



Predicting Type and Location:

To open Restaurant in Annemasse



Introduction

- Restaurants across France are
 - diverse, there are key similarities in the ones experiencing success
- These restaurants are constantly
 - innovating and adapting
 - leveraging technology and data



Background

- Our study target
 - Business spot in annemasse



Data Acquisition & Cleaning

- Data consist of
 - Population-- <https://www.insee.fr/fr/statistiques/3689656#consulter>
 - Income -- <https://www.impots.gouv.fr/portail/statistiques>

- Why in annemasse?

```
df1=df.sort_values(by='Population',ascending=False)
```

```
df2= df1.head(5)  
print(df2)
```

	Code	Commune	Population	Income
9	74010	Annecy	126419	88034065
246	74281	Thonon-les-Bains	35132	55026294
10	74012	Annemasse	35041	44661654
73	74081	Cluses	17371	22104479
224	74256	Sallanches	15902	25004859

Cont..

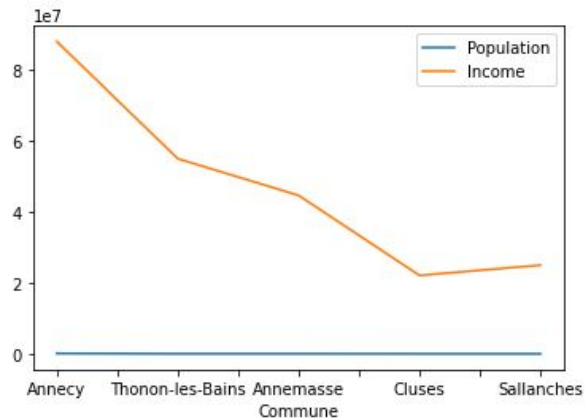
```
df1=df.sort_values(by='Income|',ascending=False)
```

```
df2= df1.head(5)  
print(df2)
```

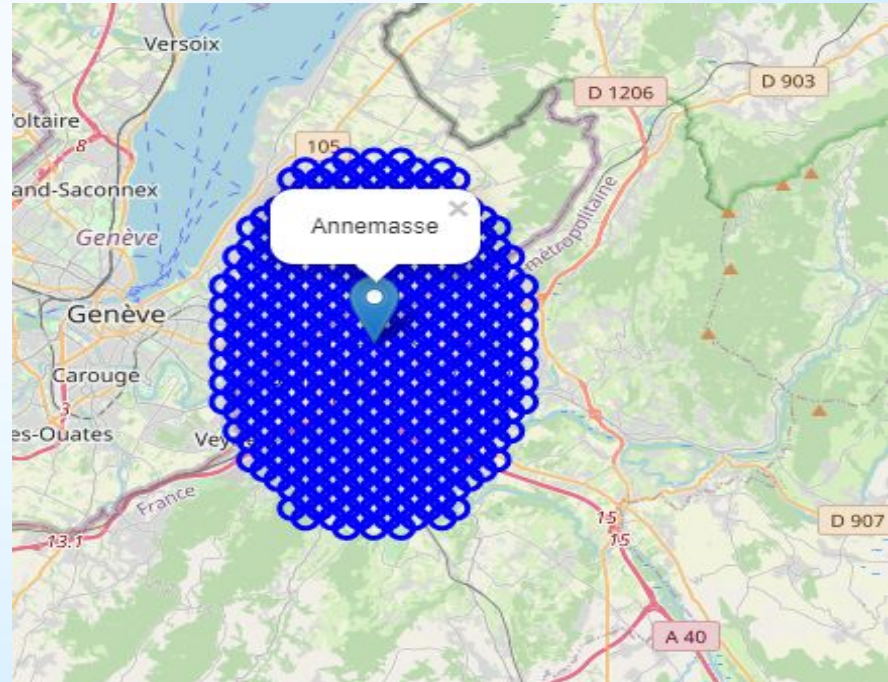
	Code	Commune	Population	Income
9	74010	Annecy	126419	88034065
246	74281	Thonon-les-Bains	35132	55026294
155	74173	Megève	3123	46830727
48	74056	Chamonix-Mont-Blanc	8759	45686039
10	74012	Annemasse	35041	44661654

