Opening a Restaurant in Chicago

Issue

There are many factors that go into deciding the ideal restaurant location

- crime rate

- population

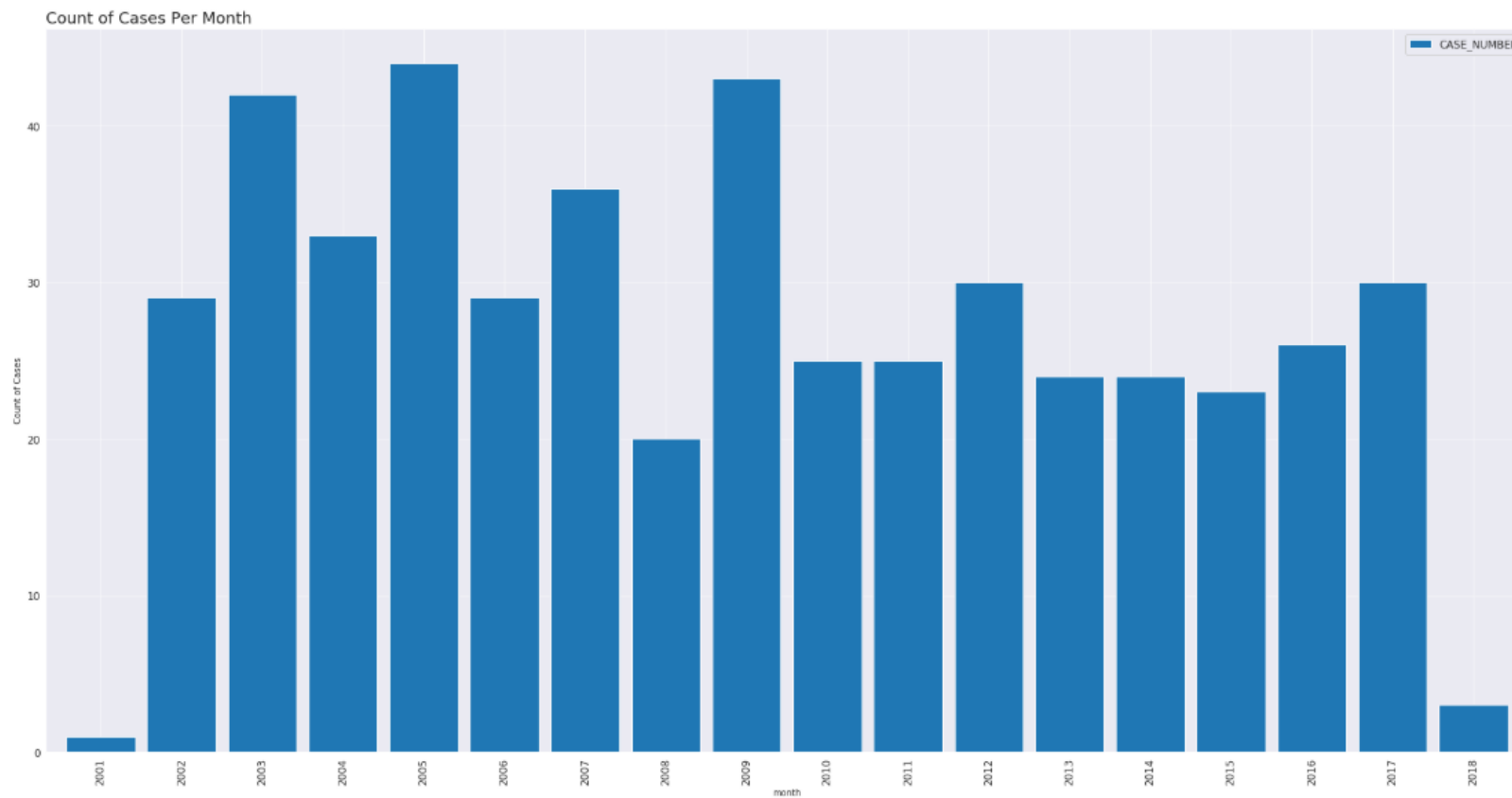- rent

- availability

In this project, I focused on the crime rates for each area.

