

# Finding Neighbourhood to start Indian restaurant in Manhattan, New York

- CAPSTONE PROJECT

# Business Problem Section

- A hotelier wants to open an Indian Restaurant in Manhattan, New York. The success of any restaurant depends on multiple factors like location, menu, interior, consistency in taste and many other.
- Hotelier approached us to help him to find a perfect location and menu for his restaurant.

# Solution

- Using New York Neighbourhood data and foursquare API we could find the neighbourhood details, restaurant ratings and menu of each restaurant.
- We plan to find neighbourhoods where there is good Indian restaurant and get the characteristics of that neighbourhood using data analysis. Then we need to find neighbourhoods with same character but with less Indian restaurant presence.
- Using menu option in foursquare API fetch all the menu from each restaurant and find the common items in best rating restaurant. we could get an idea of what people like to have or what kind of food is more popular.
- Using K mean clustering cluster those restaurants into groups according to the menu, price and ratings. it will help us to get a view among the restaurants.

# Data Points

1. From NYU Spatial Repository data feed we get New York Borough and neighbourhoods data.
2. Using geopy package we could get, geo location like latitude and longitude of each location
3. From foursquare API we can get,
  - 3.1. Restaurant Names
  - 3.2. Id
  - 3.3. location
  - 3.4. ratings
  - 3.5. menu

# Methodology

- Using New York Neighbourhood data and foursquare API we found the neighbourhood details
- Used K Means clustering to group the same type of neighbourhoods
- Found the places of same neighbourhood as of Indian restaurants and less in number
- The same type neighbourhood with less restaurants were found good to start new restaurant.

# Results

- After comparing the neighbourhood with top Indian restaurants and the same type neighbourhood with less restaurants we found below neighbourhoods good to start one:

Marble Hill  
Chinatown  
Washington Heights  
Hamilton Heights  
Manhattanville  
Central Harlem  
Yorkville  
Lenox Hill  
Clinton  
Chelsea  
Greenwich Village  
East Village  
Soho  
West Village  
Morningside Heights  
Noho  
Civic Center  
Stuyvesant Town

# Discussion

- We could use more features from api to find the ratings and menu of those restaurants to find the best restuarants and the most famous menu they provide. We could also group the result neighborhoods to find individual characterisitcs of those.

# Conclusion

- We found the best neighbourhoods to start an Indian restaurant in Manhattan using data science



THANK YOU