

# iRobot Cloud Software Team Take Home Assignment

## Version 2.2 – February 2021

Here at iRobot, one of the most important things a developer strives for is free food. For this assignment, you will be creating a Python application to accept ingredients as user input, and using them to search tasty, tasty recipes online.

As part of your interview with us, we will walk through your code and ask you questions regarding the assignment, with a focus on the Important Considerations section of the assignment.

### Assignment Details

- Create an account on <https://spoonacular.com/food-api>
- Create a python executable that accomplishes the following:
  - Reads in ingredients from the command line
  - When the user has finished entering the ingredients, use those ingredients to search for recipes online
  - Show the user a recipe that contains some of the supplied ingredients.
    - If the user likes the recipe, add the missing ingredients to a shopping list
    - If the user does not like the recipe, give the user a new recipe
  - Repeat the process of showing new recipes to the user and adding the missing ingredients of “liked” recipes until the user is satisfied with their shopping list
  - Display to the user their final shopping list, as well as which aisles the user will need to visit and an estimated cost of their shopping list
- Upload the solution to github, complete with a readme containing instructions.
- We should be able to clone your repository, and run your solution following your instructions, so don't forget to include instructions on any dependencies used.
- We're using the honor system here, so please ensure that all of the code is written by you and by you alone!

### Important Considerations

In addition to being able to run your program successfully, the cloud team is interested in understanding your approach to the assignment, particularly the decisions you made regarding:

- Maintainability (code organization and structure)
- Error handling
- Testability
- Usability
- Security (API key management)
- Documentation
  - User Documentation
  - Technical Documentation
  - Code Comments

### Things to Avoid

- Don't create a fancy user interface (avoid using a GUI). We are interested in your coding skills, and how you interact with the Spoonacular service, and how you format and display the service results to the user.
- Don't take the job description and try to fit it into this assignment. This should be a simple Python executable that runs locally on your machine, communicates with the Spoonacular API service, and formats the output to the terminal.
  - Many of our team assignments involve creating interactive command line scripts that communicate with the APIs and microservices that we have created. This assignment more closely resembles that type of work, instead of a microservice design.
  - There should be no server component to your code.