

THE BATTLE OF NEIGHBORHOODS – PART 2

-BY HUNTER SPARROW

INTRODUCTION & BUSINESS PROBLEM

- A NEW BUSINESS OWNER WANTS TO OPEN A RESTAURANT IN CALIFORNIA. THE OWNER HAS CHOSEN BETWEEN THREE CITY DISTRICTS (SAN DIEGO, EMERYVILLE AND OAKLAND). TO SOLVE THE PROBLEM, WE MUST DETERMINE WHICH TYPE OF RESTAURANT (ASIAN, AMERICA, LATINO, CASUAL OR EUROPEAN) HAS THE MOST LIKES IN EACH SURROUNDING AREA. THIS WAY THE OWNER CAN MAKE A DATA-DRIVEN DECISION TO OPEN A RESTAURANT MAXIMIZING ITS CHANCES FOR SUCCESS.

DATA ACQUISITION AND CLEANING

LOAD IN DATA USING FOURSQUARE API FOR THE FOLLOWING LOCATIONS:

- OAKLAND
- EMERYVILLE
- SAN DIEGO

CREATE URL TO EXTRACT DATA FOR:

- LATITUDE
- LONGITUDE
- RADIUS

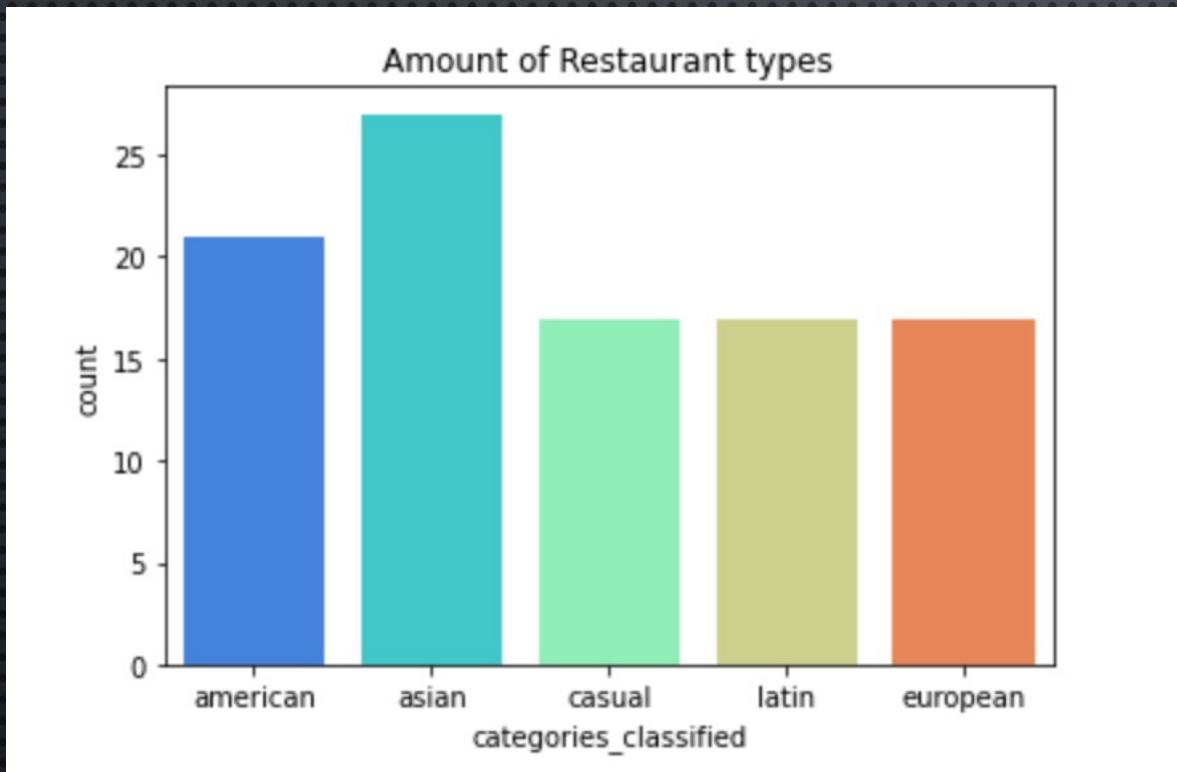
SCRAPE THE DATA FROM THE GENERATED URLs FOR:

- CATEGORIES
- VENUE CATEGORIES
- NAME OF VENUES

FOURSQUARE: [HTTPS://FOURSQUARE.COM](https://foursquare.com)

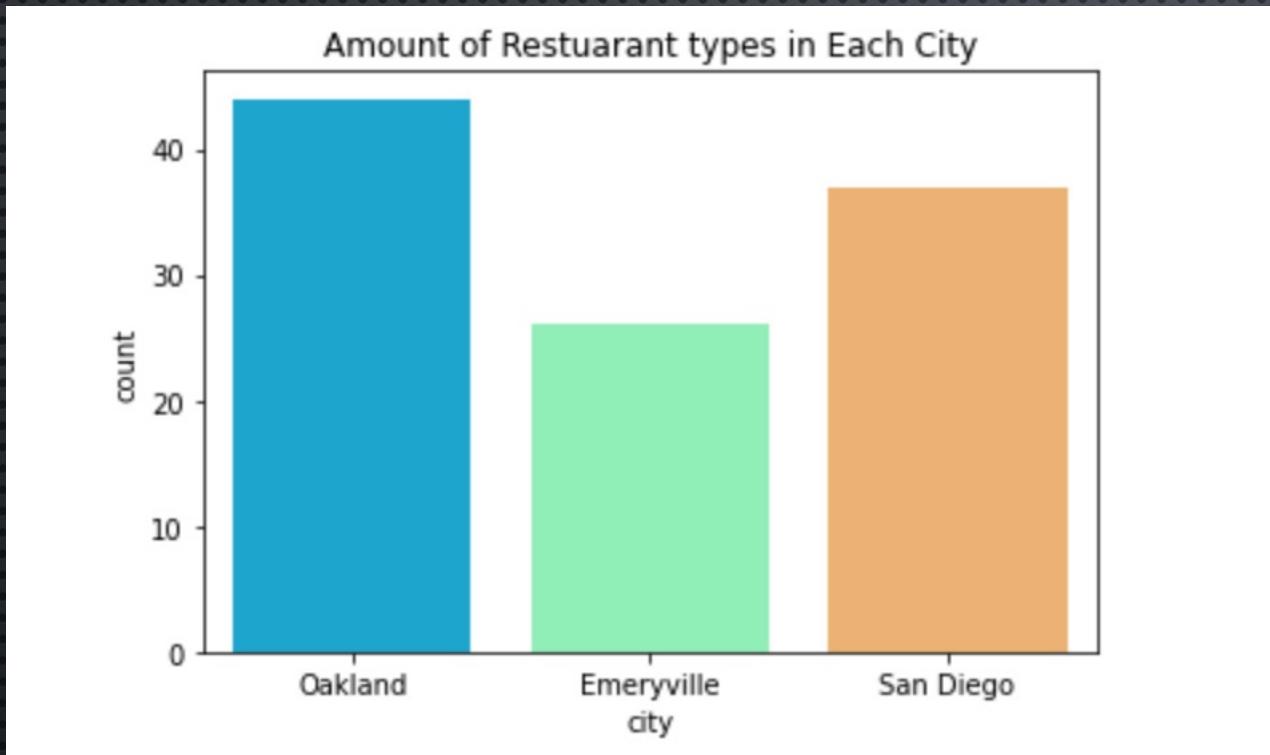
FOURSQUARE DEVELOPER: [HTTPS://FOURSQUARE.COM/DEVELOPER](https://foursquare.com/developer)

