Data Modeling

Brainstorming

* Unique user ids
* Unique email
* User password
* User grocery list
* User stored occasions, maybe some default values
* Recipe id
* Ingredient list
* True or false value for public/private
* Date recipe was posted

Table Ideas

* User table that stores email, password, user id
* Grocery list table that references the user id and recipe
* Occasions table connected to the user id and recipe id
* Recipe table that references the user id of poster, occasions table, and grocery list, with date created, plus cooking instructions
* Ingredients table that references the recipe table and stores all the ingredients
* Master recipe list

Relationships

* One-to-one: occasions table with the recipe table (
* One-to-many: grocery list table(each user will only have one grocery list, but it could have many items from many recipes), user table
* Many-to-many: Recipes table(a user can have lots of recipes and a recipe can be saved to many different user accounts), ingredients table (there are lots of ingredients in a recipe and an ingredient can be used in many recipes)

Columns

User Table:

* User\_id: make sure each user only has one account (serial primary key needed for all tables)
* User\_name: each user needs a unique name (varchar to store a string of characters)
* User\_email: to make sure there is only one account per email (varchar to store a string of characters)
* User\_password: store password to protect account (varchar to store a string of characters)

Recipe Table:

* Recipe\_name: to store title of recipe (varchar to store a string)
* Recipe\_id: keep track of unique recipe created by users (serial primary key needed for all tables)
* Recipe\_creator: store associated user\_id for creator of recipe (integer to store foreign key)
* Recipe\_instructions: store the text body of instructions for recipe (text to store any amount of instructions)
* Recipe\_visibility\_public: to store Boolean value of visibility (Boolean because it’s either true or false)

Recipe-Ingredients Table:

* Recipe\_ingredients\_id: store each unique entry (serial primary key needed for all tables)
* Recipe\_id: store which recipe associated with ingredient (integer to store foreign key)
* Ingredient\_id: store the ingredient (integer to store foreign key)
* Measurement\_unit: store measurement of ingredient; such as cups, ounces, etc (varchar to store text string)
* Qty\_amount: quantity of ingredient needed (float to store values of quantity such as 2 or 1.25)

Ingredients Table:

* Ingredient\_id: gives each ingredient unique number (serial primary key needed for all tables)
* Ingredient\_name: name of each ingredient (varchar to store string value)

Grocery List:

* Grocery list id: stores unique input value (serial primary key needed for all tables)
* Grocery\_list\_user: stores the user that the grocery list belongs to (integer for foreign key)
* Recipe\_id: store the recipe associated with grocery list item (integer for foreign key)
* Ingredient\_id: store actual grocery item (integer for foreign key)
* Quantity: how many of item to purchase (integer that’s foreign key for qty\_amount from recipe-ingredients table)

Occasions Table:

* Occasion\_id: unique identifier for occation (primary serial key)
* Occasion\_name: chosen name of occation (varchar to store string value)

Recipe Occasions Table:

* Recipe\_occasion\_id: (serial primary key needed for all tables)
* Recipe\_id: store associated recipe for occasion (integer for foreign key)
* Occasion\_id: store occasion associated with recipe (integer for foreign key)

SQL Code

create table app\_users(

user\_id serial primary key,

user\_name varchar(50),

user\_email varchar(200),

user\_password varchar(200)

);

create table recipe(

recipe\_id serial primary key,

recipe\_name varchar(255),

recipe\_creator integer references app\_users(user\_id),

recipe\_instructions text,

recipe\_visibility\_public boolean default True

);

create table occasions(

occasions\_id serial primary key,

occasions\_name varchar(50)

);

create table recipe\_occasions(

recipe\_occsion\_id serial primary key,

recipe\_id integer,

occasions\_id integer,

foreign key (recipe\_id) references recipe(recipe\_id),

foreign key (occasions\_id) references occasions(occasions\_id)

);

create table ingredients(

ingredients\_id serial primary key,

ingredients\_name varchar(255)

);

create table recipe\_ingredients(

recipe\_ingredients\_id serial primary key,

recipe\_id integer,

foreign key (recipe\_id) references recipe(recipe\_id),

ingredients\_id integer,

foreign key (ingredients\_id) references ingredients(ingredients\_id),

measurements\_unit varchar(50),

qty\_amount float

);

create table grocery\_list(

grocery\_list\_id serial primary key,

grocery\_list\_user integer,

foreign key (grocery\_list\_user) references app\_users(user\_id),

recipe\_id integer,

foreign key (recipe\_id) references recipe(recipe\_id),

ingredient\_id integer,

foreign key (ingredient\_id) references ingredients(ingredients\_id),

quantity integer

);