

CPSC 304 Project Cover Page

Milestone #: 4

Date: 5 August, 2024

Group Number: 37

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

Repository URL

https://github.students.cs.ubc.ca/CPSC304-2024S-T2/project_a6f3h_r4g2c_s8h2b

SQL Script

The SQL script used to generate all the relations, sequences, triggers, and data populating our database can be found at this link:

https://github.students.cs.ubc.ca/CPSC304-2024S-T2/project_a6f3h_r4g2c_s8h2b/blob/main/server/queries.sql

Project Description

Our project is centered around culinary management and grocery planning. The main goal is to help users streamline their cooking activities by keeping track of their household food supplies, identifying exciting new recipes that make the best use of their household inventories, finding nearby grocery stores, and allowing them to contribute recipes towards an online community of like-minded others.

Our final schema differed from our original specifications in the following way:

Images* entity made a weak entity of *Recipe

- Each image shouldn't be considered independent of a recipe anyways, and images shouldn't be re-used across different recipes, so *Images* was changed to a weak entity

***ImagesInRelations* relation removed consequently**

- Given that *Image* was now a weak entity of *Recipe*, and each image was at most associated with one recipe, we removed the *ImagesInRelation* table

***Users*.*UserName* attribute made unique**

- With a hypothetical login system in place, the *Users*.*UserName* attribute will be what our users login with so this would have to be unique

All users are given a non-null value for points and levels attributes at beginning

- Each user now starts with zero points and at level 1, as it seemed more conducive to encouraging users to participate and contribute recipes if they could see they had a level

***Contributor* subtype removed**

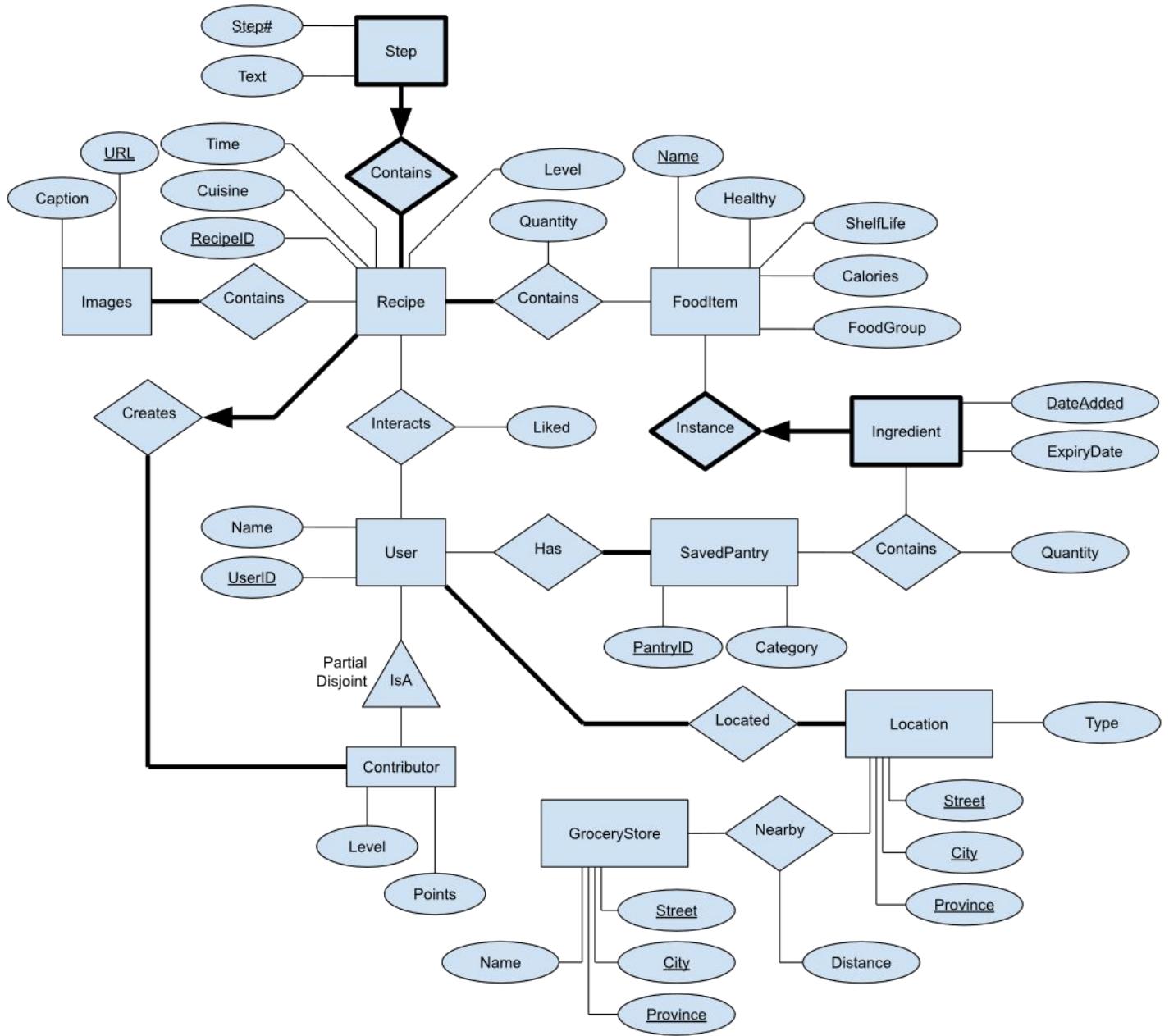
- Every user now has non-null values for points and levels, and given that *Contributor* would not have any unique attributes we decided to remove it

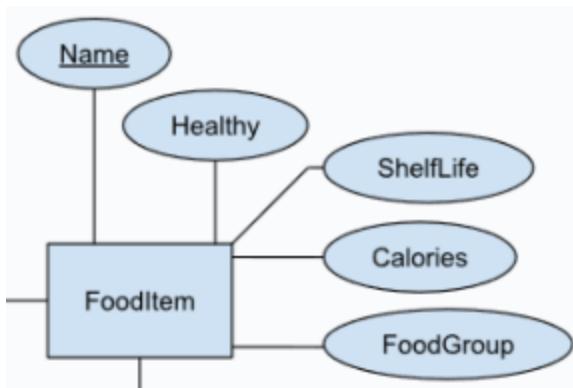
Most foreign keys have been changed to “ON DELETE CASCADE”

- Most of our relations that possess foreign keys describe relationships between two entities e.g. *StepContains* which describes what steps belong to what recipes, if one is deleted it makes sense to bilaterally erase the relationship

IngredientInstances* made a weak entity of both *FoodItem* and *SavedPantry

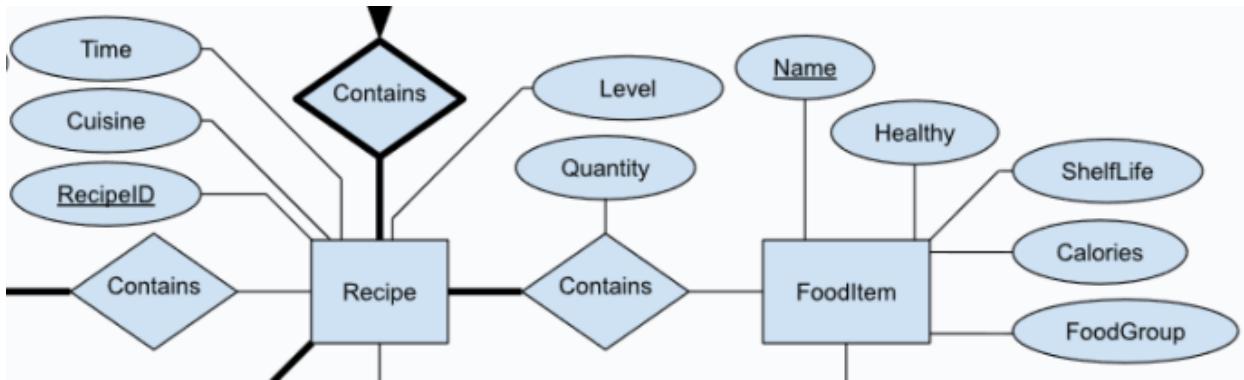
- This change is sensible as an ingredient instance is dependent on both the pantry it is stored and the fooditem it serves as an instance to
- Practically speaking, we added this change in as our previous ER diagram could not support multiple instances of the same fooditem being added to different pantries on the same day





