**Melbourne Housing Market**

Group 22

Group Member: Peng Chen, Junliang Yu, Gunjan Patil

**Our goal:**

In this project, we are going to investigate a housing bubble. By using Melbourne housing market as an example, we are going to predict the trend of housing prices based on some of the different features such as type of housing, number of rooms, land size, distance from council area, suburb region the housing is located in, etc. Based on the visualization of the trend of housing prices with respect to different features, we can advise wisely to buy a house of particular interest in Melbourne or not. The problem we are trying to investigate is of utter importance because it is very necessary to understand the real estate trends of a place, especially which suffering from a real estate housing bubble, to avoid risk and make sensible decision on investment.

**Dataset:**

Dataset: <https://www.kaggle.com/anthonypino/melbourne-housing-market>

The entire dataset includes two csv files, which provide information of houses sold and their respective properties such as address, number of rooms, type of housing, price, and distance to council area.

**Our steps:**

Specifically, we are going to examine the timeline of the housing bubble, how the most prevailing variables contribute to sales, and the trend of sales. First, we will determine the most important factors by correlation analysis. Furthermore, we will make analysis on how the housing bubble in Melbourne evolve with regard to different elements. Then we will explore if it is wise to buy housing of particular interest in Melbourne, try to propose a optimal solution and give suggestions to investors based on our predictions.

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| Step | Estimated completion time | Person(s) in charge |
| 1. Extracting and cleaning up data | One week | Gunjan, Peng |
| 2. Data visualization (to obtain data statistics) to analyze how the most important factors influence sales and price and their change rule by suburb, region, month and season. | Two weeks | Gunjan, Junliang, Peng |
| 3. Analyze the visualization to make informed decision of whether to buy a house of particular interest in Melbourne of not. | One week | Junliang, Peng |