Python programming and practice

Food Recipe Recommendations Based on User Preferences or Ingredients

Proposal

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1. Introduction (16 pt)

1) Background (14 pt)

Recipe recommendation systems make it easy for users to find information about cooking, save time compared to internet searches, and provide practical cooking ideas. Interest in cooking and food-related activities is on the rise, leading to an increased demand for recipe recommendation services.

2) Project goal

Goal is to create a program that recommends recipes based on customer preferences and available ingredients.

3) Differences from existing programs

There is an app called '만개의 레시피' that provides recipes for free and includes links to purchase cooking ingredients. Users can also upload their own recipes. However, my program differentiates itself by recommending recipes based on user preferences and available ingredients.

2. Functional Requirement

1) Collecting Information from Users

- Feature to Input Preferred Foods or Ingredients.

(1) Collecting Food and Ingredient Information by Creating an Arbitrary Text File

- Ability to add, delete, modify, and view ingredients in the text file.

2) Comparing Recipe Files with User Profiles

- Function to calculate similarity for each file

(1) Preprocessing each sentence, creating a token set to calculate similarity, and storing similarity scores in a dictionary.

- Sorting the similarity dictionary in descending order and ranking recipes based on similarity.

3) Extracting Recipes with High Similarity

- Implemented as a function to extract the top 3 recipes with high similarity and present them to the user.

(1) If the user is not satisfied, extract the next 3 in the ranked list.

- Access the next index in the list sorted by similarity after excluding the top 3.

3. Schedule

업무		11/3	11/10	11/17	11/24	12/15
제안서 작성		---------->				
Collecting Information from Users	Collecting Food and Ingredient Information by Creating an Arbitrary Text File		---------->			
Comparing Recipe Files with User Profiles	Preprocessing each sentence, creating a token set to calculate similarity, and storing similarity scores in a dictionary.			---------->		
Extracting Recipes with High Similarity	If the user is not satisfied, extract the next 3 in the ranked list.				--------->	