Neighborhood Battle-Week 1-Part 1

Title: Oyama City's Restaurant Recommendation System

Introduction:

Problem Background:

Oyama City is the second largest in Tochigi Prefecture. The population is about 170,000 (January 2019).
There are more dishes available there than in other cities in Tochigi Prefecture. This reflects the diversity of Oyama City.
The types of food in Oyama City include Hawaii, South Indian, North Indian, Islamic, Spanish, Chinese, Fast Food, Japanese, Korean, Italian and French.
One of the causes is that the number of foreign workers in the population is increasing. The population of foreign workers is 68,000 (January 2019).

Problem description:

Food is attractive because it's what everyone needs, but what they want is diverse. However, due to the variety of dishes, you need to find the right dish for you, at the right cost, and find the restaurant that will serve you the best way.
Company A is currently trying to build a restaurant recommendation system for the city of Oyama. Therefore, we are trying to get restaurant users to answer the following questions.

1. How many foods did you use in the restaurant?
2. Is the rating of the restaurant you used closest to the rating of the existing restaurant?
3. How many "similar" restaurants are nearby?
4. Are "similar" restaurants more expensive? If so, what specialty is it?

However. This alone is not enough. So Company A assigns this project to me and not only finds a solution to this question, but also provides a system to help recommend new places based on their rankings compared to what I have visited previously. I decided to build it.

The expectation from this recommendation system is to get answers to the questions and to reveal all perspectives on managing recommendations.

1. Is the food spectacular?
2. Where are similar restaurants based on a particular food preference?
3. How are the different restaurants ranked according to my tastes?

Target audience:target audience for

Thethis project is everyone who uses restaurants in Oyama City. Most people go to a fixed restaurant, so the type of food is also fixed. However, those who rarely use restaurants prefer to go to the most acclaimed restaurants nearby. All this is easily handled by the recommender system. So the target of this project is basically everyone who is exploring different places or similar places.

Success rate:

With the evolution of restaurants, new food categories are emerging, hybrid foods are becoming more popular, and we need a system to access a vast array of food products.
It is physically impossible to ask everyone what restaurant they went to and what food they ordered. Even if physically possible, not everyone remembers everything.
But the computer never forgets. When machine learning reaches its peak, technology of the time helps us personally with our personal guidance, based on our likes and dislikes. Therefore, this project is of great significance to people, as personal support and success rates can certainly increase over time.