

# COURSERA – IBM APPLIED DATA SCIENCE CAPSTONE

INDIAN RESTAURANT IN PARIS!

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# INTRODUCTION

- Paris is a beautiful multi-cultural city, and it is also a city of food lovers. The city has a very vibrant immigrant culture, especially from India and other south Asian countries where the cuisine is like that of Indian. Also, Indian food is popular worldwide. Hence, opening a restaurant in Paris specializing in Indian cuisine will be a good, profitable business venture.

# BUSINESS PROBLEM

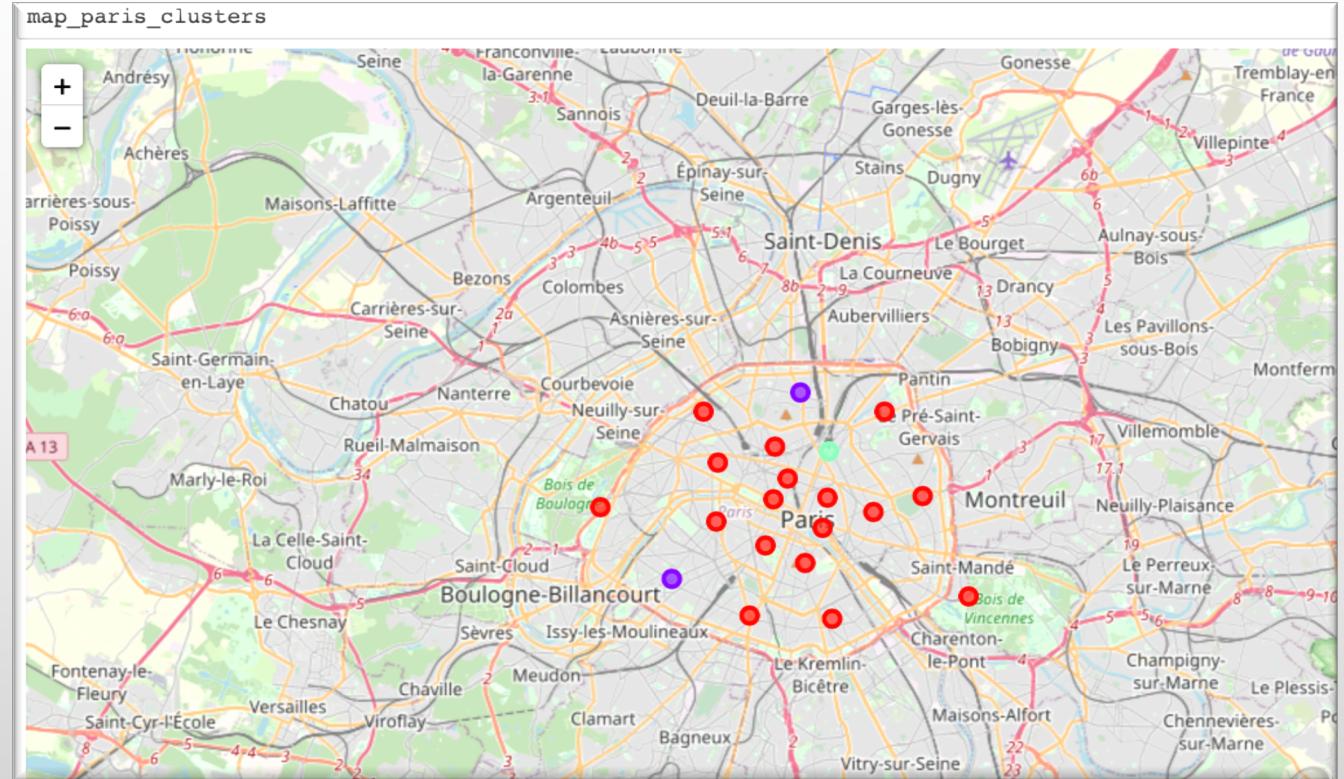
- Paris is a large city with various districts populated by people of different ethnicity and nationality. So, identifying the right location is key to growing the business sustainably. Setting up the restaurant in a district where there is already good number of Indian restaurants would be preferable due to the higher population of the Indian community in that area. The city of Paris is large and is composed of 20 arrondissements, also known as administrative districts. This project aims to explore these 20 districts and identify the suitable one for opening an Indian restaurant.

# DATA AND THEIR SOURCES

- To address the business problem stated above, the following data have been used:
  - List of administrative districts or arrondissements of Paris, France in Western Europe
  - Geographical coordinates – latitude and longitude – of these districts of Paris, in order to plot the map and get venue data
  - Venue data – that is, data related to Indian restaurants in Paris. This will be used to perform clustering on the districts
- Data sources and extraction methods:
  - List of arrondissements of Paris have been scraped from the Wikipedia page [https://en.wikipedia.org/wiki/Arrondissements\\_of\\_Paris](https://en.wikipedia.org/wiki/Arrondissements_of_Paris) using Python requests and BeautifulSoup package
  - Geographical coordinates of the districts of Paris have been obtained from the open data provided by Government of France in csv format from this link: [https://www.data.gouv.fr/en/datasets/arrondissements-1/#\\_](https://www.data.gouv.fr/en/datasets/arrondissements-1/#_)
  - Foursquare API has been used to get the venue data for the districts

# RESULTS

- Districts of Paris were categorized into 3 clusters
  - Cluster 0 – No Indian restaurants
  - Cluster 1 – some Indian restaurants
  - Cluster 2 – high number of Indian restaurants



# CONCLUSION

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Indian restaurants are currently located only in district 'Entrepôt' with cluster = 2, and districts 'Butte-Montmartre' and 'Vaugirard' with cluster = 1.

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All other districts with cluster = 0 have no Indian restaurants.

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Higher concentration of Indian restaurants in cluster 2 shows the viability of opening and successfully running an Indian restaurant in this district is more than the other districts.

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Recommendation: 'Entrepôt' is most likely the suitable district in the city of Paris to open an Indian restaurant.

**THANK YOU!**