

Applied Data Science Capstone Project

**Finding the best location to start up a modern cuisine
restaurant in Athens**

Problem statement

- Gastronomy professionals look for advice to select the best location in Athens Area to open a modern cuisine restaurant
- They should avoid unnecessary competition by restaurants in proximity
- Maximize profit attracting many customers by selecting a location where such cuisine is popular.





Data

- List of neighborhoods Athens, Greece.
- Latitude and Longitude of these neighborhoods.
- Venue data related to modern cuisine restaurants

Methodology

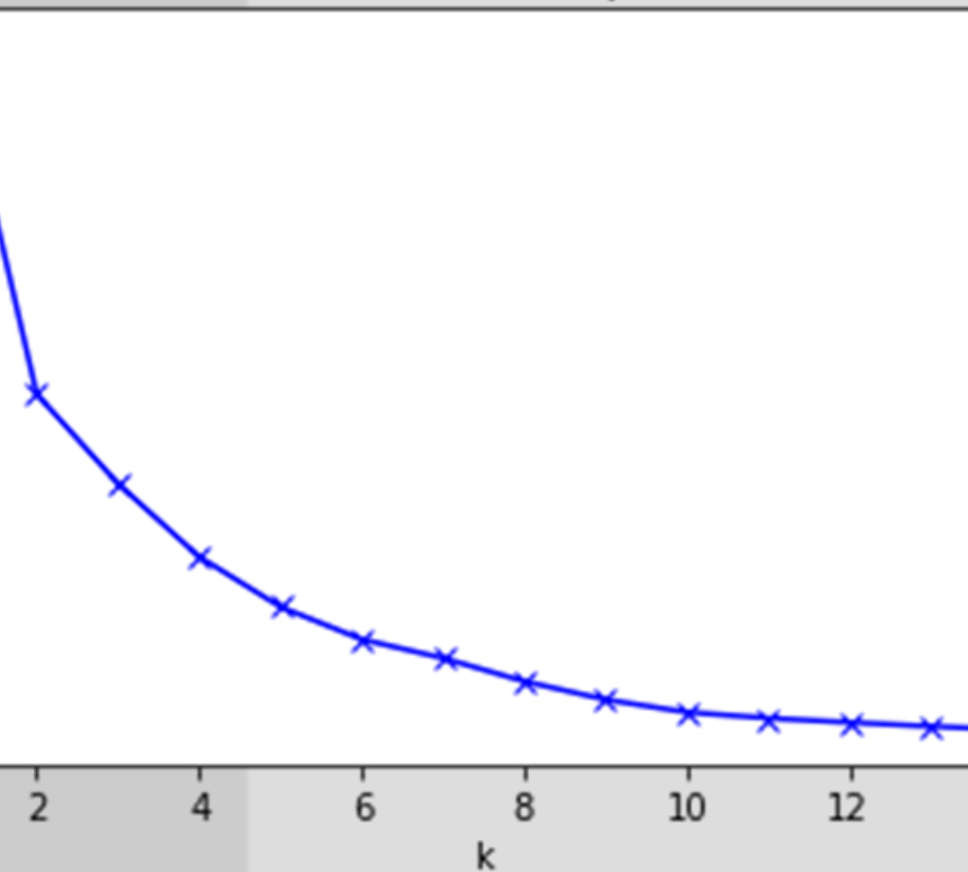
- Scrape neighborhoods data from [https://en.wikipedia.org/wiki/Category:Municipalities_of Attica](https://en.wikipedia.org/wiki/Category:Municipalities_of_Attica)
- List neighborhoods coordinates with foursquare API
- Find nearby restaurants of modern cuisine in foursquare
- Remove duplicate values
- Remove values out of Athens area
- Keep only valuable columns in formed dataframe



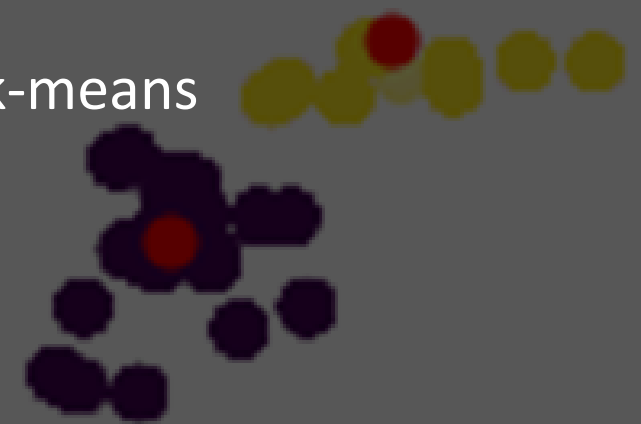
Visualize restaurants in
Folium maps



Elbow Method For Optimal k



- Solve problem with k-means
- Optimum $k=2$



Recommendations

- Yellow cluster is a strategic selection
- Combines high traffic with the less competition
- Restaurants open nearby in the same area to exploit that area strategic characteristics and popularity

