**Peer-graded Assignment: Capstone Project - The Battle of Neighborhoods (Week 2).**

**Report (15 marks)**

**Introduction**

London is the capital city of the UK and has a population of approximately 9M. It is a global city and is the world's most visited as measured by airport arrivals. It is an economic powerhouse both for the UK (representing approximately a quarter of the UK GDP) and a cultural destination - including landmarks such as the Tower of London,. Kew Gardens, The Palace of Westmnster and the Royal Observatory at Greenwich amongst many others. More than 300 languages are spoken in the metropolitan area. To summarise the city is large, diverse and wealthy.

As such, it offers multiple business opportunities including in the leisure, hospitality and tourism sectors. The pizza category is expected to grow globally over the next 5 years and therefore I believe that there is an opportunity to open new pizza restaurants in London. Interested parties in this research would include potential investors and the management of existing pizza restaurant operators.

The business problem is that I want to expand a pizza restaurant business to 5 new areas in London, UK. I want to recommend to management the best 10 postcode areas to explore based on the following criteria:

1. The number of other pizza restaurants in the same postcode area (to be clear, I want there to be some pizza restaurants to indicate that there is some demand for the category, but not too many which would indicate that the competition is too fierce.)
2. The number of other restaurants in the area (to be clear, I want there to be some restaurants to indicate demand, but not too many, indicating fierce competition.)

**Data**

Based on the modeling I will identify the target 10 areas for investigation and the next steps will be to identify specific locations, rental and fitout costs and demand estimates to select the final 5 proposed locations.

1. Postcode information with geo-co-ordinates can be sourced from [HERE](https://www.doogal.co.uk/AdministrativeAreas.php?district=E09000001) and can be downloaded in a CSV format.
2. The number of other restaurants and the number of pizza restaurants will be sourced from the Foursquare API.

**Methodology**

1. The postcode data will be wrangled into a dataframe - including only live postal codes and their geo-co-ordinates from a .csv file.
2. For each live postcode, data will be called from the Foursquare API with the number of pizza restaurants and other restaurants
3. Based on the output the postcodes will be ranked and the top 10 selected for further investigation.

[**¶**](#___The-postcode-data-will-be-wrangled-i)

**Results**

1. **The top postcodes are as follows: E17JF, E17HY, EC2M4QB, EC2M4PT, EC2M7PY, E17HP, E17JH, E17JJ, E17LS, EC2M3TP**

**Discussion**

1. **Based on this, initial analysis, I would recommend that the next steps should be a review of the areas in person to understand the likely footfall, and engaging with realtors to understand better the rental market.**

**Conclusion**

**2. There is certainly scope for pizza restaurants in the areas indicated.**