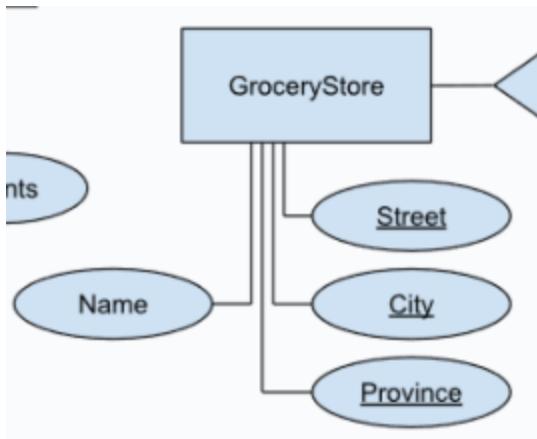
FOODNAME	SHELF LIFE	CALORIES	FOODGROUP
Chicken	3	300	Meat
Potatoes	14	200	Vegetable
Olive oil	3650	400	Fat
Uncooked rice	3650	400	Carbohydrate
Uncooked noodles	3650	300	Carbohydrate
Butter	90	500	Fat
Ground beef	3	400	Meat
Sliced ham	4	300	Meat

FoodItem(FoodName, ShelfLife, Calories, FoodGroup)



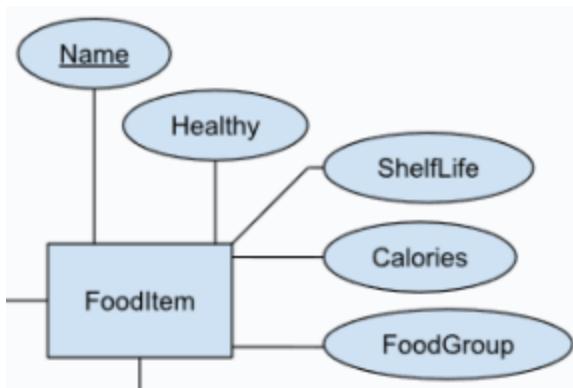
FOODNAME	RECIPEID	QUANTITY
Chicken	1	1
Potatoes	2	2
Olive oil	3	3
Uncooked rice	4	4
Uncooked noodles	5	5
Butter	6	6
Ground beef	7	7
Sliced ham	8	8
Chicken	9	9
Potatoes	10	10
Olive oil	11	11

FoodsInRecipes(FoodName, RecipID, Quantity)



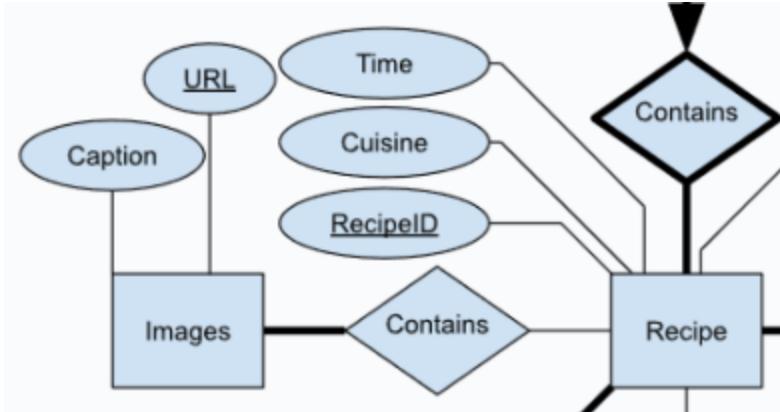
STREET	CITY	PROVINCE	STORENAME
1500 W Broadway	Vancouver	British Columbia	Moes Groceries
99 Fraser St	Vancouver	British Columbia	Safeway
82 Misty Meadow St	Vancouver	British Columbia	Freshco
980 Victoria Dr	Vancouver	British Columbia	Walmart
675 Main St	Vancouver	British Columbia	Whole Foods
309 MacDonald St	Vancouver	British Columbia	City Avenue Market
9876 Clark Dr	Vancouver	British Columbia	Fortinos
176 4th St	Vancouver	British Columbia	Sobeys
8654 Cambie St	Vancouver	British Columbia	Farm Boy

GroceryStore(Street, City, Province, StoreName)



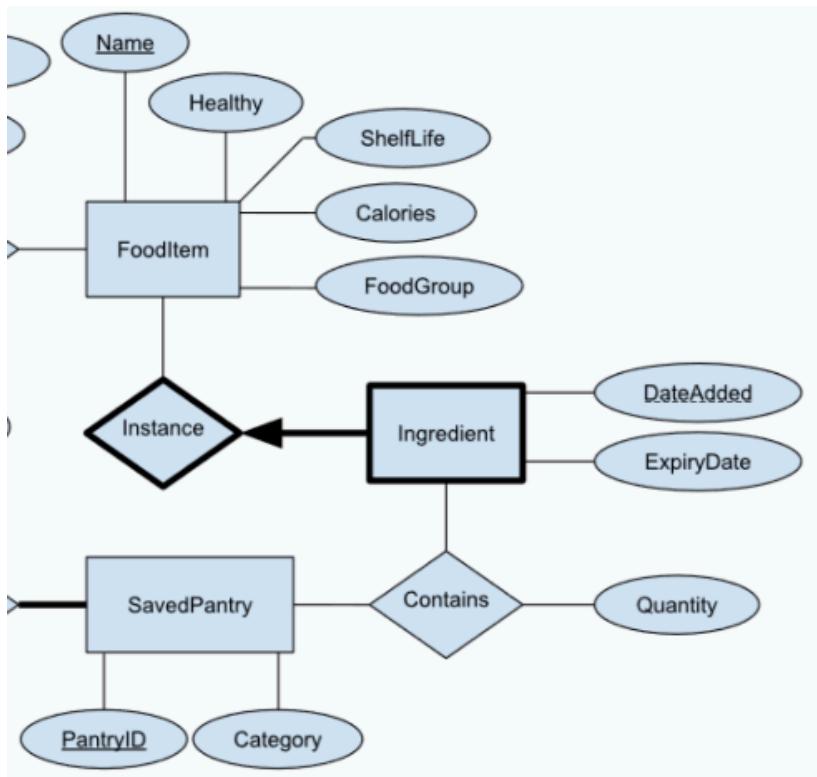
CALORIES	FOODGROUP	HEALTHY
300	Meat	0
0	Meat	1
1000	Vegetable	0
0	Vegetable	1
500	Fat	0
0	Fat	1
400	Carbohydrate	0
0	Carbohydrate	1

HealthyLookup(Calories, FoodGroup, Healthy)



