

This file describes how to run the code and gives an overview of the program.

I have written a Python program for this project. I have worked on data gathering, manipulation, analysis and delivering the required output.

I have answered the below questions in this Python code sequentially:

- What are the names of the recipes?  
I have stored this in a list variable 'titles'. The result is stored in a .txt file 'Recipe\_names'. It is also printed in the program.
- What are the number of ingredients in each recipe?  
The output is stored in a csv file 'RecipeAndIngredients'. It has 2 columns, Recipe name and Number of ingredients.
- What is the recipe with least ingredients?  
The output is printed in the program itself.
- What are the recipes which have optional ingredients?  
The output is stored in a .txt file 'Recipes\_with\_Optional\_Ingredients' which has the recipe names which have optional ingredients.
- What are the recipes which have optional ingredients and what are those?  
The output results are printed in the program itself.
- Which recipes have fruits?  
The list 'fruitrecipe' stores this result. The output result is printed in the program itself.
- Which recipes use potato?  
The list 'potatorecipe' stores this result. The output result is printed in the program itself.
- What is the total quantity of salt used in all the recipes?  
The result is stored in a variable 'totalsalt'. The output result is printed in the program itself.

Thus, when the code is run, output of each question is fetched, the output is stored either in a .txt or csv file, or it is printed in the program itself. If it is printed in the program itself, it has the proper descriptive print statements written that makes it clear to understand.

More details about the logic used at each step are explained in the Narrative file.