# Capstone Project: Coffee Shop in Milan

## Data Description

The data used to solve this problem is geolocation data collected from FourSqure.com. Foursquare has one of the largest Database of 105+ million places and used by over 125,000 developers. Foursquare API will provide many categories of the venue data, we focus the coffee shop category in order to help us to solve the business problem. Adequate explanation and discussion of the data is the following. Used data - visible in fig.1 - is a single dataframe that containing a list of coffee shop and its location. Every row represents a single coffee shop, it is identified by a standard tuple (lat, lng), where lat stands for latitude and lng for longitude. Some other metadata such as name, postal code, and etc., are also collected.

| | uid | name | shortname | address | postalcode | lat | lng |
|---|---|---|---|---|---|---|---|
| 0 | 58b5d3364e31c52f888a0bed | Starbucks Reserve Roastery | Coffee Shop | [Piazza Cordusio 3 (Via Orefici), 20123 Milano... | 20123 | 45.464920 | 9.186153 |
| 1 | 5485c0d7498e225e0587b79b | Panini Durini | Sandwiches | [Via Mengoni 4, 20121 Milano Lombardia, Italia] | 20121 | 45.465238 | 9.188590 |
| 2 | 59c2232bd48ec17dd4178369 | Lavazza Coffee Design | Coffee Shop | [Piazza San Fedele, 2, 20122 Milano Lombardia,... | 20122 | 45.466274 | 9.190975 |
| 3 | 576828cc498ec1d7fb395d70 | Caffè Napoli | Café | [Via Gaetano Giardino 1, 20123 Milano Lombardi... | 20123 | 45.462816 | 9.189023 |
| 4 | 4be181c240d676b02de504ee | Princi | Bakery | [Via Speronari, 6, 20123 Milano Lombardia, Ita... | 20123 | 45.463029 | 9.187968 |

*Fig.1 Sample of coffee shop dataset*

Data will be used as follow – by knowing the locations of the already existing coffee shops. It is possible to apply unsupervised learning technique like kernel density estimation (KDE) to determine the area of influence of the existing coffee shops.