DATA MODELING LAB 11.9.2021
RECIPE CREATING/SHARING AND GROCERY LIST APP

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

Brainstorming (all the different things you might need to keep track of for this app)
- Users and their login info
- Recipes
  - public or private?
  - Required Ingredients
  - Required cookware
  - Instructions
  - nutritional facts/data per serving
- All possible food ingredients
  - ingredient type
  - ingredient nutrition facts/data
- Grocery list
  - food ingredient
    - quantity
- Occasions

TABLE IDEAS
- Users
  - Hold info about users
    - profile, age, recipe preferences

- Authorization
  - Holds user's login details
    - username, password, email, etc.

- Posts (Recipes)
  - Holds info related to who posted the recipe
  - Image URL
  - Private or Public?
  - Instructions
  - Rating

- Comments
  - Holds info about user comments on likes, image URL, tags, content

- Followers
  - Who is following whom

- Ingredients
  - Holds info related about the ingredients
  - Name of ingredient
  - Where to find it
  - Nutrition facts?

RELATIONSHIPS
- One-to-One
  - Users to Authorization
  - Post to Content

- One-to-Many
  - Post to Comments
  - Users to Comments
  - Users to Posts
- Many-to-Many
  - Ingredients to Posts
  - ingredients to recipes
  - Users to Followers

COLUMNS

- Users
  - user_id, integer: keeps track of each user using the app
  - first_name, varchar: want to know our users names
  - last_name, varchar: want to know our users names
  - bio, text: good to know a bit about our user and so users can get to know each other
  - age, integer: helpful data about user demographics

- Authorization
  - user_id, integer: to tie auth credentials to individual user
  - username, varchar: to give each user a unique username
  - password, varchar: to grant the user access to the app
  - email, varchar: for verification purposes and to send notifications

- Posts (Recipes)
  - post_id, integer: to give each post a unique identity
  - user_id, integer: to tie each post to its original user
  - recipe, text: the content of the recipe
  - public, boolean: to indicate whether this is public or private
  - image, text: to provide an imageURL of the finished product
  - likes, integer: to track the number of likes a recipe has (its popularity)
  - ingredient_name, varchar: to include the necessary ingredients for the recipe (stored in ingredient table)

- Comments
  - comment_id, integer: to provide a unique ID number for each individual comment
  - user_id, integer: to tie each comment to its original user
  - comment_content, varchar: to store the content of the comment
  - likes, integer: to track the number of likes a comment has
  - post_id, integer: to track which post the comment is tied to

- Followers
  - user_id, integer: to track which user is following which user

- Ingredients
  - ingredient_name, varchar: referenced by recipe
  - post_id: to show which recipes the ingredient can be used for
  - nutrition facts, text: to track nutritional content of each ingredient

PART 3

```
CREATE TABLE users(
  user_id serial PRIMARY KEY,
  first_name VARCHAR(255) NOT NULL,
  last_name VARCHAR(255) NOT NULL,
  bio TEXT,
  age INTEGER
  );

INSERT INTO users (first_name, last_name, bio, age)
VALUES ('Tomas', 'Fisher', 'I like to cook!', 34),
('Julia', 'Childs', 'I am pretty much the GOAT.', 93),
('Martha', 'Stewart', 'I am a badass chef', 63);
```

```
CREATE TABLE auth(
  user_id INTEGER PRIMARY KEY NOT NULL REFERENCES users(user_id),
  username VARCHAR(255),
  password VARCHAR(255),
  email VARCHAR(255)
  );

CREATE TABLE posts(
  post_id SERIAL PRIMARY KEY,
  user_id INTEGER NOT NULL REFERENCES users(user_id),
  recipe TEXT,
  private BOOLEAN,
  image TEXT,
  likes INTEGER,
  ingredient_name VARCHAR(255)
  );


CREATE TABLE ingredients(
  ingredient_name VARCHAR(255) PRIMARY KEY,
  calories INTEGER,
  post_id INTEGER REFERENCES posts(post_id)
  );

CREATE TABLE comments(
  comment_id SERIAL PRIMARY KEY,
  user_id INTEGER REFERENCES users(user_id),
  comment_content TEXT,
  likes INTEGER,
  post_id INTEGER REFERENCES posts(post_id)
  );
```