NUMBER OF RESTAURANTS TYPES IN TOTAL



Asian Type Food has the highest number of locations across the three districts

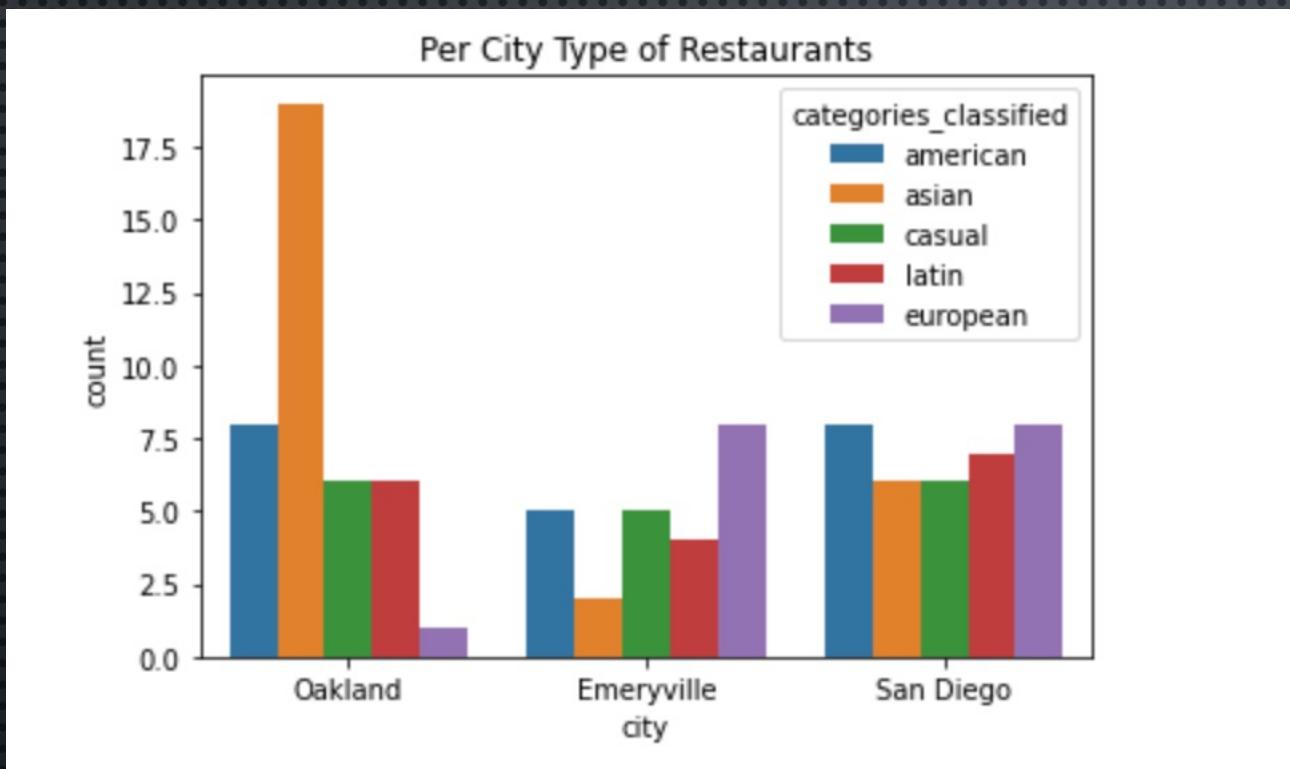
NUMBER OF RESTAURANTS PER CITY DISTRICT



Oakland with the highest number of Restaurants:

- European
- Asian
- American
- Latino
- Casual

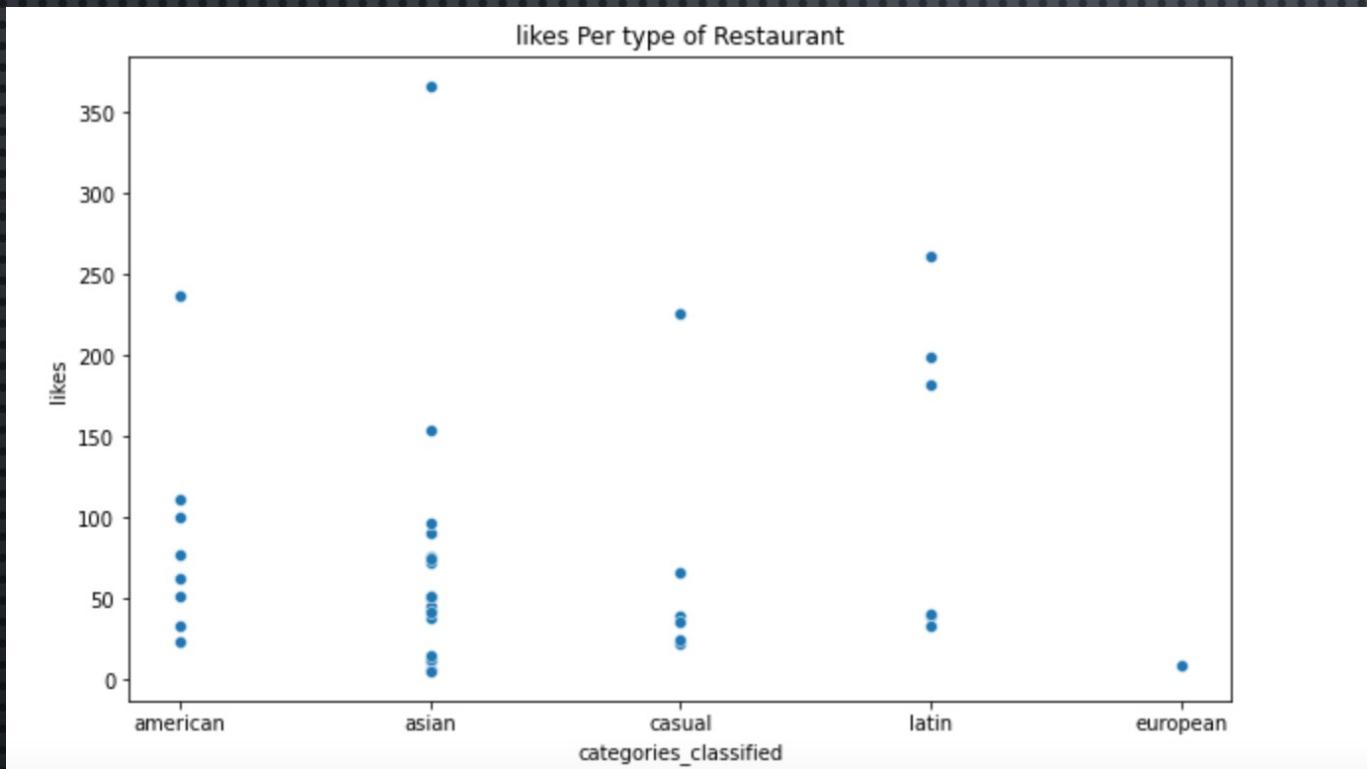
TYPE OF RESTAURANTS PER CITY DISTRICT



Type of Restaurants types per each city

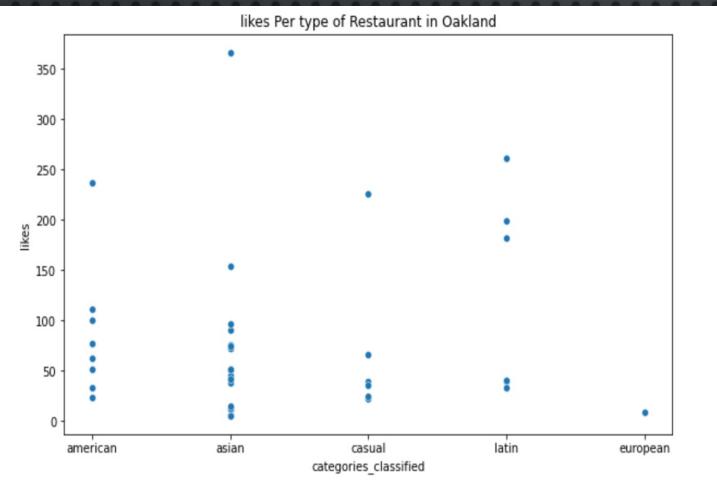
- Oakland: Asian
- Emeryville: European
- San Diego: American

NUMBER OF LIKES PER EACH TYPE OF RESTAURANT IN TOTAL



Asian cuisine type has the highest number of likes per restaurant type in all three city districts

