients_id),
grocery_list_id INTEGER REFERENCES grocery_list(grocery_list_id)
);

CREATE TABLE recipe_occasion (
recipe_occasion_id SERIAL  PRIMARY KEY,
recipe_id INTEGER REFERENCES recipe(recipe_id),
occasion_id INTEGER REFERENCES occasion(occasion_id)
);
```