Cont..

```
df2.plot('Commune',['Population','Income'],kind='line')  
<matplotlib.axes._subplots.AxesSubplot at 0x24dab5439d0>
```



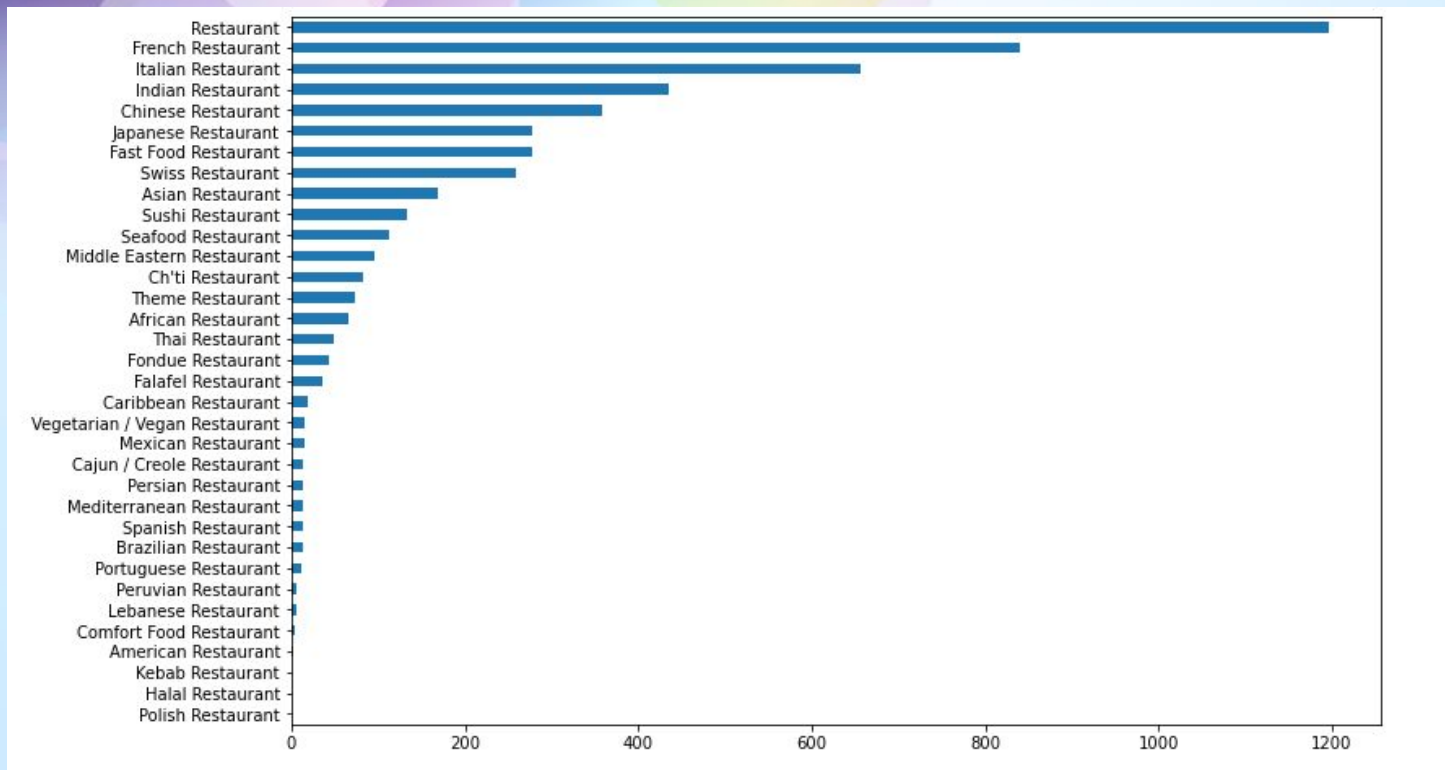
Map-Restaurants in Annemasse



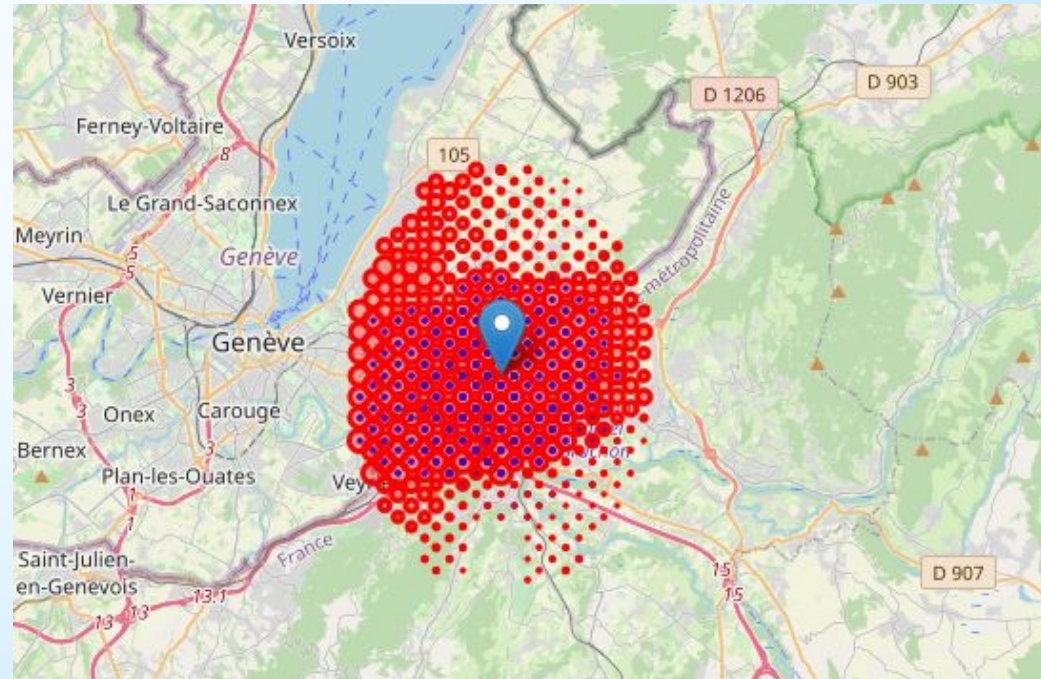


Methodology:

- Get Coordinates:
 - By using google cloud API
 - Geolocation --latitude and longitude
- FourSquare API
 - Venues
 - Category
 - information



- Cluster of restaurants against number of Indian restaurants in annemasse



Cluster

- use k-mean clustering

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Addresses of centers of areas recommended for further analysis

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Chemin des Sillons 7, 1226 Thônex, Switzerland	=> 2.5km from Marie
75 Route de Thonon, 74100 Annemasse	=> 2.6km from Marie
47 Rue de la Bernadette, 74560 Monnetier-Mornex	=> 4.9km from Marie
Route de La-Louvière 71, 1243 Presinge, Switzerland	=> 4.5km from Marie
4 Route de Collonges, 74100 Vétraz-Monthoux	=> 2.0km from Marie
Chemin de Sionnet 55, 1254 Jussy, Switzerland	=> 4.7km from Marie