Data Acquisition

Crime data regarding the crimes in different Chicago neighborhoods

https://ibm.box.com/shared/static/svflyugsr9zbqy5bmowgswqemfpm1x7f.csv
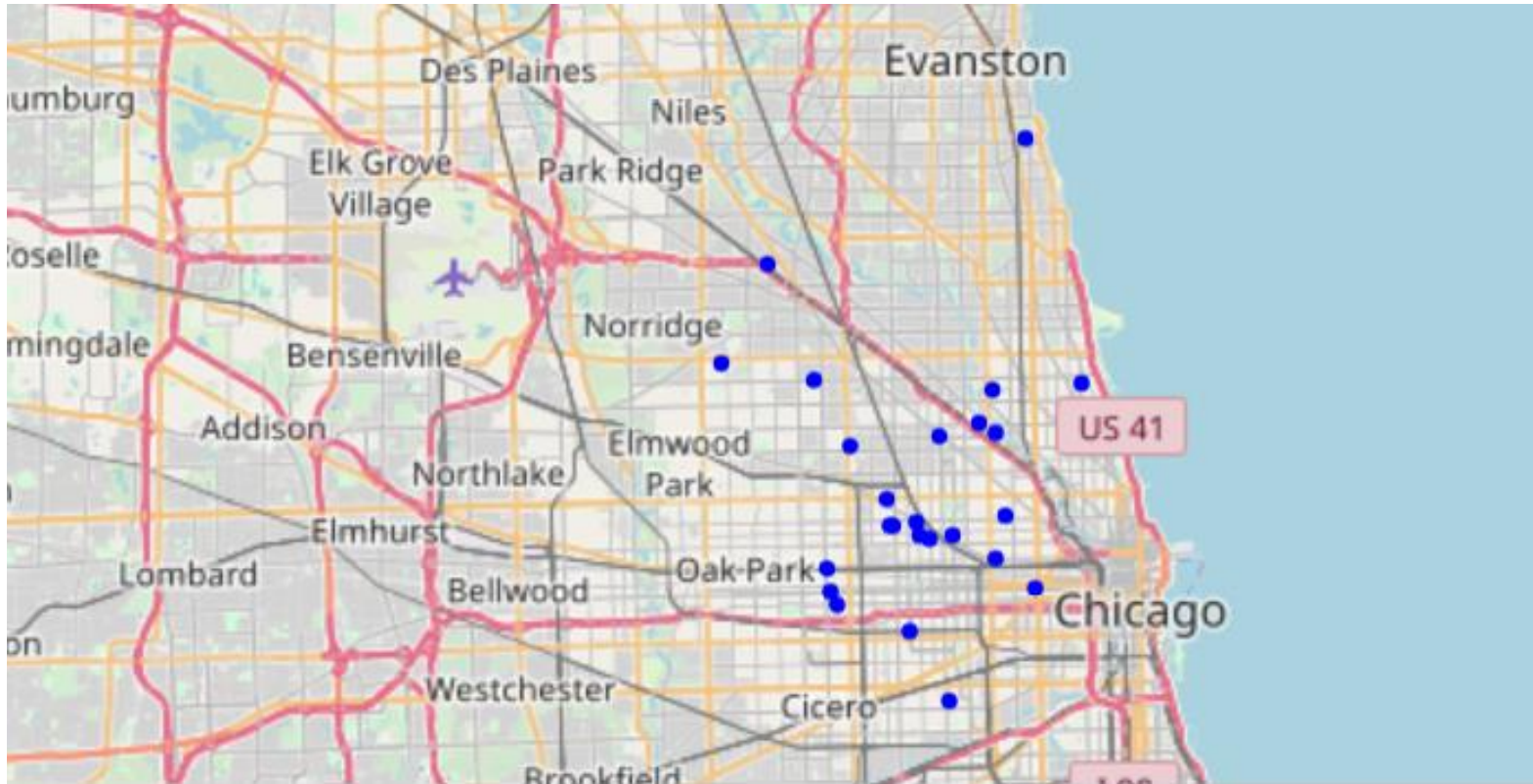
- removed columns with unnecessary data

