



BATTLE OF NEIGHBORHO ODS

New Orleans – IndNola Bar and
Grill

NEW ORLEANS

- One of the most visited cities in USA for its food with its egalitarian nature, distinctive culture, and high contributions to American music.
- It's a blend of French, Spanish, Vietnamese, Canary Island, Caribbean, German, Irish, and American Dixie culture.
- Each neighborhood has its own features and specialties.
- Each restaurant has many cultures and cuisines infused with one another, which makes New Orleans exclusive.
- Opening an Indian restaurant associating it with another culture will make New Orleans more diverse than it is.

DATA ACQUISITION AND CLEANING

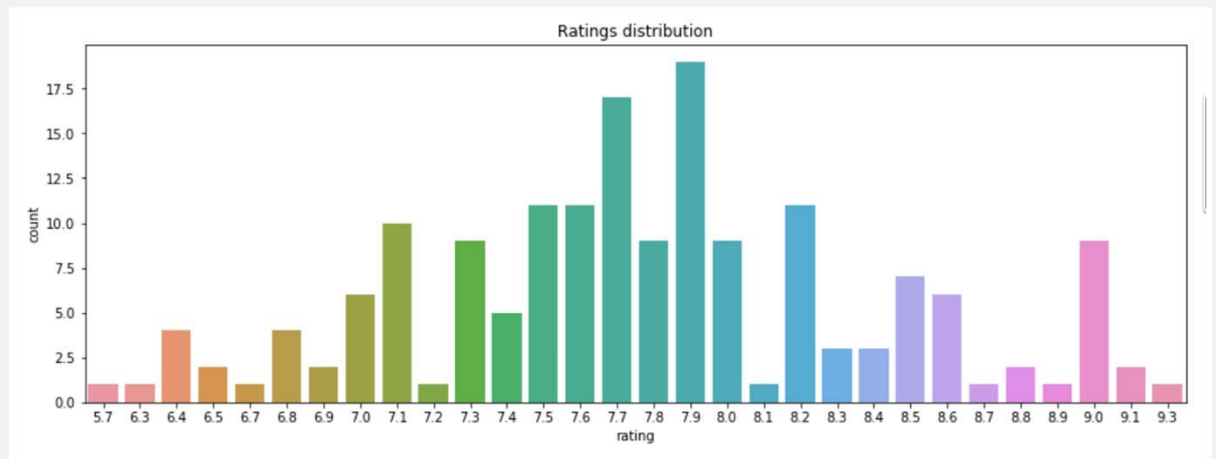
- The data of New Orleans consists of district number, neighborhood names, latitude and longitude.
- Since the dataset is not available online, each feature is collected separately and was combined to form the dataset.
- In total, there are 4 features and 74 records.
- As there were no duplicate values, the data is checked for any missing values.
- If the number of missing values is meager, the record(s) are dropped.
- After the missing value records are dropped, there are 73 records and 4 features in the dataset.

DATA ACQUISITION AND CLEANING

- Combine the restaurants' attributes (name, address, category, id, rating, likes) with the initial dataset and remove the duplicate values keeping the first occurrence.
- Once the entire dataset is cleaned, there are 9 features and 166 records.
- To perform clustering analysis, the dataset is normalized using one-hot encoding, and grouped by neighborhood by mean.

RATINGS DISTRIBUTION

- Most restaurants have rating of 7.4 and 7.9
- Restaurants with rating 7.4 and 7.9 and greater than 8.4 are separated to study their features
- Features:
 - ✓ French quarter has large number of restaurants
 - ✓ There are few Asian restaurants and no Indian restaurants



