**Recipe Sharing and Grocery List App**

**Features**

1. users can sign into the app with their email and password
2. users can create recipes with ingredients and instructions
3. recipes can be marked as public or private
4. users can view other people’s recipes
5. ingredients from recipes can be added to user’s grocery lists
6. users can create their own occasions and assign recipes to occasions

**Data Points**

User name

Email

Password

location

Cuisine

Recipe name

Ingredients

instructions

Course

Time to cook

Equipment needed

Instructions

Public/private?

Contributors

Reviews

Cooking tips

Grocery list

Occasion

Dietary restrictions

Tables!

1. User Table ( will hold information on users)
   1. User\_id
   2. Name
   3. Age
   4. Email
   5. address
   6. Password
   7. Grocery list
   8. Dietary restrictions
   9. Views
   10. Comments
   11. Ratings
   12. location
2. Recipe (will hold information on each of the recipes)
   1. Recipe\_id
   2. Name
   3. Cuisine\_id
   4. Course name
   5. Ingredients\_name
   6. Instructions
   7. Cooking tips
   8. Occasion
   9. Equipment
   10. Time to cook
   11. Public/Private
   12. Ratings
   13. Type
   14. Image
   15. Views
   16. Level of difficulty
3. Ingredients (will hold information on each of the ingredients)
   1. Ingredients\_id
   2. Name
   3. Type
   4. Cuisine
   5. Course
   6. Dietary restrictions
   7. substitutions
4. Cuisine (will hold information on each cuisine)
   1. Cuisine\_id
   2. Region
   3. Continent
   4. Country
   5. Ingredients
   6. recipe
5. Course ( will hold information on each course)
   1. Course\_id
   2. Name
   3. Recipe\_name
   4. ingredients
6. Type of meal( will hold information on each meal type)
   1. Type\_id
   2. Name
   3. Ingredients
   4. Occasion
   5. Cuisine
   6. Course
7. Grocery List (will hold information about the grocery list)
   1. Grocery\_id
   2. User\_id
   3. Ingredient names
   4. Shops available
   5. Cost
8. Ratings
   1. Ratings\_id
   2. User\_id
   3. Recipe\_id
9. Occasion
   1. Occasion\_id
   2. Name
   3. recipe

**Relationships**

* One to One relationship
  + User and Grocery list: because each user can have only one list and one list can be associated to only one user
* One to Many relationship
  + User and recipe: because a user can contribute more than one recipe but one recipe cannot be associated to more than one user
  + Occasion to recipe: an occasion may have multiple recipes, but a single recipe cannot be associated with more than one occasion
  + Cuisine and recipe: A cuisine can have multiple recipes but a single recipe cannot belong to more than one cuisine
* Many to Many relationship
  + User and rating: because a user can provide more than one rating and a rating can be associated with more than one user
  + Cuisine and ingredients: A cuisine can have multiple ingredients and the single ingredient can be in multiple cuisines
  + Recipe and ingredients: A recipe can have multiple ingredients and the same ingredient may be in multiple recipes

**Columns:**

1. Ingredients table:
   1. Ingredients\_id -integer- primarykey
   2. Ingredients\_name – varchar(100) as names are strings and unique as this is related to multiple other tables
   3. Meal\_type – varchar(75) – string values – foreign key as it is related to meal\_type table
   4. Cuisine\_name – varchar(50) – foreign key as it is related to the cuisine table
   5. Course\_name – varchar(50) – foreign key as it is related to the course table
   6. Dietary\_restrictions – varchar(50)
   7. Substitutions varchar(100)
   8. Ingredient type varchar(100)
2. Ratings Table
   1. Rating\_id integer primary key
   2. User\_id integer foreign key related to user table
   3. Recipe\_id integer foreign key related to recipe table
   4. Recipe\_rating integer
3. User table
   1. User\_id integer primary key
   2. Email varchar(255)
   3. Password varchar(255)
   4. Location varchar(50)
   5. Age integer
   6. Address varchar(255)
   7. Grocery list varchar(255)
   8. Ratings integer
   9. Views integer
   10. User\_name varchar(50) unique
4. Cuisine table
   1. Cuisine\_id integer primary key
   2. Region varchar(100)
   3. Country varchar(100)
   4. Ingredients\_name varchar(50)
   5. Recipe\_name varchar(50)
   6. Cuisine\_name varchar(50) unique
5. Recipe table
   1. Recipe\_id integer primary key
   2. Recipe\_Name varchar(100)
   3. Cuisine\_name varchar(50)
   4. Course\_name varchar(100)
   5. Ingredients\_name varchar(50)
   6. Instructions varchar(255)
   7. Cooking tips varchar(255)
   8. Occasion\_name varchar(100)
   9. Equipment varchar(100)
   10. Time to cook time
   11. Public/Private boolean
   12. Ratings integer
   13. Meal\_Type varchar(75)
   14. Image binary
   15. Views integer
   16. Level of difficulty varchar(50)
6. Course Table
   1. Course\_id integer primary key
   2. Course\_name varchar(50) unique
   3. Recipe\_name varchar(50)
   4. Ingredients\_name varchar(50)
7. Grocery List table
   1. Grocery\_list\_id integer primary key
   2. User\_id integer
   3. Ingredients\_name varchar(50)
   4. Shop\_name varchar(50)
   5. Estimated\_cost decimal
8. Meal Type table
   1. Type\_id integer primary key
   2. Meal\_type\_name varchar(50) unique
   3. Ingredients\_name varchar(50)
   4. Occasion\_name varchar(50)
   5. Cuisine\_name varchar(50)
   6. Course\_name varchar(50)
9. Occasion table
   1. Occasion\_id integer primary key
   2. Occasion\_name varchar(50) unique
   3. Recipe\_name varchar(100)