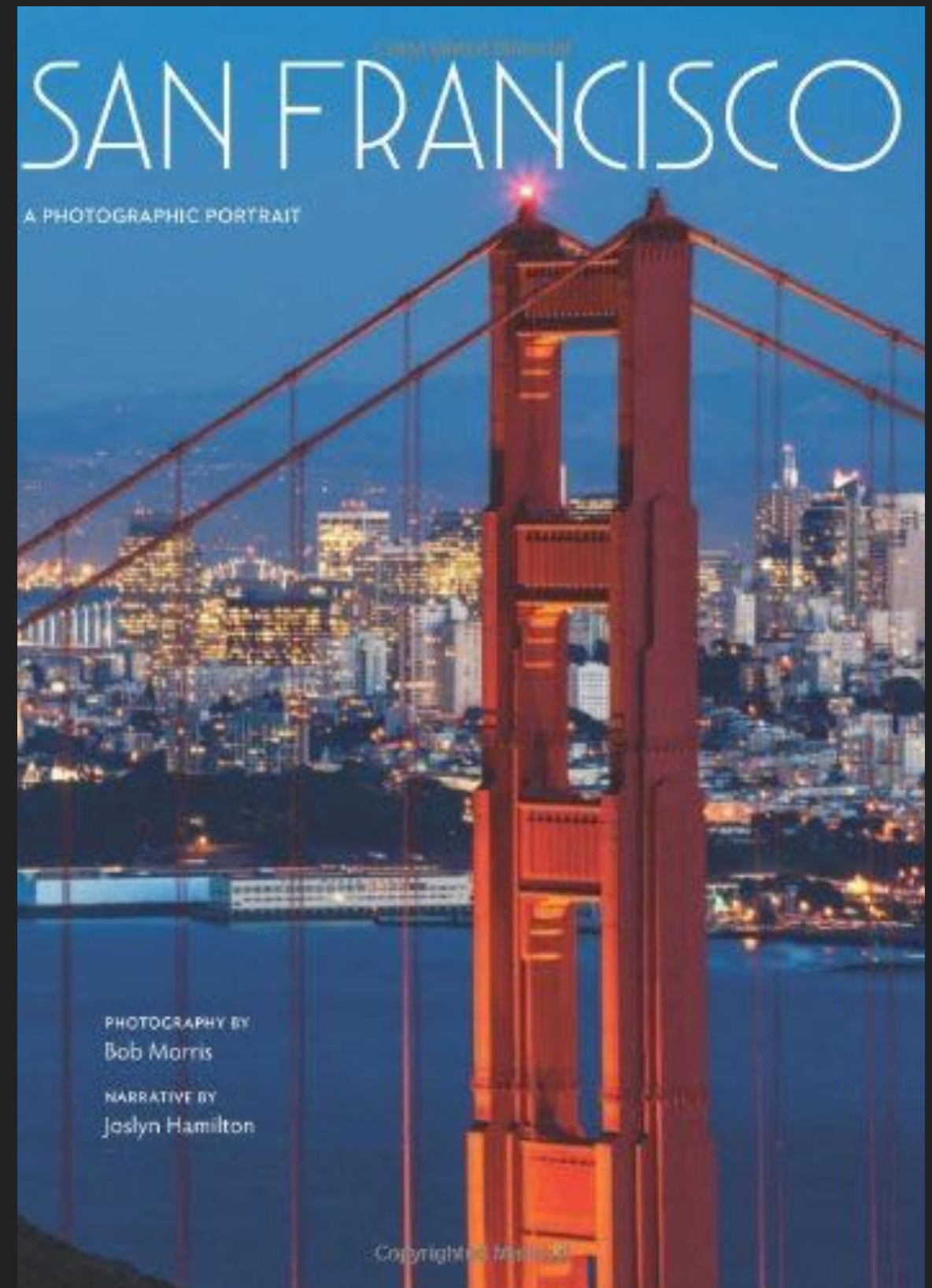


IBM DATA SCIENCE PROFESSIONAL CERTIFICATE
NAMAN MANCHANDA - 29 JULY 2019

THE BATTLE OF NEIGHBOURHOODS

BUSINESS PROBLEM

- ▶ The main objective behind the idea is to find the best spot for the next profitable restaurant business in the Bay Area
- ▶ The Bay Area has a lot of restaurants with different cuisines including Mexican, Italian etc
- ▶ Starting a restaurant without analysis won't yield good results



