

# **CAPSTONE PROJECT - APPLIED DATA SCIENCE SPECIALIZATION**

## **THE BATTLE OF THE NEIGHBORHOODS (WEEK-1)**

### **INTRODUCTION:**

Boston is one of the most popular cities in the United States of America, for its cultural history and significance. It covers 127 square km, and is the 21st most populous city in the US, with about 692,600 inhabitants, as of 2019. Being the capital and largest city in the Commonwealth of Massachusetts, Boston is a diverse and heritage-rich city, consisting of various locales with storied histories.

Being as well-known as it is, Boston attracts visitors, tourists and immigrants. With a lot of different destinations to visit and sight-see, it would be useful to analyse the different places of interest and landmarks, as well as the major neighbourhoods, with regard to the amenities, such as parks, hotels, restaurants and cafes, available within their vicinity.

In this analysis we wish to achieve the following objectives:

1. List and visualize major landmarks in Boston.
2. List and visualize and neighborhoods in Boston.
3. To determine the most common and widely available venues within the vicinity of a certain location.
4. To cluster different Landmarks on the basis of the venues available.
5. To cluster different Neighbourhoods on the basis of the venues available.

### **DATA:**

To accomplish the described objectives, we need the following information:

- 1) Data of different Landmarks in Boston
  - a) Source: <https://data.boston.gov/dataset/boston-landmarks-commission-blc-landmarks>

- b) Description: The dataset describes different Landmarks in the city of Boston, according to the Boston Government. This data will be used to explore Landmarks in Boston.
- 2) Data of different Neighborhoods in Boston
  - a) Source: <https://data.boston.gov/dataset/boston-neighborhoods>
  - b) Description: The dataset describes different Neighborhoods in the city of Boston, according to the Boston Government. This data will be used to explore the neighborhoods in Boston.
- 3) Venue data to different venues near the locations
  - a) Source: Foursquare Developer Access to Various Venues (<https://foursquare.com/>).
  - b) Description: With a Foursquare Developer Account, we can access the data of venues around a location, within a certain radius.