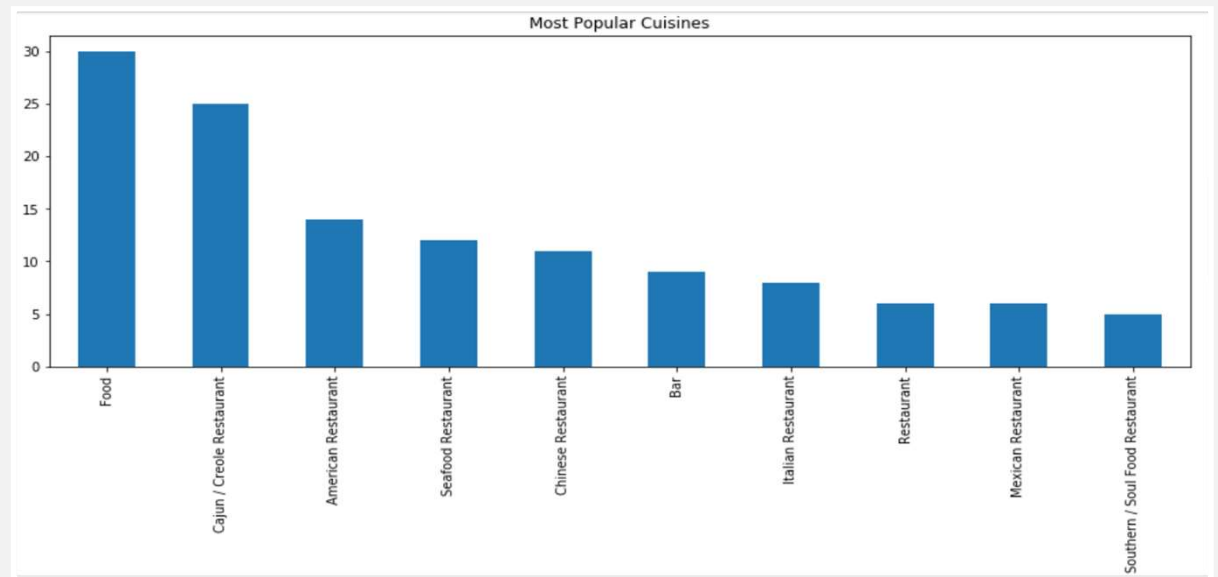
MOST LIKED RESTAURANTS

- Top 10 most liked restaurants are produced as data frame.
- Features:
 - ✓ French Quarter has the restaurant that has the highest number of likes with the value of 1407.
 - ✓ The restaurant has a “music venue” as its main category

	name	categories	number of likes	neighborhood	rating
19	House of Blues Restaurant & Bar	Music Venue	1407	French Quarter	9.3
2	Mother's Restaurant	Cajun / Creole Restaurant	1077	French Quarter	8.0
33	Cochon Restaurant	Southern / Soul Food Restaurant	638	Central Business District	9.1
3	Felix's Restaurant & Oyster Bar	Seafood Restaurant	478	French Quarter	8.4
8	Deanie's Seafood Restaurant in the French Quarter	American Restaurant	394	French Quarter	7.9
43	Atchafalaya Restaurant	Cajun / Creole Restaurant	248	East Riverside	9.0
14	Mulate's Cajun Restaurant	Cajun / Creole Restaurant	247	French Quarter	7.4
38	Katie's Restaurant & Bar	American Restaurant	227	Central City	9.0
17	Restaurant R'evolution	Cajun / Creole Restaurant	227	French Quarter	9.1
5	Antoine's Restaurant	Cajun / Creole Restaurant	219	French Quarter	8.0

