**Neighborhood clustering and recommendation system: Mumbai**

# **A. Introduction**

## **A.1. Description & Discussion of the Background**

[Mumbai](http://worldpopulationreview.com/world-cities/mumbai-population/) is the capital city of the state of [Maharashtra](http://worldpopulationreview.com/world-cities/maharashtra-population/) in [India](http://worldpopulationreview.com/countries/india-population/)[2]. Mumbai is also financial capital of India, and it's the most populous city in India. As the 4th most populous city in the world and one of the populous urban regions in the world, Mumbai has a metro population of about 20.41 million in 2020. The most recent census was conducted in India during 2011, which put Mumbai's Urban Agglomeration at 20,748,395, while the city itself was recorded at 12,478,447. The next national census is scheduled for 2021[1].

## **Population Size and City Size**

Mumbai's urban population is estimated to be over 22 million, and the densely populated city is the largest in India in terms of population, trade activity and business. The metropolitan area has experienced an explosion in growth over the past 20 years, a common occurrence with metropolitan areas in India. The rapid population growth is attributed to migration from other regions in the country, with migrants seeking business and employment opportunities.

The population of Mumbai has more than doubled since 1991, when the census showed that there were 9.9 million people living in the area. The rapid population growth is attributed to migration from other regions in the country, with migrants seeking business and employment opportunities. On an average 25000 people come to Mumbai daily for work[2]. The migrating population is often oblivious of the rent and facilities across neighbourhoods in Mumbai. We can use data to build a system to:

1. Analyze property prices and show the property prices in forms of a heat map to understand the distribution of property prices across the city
2. Cluster similar Neighbourhoods and analyse the types of Neighbourhoods in the city

Build a Recommender system to recommend Neighbourhoods to a new-comer in the city based on his/her requirements such as the type of residence, budget, and lifestyle preference

References:

1. [Press Information Bureau, Government of India](http://pibmumbai.gov.in/scripts/detail.asp?releaseId=E2011IS3)
2. [Mumbai Population 2020](https://worldpopulationreview.com/world-cities/mumbai-population/)
3. [India Census 2011](http://www.census2011.co.in/census/city/365-mumbai.html) - Mumbai City Census 2011 data
4. [Municipal Corporation of Greater Mumbai](http://www.mcgm.gov.in/irj/portal/anonymous) - Mumbai portal with information and data