

## Data Modeling Exercise (SQL) RBook

### BrainStorming

Need to keep track of:

User ↘

- User Id
- User name
- User Email
- User Password
- User Grocery list id
- User Occasions

Recipe ↘

- Recipe Id ↘
- User Id (foreign key to user) ↘
- Quantity
- Recipe Ingredients ingredient id
- Recipe Instructions
- Recipe Public Status (Boolean)

RecipeIngredients

- Recipe id
- Ingredient id

Ingredients

- Ingredient Id
- Name

Grocery

- Grocery id
- User Id (foreign key to user) ↘
- Grocery Ingredients

Occasions

- Occasions Id
- User Id (foreign key to user) ↘
- Occasion name
- Recipe id (foreign key to recipe) ↘

### Table Ideas

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**User:**

This table will hold all of a specific user's information including all their created recipes, grocery lists, and occasions.

**Recipe**

This table will hold individual recipes with their ingredients and instructions along with if the recipe is a Boolean or not

**Grocery**

This table will hold a list of ingredients as a grocery list

**Occasions**

This table will hold occasions for the user and recipes the occasions will use.

**Relationships:**

**One-one**

None

**One-many**

User- every table uses user

Grocery Lists- recipes and user use it

Ingredients- used by recipes and grocery lists

**Many-many**

Occasions- needs grocery and recipes

Recipe- Used and uses almost every table

**Columns:**

User-

name as varchar for name

email as unique varchar (no duplicate)

password as varchar(fine if duplicate)

Recipe-

Instructions as text (longer place for detailed instructions)

Public as Boolean (either yes its hidden or no its public)

Ingredients-

Name as varchar (refers to what the ingredient is)

Grocery-

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Only needs foreign keys and its own serial primary key

Occasions-  
name as varchar for what the occasion is called

SQL

```
create table RBook_user (  
  user_id serial primary key,  
  user_name varchar,  
  email varchar,  
  password varchar  
);  
  
create table ingredients (  
  ingredient_id serial primary key,  
  ingredient_name varchar  
);  
  
create table recipe (  
  recipe_id serial primary key,  
  user_id int references RBook_user(user_id),  
  ingredient_id int references ingredients(ingredient_id),  
  public_status boolean,  
  instructions text,  
  recipe_name varchar  
  
);  
  
create table share_recipes (  
  user_id int references RBook_user(user_id),  
  share_with_id int  
);  
  
create table occasions (  
  occasions_id serial primary key,  
  user_id int references RBook_user(user_id),  
  recipe_id int references recipe(recipe_id),  
  occasion_name varchar
```

```
);

create table grocery (
  grocery_id serial primary key,
  user_id int references RBook_user(user_id),
  ingredient_id int references ingredients(ingredient_id)
);

insert into RBook_user (user_name, email, password)
values
  ('jay', 'jayden@', 'orange'),
  ('kay', 'kayden@', 'krange'),
  ('lay', 'layden@', 'lrange'),
  ('may', 'mayden@', 'mrange'),
  ('nay', 'nayden@', 'nrange');

insert into ingredients (ingredient_name)
values
  ('tomato'),
  ('lettuce'),
  ('mango'),
  ('cheese'),
  ('grape');

insert into recipe (user_id, ingredient_id, public_status, instructions, recipe_name)
values
  (5,1,true,'shake the tomato and cook it', 'tomato dinner'),
  (4,2,false, 'cut the lettuce and chill it', 'salad lunch'),
  (3,3,true,'slice the mango and warm it', 'fruit snack'),
  (2,4,false,'melt the cheese and grate it', 'melted cheese'),
  (1,5,true,'eat the grape and like it', 'purple yummy');

select * from RBook_user;
select * from recipe;
select * from ingredients;
```

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