Opening a ramen restaurant in Tokyo

Background

Our customer wants to open a ramen restaurant in Tokyo, and for that reason has asked us which would be the more convenient location for doing so. In order to find the best possible answers, we are going to check where are most ramen restaurants located, in which of Tokyo's wards you can find the most restaurants and finally how are they spread across Tokyo.

Obtaining the data

In order to look for the ramen restaurants in Tokyo, I will retrieve the wards of Tokyo from Wikipedia. And for the location of each restaurant I will use the Foursquares API, to look for every ramen restaurant in Tokyo.
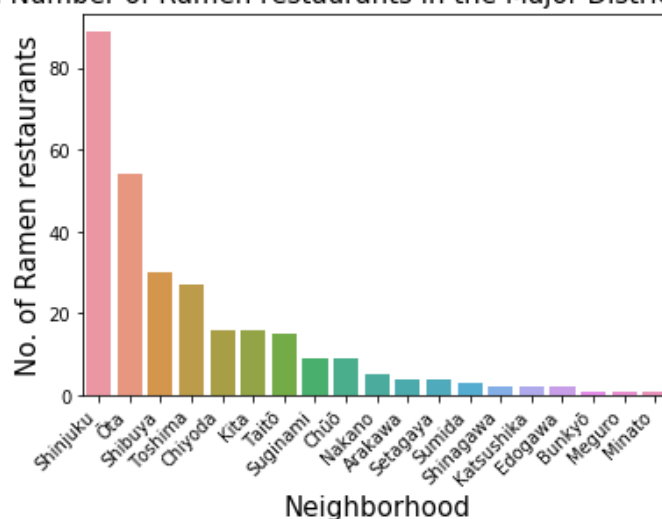
Methodology

First, I'm going to look for the wards of the city of Tokyo and obtain its coordinates using geopy's library. After having each Tokyo's ward I'm going to look for all the ramen restaurants in each ward. For doing so, I'm going to use foursquare API and use the unique code/tag that identifies the ramen restaurants. Once done so I will print the results and check the distribution of the ramen restaurants in each ward.

In order to make a more in-depth analysis, I'm going to check what is the density of ramen restaurants in Tokyo and separate them into clusters. I'm going to identify areas with a lot of ramen restaurants. For doing so I'm not going to take into account in which ward they belong to. I'm just going to use their location and distance between them.
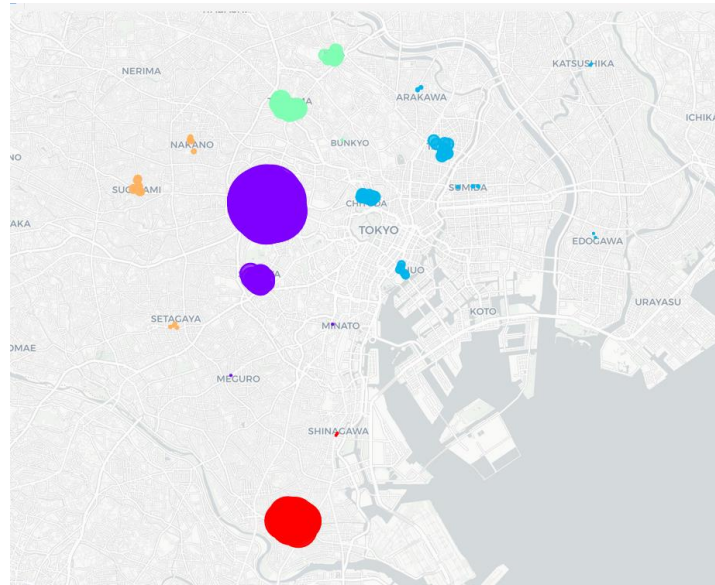
Results

We can see that the ward of Shinjuku has the most numbers of ramen restaurants, followed by Ota and Shibuya. These three neighborhoods accumulate the vast majority of ramen restaurants. While the other neighborhoods are less crowded.

Total Number of Ramen restaurants in the Major Districts of Tokyo

Clustering results shows that there are two main clusters where all the ramen restaurants are concentrated. These two big clusters represent the area of Shinjuku and Ota. So the results of clustering and the number of most restaurants per neighborhood agree that both Shinjuku and Ota are the most dense areas.

Conclusion

From the results we can see that both Shinjuku and Ota are the densest areas for ramen restaurants. Therefore, the competition is really fierce and opening a ramen store in those areas can be really challenging. But on the other side, it also means that it has the most customer traffic. Opening the ramen restaurant in any other of the least dense neighborhoods is also an option, but the number of customers will be lower. I recommend opening a ramen restaurant in the neighborhoods of Chiyoda, Kito or Taito, there are less ramen restaurants, but at the same time the flow of people seems high enough for the business to be profitable.