

IBM Data Science Course Capstone Project

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1. A description of the problem and a discussion of the background. **(15 marks)**

A successful owner of medium and high-end restaurants(Nusret☺) decided to open a new restaurant in Barcelona. After visiting the city many times in recent years, he could not ignore the big bang in the field of gastronomy. Nusret is keen to open a new unit that will focus on Middle Eastern meat-steak based cuisine. Given the price level at which the restaurant will operate, the aim is to find the most suitable place in an area where gastronomy is booming and is easily accessible for tourists and wealthier local citizens.

2. A description of the data and how it will be used to solve the problem. **(15 marks)**

To perform this analysis, data is needed on below:

List of the districts of Barcelona

Geo-coordinates of the districts in Barcelona

Top venues of districts

List of districts will be obtained from Wikipedia.

(https://en.wikipedia.org/wiki/Districts_of_Barcelona)

Geo-coordinates of districts will be obtained with the help of the geocoder tool in the notebook.

Top venues data will be obtained from Foursquare through an API.

After tidying up and exploring the data, we will apply the K-means machine learning technique for creating clusters of districts. We will use the silhouette score for choosing the optimal number of clusters.