

The background features a series of concentric circles in light gray, some solid and some dashed, creating a ripple effect. A large red speech bubble is centered on the page, containing the title text. The bubble has a small tail pointing downwards.

# **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?

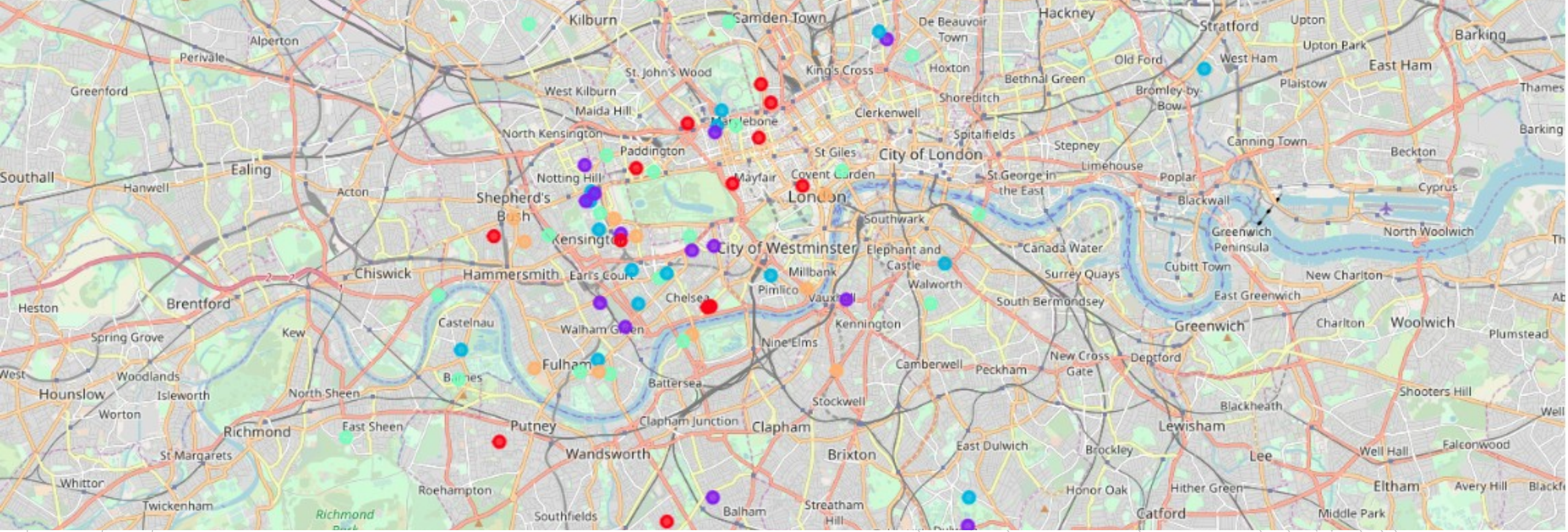
# **Solution**

- 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 highly profitable venues to purchase a real estate;
  2. 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.