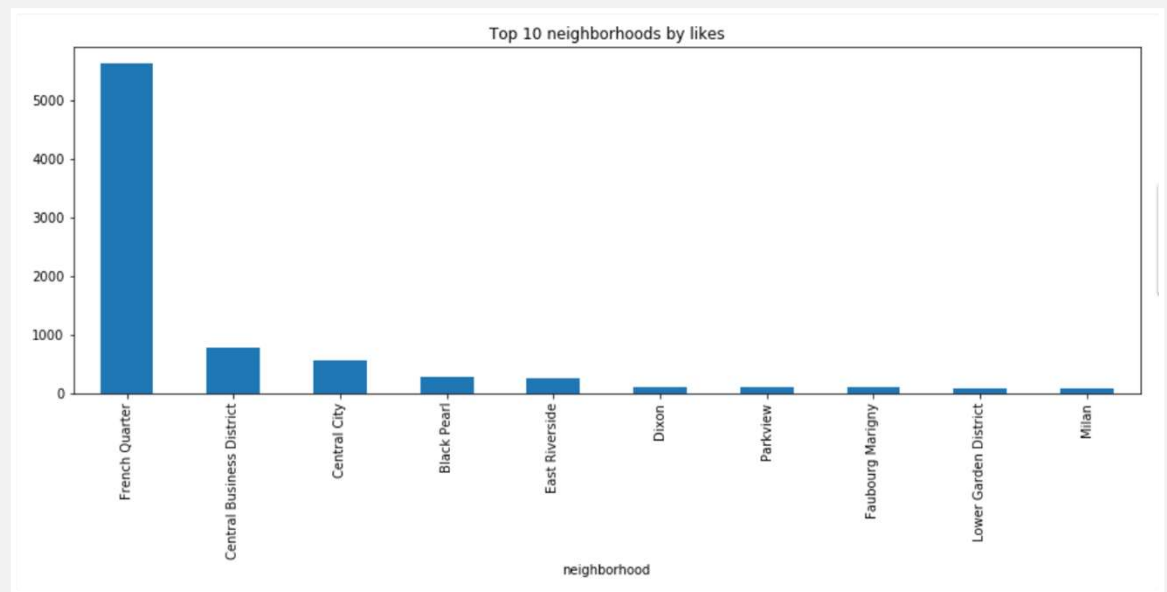
POPULAR CUISINES

- Restaurant categories are plotted in a bar chart to check how many of them are present in New Orleans.
- Features:
- ✓ Apart from food, Cajun/creole and American restaurants are most present in New Orleans



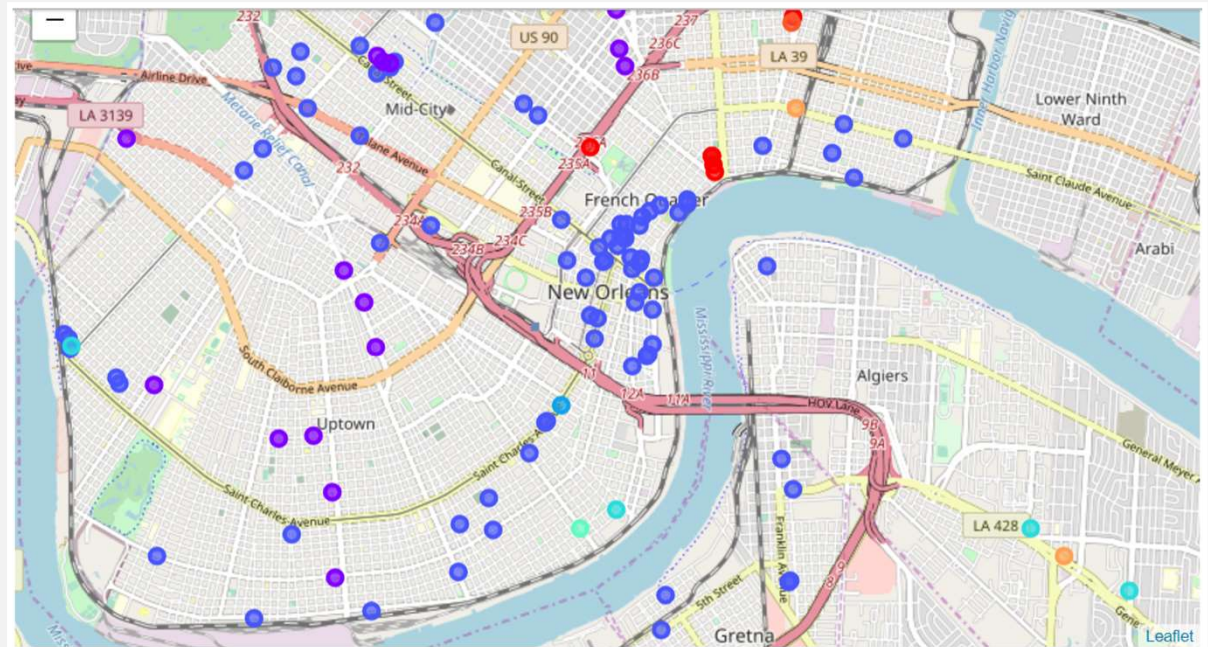
TOP 10 NEIGHBORHOODS

- Neighborhood, rating and number of likes are grouped by neighborhood, aggregated by total number of likes and average rating.
- Features:
- ✓ French Quarter has approximately 6000 likes, while other neighborhoods fall below 1000.



K-MEANS ALGORITHM

- Find the best value of 'k' that has maximum silhouette coefficient.
- Features:
 - ✓ $K = 10$; silhouette coefficient = 0.26098587213148683
 - ✓ Cluster label 2 has 102 restaurants
 - ✓ Within cluster label 2, there are 30 restaurants in French Quarter



CONCLUSION

- Restaurant Features:
 - ✓ Restaurant contains a bar, including various Indian street food with liquor assortments
 - ✓ Performs live music every night
 - ✓ Infuses Cajun cuisine with Indian cuisine
- Opening Location:
 - ✓ Neighborhood: French Quarter