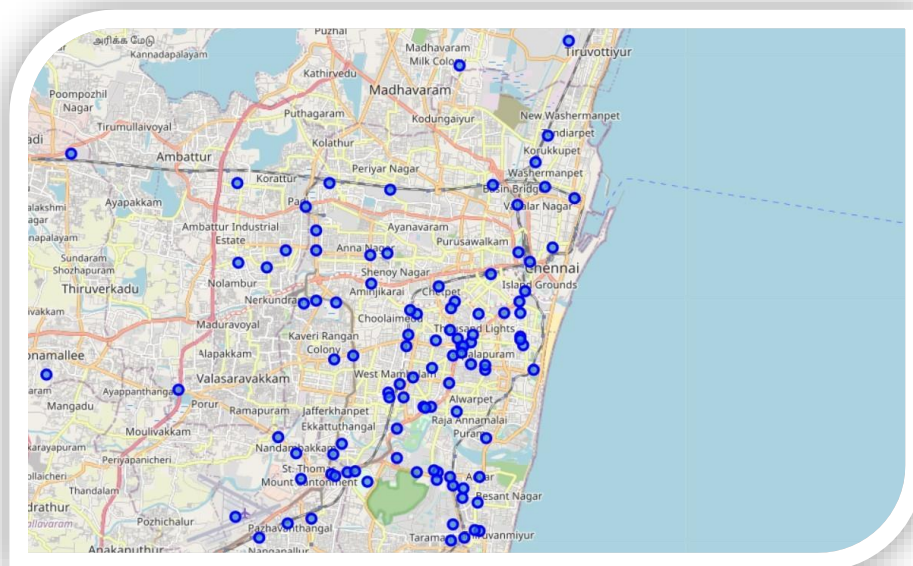


# The Battle of Neighborhoods – CAPSTONE Project

For major venue categories in the neighborhoods of Chennai, The Detroit of India.

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## INTRODUCTION- BUSINESS PROBLEM:

This project deals with the major venue categories in the neighborhoods of **Chennai, The Detroit of India**. This project would specifically help Business personal plan to start new Restaurants, Hotels, etc. in Chennai, Tamil Nadu, India.

The **Foursquare API** is used to access the venues in the neighborhoods. Since, it returns less venues in the neighborhoods, we would be analyzing areas for which countable number of venues are obtained. Then they are clustered based on their venues using Data Science Techniques. Here the **k-means clustering algorithm** is used to achieve the task. The optimal number of clusters can be obtained using **silhouette score** metrics.

**Folium visualization library** can be used to visualize the clusters superimposed on the map of Chennai city. These clusters can be analyzed to help small scale business owners select a suitable location for their need such as Hotels, Shopping Malls, Restaurants or even specifically Indian restaurants or Coffee shops.

The major **Target Audience** would be small-scale business owners and stake holders planning to start their business at a location in Chennai. This project would help them find the optimal location based on the category of their business such as,

- What is the best location to start a new hotel in Chennai with restaurants around?
- Which area is best suitable for opening a Shopping Mall in Chennai?