Apartment Price Predictor using Location Data

Introduction

The Problem:

In the sale of an apartment, there can be many people involved. The main individuals in this transaction are the buyer, the broker or the real estate agent and the builder. Let us consider the problems faced by people with respect to apartment sale transactions:

- In order to bring an apartment to life a builder must decide on many factors, one of which the right location. The right location depends largely on target audience, for instance when the target is a family man, the apartment should be close to a school and many recreational activities that the family can enjoy and the apartment can be luxurious as well. On the other hand, when selling to an individual who has just been placed in a job, the requirements would be proximity to transport facilities and eateries nearby. So, how can a builder decide on the perfect location for his project?
- Another issue faced by builders is how to set the right price for a project for profit-loss analysis before undertaking a project?
- A broker may be acting as seller for a builder or might already own a property which has to be sold. In case of the latter, the right price of the property has to be determined before the brokerage fee can be applied. So, how can a broker decide the right price for an apartment
- Apart from sale of an apartment, during loan applications, banks check for property owned by an individual. How can a bank predict the price of a given apartment to justify a loan application?

The Solution:

To answer the above questions, we can use machine learning to create a predictor which would provide us the price of a particular apartment. Developing an apartment takes time, sometimes in years, we need parameters that are constant throughout the span of development and will remain same after development as well. Usually nearby venues remain unchanged for years, such as stores, schools, transport facilities and the like. These can be leveraged to build a model to predict the price of an apartment based on its location. In the coming section, we shall look into the data that will be utilized for the model and its sources.