- formatted the time column

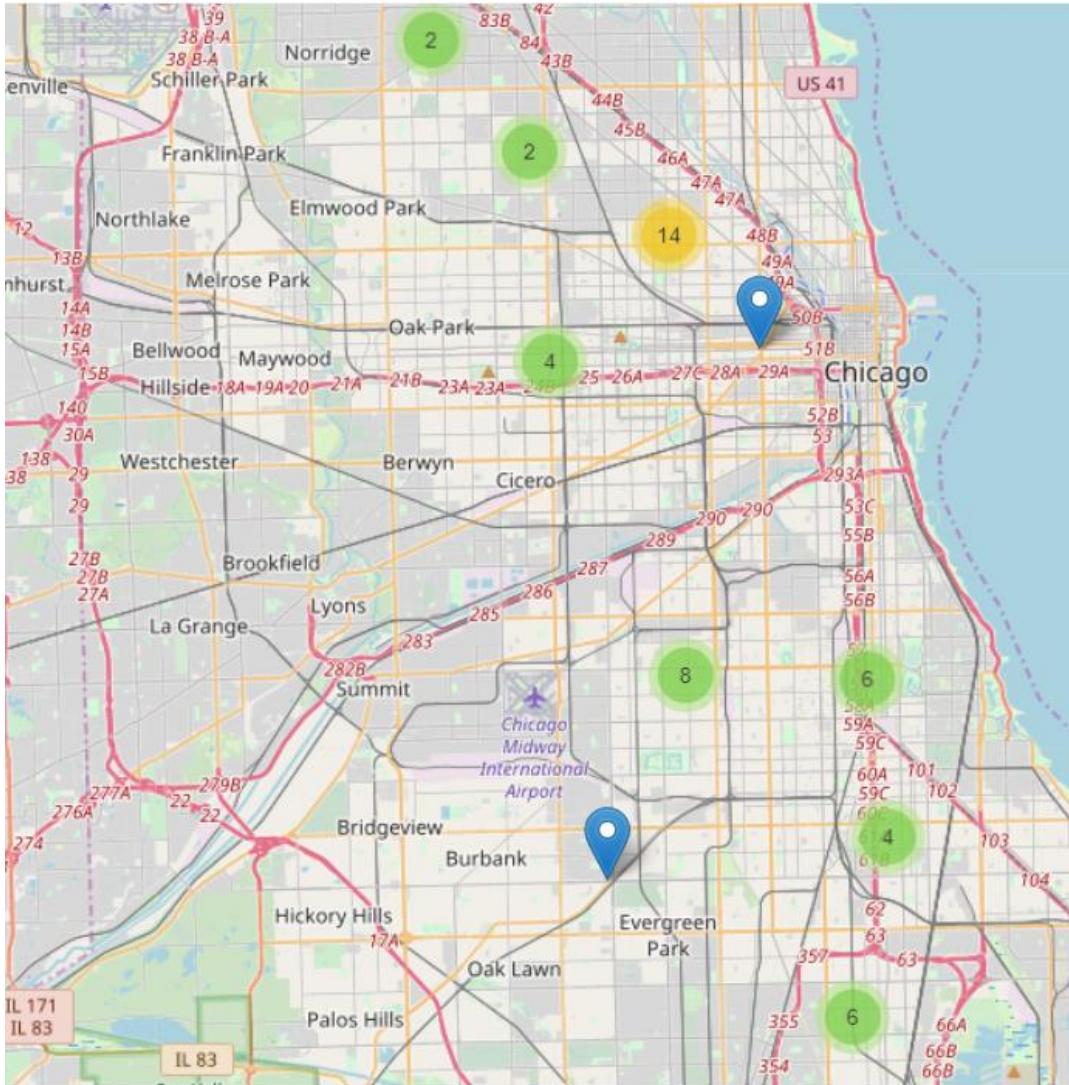- split the time column into individual columns for moth day and year