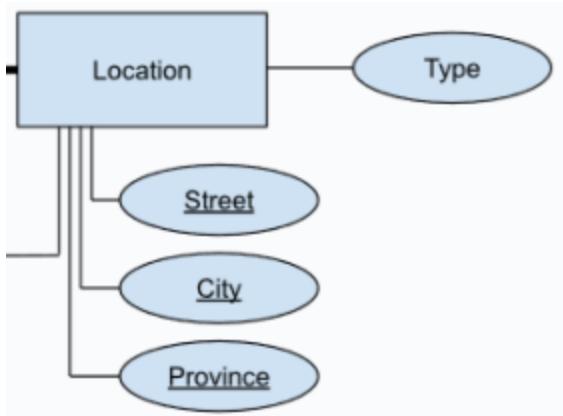
IMAGEURL	CAPTION	RECIPEID
https://static01.nyt.com/images/2021/02/14/dining/carbonara-horizontal/carbonara-horizontal-square640-v2.jpg	A delicious plate of Spaghetti Carbonara	1
https://static01.nyt.com/images/2022/05/02/dining/ag-artichoke-carbonara/merlin_2059454392_c64254c9-1a95-4d4e-8131-35d928e09a1b-articleLarge.jpg	Carbonanza!	1
https://static01.nyt.com/images/2016/09/28/dining/28ALTONG-WEB/28ALTONG-WEB-superJumbo.jpg	You should not pasta up this dish	1
https://thecozycook.com/wp-content/uploads/2022/03/Sweet-and-Sour-Chicken-f5.jpg	Sweet and Sour Chicken served with rice	2
https://i.pinimg.com/originals/3c/3c/3c8c6631dab19dec59043758b5240b.png	Sweet, and sour? Who'da thunk it?	2
https://bittmanproject.com/wp-content/uploads/08CHICKENKETCHUP-articleLarge.jpg	Crisp and tangy dish	2
https://iamafoodblog.b-cdn.net/wp-content/uploads/2021/05/al-pastor-3507w.jpg	Traditional Tacos Al Pastor with pineapple	3
https://static01.nyt.com/images/2019/06/05/dining/04Camararex2/04Camararex2-verticalTwoByThree735.jpg	Mexican food is amazing!	3
https://static01.nyt.com/images/2019/06/05/dining/04Camararex2/merlin_15267136_8a0323b08-1d07-4f62-ae0b-f6dbc82d33c6-superJumbo.jpg	Tacos! Tacos! Tacos!	3
https://moribyan.com/wp-content/uploads/2022/05/IMG_4902-scaled-e1609906617281-1.jpg	Butter Chicken with creamy sauce	4
https://www.adayinthekitchen.com/wp-content/uploads/2017/10/butter-chicken-2-720x520b.jpg	Delicious tender chicken	4
https://foodess.com/wp-content/uploads/2022/10/Foolless-Best-Butter-Chicken-1-2.jpg	Perfectly seasoned	4
https://images.services.kitchentories.io/9GlegQwpqg8Tg6zRQ07XZEETo-/3840x0/filters:quality(80)/images.kitchentories.io/wagtailOriginalImages/R23-final-photo-4.jpg	Classic French Coq au Vin	5
https://static01.nyt.com/images/2023/08/24/multimedia/MC-Beef-Bourguignon-lpbv/MC-Beef-Bourguignon-lpbv-articleLarge-v4.jpg	Impress your guests!	5
https://static01.nyt.com/images/2016/01/23/dining/23COOKING_COQAURIESLING1/23COOKING_COQAURIESLING1-jumbo.jpg	Make it, dammit	5
https://inquiringchef.com/wp-content/uploads/2023/02/Authentic-Pad-Thai_square-1908.jpg	Authentic Pad Thai noodles	6
https://static01.nyt.com/images/2017/08/09/dining/09COOKING_PADTHAI1/09COOKING_PADTHAI1-superJumbo.jpg	Impress and/or poison your in-laws	6
https://static01.nyt.com/images/2022/03/23/dining/17padthairex1/merlin_20316326_32624565-ffae-482d-9a55-043cf31afb0b-verticalTwoByThree735.jpg	Thailand's national dish!	6
https://holycowvegan.net/wp-content/uploads/2023/02/ethiopian-lentil-stew-recipe-1.jpg	Ethiopian Lentil Stew	7
https://www.vegkit.com/wp-content/uploads/sites/2/2021/12/83051_ethiopian_lentils_detail.jpg	Savoury and superb	7
https://static01.nyt.com/images/2022/09/06/dining/nd-dal-adas/merlin_21208567_c8f02dc8-a19a-492b-b8ae-9f70eb58a58f-master768.jpg	Utterly appetizing!	7
https://www.allrecipes.com/thmb/Cr3NBwElIE5F_uUgLcbzcaEYI8=/1500x0/filters:no_upscale():max_bytes(150000):strip_icc()/Feijoada-brazilian-black-bean-stew-Melissa-Goff-4x3-0fb641cc43234fedb23d171172e6510.jpg	Traditional Brazilian Feijoada	8
https://www.foodandwine.com/thmb/Jr3H4e5F4_2eInOGKSm4jY5bF0=/1500x0/filters:no_upscale():max_bytes(150000):strip_icc()/Feijoada-FT-RECIPE0323-2ed2fbae5e0c4110b5bb522c6d7e0eac.jpg	You won't bean-lieve it!	8
https://static01.nyt.com/images/2015/05/31/magazine/31eat6/31eat6-articleLarge-v2.jpg	You'll lose your goddamn MIND	8
https://www.justonecookbook.com/wp-content/uploads/2021/04/Chicken-Katsudon-9331.jpg	Japanese Chicken Katsu Don	9
https://static01.nyt.com/images/2017/10/22/magazine/22eat/22eat-superJumbo.jpg	Pork cutlets served Japanese style	9
https://static01.nyt.com/images/2021/05/23/dining/kc-chicken-katsu/merlin_185308080_a60a6563-292e-4f52-a33b-386113aca0b2-jumbo.jpg	Served with a savoury sauce	9
https://feelfoodie.net/wp-content/uploads/2023/09/lebanese-Tabbouleh-Salad-TIMO.jpg	Fresh Lebanese Tabbouleh	10
https://static01.nyt.com/images/2023/05/25/multimedia/MRS-Lebanese-Tabbouleh-wzpk/MRS-Lebanese-Tabbouleh-wzpk-superJumbo.jpg	Delicious salad	10
https://static01.nyt.com/images/2014/04/21/dining/Tabbouleh/Tabbouleh-square40.jpg	Your guests will lick their plates clean	10
https://www.mygreekdish.com/wp-content/uploads/2013/05/Moussaka-recipe-Traditional-Greek-Moussaka-with-Eggplants.jpg	Layered Greek Moussaka	11
https://static01.nyt.com/images/2017/03/27/dining/27COOKING-MOUSAKA/27COOKING-MOUSAKA-articleLarge.jpg	A unique dish from the Mediterranean	11
https://static01.nyt.com/images/2011/10/26/dining/26APPE_SPAN/26APPE_SPAN-articleLarge-v2.jpg	Like a casserole, except Greek and not horrible	11
https://static01.nyt.com/images/2018/01/30/dining/30COOKING-WEEKNIGHT-LASAGNA/30COOKING-WEEKNIGHT-LASAGNA-superJumbo.jpg	The best lasagna you'll ever make!	12
https://static01.nyt.com/images/2023/08/31/multimedia/RS-Lasagna-hkj/RS-Lasagna-hkj-threeByTwoMediumAt2X.jpg	Shove it in your mouth this instant	12
https://static01.nyt.com/images/2022/10/16/magazine/16mag-eat-site/16mag-eat-site-superJumbo.jpg	Garfield approved	12

