BRAINSTORMING

- user_id
- Username
- Email
- Password
- First_name
- Last_name
- Ingredient_id
- Ingredient_name
- Recipe_id
- Recipe_name
- Recipe_ingredients
- Recipe_instructions
- Recipe_image_url
- Recipe_rating
- Occasion
- Recipe_author
- Grocery_list_id

TABLES

User: this table will hold user's information and profile info

- user_id
- Username
- Email
- Password
- First_name
- Last_name

Ingredients: this table will hold the ingredient's name and id

- Ingredient_id
- Ingredient_name

Recipes: this table will hold recipe instruction, ingredients, ratings and identifying info

- Recipe_id
- Recipe_name
- Recipe_ingredients
- Recipe_instructions
- Recipe_image_url
- Recipe_rating
- Occasion
- Recipe_author

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Grocery List: this table will hold grocery lists comprised of ingredients

- Grocery_list_id
- Ingredient_id

User recipes:

- User_recipe_id
- User_recipe_name

Recipe ingredients:

- Ingredient_needed
- Ingredient_id

RELATIONSHIPS:

One to one

One to many

User ===> grocery lists	one user can make many grocery list
Ingredients ===> grocery lists	one ingredient can be in many grocery lists

Many to many

User ===> recipes	many users can post many recipes
Ingredients ===> recipe	many ingredients can make up many recipes

COLUMNS:

User: this table will hold user's information and profile info

- user_id
  - unique identifier for each user
  - serial primary key
- Username
  - Login username for user
  - VARCHAR with a limit of 30 characters
- Email
  - Email attached to account for verification
  - VARCHAR with a limit of 50 characters
- Password
  - Login password for user
  - VARCHAR with a limit of 30 characters
- First_name
  - User's first name
  - VARCHAR
- Last_name

    - User's last name
    - VARCHAR

Ingredients: this table will hold the ingredient's name and id

- Ingredient_id
    - id for each ingredient in the db, referenced by other tables like recipes and groceries
    - SERIAL PRIMARY KEY
- Ingredient_name
    - Name of ingredient mostly for humans to know what the item is
    - VARCHAR

Recipes: this table will hold recipe instruction, ingredients, ratings and identifying info

- Recipe_id
    - The recipe's unique identifying number
    - SERIAL PRIMARY KEY
- Recipe_name
    - Name of Recipe, mostly used for humans
    - VARCHAR
- Recipe_ingredients
    - Column that references ingredient_id
    - INT REFERENCES
- Recipe_instructions
    - Text instructions to be displayed
    - VARCHAR
- Recipe_image_url
    - URL for image to be displayed
    - VARCHAR
- Recipe_rating
    - Rating to be displayed for each recipe
    - INT value between 0 and 5
- Occasion
    - Custom field a user can list what occasion this recipe would be for
    - VARCHAR
- Recipe_author
    - Who posted the recipe
    - VARCHAR references user_id

Grocery List: this table will hold grocery lists comprised of ingredients

- Grocery_list_id
    - Identifier for the grocery list
    - SERIAL PRIMARY KEY
- Ingredient_id
    - References ingredient_id in ingredients table
    - INT

User recipes:

- User_groceries_id
  - SERIAL PRIMARY KEY
  - INT, references user_id
- User_recipe_name
  - Name of user recipe
  - VARCHAR

Recipe ingredients:

- Recipe_Ingredient_id
  - Unique identifier for recipe ingredient
  - SERIAL PRIMARY KEY
- Ingredient_id
  - References original ingredient_id
  - INT

```
CREATE TABLE users(
  user_id SERIAL PRIMARY KEY,
  username VARCHAR(30),
  user_password VARCHAR(30),
  email VARCHAR(50),
  first_name VARCHAR(30),
  last_name VARCHAR(30)
);

CREATE TABLE ingredients(
  ingredient_id SERIAL PRIMARY KEY,
  ingredient_name VARCHAR(50)
);

CREATE TABLE recipes(
  recipe_id SERIAL PRIMARY KEY,
  recipe_name VARCHAR (100),
  recipe_ingredients INT NOT NULL REFERENCES ingredients(ingredient_id),
  recipe_instructions VARCHAR(1000),
  recipe_image_url VARCHAR(2000),
  recipe_rating INT NOT NULL CHECK (recipe_rating BETWEEN 0 AND 5),
  recipe_occasion VARCHAR(100),
  recipe_author INT NOT NULL REFERENCES users(user_id)
);

CREATE TABLE groceries(
  grocery_list_id SERIAL PRIMARY KEY,
  ingredient_id INT NOT NULL REFERENCES ingredients(ingredient_id)
);

CREATE TABLE user_groceries(
  user_grocery_id SERIAL PRIMARY KEY,
  grocery_list_owner INT NOT NULL REFERENCES users(user_id)
);

CREATE TABLE recipe_ingredients(
  recipe_ingredient_id SERIAL PRIMARY KEY,
  ingredient_id INT NOT NULL REFERENCES ingredients(ingredient_id)
);
```