

IBM CAPSTONE PROJECT

- The Battle of Neighborhoods:

Cluster Analysis of London Real Estate Market

Business Problem section

- ▶ London Housing Market is in a rut:
 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

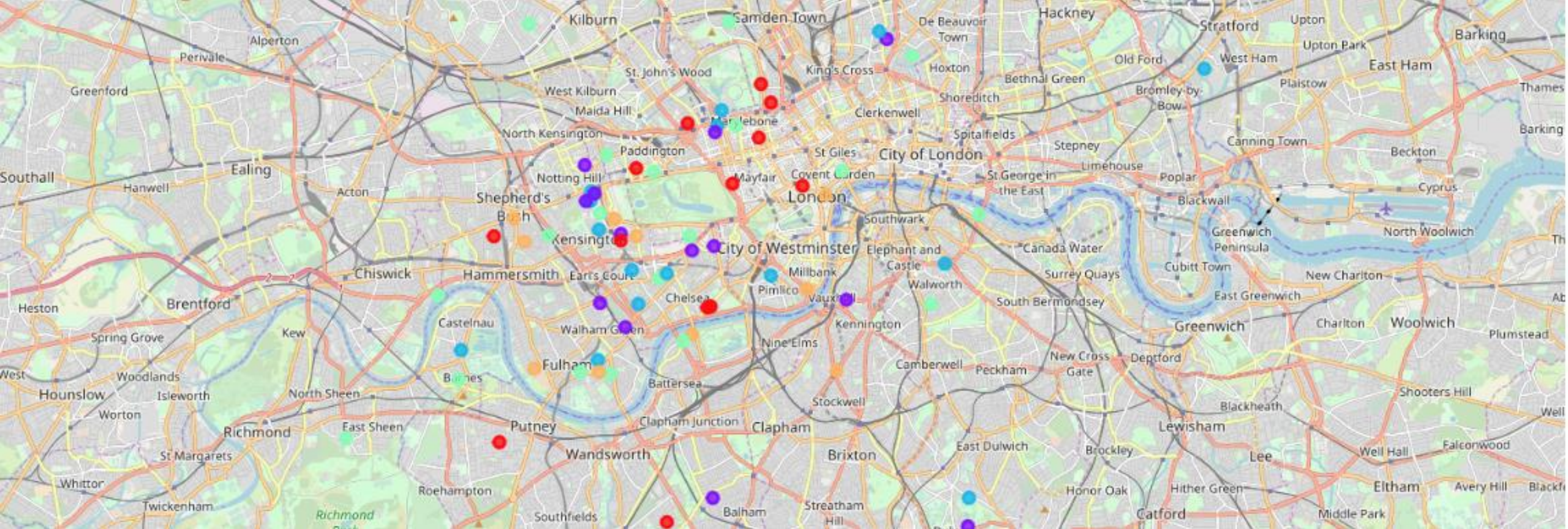
- ▶ How could we provide support to homebuyers clientele in to purchase a suitable real estate in London in this uncertain economic and financial scenario?

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

Outcome:

- ▶ 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
 2. highly profitable venues to purchase a real estate;
 3. South-West London (Wandsworth, Balham) and North-West London (Islington) 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.