Images(ImageURL, Caption, RecipieID)



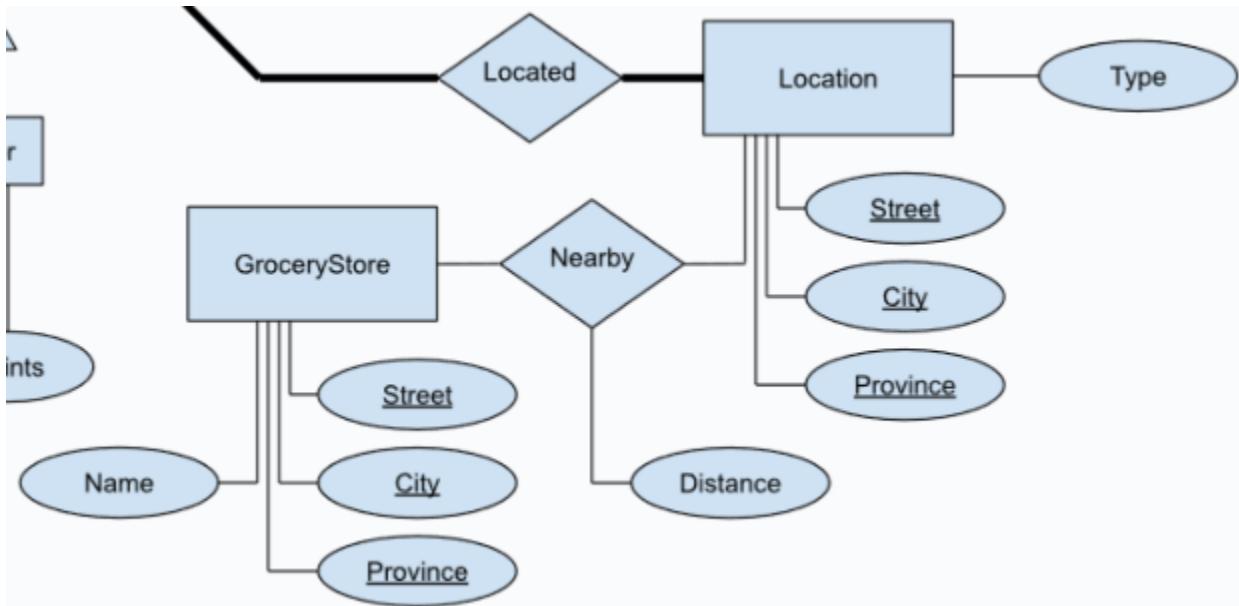
DATEADDED	EXPIRYDATE	FOODNAME	PANTRYID	QUANTITY
2024-07-01T21:30:00.000Z	2024-07-04T21:30:00.000Z	Chicken	1	1
2024-07-02T21:30:00.000Z	2024-07-05T21:30:00.000Z	Ground beef	1	2
2024-07-03T21:30:00.000Z	2024-07-07T21:30:00.000Z	Sliced ham	1	3
2024-07-02T21:30:00.000Z	2024-07-05T21:30:00.000Z	Chicken	2	2
2024-07-03T21:30:00.000Z	2024-07-06T21:30:00.000Z	Chicken	3	3
2024-07-04T21:30:00.000Z	2024-07-07T21:30:00.000Z	Chicken	4	4
2024-07-05T21:30:00.000Z	2024-07-08T21:30:00.000Z	Chicken	5	5
2024-07-06T21:30:00.000Z	2024-07-09T21:30:00.000Z	Chicken	6	6
2024-07-07T21:30:00.000Z	2024-07-10T21:30:00.000Z	Chicken	7	7
2024-07-08T21:30:00.000Z	2024-07-11T21:30:00.000Z	Chicken	8	8
2024-07-09T21:30:00.000Z	2024-07-12T21:30:00.000Z	Chicken	9	9
2024-07-10T21:30:00.000Z	2024-07-13T21:30:00.000Z	Chicken	10	10
2024-07-11T21:30:00.000Z	2024-07-14T21:30:00.000Z	Chicken	11	11

IngredientInstances(DateAdded, ExpiryDate, FoodName, PantryID, Quantity)



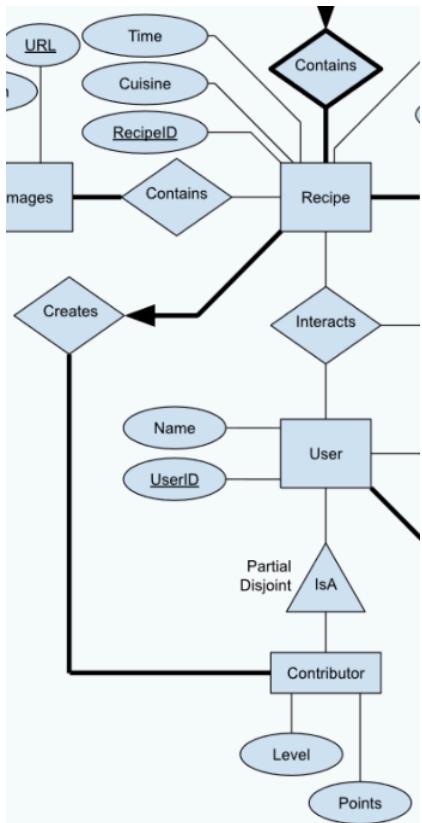
STREET	CITY	PROVINCE	LOCATIONTYPE
123 Maple Street	Vancouver	British Columbia	Residential
456 Oak Avenue	Toronto	Ontario	Commercial
789 Pine Road	Montreal	Quebec	Industrial
101 Cedar Lane	Calgary	Alberta	Residential
202 Birch Boulevard	Halifax	Nova Scotia	Commercial
1190 Richelieu Ave	Vancouver	British Columbia	Home
899 W 12th Ave	Vancouver	British Columbia	Work
2517 Tempe Knoll Dr	North Vancouver	British Columbia	Home
695 E 19th Ave	Vancouver	British Columbia	Home
2929 Barnet Hwy	Coquitlam	British Columbia	Work
31 Gilmore Ave	Burnaby	British Columbia	Home
809 Robson St	Vancouver	British Columbia	Work
14156 Melrose Dr	Surrey	British Columbia	Home
10931 Seaward Gate	Richmond	British Columbia	Home
1800 W 6th Ave	Vancouver	British Columbia	Work
3700 W 8th Ave	Vancouver	British Columbia	Home
1500 W Broadway	Vancouver	British Columbia	Work

Locations(Street, City, Province, LocationType)



