

Description of the Problem:

The city of Hyderabad(<https://en.wikipedia.org/wiki/Hyderabad>) is a global IT hub in India and is developing quite fast. Due to the young and high income work force(typically IT, SW and Engg companies spread across the city) there is a need for lot of shopping areas where the demand is quite high and the spending capacity is quite good.

How do companies or potential investors identify the areas in which they can build new malls attracting the customers. This has always been a big question. Due to the fast urbanization and people migrating to this city, there is a need for this kind of analysis and this capstone project.

Target Users:

This report will analyze the neighborhoods and recommends the areas where there is a need for the malls. Potentials investors, real estate companies, infrastructure developers are the possible target users of this report.

Data Section:

We use the list of suburbs from the city of Hyderabad from Wikipedia(https://commons.wikimedia.org/wiki/Category:Suburbs_of_Hyderabad,_India)

It has 54 suburbs.

The Lat-Long will be retrieved by the 'geocoder' library for these 54 neighborhoods.

We also use the Foursquare API to get the venues in these neighborhoods. Foursquare has a rich source of data and some of the categories are top categories are listed here.

'South Indian Restaurant', 'Juice Bar', 'Indian Restaurant', 'Hotel', 'Bakery', 'Ice Cream Shop', 'Shoe Store', 'Food Truck', 'Neighborhood', 'Chaat Place', 'Diner', 'Lounge', 'Burger Joint', 'Dessert Shop', 'Café', 'Snack Place', 'Science Museum', 'Chinese Restaurant', 'Stadium', 'Restaurant', 'Coffee Shop', 'Smoke Shop', 'Fast Food Restaurant', 'Breakfast Spot', 'Department Store']

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In [21]: # print out the list of categories
         venues_df['VenueCategory'].unique()[:25]

Out[21]: array(['South Indian Restaurant', 'Juice Bar', 'Indian Restaurant',
                'Hotel', 'Bakery', 'Ice Cream Shop', 'Shoe Store', 'Food Truck',
                'Neighborhood', 'Chaat Place', 'Diner', 'Lounge', 'Burger Joint',
                'Dessert Shop', 'Café', 'Snack Place', 'Science Museum',
                'Chinese Restaurant', 'Stadium', 'Restaurant', 'Coffee Shop',
                'Smoke Shop', 'Fast Food Restaurant', 'Breakfast Spot',
                'Department Store'], dtype=object)
```