Where to open Jewelry Shop in Kofu, Japan

1. Introduction

   I have a customer who want to open a jewelry shop in Kofu city, Japan. Because, Kofu city is very famous in Japan so there are many jewelry shops in there.

2. Business Problem

   My customer already knows about the Kofu city well-known for jewelry things. But the customer is not Japanese she/he came from oversea so the customer does not have much local information. Where is people visits frequently, where is jewelry shop located and soon.

   To address this situation, I should recommend nice location to open jewelry shop in Kofu city based on analyzed data.

3. Data

   For this capstone, I need below data.

   1) List of towns in Kofu city

      I can get the list from web (https://japan-postcode.810popo.net/yamanashiken/kofushi/)

   2) With each town's name, I should collect the coordinates

      I can get the coordinates data using Nominatim from geopy.

   3) And then, need to get the nearby venues data for each town using Foursquare API.

   4) From venues data and its venue category, analyze and categorize top most frequently located venue category.

4. Methodology

   1) The data need to be preprocessed.

      There are so many convenience store and drug store in Japan commonly. So before analyze the data, I dropped all convenience and drug store to reduce the effects by them.

   2) I analyzed the data with clustering, to be sure to find optimized parameters, such as how many categories to be used for clustering and the number of clusters.

      To do that, I looped the two parameters specified ranges. After that, I choose 1 and 12
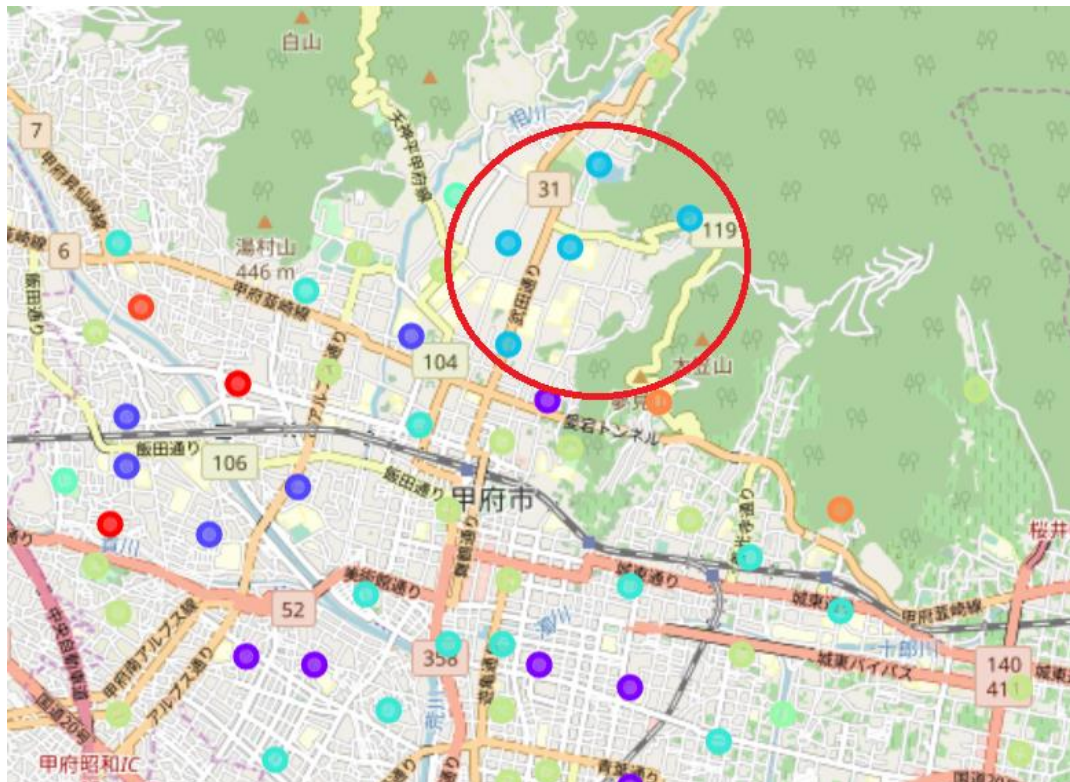
respectively.

5. Results

After analyzing the data, I got 12 clusters in total.

And looked into each cluster, I found the 5th cluster is related with historic site as described below table.

	Town	1st Most Common Venue
22	Iwakubocho	Historic Site
40	Kofuchumachi	Historic Site
73	Oote	Historic Site
105	Takeda	Japanese Curry Restaurant
119	Yakata	Historic Site

And describing this data in map, we can confirm the location.

6. Discussion

At the very first of this analysis, I got about 100 venues in total. However, after running KMean clustering, so many venues labeled with specific one label.

So, I tried to find good parameters for KMean clustering such as how many categories to be used for clustering and the number of clusters.

7. Conclusion

I reached to the result that most of visitors from out of the local or overseas, will be visited historic site in this city.

And, most of visitors are willing to buy some souvenir at the site. Like that Kofu city is famous with jewelry, the visitors will like to buy jewelry as a souvenir.

So, according to this thought I am sure to recommend the best location for opening new jewelry shop in Kofu city is some location in the 5th cluster.