Data Modeling: Recipe and grocery list app

Brainstorming
Will need to keep track of usernames, passwords, recipes, ingredients, grocery list, occasions and recipes for occasions.

Tables
- User : table will hold information related to the user
- Auth : user password
- Recipe : table will hold info about recipes
- Grocery List: table will hold grocery lists
- Grocery List Items: Will hold all the ingredients for a user's grocery list
- Ingredients : Table of ingredients
- Comments : Comments from other user on a recipe
- Following: table will describe relationship for users
- Occasions table : occasion info
- Occasions recipe : added recipe for occasion
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Relationship

One to One:
- Users table to auth table : Only one user to auth and only one auth per user

One to many :
- Users table to grocery lists table: One user can have many grocery lists, but a grocery list can only have one creator.
- Users table to comments table: One user can create many comments, but a comment can only be created by one user
- Users table to occasions table: One user can create many occasions, but an occasion can only be created by one user.
- Users table to recipe table: One user can create many recipes, but a recipe can only be created by one user.
- Recipes table to recipe comments table: A recipe can have many comments, but a comment can only be on one recipe
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Many to Many:
- Recipes table to recipe occasions table
- Recipes table to recipe ingredients table
- Occasions table to recipe occasions table
- Recipes ingredients table to ingredients table
- Ingredients table to grocery list items table
- Grocery Lists table to grocery list items table

```
CREATE TABLE "public.users" (
     "user_id" serial NOT NULL,
     "first_name" varchar(255) NOT NULL,
     "last_name" varchar(255) NOT NULL,
     "pronouns" varchar(255) NOT NULL,
     "dob" varchar(255) NOT NULL,
     "profile_pic" varchar(255) NOT NULL,
     "created_on" TIMESTAMP NOT NULL,
     CONSTRAINT "users_pk" PRIMARY KEY ("user_id")
) WITH (
  OIDS=FALSE
);
```

```
CREATE TABLE "public.auth" (
     "auth_id" serial NOT NULL,
     "email" varchar(255) NOT NULL,
     "passwordHash" varchar(255) NOT NULL UNIQUE,
     "user_id" varchar(255) NOT NULL,
     CONSTRAINT "auth_pk" PRIMARY KEY ("auth_id")
) WITH (
  OIDS=FALSE
);
```

```
CREATE TABLE "public.ingredients" (
     "ingredient_id" serial NOT NULL,
     "item" varchar(255) NOT NULL,
     CONSTRAINT "ingredients_pk" PRIMARY KEY ("ingredient_id")
) WITH (
  OIDS=FALSE
);
```

```
CREATE TABLE "public.recipes" (
     "recipe_id" serial NOT NULL,
     "recipe_name" varchar(255) NOT NULL,
     "instructions" TEXT NOT NULL,
     "created_on" TIMESTAMP NOT NULL,
     "isPrivate" BOOLEAN(255) NOT NULL,
```

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      "created_by" integer NOT NULL,
      CONSTRAINT "recipes_pk" PRIMARY KEY ("recipe_id")
) WITH (
  OIDS=FALSE
);



CREATE TABLE "public.recipe_comments" (
      "recipe_comment_id" serial NOT NULL,
      "comment_body" TEXT NOT NULL,
      "comment_op" int NOT NULL,
      "recipe_id" int NOT NULL,
      CONSTRAINT "recipe_comments_pk" PRIMARY KEY
("recipe_comment_id")
) WITH (
  OIDS=FALSE
);



CREATE TABLE "public.grocery_lists" (
      "grocery_list_id" serial NOT NULL,
      "isCompleted" BOOLEAN NOT NULL DEFAULT 'false',
      "user_id" int NOT NULL,
      "grocery_list_items_id" int NOT NULL,
      CONSTRAINT "grocery_lists_pk" PRIMARY KEY ("grocery_list_id")
) WITH (
  OIDS=FALSE
);



