IBM Capstone Project
The Battle of Neighborhoods
Pizza Restaurants

Introduction

One of the filtering methods for the tourism agents and applications is the restaurant preferences. It is important to know the best places for the tourists to stay based on their eating favorites. This project will be an example of this preferences filtering. We will focus on the pizza restaurants in 5 big USA cities: New York, Chicago, San Francisco, Jersey City and Boston. The same approach can be applied for example to Indian tourists who prefer to have vegetarian food. Also, can be applied to Muslim tourists who need to eat in Halal restaurants. We study the number of restaurants and the density of them in every area inside the city.

Questions that we are addressing in this project:

- What is the number of pizza restaurants in every city?
- Where they are mostly located in every city?
- How far the restaurants located from their mean location?
- Which city and location is best for pizza lovers?

Data

For this project we need the following data:
- Nearby places in each neighborhood of the 5 cities:
    - Data source: Fousquare API
    - Description: By using this API we will get all the venues in each neighborhood.

Approach
- Using FourSquare API we will find all venues for each neighborhood. We use the ID of the pizza restaurants.
- Filter out all venues that are nearby by locality.
- Use maps to check the density of the restaurants.
- Assign the mean location for the high density pizza restaurants and use it as reference.
- Visualize the mean and distances to determine the least distance and best location.