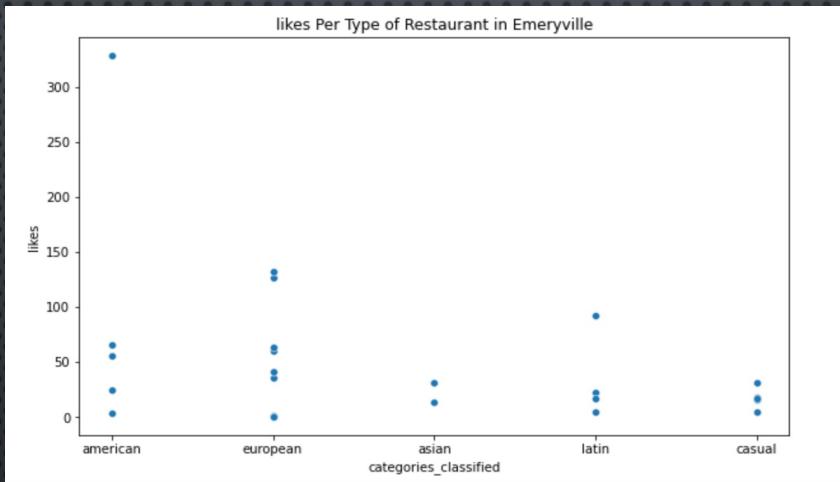
LIKES PER CITY DISTRICT BY TYPE OF RESTAURANT



Oakland

Asian
Food

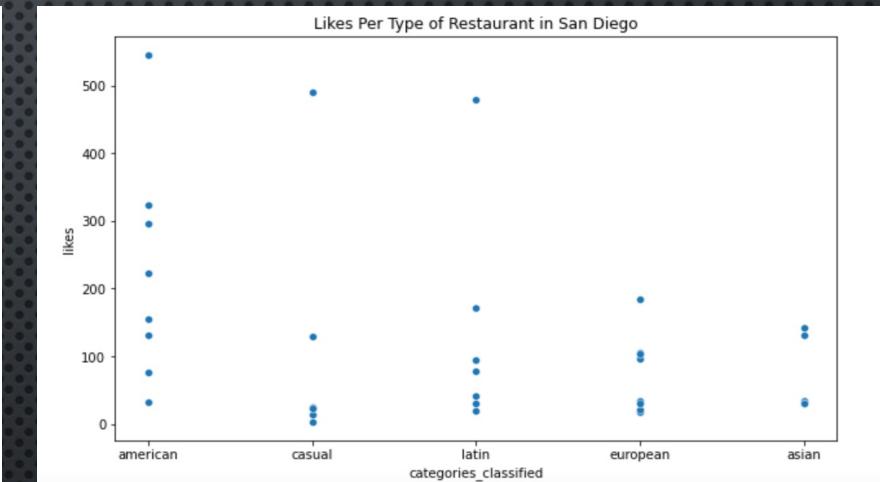
350+ likes



Emeryville

American Food

350+ likes



San Diego

American
Food

500+ likes

NUMBER OF LIKES & RESTAURANT TYPE

- WITH A HIGH AMOUNT OF ASIAN CUISINE LOCATIONS AND HIGH 'LIKES', IT DOES NOT MEAN THAT IT WILL BE THE MOST SUCCESSFUL.

MACHINE LEARNING MODEL PREDICTION

- WE ARE GOING TO RUN THE DATA THROUGH A REGRESSION LEARNING MODEL TO PREDICT RESTAURANT 'LIKES' IN THOSE CITY DISTRICTS FROM THE 300 RESTAURANTS:
 - TYPE OF RESTAURANT
 - BEST AREA TO OPEN THE RESTAURANT

3 BEST TYPE OF RESTAURANTS TO OPEN

- EUROPEAN
- LATINO
- AMERICAN

RANKING OF 3 CITIES

- OAKLAND
- SAN DIEGO
- EMERYVILLE

DATA-DRIVEN DECISION

- THE OWNER WOULD START LOOKING INTO OPENING A EUROPEAN RESTAURANT IN OAKLAND

CONCLUSION

	precision	recall	f1-score	support
1	0.00	0.00	0.00	7
2	0.00	0.00	0.00	3
3	0.47	1.00	0.64	8
accuracy			0.44	18
macro avg	0.16	0.33	0.21	18
weighted avg	0.21	0.44	0.28	18