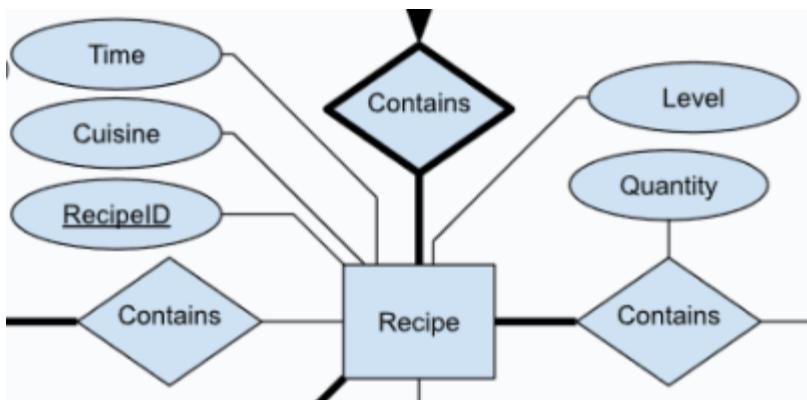
LOCATIONSTREET	LOCATIONCITY	LOCATIONPROVINCE	GROCERYSTORESTREET	GROCERYSTORECITY	GROCERYSTOREPROVINCE	DISTANCE
1190 Richelieu Ave	Vancouver	British Columbia	8654 Cambie St	Vancouver	British Columbia	4
899 W 12th Ave	Vancouver	British Columbia	99 Fraser St	Vancouver	British Columbia	5
2517 Tempe Knoll Dr	North Vancouver	British Columbia	82 Misty Meadow St	Vancouver	British Columbia	4
1500 W Broadway	Vancouver	British Columbia	980 Victoria Dr	Vancouver	British Columbia	5
3700 W 8th Ave	Vancouver	British Columbia	675 Main St	Vancouver	British Columbia	1
10931 Seaward Gate	Richmond	British Columbia	309 MacDonald St	Vancouver	British Columbia	2
14156 Melrose Dr	Surrey	British Columbia	9876 Clark Dr	Vancouver	British Columbia	4
695 E 19th Ave	Vancouver	British Columbia	176 4th St	Vancouver	British Columbia	3

NearbyStores(LocationStreet, LocationCity, LocationProvince, GroceryStoreStreet, GroceryStoreCity, GroceryStoreProvince, Distance)



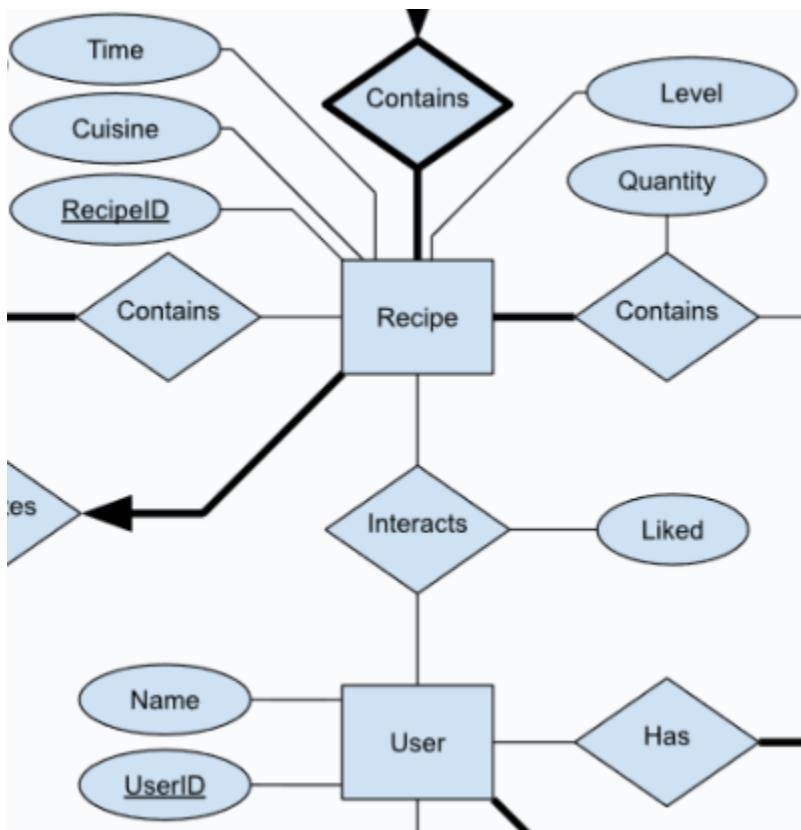
RECIPEID	RECIPENAME	CUISINE	COOKINGTIME	USERID
1	Spaghetti Carbonara	Italian	0 00:20	6
2	Sweet and Sour Chicken	Chinese	0 00:30	8
3	Tacos Al Pastor	Mexican	0 00:25	9
4	Butter Chicken	Indian	0 00:40	9
5	Coq au Vin	French	0 01:00	2
6	Pad Thai	Thai	0 00:30	4
7	Lentil Stew	Ethiopian	0 01:00	5
8	Feijoada	Brazilian	0 05:00	11
9	Chicken Katsu Don	Japanese	0 00:30	7
10	Tabbouleh	Lebanese	0 00:45	9
11	Moussaka	Greek	0 02:00	9
12	Lasagna	Italian	0 04:00	9

RecipeCreated(RecipieID, RecipeName, Cuisine, CookingTime, **UserID**)



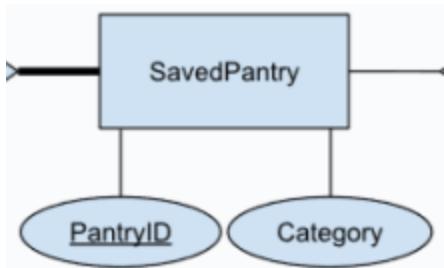
CUISINE	RECIPELEVEL
Italian	1
Chinese	1
Mexican	2
Indian	3
French	4
Thai	5
Ethiopian	6
Brazilian	7
Japanese	8
Lebanese	9
Greek	10

RecipeLevels(Cuisine, RecipeLevel)



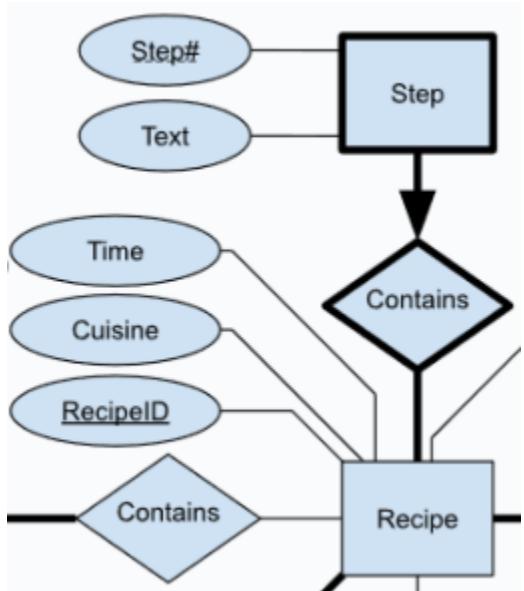
RECIPEID	USERID
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	2
12	3
12	4
12	5
12	6
12	7
12	8
12	9
12	10
12	11

RecipesLiked(RecipeID, UserID)



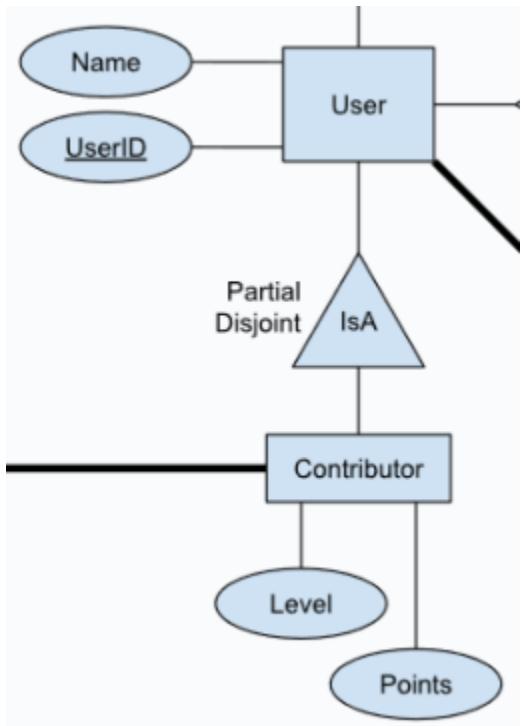
PANTRYID	CATEGORY
1	Home
2	Work
3	Home
4	Backpack
5	Pantry
6	Home
7	Home
8	Cupboard
9	Work
10	Home
11	Work
12	Work