Number of Crimes per Year
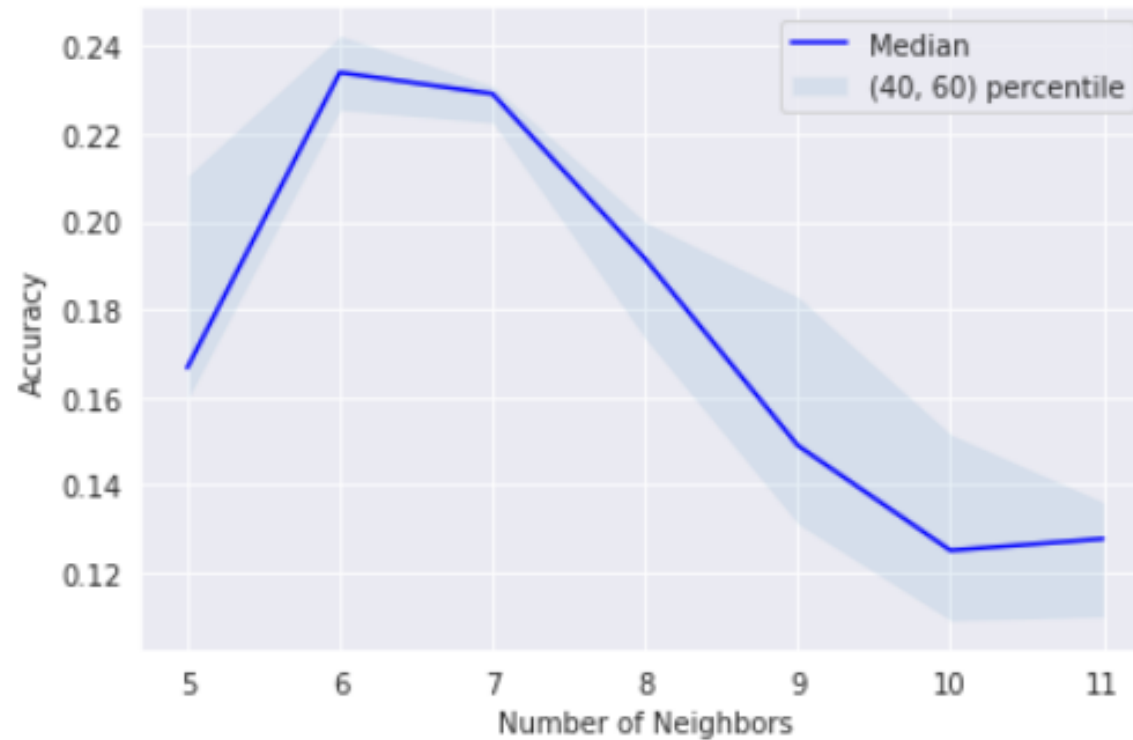
Mapping the Crimes of Chicago

Each dot corresponds to the location of a crime that occurred in an arbitrary month, in this case, **August.**

Mapping the Crimes of Chicago

Clusters show the areas with the highest crime averages. The number in the circle corresponds to the number of crimes in the cluster, in a given month

Model Analysis

6 members per cluster is the most accurate representation of the crime data points

Conclusion

score	category	name	address	postalcode	city	href	latitude	longitude
9.6	Park	Millennium Park	201 E Randolph St	60601	Chicago	/v/millennium-park/42b75880f964a52090251fe3	41.883112	-87.623851
9.5	Art Museum	The Art Institute of Chicago	111 S Michigan Ave	60603	Chicago	/v/the-art-institute-of-chicago/49e9ef74f964a5...	41.879610	-87.623552
9.5	Park	Grant Park	337 E Randolph Dr	60601	Chicago	/v/grant-park/4c47533649fa9521cb1f5e62	41.876626	-87.619263
9.5	Waterfront	Chicago Riverwalk	Chicago River	60601	Chicago	/v/chicago-riverwalk/4b9d15c5f964a520478e36e3	41.887280	-87.627217
9.5	Concert Hall	Symphony Center (Chicago Symphony Orchestra)	220 S Michigan Ave	60604	Chicago	/v/symphony-center-chicago-symphony-orchestra/...	41.879275	-87.624680

Data based on foursquare API. In the future, I would include more data features in the analysis such as population and number of restaurants in the area.