Part 1

Step 1
Brainstorming - things to keep track of
- Email
- Passwords
- Username / name
- Recipes
- Ingredients
- Instructions
- Public or private
- Grocery list
- Occasions - id
- Search recipes
- Photos

Step 2
Table Ideas

Users - Stores the users login info, id, and username
- user_id
- email
- password
- username

RecipePosts - hold info about the recipe, including: 1 - M
- rp_id
- (user_id)
- name
- photo
- public

Photos
- url
- (rp_id) - RecipePosts

M - **RecipeIngredients**
- (rp_id) - RecipePosts
- (food_id) - Ingredients

Ingredients - holds all the food possible : M - M
- food_name

- food_id

A - **GrocerysIngredients** - hold info about the recipe, including: 1 - M
- gi_id
- (grocery_id)
- (food_id)

Groceries - hold info about the recipe, including: 1 - M
- (user_id) - Users
- (gi_id) - GrocerysIngredients
- Grocery_id

A - **OccasionsRecipe** - hold info about the recipe, including: 1 - M
- oc_id
- (rp_id) - Users
- (occasions_id) - Occasions

Occasions - hold info about the recipe, including: 1 - M
- occasions_id
- Occasions_name
- (user_id)

Step 3
Relationships

one-one
- RecipePosts - Photos
- Groceries - Ingredients

one-many
- Users

Part 2

Step 1

Step 2

Users
- user_id - *uniquely identify the user - SERIAL - unique id*
- email - *allow user to sign in - VARCHAR - letters and numbers*
- password - *keep user account secure - VARCHAR - letters and numbers*
- username - *allow user to find other users - VARCHAR - letters and numbers*

RecipePosts
- rp_id - *uniquely identify the recipe post - SERIAL - unique id*
- (user_id)
- name - *identify the recipe - VARCHAR - letters and numbers*
- photo - *show photo of finished recipe - VARCHAR - letters and numbers*
- public - *allows user to decide to make it public - BOOLEAN*

Photos
- url - *unique url to display the image - VARCHAR - letters and numbers*
- (rp_id)

M - **RecipeIngredients**
- (rp_id) - RecipePosts
- (food_id) - Ingredients

Ingredients
- food_name - *identify the food - VARCHAR - letters and numbers*
- food_id - *uniquely identify the food/ingredient - SERIAL - unique id*

A - **GrocerysIngredients**
- gi_id - *uniquely identify the grocery ingredients - SERIAL - unique id*
- (grocery_id)
- (food_id)

Groceries
- (user_id)
- (gi_id)
- Grocery_id - *uniquely identify the grocery list - SERIAL - unique id*

A - **OccasionsRecipe**
- oc_id - *uniquely identify the Occasions Recipe - SERIAL - unique id*
- (rp_id) - Users
- (occasions_id)

Occasions - hold info about the recipe, including: 1 - M
- occasions_id - *uniquely identify the occasion - SERIAL - unique id*

- Occasions_name - *identify the name of the occasion - VARCHAR - letters and numbers*
- (user_id)

```sql
CREATE TABLE users (
    user_id SERIAL PRIMARY KEY,
    email VARCHAR(20),
    password VARCHAR(20),
    username VARCHAR(20)
);

CREATE TABLE ingredients (
    i_id SERIAL PRIMARY KEY,
    name VARCHAR(20)
);

CREATE TABLE occasions (
    occ_id SERIAL PRIMARY KEY,
    user_id INT NOT NULL REFERENCES users(user_id) ,
    name VARCHAR(20)
);

CREATE TABLE recipe_posts (
    rp_id SERIAL PRIMARY KEY,
    user_id INT NOT NULL REFERENCES users(user_id) ,
    title VARCHAR(20),
    public BOOLEAN,
);

CREATE TABLE groceries (
    gr_id SERIAL PRIMARY KEY,
    user_id INT NOT NULL REFERENCES users(user_id)
);

CREATE TABLE groceries_ingredients (
    gi_id SERIAL PRIMARY KEY,
    user_id INT NOT NULL REFERENCES users(user_id) ,
    gr_id INT NOT NULL REFERENCES groceries(gr_id) ,
    i_id INT NOT NULL REFERENCES ingredients(i_id)
);
```

```sql
CREATE TABLE recipe_ingredients (
    ri_id SERIAL PRIMARY KEY,
    rp_id INT NOT NULL REFERENCES recipe_posts(rp_id) ,
    i_id INT NOT NULL REFERENCES ingredients(i_id) ,
);

CREATE TABLE occasions_recipe (
    or_id SERIAL PRIMARY KEY,
    rp_id INT NOT NULL REFERENCES recipe_posts(rp_id) ,
    occ_id INT NOT NULL REFERENCES occasions(occ_id) ,
);

CREATE TABLE photos (
    url VARCHAR(255) ,
    rp_id INT NOT NULL REFERENCES recipe_posts(rp_id) ,
);
```