# PREDICTING THE MOST SUITABLE RESTAURANT IN PARIS

Shubham

#### THE SCALE

• In 2017, only in Europe, the market value for consumer foodservice reached 508 billion dollars, where France accounts for 61 billion dollars' market.

#### PROBLEM

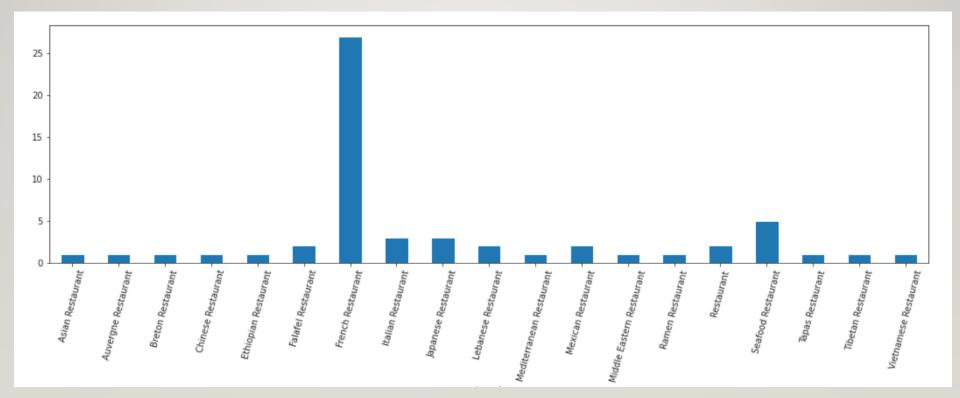
- Opening a food sector establishment like restaurant is always risk-prone.
- There are many factors like population, per capita income, connectivity, existing number of restaurants, etc.

#### DATA ACQUISITION AND CLEANING

- All the postal codes for Paris were scraped from <a href="https://worldpostalcode.com/france/ile-de-france/paris">https://worldpostalcode.com/france/ile-de-france/paris</a>.
- Top 25 tourist attractions were scraped from <a href="https://www.touropia.com/tourist-attractions-in-paris">https://www.touropia.com/tourist-attractions-in-paris</a> .
- Latitude and longitude for each place were obtained from python's geopy library using Nominatim class.
- Foursquare API was used for exploring each postal code.

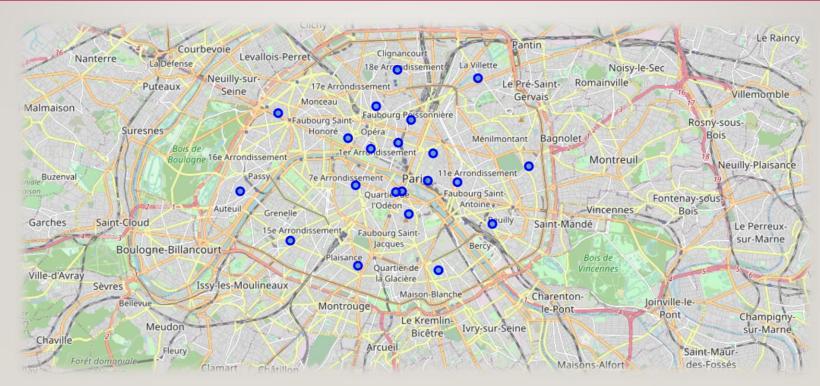
# EXPLORATORY DATA ANALYSIS

### VARIOUS CATEGORY OF RESTAURANTS FOR POSTAL CODE 75000



Label: Various Category of restaurants for a random postal code (75000)

#### ALL POSTAL CODES FOR PARIS



Label: Map showing all postal codes for Paris

#### TOP 10 RESTAURANTS IN A POSTAL CODE

	Postal Code	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	75000	French Restaurant	Italian Restaurant	Seafood Restaurant	Japanese Restaurant	Mexican Restaurant	Restaurant	Lebanese Restaurant	Tapas Restaurant	Portuguese Restaurant	Falafel Restaurant
1	75001	French Restaurant	Italian Restaurant	Japanese Restaurant	Asian Restaurant	Udon Restaurant	Restaurant	Sushi Restaurant	English Restaurant	Russian Restaurant	Korean Restaurant
2	75002	French Restaurant	Italian Restaurant	Japanese Restaurant	Restaurant	Thai Restaurant	Korean Restaurant	Chinese Restaurant	Greek Restaurant	Udon Restaurant	Sushi Restaurant
3	75003	French Restaurant	Restaurant	Italian Restaurant	Japanese Restaurant	Vietnamese Restaurant	Falafel Restaurant	Asian Restaurant	Seafood Restaurant	Vegetarian / Vegan Restaurant	Korean Restaurant
4	75004	French Restaurant	Italian Restaurant	Tapas Restaurant	Japanese Restaurant	Thai Restaurant	Restaurant	Scandinavian Restaurant	Falafel Restaurant	Seafood Restaurant	Israeli Restaurant

Label: Top 10 types of restaurant in a particular postal code

## TOP 25 TOURIST ATTRACTIONS AND POSTAL REGIONS

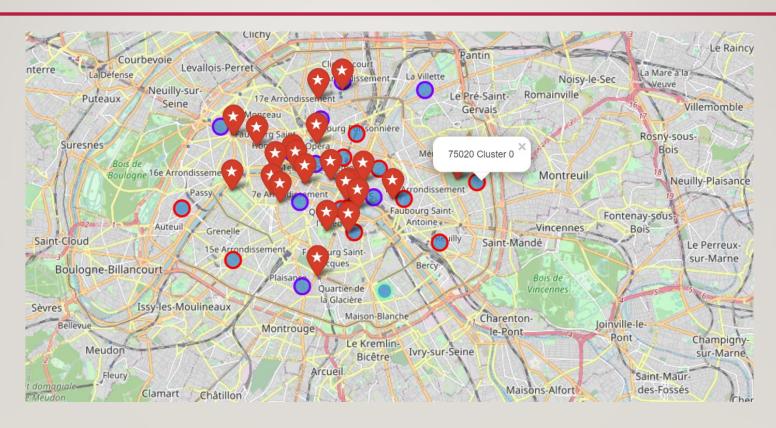


Label: Map showing top 25 tourist attractions and postal regions of Paris

#### CONCLUSIONS

- <u>First Cluster</u>: A lot of tourists can be expected here, as these regions are near top 25 tourist destinations. French, Italian and South-east Asian type of restaurants dominate these regions.
- <u>Second Cluster</u>: Only 1 region, at a decent distance from tourist places. Highly dominated by Vietnamese and Thai restaurants.
- Third Cluster: Less tourists can be expected here. Dominated by French and Italian restaurants but Mexican and Lebanese also comes in top 10.

#### THREE DIFFERENT CLUSTERS



Label: Map showing 3 different clusters (Red, Green and Purple outlined circles)

#### FUTURE DIRECTIONS

- Per capita income can be included to show the spending capacity of people living in that area.
- Good transportation facility means easier accessibility. Thus, it can play a major role.
- Local taxes may significantly affect the place of interest. So, it can be included as well.