# IBM CAPSTONE PROJECT – THE BATTLE OF NEIGHBORHOODS: FINAL – M GOGOI

CLUSTER ANALYSIS OF LONDON REAL ESTATE MARKET

## **BUSINESS PROBLEM**

- □ London Housing Market is slowing down:
- 1. Brexit
- 2. Hidden price falls
- 3. Record-low sales
- 4. Homebuilder exodus
- 5. Tax hikes addressing overseas buyers of homes in England and Wales.

## **BUSINESS PROBLEM**

How could we provide support to homebuyers clientele in to purchase a suitable real estate in London in this uncertain economic and financial scenario?

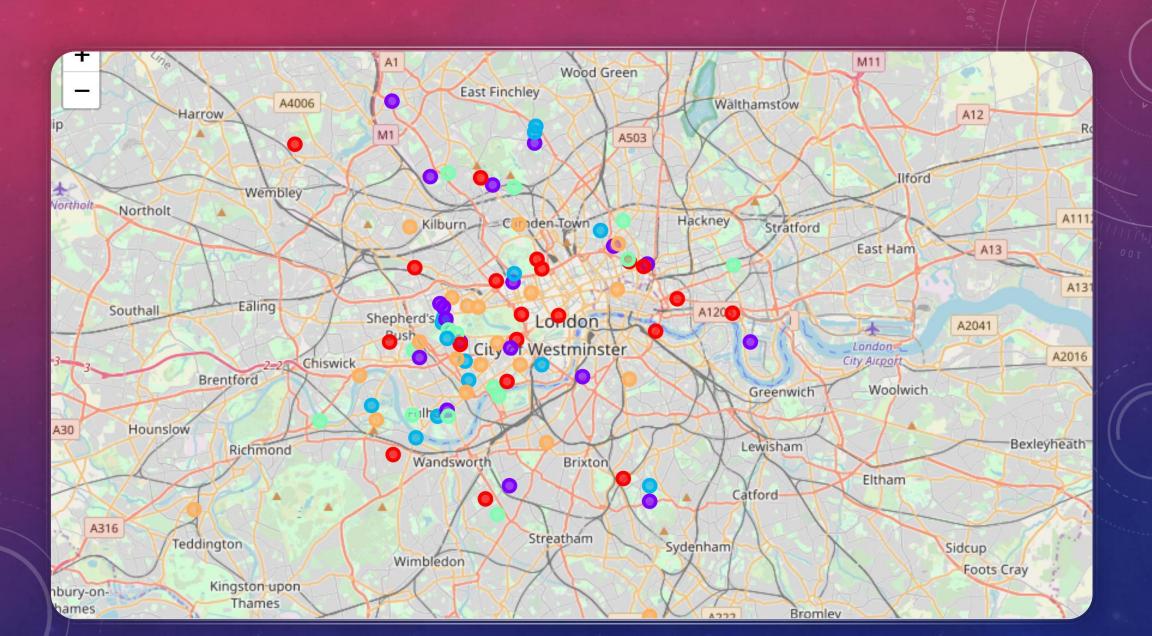
## SOLUTION

Clustering London neighborhoods in order to recommend venues and the current average price of real estate where homebuyers can make a real estate investment.

### DATA AND METHODOLOGY

- □ Data: merging data on London properties and the relative price paid data from the HM Land Registry and data on amenities and essential facilities surrounding such properties from FourSquare API interface.
- Methodology:
- 1. Collect Inspection Data
- 2. Explore and Understand Data
- 3. Data preparation and preprocessing
- 4. Modeling

## K-MEANS CLUSTERING



#### CONCLUSION

- ☐ Examination of real estates according to neighborhoods/London areas
- 1. West London (Notting Hill, Kensington, Chelsea, Marylebone) and North-West London (Hampsted) might be considered highly profitable venues to purchase a real estate;
- 2. South-West London (Wandsworth, Balham) and North-West London (Isliington) are arising as next future elite venues with a wide range of amenities and facilities.
- Examination of real estates by clusters
- 1. Clusters 0, 2 and 4 may target home buyers prone to live in 'green' areas with parks, waterfronts;
- 2. Clusters 1 and 3 may target individuals who love pubs, theatres and soccer.