SavedPantry(PantryID, Category)



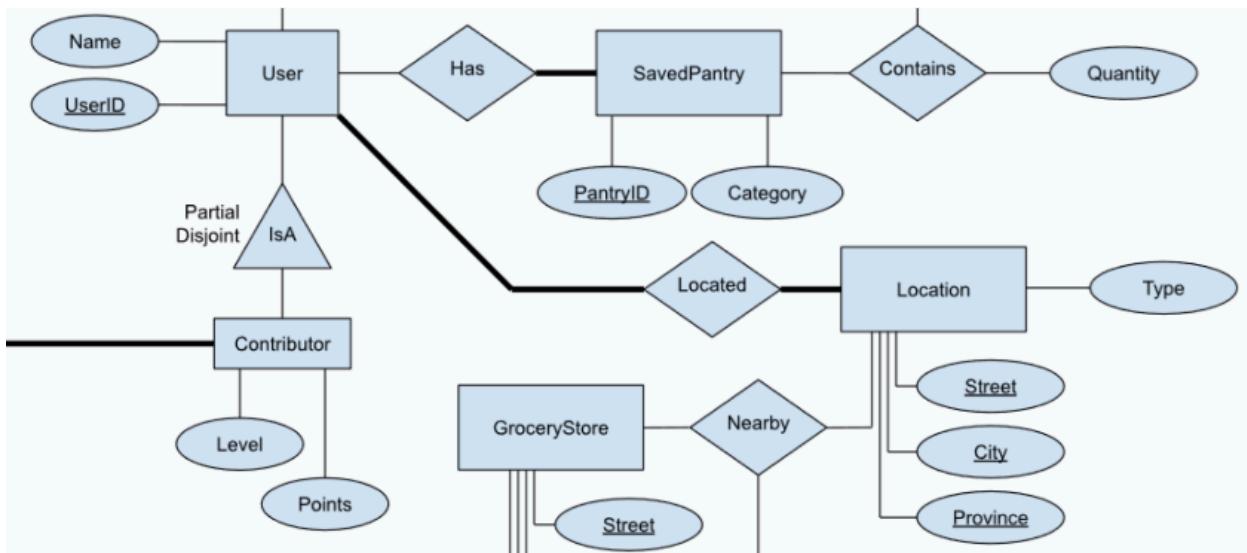
STEPNUM	INSTRUCTIONTEXT	RECIPEID
1	Do stuff1.	1
2	Eat1.	1
1	Do stuff2.	2
2	Eat2.	2
1	Do stuff3.	3
2	Eat3.	3
1	Do stuff4.	4
2	Eat4.	4
1	Do stuff5.	5
2	Eat5.	5
1	Do stuff6.	6
2	Eat6.	6
1	Do stuff7.	7
2	Eat7.	7
1	Do stuff8.	8
2	Eat8.	8
1	Do stuff9.	9
2	Eat9.	9
1	Do stuff10.	10
2	Eat10.	10
1	Do stuff11.	11
2	Eat11.	11
1	Do stuff12.	12
2	Eat112.	12

StepContains(StepNum, InstructionText, RecipeID)



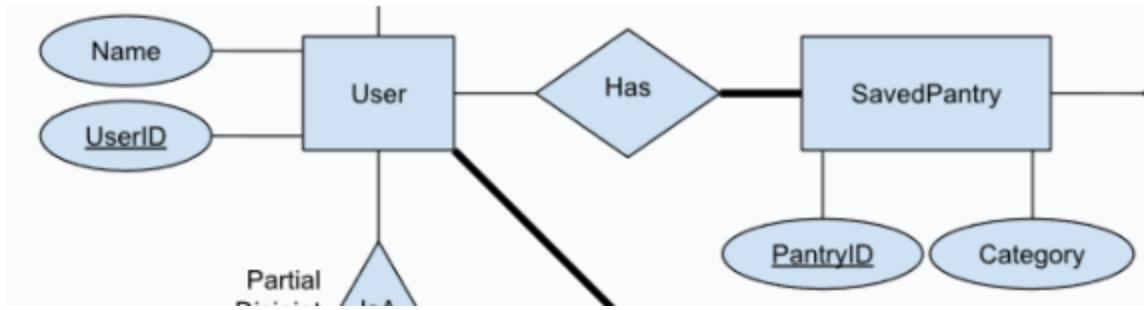
POINTS	USERLEVEL
0	1
100	2
200	3
300	4
400	5
500	6
600	7
700	8
800	9
900	10

UserLevels(Points, UserLevel)



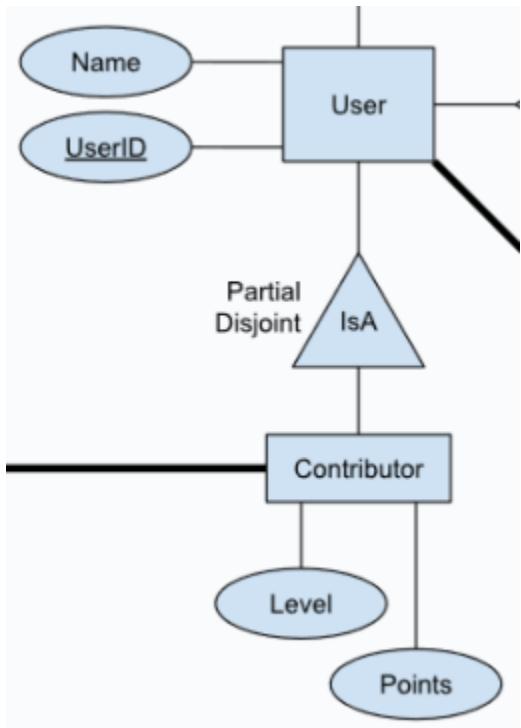
USERID	STREET	CITY	PROVINCE
1	1190 Richelieu Ave	Vancouver	British Columbia
2	899 W 12th Ave	Vancouver	British Columbia
3	2517 Tempe Knoll Dr	North Vancouver	British Columbia
4	695 E 19th Ave	Vancouver	British Columbia
5	2929 Barnet Hwy	Coquitlam	British Columbia
6	31 Gilmore Ave	Burnaby	British Columbia
7	809 Robson St	Vancouver	British Columbia
8	14156 Melrose Dr	Surrey	British Columbia
9	10931 Seaward Gate	Richmond	British Columbia
10	1800 W 6th Ave	Vancouver	British Columbia
11	1500 W Broadway	Vancouver	British Columbia
11	3700 W 8th Ave	Vancouver	British Columbia

UserLocations(UserID, Street, City, Province)



USERID	PANTRYID
1	1
1	12
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11

UserPantries(UserID, PantryID)



USERID	USERNAME	POINTS
1	AliceJohnson	0
2	BobSmith	50
3	CharlieBrown	150
4	DianaPrince	250
5	EvanThomas	350
6	FionaGreen	450
7	GeorgeWhite	550
8	HannahBlue	650
9	IsaacGray	750
10	JuliaBlack	850
11	KevinRed	950

Users(UserID, UserName, Points)

Queries: Projection

appController.js (lines 542, 553, 566)
 appService.js (lines 790, 804, 815)

