

# **Capstone Project – The Battle of Neighborhoods (Part-1)**

## **EXPLORING VENUES IN JAMSHEDPUR -THE STEEL CITY OF INDIA**

### **Introduction:**

**Jamshedpur** is one of the first industrial planned cities of India and most populous urban agglomeration in the Indian state of Jharkhand. It was founded by Jamsetji Tata (Founder of Tata Groups) and was also named after him. Jamshedpur is also known as Tatanagar.

Jamshedpur is ranked as 2<sup>nd</sup> in India in terms of ‘Quality of Life’. The city is located in nature's den in Chota Nagpur plateau, surrounded by the picturesque Dalma Hills and bordered by the rivers Subarnarekha and Kharkai.

Tata Steel, the largest iron and steel producing plant in India and also the oldest is situated almost at the centre of the city.

### **Problem Statement:**

The objective of this capstone project is to explore the different venues in Jamshedpur. Here we will be using different Machine Learning algorithms like k-means-clustering, etc.

Questions that would be answered:

- List of Cities in Jharkhand
- Plotting the cities on the map of Jharkhand
- Plotting the map of Jamshedpur with the venues superimposed on it
- Analyzing the venues on basis of category, ratings and price
- Clustering the venues

## Data:

To solve the problem we need the following data:

- List of cities of Jharkhand from the Wikipedia link:  
[https://en.wikipedia.org/wiki/List\\_of\\_cities\\_in\\_Jharkhand\\_by\\_population](https://en.wikipedia.org/wiki/List_of_cities_in_Jharkhand_by_population)
- Latitudes and Longitudes coordinates of the cities. This is required to plot the map and also to get the venue data
- We will fetch the venue data from two different APIs:
  - **Foursquare API:** We will use the Foursquare API to fetch venues in Jamshedpur city around a radius of 10kms.
  - **Zomato API:** The Zomato API provides information about various venues including the complete address, user ratings, price for two people, price range and a lot more.