

# Food DB Project

*ADV DATABASE SYS:THEORY/PRO - 1C Class Project*



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## INTRODUCTION

The project this team took on for the ADV DATABASE SYS:THEORY/PRO - 1C Class Project was a Food DB. The purpose of this DB was to store recipes, ingredients, nutrients, and good's cost to make the recipe. We utilized 2 APIs from the Edamam (<https://developer.edamam.com/>) and 1 API from Walmart (<https://developer.walmartlabs.com/docs>) to obtain the data and produce the final results.

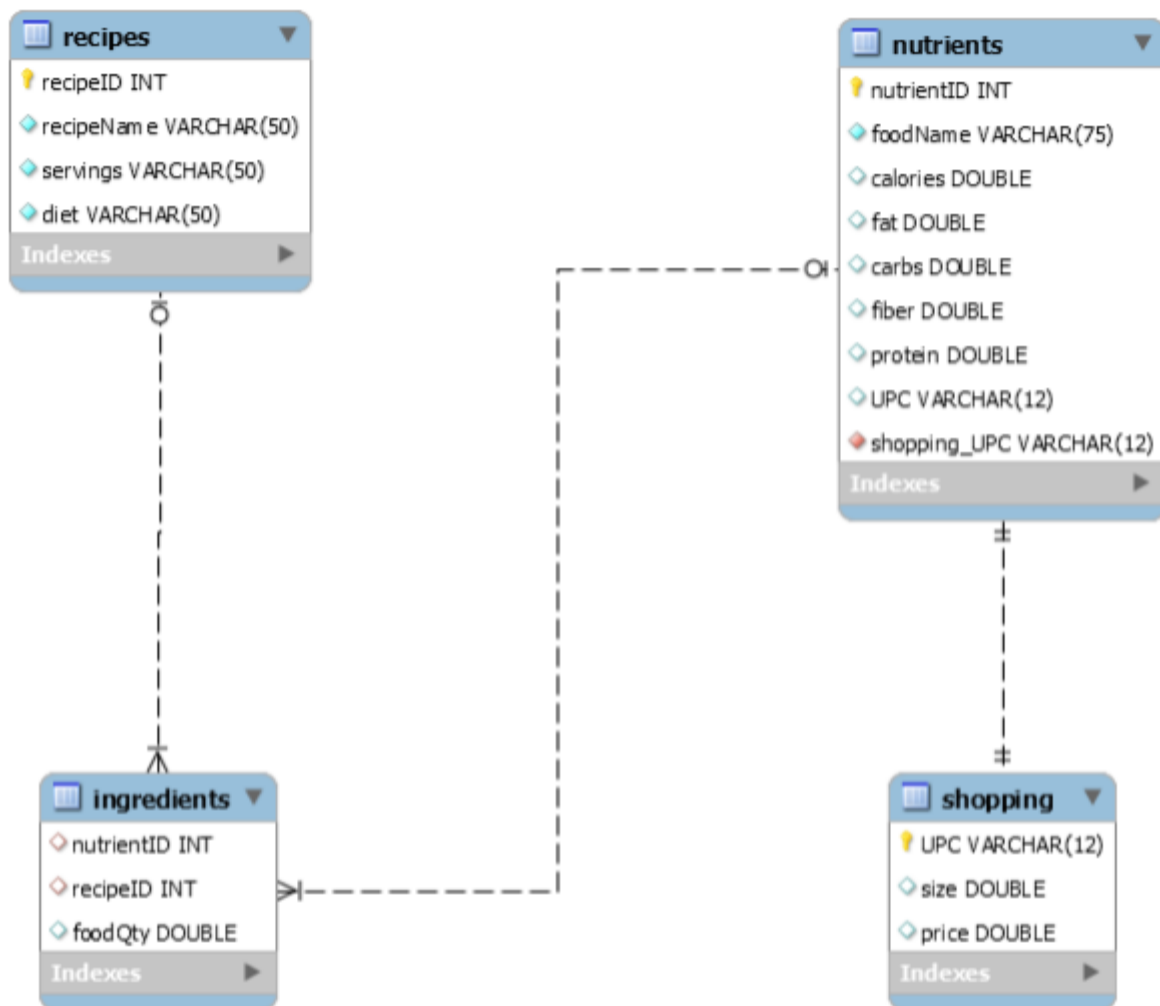


Figure 1

## Schema

The Food DB schema was comprised of 4 database tables reflected in Figure 1. These tables are:

- Recipes => Used for recipe name, dient, and recipe details (only serving size for now).
- Ingredients => Used to tie together recipes, food quantity, and nutrients of the food used within the recipe.
- Nutrients => Used for nutrient details of an ingredient used within a recipe.
- Shopping => Used for pricing details of food that needs to be purchased to complete the recipe.

## Project Sequencing

The Food DB project made use of MySQL for the database, Edamam APIs, Walmart APIs, and Python to process the data in between. The sequence diagram can be see in Figure 2. The data pulling was limited to Recipe data, nutrients and UPC price lookup. The food to UPC code was manually reconciled.