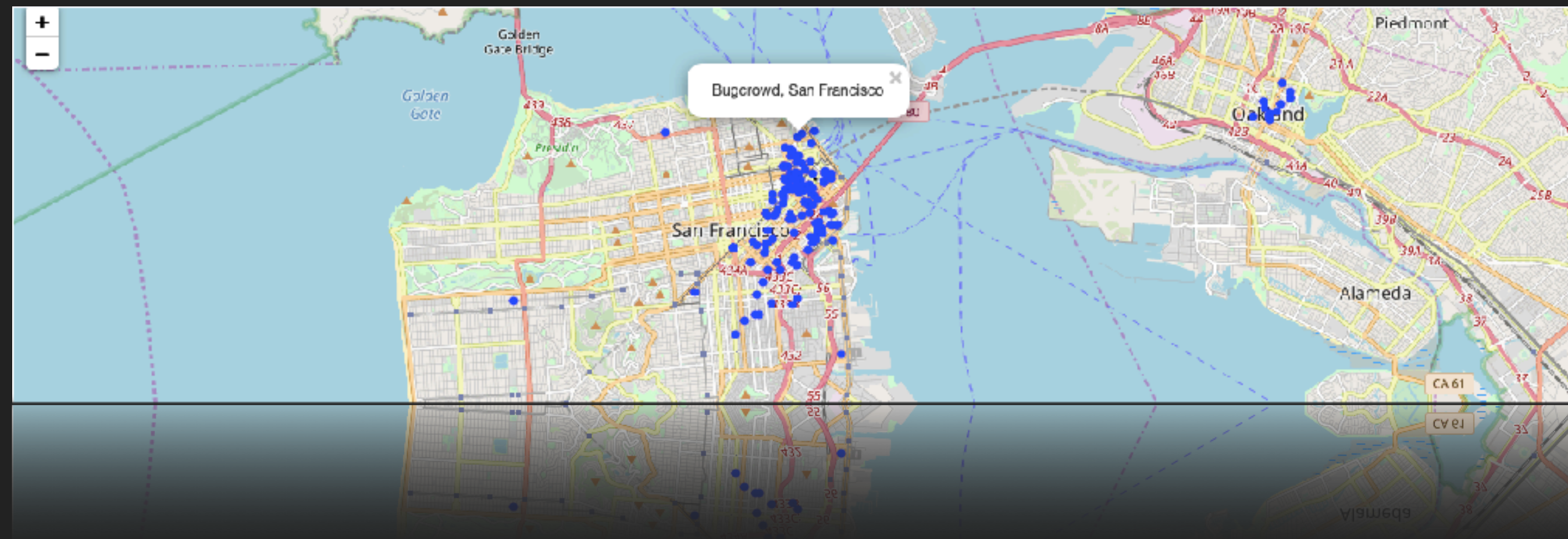
THE BAY AREA COMPANIES LIST WAS USED FOR THE ANALYSIS. THE DATASET WAS EXTRACTED FROM GITHUB AND WAS OPEN SOURCE. THE .CSV FILE WAS UPLOADED TO IBM CLOUD AND WAS IMPORTED TO PANDAS DATA FRAME FROM THE CLOUD ITSELF. THE LINK TO THE GITHUB DATA SOURCE IS PROVIDED IN THE REPORT.

