

## **Coursera Data Science Capstone Project**

# **Clustering and Neighbourhood Analysis – Hyderabad**

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## **1. Introduction**

### **1.1 Background**

Hyderabad is the capital city of the newly formed state of Telangana (India) after its separation from Andhra Pradesh. Enclosing over 650 square kilometres along the banks of the Musi River, Hyderabad is home for about 9.7 million people, 6th most populous urban area in the southern region of the Indian sub-continent. Over the last two decades, there has been significant increase in the economic activity with the rise in numerous service industries especially IT sector. Other types of employment include state and central government organizations. This growth has boosted economic activities in other sectors like trade and commerce, transport, storage, communication, real estate and retail. One such sector which is very dynamic by its nature and also a booming sector is real estate. Every year large numbers of people invest considerable amount of money in real estate for residential as well as an investment with the hope of making a good ROI. Investing in real estate, especially in a residential property, needs a great deal of analysis of the different areas of the city by taking into consideration a variety of factors like locality, transportation, water facilities, environment, parks, hospitals, schools and other recreational venues.

### **1.2 Problem**

Considering all the different factors that contribute to the identification of areas with best facilities and good ROI a data driven analysis of the areas within the city would greatly enhance in making insightful decisions in real estate investment. Primarily this particular project aims at analysing various factors for investment in the city and their prices. Secondly we cluster neighbourhoods in the city based on similarities in different aspects and identify the best places of investment in a residential property.

### **1.3 Interest**

The following analysis would be valuable for individual buyers and investing agents in residential property in the city. This would also help builders in understanding potential market areas for a profitable investment in residential category. Other group of people/institutions who would benefit from the analysis are transport agents, traders, local vendors and retail etc.