

The background features abstract, overlapping green geometric shapes, primarily triangles and polygons, in various shades of green, creating a modern and dynamic visual effect.

IBM CAPSTONE PROJECT - The Battle of Neighborhoods: Analysis of London Real Estate Market

Business Problem Section

Real Estate in London is suffering from compounding problems. Some reasons for this crisis are listed below-

- ▶ Brexit
- ▶ Unfinished housing projects
- ▶ Record-low sales for properties
- ▶ Fewer New Projects due to recent regulations tightening norms for construction in green belts of the city.

Business Problem

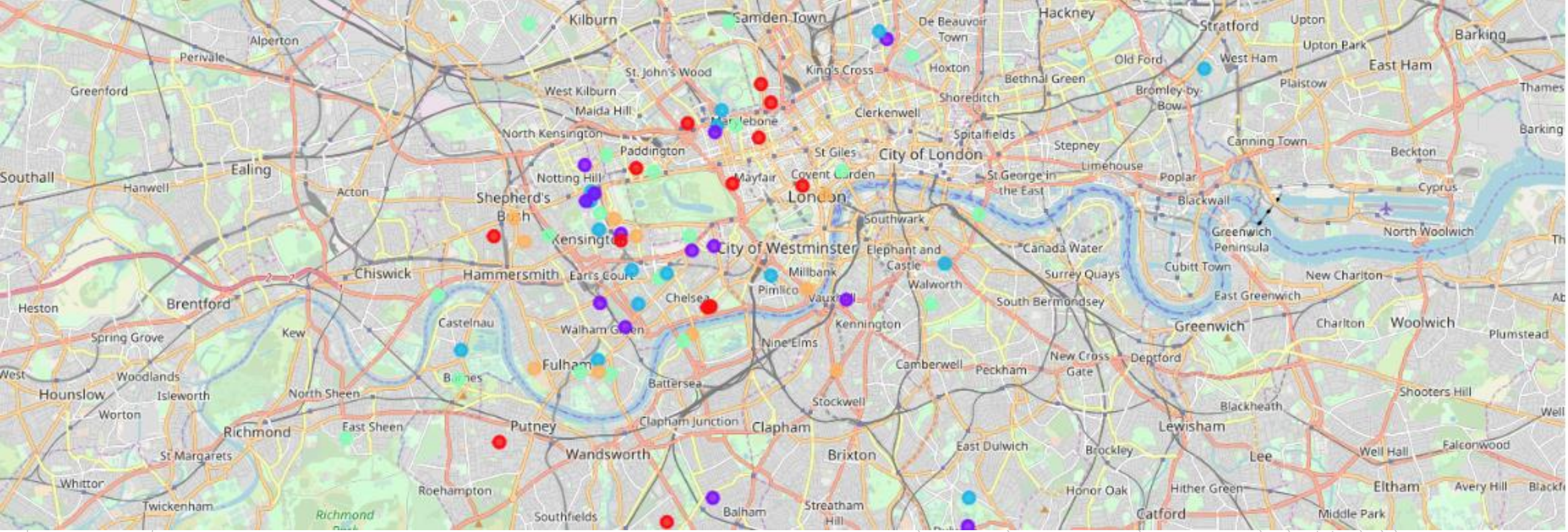
- ▶ London is the second most populous city in EU and 300K new migrants move to London every year with an intention to stay short term or long term. How can we provide support to these new homebuyer customers with information on property and prices to help them purchase suitable real estate in this rapidly changing London Real Estate Market.

Solution

- ▶ Collecting information on amenities such as metro station, parks, pubs etc around various London Housing areas and current average prices of these Housing Areas in London and then Clustering neighborhoods in order to recommend homebuyers properties suited to their needs.

Data and Methodology

- ▶ **Data:** Information on London Housing areas about amenities from FourSquare API interface and the average price paid data from the HM Land Registry
- ▶ **Methodology:**
 1. Collect Inspection Data (*Source: HM Land Registry website, List of London postal Codes, FourSquare API Interface*)
 2. Explore and Understand Data(*Assign meaningful names to rows and columns*)
 3. Data preparation and preprocessing (*Framing of data on a map using Lat and Long*)
 4. Modeling(Analyse neighbourhoods and cluster them as suitable venues according to amenities)



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.