Data acquisition

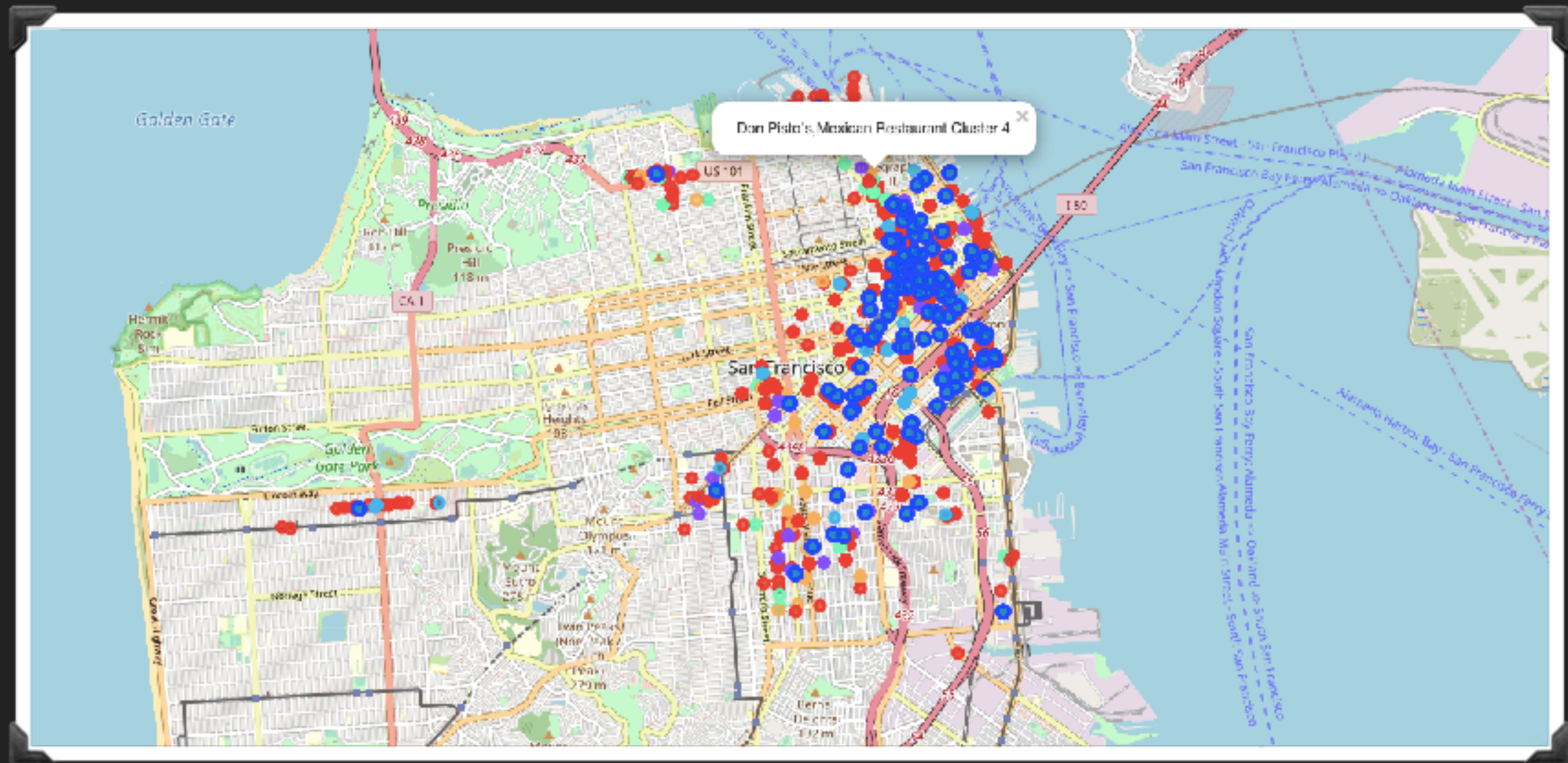
DATA SCIENCE METHODOLOGY

- ▶ The data was extracted and cleaned, and the feature selection was made
- ▶ Map for all the offices in the bay area was plotted
- ▶ Foursquare API was used to figure out the nearest restaurants
- ▶ The restaurants were classified using KMeans ML algorithm
- ▶ The clustered restaurants were plotted along with the companies in the Bay Area

MAP OF ALL COMPANIES IN THE BAY AREA



Map of all the restaurant clusters along with the companies



CLUSTERS	COLORS	RESTAURANT CUISINE
0	Red	American, Japanese, Sushi
1	Purple	New American
2	Light Blue	Vietnamese
3	Green	Italian
4	Italian	Mexican

CONCLUSION AND OBSERVATIONS

- ▶ The Mexican and New American cuisine restaurants are very less near the Cadre Talent office.
- ▶ In the East Bay region, there is neither an Italian nor a new American restaurant.
- ▶ In the San Leandro region, there is no New American restaurant, so opening one might be a good idea.
- ▶ Many other observations can be made before starting a restaurant business from the analysis performed.