Route de Sous-Moulin 65, 1226 Thônex, Switzerland	=> 4.8km from Marie
Route de Choulex 220, 1244 Choulex, Switzerland	=> 4.7km from Marie
265 Chemin de Nanteux, 74930 Reignier-Esery	=> 4.8km from Marie
Chemin de la Blonde 3, 1253 Vandœuvres, Switzerland	=> 5.0km from Marie
Route de Presinge 58, 1241 Puplinge, Switzerland	=> 1.7km from Marie
17 Chemin de la Prairie, 74100 Vétraz-Monthoux	=> 4.8km from Marie
205 Chemin du Pont du Loup, 74560 Monnetier-Mornex	=> 4.5km from Marie
2 Rue de Montréal, 74100 Ville-la-Grand	=> 5.0km from Marie
21 Rue René Cassin, 74240 Gaillard	=> 2.3km from Marie



Conclusion

- Type the restaurant
 - Fast food
- Location will be center of the Annemasse
 - List of 15 addresses

Cont..

- Final decision on optimal restaurant location will be made by stakeholders based on
 - specific characteristics of neighborhoods and
 - locations in every recommended zone,

taking into consideration additional factors like attractiveness of each location (proximity to park or water), levels of noise / proximity to major roads, real estate availability, prices, social and economic dynamics of every neighborhood