Coursera Capstone Project

Opening a Traditional Chinese restaurant in Milan

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Business Problem

• The location of a restaurant is one of the most important decisions that will determine whether investment will be a success or a failure;

• Objective: Analyze and select the best locations in the city of Milan, Italy to open a new Chinese restaurant;

• Business question:

➢ In the city of Milan Where should I open a traditional Chinese cuisine restaurant?

Data

- Data required:

  ➢ List of neighbourhoods in Milan;

  ➢ Latitude and longitude coordinates of the neighbourhoods;

  ➢ Venue data, particularly data related to Chinese restaurants;

- Sources of data

  ➢ Wikipedia page for neighbourhoods

  (https://it.wikipedia.org/wiki/Categoria:Quartieri_di_Milano)

  ➢ Geocoder package for latitude and longitude coordinates

 ➢ Foursquare API for venue data

Methodology

- Web scraping Wikipedia page for neighborhoods' list

- Get latitude and longitude coordinates using Geocoder

- Use Foursquare API to get venue data

- Group data by neighborhood and taking the mean of the frequency of occurrence of each venue category

- Filter venue category by Chinese Restaurant

- Perform clustering on the data by using k-means clustering

- Visualize the clusters in a map using Folium

Results

- Cluster 0 (Red): Neighbourhoods with virtually no chinese restaurants;

- Cluster 1 (Violet): Neighbourhoods with high number of chinese restaurants;

- Cluster 2 (Green): Neighbourhoods with medium concentration of chinese restaurants;
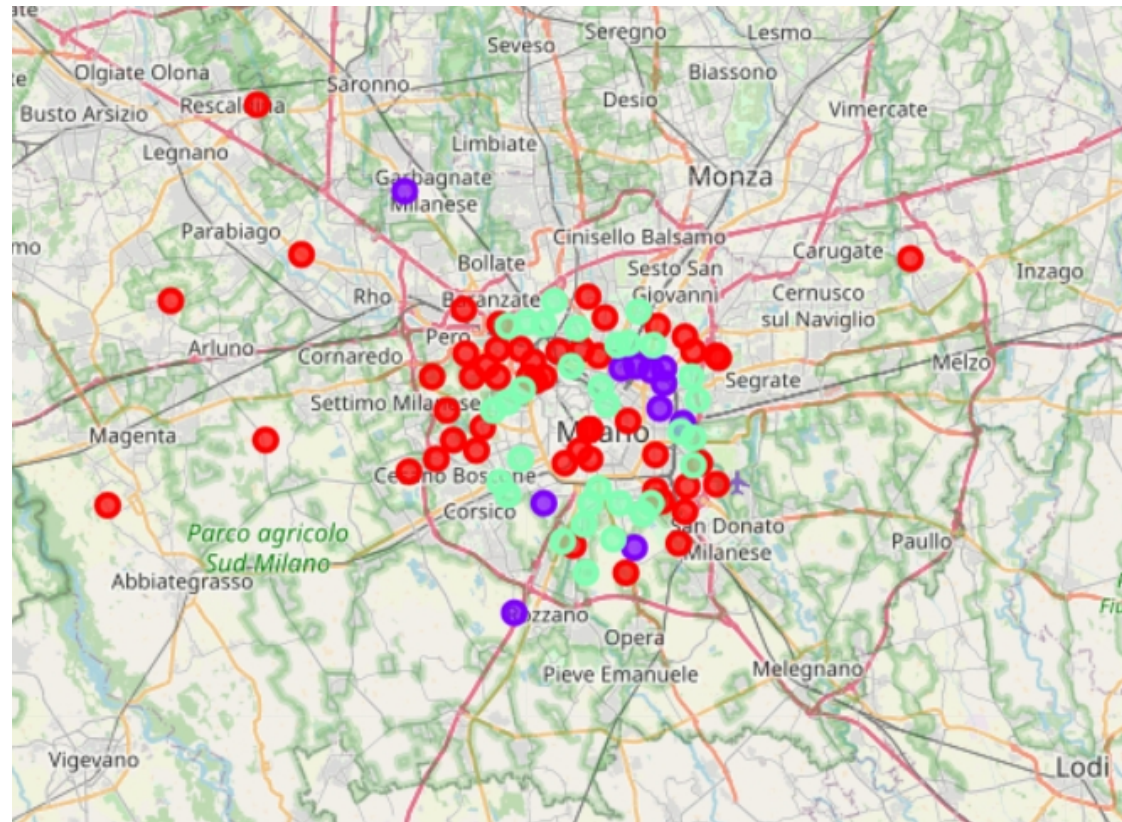
Conclusions and Recommendations

- Answer to business question: The neighborhoods in cluster 0 in between the green one are the most preferred locations to open a new Chinese restaurant;

- Avoid neighborhoods in cluster 1. There's already a high concentration of Chinese restaurants and intense competition;

- Most of the Chinese restaurants are concentrated in the central area of the city