**Housing and Restaurant analysis of Bengaluru**

**Background**

Bengaluru is the metropolitan city and capital of the Indian state of Karnataka. The city consists of huge number of IT companies, government bodies, colleges and most importantly restaurants. In an effect, so many people are migrating to bengaluru for different reasons and planning to buy houses according to their wants and needs. Out of so many factors which lead to the decision whether to buy house or not, in this project I am going to take two factors into consideration. First one is cost of the house area in a particular area. Second one is restaurant type around the particular house area.

**Business Problem**

Even though people can search for houses by travelling around the city with respective to the venues around the house, they are losing so much of time and energy as they search in a metropolitan city like bengaluru. To circumvent the problem of losing time and energy, I am going to create a folium map representing house areas as different colored dots which are grouped into different clusters based on type of restaurant surrounded the area and price/sqft of that house area. For each dot, a popup label is created which shows neighborhood’s name, top 3 common types of venues and price/sqft of that area. This is going to create a bird’s eye view for the investors to explore the properties of bengaluru more efficiently and swiftly.

**Data Description**

Two data sets which are available in kaggle website were used to achieve the solution. First one is Zomato’s data about different restaurants in bengaluru. Second one is housing data having price/sqft information for each neighborhood. Zomato data consists of 50,000 restaurants, 88 neighborhoods and 17 columns (for each restaurant) such as restaurant name, restaurant theme and neighborhood of the restaurant etc. Housing data consists of two columns which are neighborhood name and price/sqft information of 81 neighborhoods. Firstly, 50,000 restaurants were grouped by neighborhood. Secondly, all neighborhoods are clustered based on the restaurant type then for each neighborhood, top 10 common restaurant types are organized in a dataframe for future use (for folium map). Afterwards, house prices of each neighborhood are attached to the respective neighborhoods by creating the final dataframe. Then our final folium map will be created by using our final dataframe.