CREATE TABLE "public.occasions" (
      "occasion_id" serial NOT NULL,
      "occasion_name" varchar(255) NOT NULL,
      "occasion_date" DATE NOT NULL,
      "occasion_time" TIME NOT NULL,
      "occasion_location" varchar(255) NOT NULL,
      "user_id" int(255) NOT NULL,
      CONSTRAINT "occasions_pk" PRIMARY KEY ("occasion_id")
) WITH (
  OIDS=FALSE
);
```

```
CREATE TABLE "public.occasion_recipe" (
	"occasion_recipe_id" serial NOT NULL,
	"occasion_id" int NOT NULL,
	"recipe_id" int NOT NULL,
	CONSTRAINT "occasion_recipe_pk" PRIMARY KEY
("occasion_recipe_id")
) WITH (
  OIDS=FALSE
);
```

```
CREATE TABLE "public.grocery_list_items" (
	"grocery_list_item_id" serial NOT NULL,
	"ingredient_id" int NOT NULL,
	"quantity" int NOT NULL,
	CONSTRAINT "grocery_list_items_pk" PRIMARY KEY
("grocery_list_item_id")
) WITH (
  OIDS=FALSE
);
```

```
CREATE TABLE "public.recipes_ingredients" (
	"recipes_ingredient_id" serial NOT NULL,
	"quantity" int NOT NULL,
	"ingredient_id" int NOT NULL,
	"recipe_id" int NOT NULL,
	CONSTRAINT "recipes_ingredients_pk" PRIMARY KEY
("recipes_ingredient_id")
) WITH (
  OIDS=FALSE
);
```

```
ALTER TABLE "auth" ADD CONSTRAINT "auth_fk0" FOREIGN KEY ("user_id")
REFERENCES "users"("user_id");
```

```
ALTER TABLE "recipes" ADD CONSTRAINT "recipes_fk0" FOREIGN KEY
("created_by") REFERENCES "users"("user_id");

ALTER TABLE "recipe_comments" ADD CONSTRAINT "recipe_comments_fk0"
FOREIGN KEY ("comment_op") REFERENCES "users"("user_id");
ALTER TABLE "recipe_comments" ADD CONSTRAINT "recipe_comments_fk1"
FOREIGN KEY ("recipe_id") REFERENCES "recipes"("recipe_id");

ALTER TABLE "grocery_lists" ADD CONSTRAINT "grocery_lists_fk0"
FOREIGN KEY ("user_id") REFERENCES "users"("user_id");
ALTER TABLE "grocery_lists" ADD CONSTRAINT "grocery_lists_fk1"
FOREIGN KEY ("grocery_list_items_id") REFERENCES
"grocery_list_items"("grocery_list_item_id");

ALTER TABLE "occasions" ADD CONSTRAINT "occasions_fk0" FOREIGN KEY
("user_id") REFERENCES "users"("user_id");

ALTER TABLE "occasion_recipe" ADD CONSTRAINT "occasion_recipe_fk0"
FOREIGN KEY ("occasion_id") REFERENCES "occasions"("occasion_id");
ALTER TABLE "occasion_recipe" ADD CONSTRAINT "occasion_recipe_fk1"
FOREIGN KEY ("recipe_id") REFERENCES "recipes"("recipe_id");

ALTER TABLE "grocery_list_items" ADD CONSTRAINT
"grocery_list_items_fk0" FOREIGN KEY ("ingredient_id") REFERENCES
"ingredients"("ingredient_id");

ALTER TABLE "recipes_ingredients" ADD CONSTRAINT
"recipes_ingredients_fk0" FOREIGN KEY ("ingredient_id") REFERENCES
"ingredients"("ingredient_id");
ALTER TABLE "recipes_ingredients" ADD CONSTRAINT
"recipes_ingredients_fk1" FOREIGN KEY ("recipe_id") REFERENCES
"recipes"("recipe_id");
```