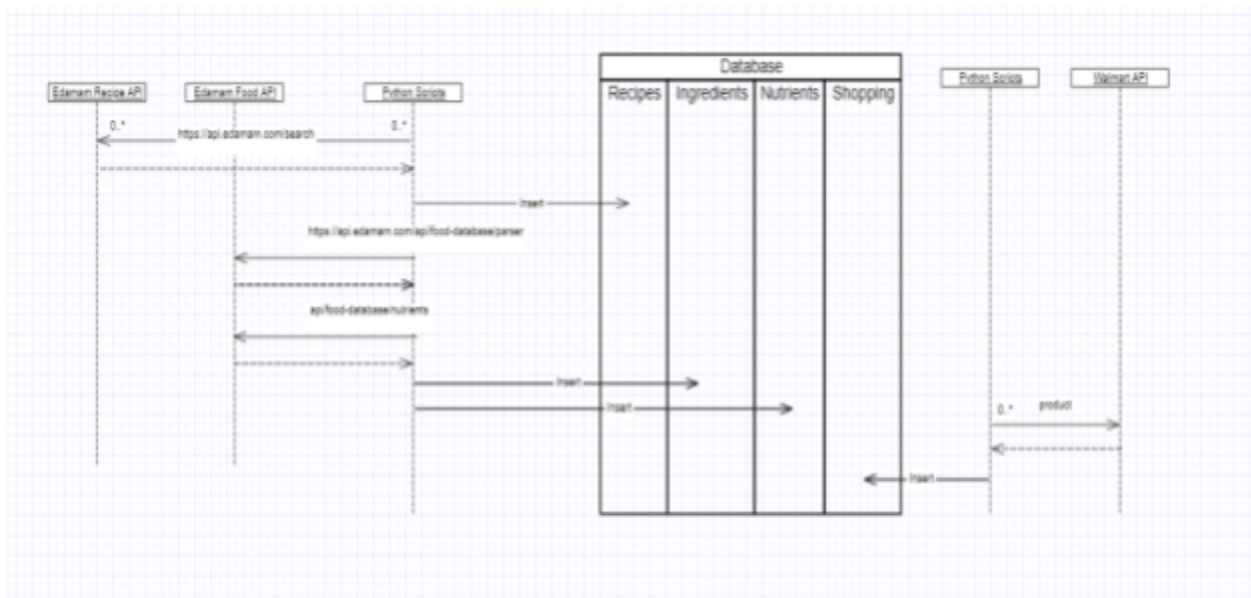
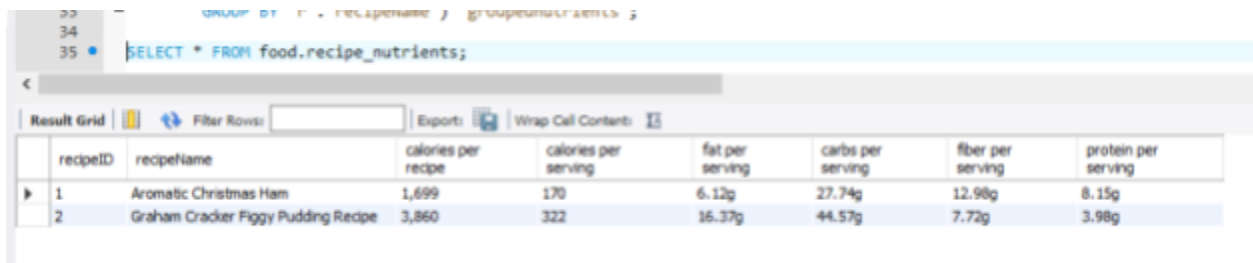


Figure 2

## Database Views

The Food DB project shows the data thru the use of database views. They are

- Recipe\_nutrients -> Summarizes all recipes nutrients to include calories, calories per serving, fat per serving, carbs per serving, fiber per serving, and protein per serving. (See Figure 3)
- Recipe\_costs -> Summarizes the cost of the goods to make the recipe. (See Figure 4)



```
33 GROUP BY r.recipeName, groupofnutrients;
```

```
34
```

```
35 SELECT * FROM food.recipe_nutrients;
```

recipeID	recipeName	calories per recipe	calories per serving	fat per serving	carbs per serving	fiber per serving	protein per serving
1	Aromatic Christmas Ham	1,699	170	6.12g	27.74g	12.98g	8.15g
2	Graham Cracker Figgy Pudding Recipe	3,860	322	16.37g	44.57g	7.72g	3.98g

Figure 3



recipeName	price
Aromatic Christmas Ham	\$38.10
Graham Cracker Figgy Pudding Recipe	\$71.52

Figure 4

## API REFERENCES

1. <https://developer.edamam.com/food-database-api-docs>

2. <https://developer.edamam.com/edamam-docs-recipe-api>
3. <https://developer.walmartlabs.com/docs>