SUSS AVC2023

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Context:

The Housing and Development Board (HDB) resale market has been a pivotal part of the nation's housing landscape. From 2017 to 2020, this market has experienced drastic shifts influenced by various factors. Understanding the complexities of the market will provide essential information for homeowners, investors, policymakers, and real estate professionals.

Issue:

Despite the availability of HDB resale market data, there exists a need to uncover the underlying trends, anomalies, and market dynamics that may not be interpreted through conventional analyses, so that **stakeholders can understand how various factors of an HDB flat influence its price in order to calculate a reasonable resale price for the flat.**

Problem Statement:

How can someone buying a resale HDB flat in the central area of Singapore determine its actual worth?

Key Questions to Address:

1. Does the location of an HDB flat affect the resale price?
2. Does having amenities like a mall or MRT nearby have a significant impact on the resale price?
3. How does the floor level and floor area influence the resale price?
4. What factors of an HDB flat lead to higher resale prices?

Dashboard
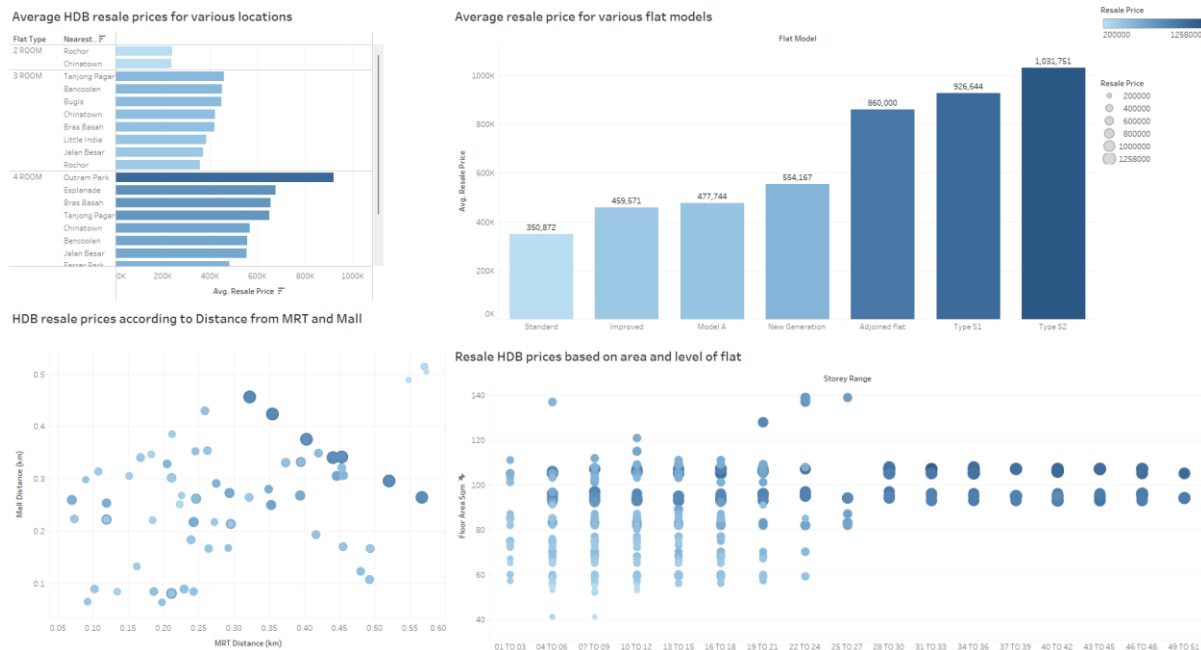
Explanation:

We used external datasets to obtain the names of malls and MRTs in Singapore, along with the coordinates of the HDBs. We used Python to calculate the distance between each HDB and its nearest Mall and MRT using their coordinates.

Insights:

1. As the number of rooms increases, the flat's resale price increases.
2. HDB flats near Outram Park MRT are around 140-170% more expensive as compared to other locations.
3. HDB flats near Outram Park MRT should mostly be of model S1 and S2, which might explain their exorbitant prices.
4. All flats in the central area have a mall and MRT station within 0.6km. Being nearer to any of these amenities does not affect the price.
5. Flats located at higher floor levels can consistently fetch higher prices. However, a bigger flat does not necessarily fetch a higher price. The preferred floor area for a flat is around 90 – 110 sqm.

Conclusion:

The flat type, floor level, and floor area are important factors that determine the resale price of an HDB flat. To estimate the price of a flat, it should be matched with the flat type and nearest MRT (graph 1). The price can be adjusted by evaluating if the flat size falls within the golden range of 90 – 110 sqm, and how high the level of their flat is located (graph 4). Finally, the calculated flat price can be compared with the average price of its corresponding model to determine if the resale price is reasonable (graph 2).