FOODNAME SHELF LIFE CALORIES FOODGROUP

Refresh Data

FOODNAME	SHELF LIFE	CALORIES	FOODGROUP
Chicken	3 00:00:00	300	Meat
Potatoes	14 00:00:00	200	Vegetable
Olive oil	3650 00:00:00	400	Fat
Uncooked rice	3650 00:00:00	400	Carbohydrate
Uncooked noodles	3650 00:00:00	300	Carbohydrate
Butter	90 00:00:00	500	Fat
Ground beef	3 00:00:00	400	Meat
Sliced ham	4 00:00:00	300	Meat

BEFORE

FOODNAME SHELF LIFE CALORIES FOODGROUP

Refresh Data

FOODNAME	SHELF LIFE	CALORIES	FOODGROUP
Chicken	3 00:00:00	300	Meat
Potatoes	14 00:00:00	200	Vegetable
Olive oil	3650 00:00:00	400	Fat
Uncooked rice	3650 00:00:00	400	Carbohydrate
Uncooked noodles	3650 00:00:00	300	Carbohydrate
Butter	90 00:00:00	500	Fat
Ground beef	3 00:00:00	400	Meat
Sliced ham	4 00:00:00	300	Meat

DURING

FOODNAME SHELF LIFE CALORIES FOOD GROUP

Refresh Data

FOODNAME	SHELF LIFE
Chicken	3 00:00:00
Potatoes	14 00:00:00
Olive oil	3650 00:00:00
Uncooked rice	3650 00:00:00
Uncooked noodles	3650 00:00:00
Butter	90 00:00:00
Ground beef	3 00:00:00
Sliced ham	4 00:00:00

AFTER

Queries: Delete

appController.js (line 499)

appService.js (line 292)

Select	RecipeID	RecipeName	RecipeCuisine	CookingTime	RecipeLevel	UserName	UserID
<input checked="" type="radio"/>	3	Tacos Al Pastor	Mexican	0 00:25	2	IsaacGray	9
<input type="radio"/>	4	Butter Chicken	Indian	0 00:40	3	IsaacGray	9
<input type="radio"/>	10	Tabbouleh	Lebanese	0 00:45	9	IsaacGray	9
<input type="radio"/>	11	Moussaka	Greek	0 02:00	10	IsaacGray	9
<input type="radio"/>	12	Lasagna	Italian	0 04:00	1	IsaacGray	9

Inspect

BEFORE

RecipeID: 3
Any fields left blank will default to their existing values.

Recipe Name
Tacos Al Pastor

Cuisine
Mexican

Time to prepare
0 00:25

Change author

Image URLs
<https://static01.nyt.com/images/2019/06/05/dining/04Camararex2/04Camararex2-verticalTwoByThree735.jpg>
https://static01.nyt.com/images/2019/06/05/dining/04Camararex2/merlin_155267136_8a0323.jpg

Image captions
Traditional Tacos Al Pastor with pineapple
Mexican food is amazing!

Steps
Do stuff3.
Eat3.

Submit

Delete

DURING

Home	Recipes	Pantries	My Recipes	Contribute	Stats	Admin	
Select	RecipeID	RecipeName	RecipeCuisine	CookingTime	RecipeLevel	UserName	UserID
<input type="radio"/>	4	Butter Chicken	Indian	0 00:40	3	IsaacGray	9
<input type="radio"/>	10	Tabbouleh	Lebanese	0 00:45	9	IsaacGray	9
<input type="radio"/>	11	Moussaka	Greek	0 02:00	10	IsaacGray	9
<input type="radio"/>	12	Lasagna	Italian	0 04:00	1	IsaacGray	9

[Inspect](#)

AFTER

Queries: Join

appController.js (line 85)

appService.js (line 190)

Recipes

Search by Recipe Name or Show Captions Liked Recipes

The interface displays three recipe cards:

- Spaghetti Carbonara**: Italian cuisine, Level: 1, Time: 00:20:00. Description: A delicious plate of Spaghetti Carbonara.
- Sweet and Sour Chicken**: Chinese cuisine, Level: 1, Time: 00:30:00. Description: Sweet, and sour? Who'da thunk it?
- Tacos Al Pastor**: Mexican cuisine, Level: 2, Time: 00:25:00. Description: Tacos! Tacos! Tacos!

BEFORE

Liked Recipes

DURING

Recipes

Search by Recipe Name or

All Cuisines

Show Captions

Liked Recipes

Show All Recipes

Recipes Liked by All Users



A delicious plate of Spaghetti Carbonara



Spaghetti Carbonara

Level: 1

Time (D HH:MM): 00:20:00



Tacos Al Pastor

Level: 2

Time (D HH:MM): 00:25:00

AFTER

Queries: Aggregation with GROUP BY

appController.js (line 369)

appService.js (line 552)

User Distribution by Level

USERLEVEL	USERCOUNT
1	2
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1

BEFORE

Login to Existing User

Pick a user

Login

Create a New User

Name *

KarenTran

Create

DURING

User Distribution by Level

USERLEVEL	USERCOUNT
1	3
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1

AFTER

Queries: Update

appController.js (line 485)

appService.js (line 427)

Butter Chicken

Cuisine: Indian

Cooking Time: 0 00:40

Created By: IsaacGray

Steps

1. Do stuff4.
2. Eat4.

Ingredients

1. 4x Uncooked rice

BEFORE

RecipeID: 4
Any fields left blank will default to their existing values.

Recipe Name

Cuisine

Time to prepare

Change author

Image URLs

Image captions

Steps

DURING

My Butter Chicken

Cuisine: Indian
Cooking Time: 0 00:50
Created By: IsaacGray

Steps

1. Cook it

Ingredients

1. 4x Uncooked rice

AFTER

Queries: Aggregation with Having

appController.js (line 182)

appService.js (line 768)

CUISINE	COUNT
Indian	1
Ethiopian	1
Thai	1
Japanese	1
Lebanese	1
Greek	1
French	1
Brazilian	1
Italian	2
Chinese	1
Mexican	1

Threshold count for cuisine

^ v

BEFORE

Threshold count for cuisine

^ v

DURING

CUISINE	COUNT
Italian	2

Threshold count for cuisine

^ v

AFTER

Queries: Selection

appController.js (line 54)

appService.js (line 100)

Recipes

The screenshot shows a user interface for a recipe application. At the top, there is a search bar labeled "Search by Recipe Name" and a dropdown menu set to "All Cuisines". Below these are several buttons: "Show Captions" (checked), "Liked Recipes" (unchecked), "Show All Recipes" (disabled), and "Recipes Liked by All Users".
The main content area displays three recipe cards:

- Spaghetti Carbonara**: Italian cuisine. Description: "A delicious plate of Spaghetti Carbonara".
Image: A plate of spaghetti with bacon and cheese.
Level: 1
Time (D HH:MM): 0 00:20
- Sweet and Sour Chicken**: Chinese cuisine. Description: "Sweet, and sour? Who'da thunk it?".
Image: A close-up of sweet and sour chicken pieces.
Level: 1
Time (D HH:MM): 0 00:30
- My Butter Chicken**: Indian cuisine. Description: "Butter Chicken with creamy sauce".
Image: A bowl of butter chicken with rice.
Level: 3
Time (D HH:MM): 0 00:50

BEFORE

Recipes

This screenshot shows the same application interface as the previous one, but with a significant difference: a dropdown menu is open over the "All Cuisines" button. The menu contains a list of cuisines, with "Italian" highlighted with a blue background.
The rest of the interface and recipe cards are identical to the "BEFORE" screenshot.

DURING

Recipes

Search by Recipe Name o **Italian** Show Captions Liked Recipes Show All Recipes Recipes Liked by All Users



A delicious plate of Spaghetti Carbonara

Spaghetti Carbonara

Level: 1

Time (D HH:MM): 0 00:20



The best lasagna you'll ever make!

