**Battle of Neighborhoods**

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**1.Background**

Battle of Neighborhoods, this project is aimed at solving a problem involving Foursquare location data and demonstrating data science skills.

I choose to explore the city where I live; Karachi located on the coastline of Sindh province in southern Pakistan. Karachi is the largest city in the state and very well connected by road, rail, and air transport. It has mixed cultures from all over Pakistan. Well known for engineering and manufacturing, education institutions, health care facilities and services, textile businesses as well as it is a tourism hub.

Karachi has 207 neighborhoods

Initial thought was to cluster neighborhoods, which could help small business start-ups in terms of assessing opportunities and existing competition. However, when I explored neighborhoods using Foursquare I figured out a problem of missing data, which might be current limitations/challenges to location-based companies like Foursquare.

**2. Business Problem**

My Initial exploration of Karachi’s places using Foursquare’s explore endpoint revealed that 190 venues from 207 neighborhoods out of 79 total neighborhoods in the city, while search end point resulted in 9934 venues covering all 79 neighborhoods.

Out of all attributes of a venue, category is plays crucial role in fetching results. In rest of project I would catch a solution to assign categories to uncategorized venues.

This could affect variety of people and their needs,

* As stranger/traveler one could be presented with no recommendations near him or show something far, while some venue is really close by which is un reviewed but of same category.
* As Foursquare’s customer / business planer, venue details with missing categories, reviews, recommendation ratings would make it difficult to analyses and make decisions related to choose of neighborhoods/venues
* Foursquare / Similar location data providers
* Enrich their databases for better competitive advantage and improved customer experience
* App developers/owners, who offer services based on location-data (example Food Delivery, Cab Services etc…)
* When an un-reviewed venue is found closer than a recommended venue, enable users with optional features like “Be First to Review” and reward for doing so Such an approach could be taken if venues are categorized otherwise it would even be exceedingly difficult.