Lasagna

Level: 1

Time (D HH:MM): 0 04:00

AFTER

Queries: Nested Aggregation with Group By

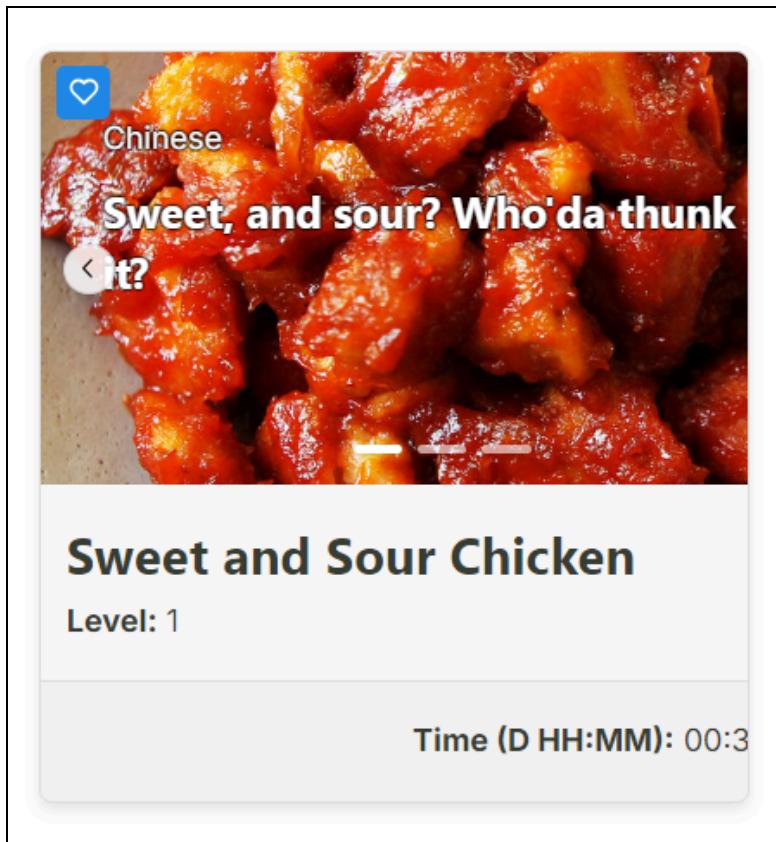
appController.js (line 193)

appService.js (line 885)

Recipes Liked Per User Level

UserLevel	NumberOfUsers	AverageRecipesLiked
1	3	1.666666666666667
2	1	3
3	1	3
4	1	3
5	1	3
6	1	3
7	1	3
8	1	3
9	1	3
10	1	3

BEFORE



DURING

Recipes Liked Per User Level

USERLEVEL	NUMBEROFUSERS	AVERAGERECIPESLIKED
1	3	2.333333333333333
2	1	3
3	1	3
4	1	3
5	1	3
6	1	3
7	1	3
8	1	3
9	1	3
10	1	3

AFTER

Queries: Division

appController.js (line 528)

appService.js (line 865)

Recipes

Search by Recipe Name All Cuisines Show Captions Liked Recipes Show All Recipes Recipes Liked by All Users



Italian
A delicious plate of Spaghetti Carbonara

Spaghetti Carbonara
Level: 1
Time (D HH:MM): 0 00:20



Chinese
Sweet, and sour? Who'da thunk it?

Sweet and Sour Chicken
Level: 1
Time (D HH:MM): 0 00:30



Indian
Butter Chicken with creamy sauce

My Butter Chicken
Level: 3
Time (D HH:MM): 0 00:50

BEFORE

Recipes

Search by Recipe Name All Cuisines Show Captions Liked Recipes Show All Recipes Recipes Liked by All Users



Italian
A delicious plate of Spaghetti Carbonara

Spaghetti Carbonara
Level: 1
Time (D HH:MM): 0 00:20



Chinese
Sweet, and sour? Who'da thunk it?

Sweet and Sour Chicken
Level: 1
Time (D HH:MM): 0 00:30



Indian
Butter Chicken with creamy sauce

My Butter Chicken
Level: 3
Time (D HH:MM): 0 00:50

DURING

Recipes

Search by Recipe Name All Cuisines Show Captions Liked Recipes



Lasagna

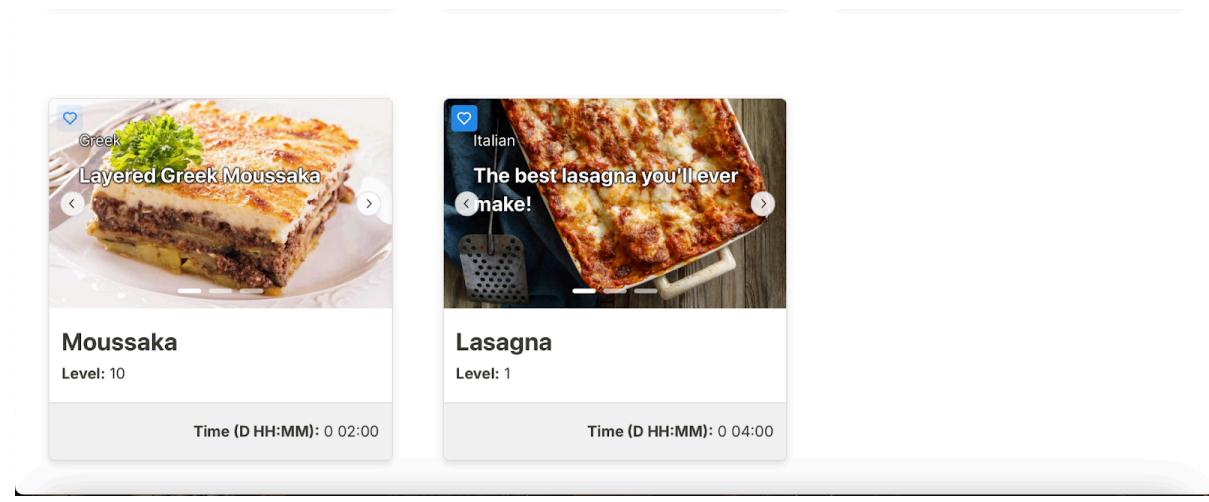
Level: 1

AFTER

Queries: Insertion

appController.js (line 143)

appService.js (line 261)



BEFORE

The screenshot shows a web-based application for adding a new recipe. At the top, there is a navigation bar with rounded purple buttons labeled: Home, Recipes, Pantries, My Recipes, Contribute, Stats, and Admin. Below the navigation bar is the main content area.

Add a New Recipe

Recipe Name *
Pancakes

Cuisine *
French

Cooking Time (D HH:MM) *
0 00:15

Image URL *
<https://cdn.loveandlemons.com/wp-content/uploads/2022/09/oatmeal-par>

Steps

Step 1 *
Mix it

Step 2 *
Eat it

Add Step

Add Recipe

The 'Add Recipe' button at the bottom is highlighted with a red border.

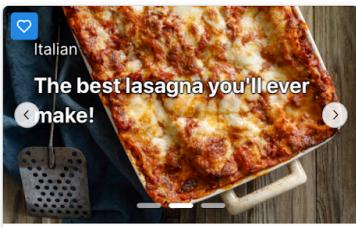
DURING



Moussaka

Level: 10

Time (D HH:MM): 0 02:00



Lasagna

Level: 1

Time (D HH:MM): 0 04:00



Pancakes

Level: 4

Time (D HH:MM): 0 00:15

AFTER