**Background introduction**

Housing is an important part of modern life. When people are considering buying a house, the price of the house will impact people’s choice. **We want to know what factors contribute to the sale price of houses**, and therefore help people to make a better choice when they buy a house.

To get a better understanding of housing price, we did some research on what factors that specialist think will influence the real estate prices. From *The 8 Biggest Factors that Affect Real Estate P*rices (<https://resources.point.com/8-biggest-factors-affect-real-estate-prices/>) we know that : **property locations** (proximity and quality of local schools, companies, and shopping centers etc. ), **updates and upgrades** (such as how upgraded the home electronics and indoor decorations are), **Inspection report**, **neighborhood comparable properties** (the recent nearby transaction of properties can influence the price of your properties), and the **appraisal price** are the major factors that can influence the housing price. In addition to the factors listed above, the website called *Homeguru* (<https://www.homeguru.com.au/house-prices>) also offers some factors could influence the housing price: **supply and demands of housing**, **potential room numbers**, **parking**, and **local demographics**.

From the reference above, we have a basic idea of what kind of factors can potentially affect the housing prices. However, the factors mentioned may not contribute significant in real life housing transaction. Therefore, we will explore our own data, and figure out the major factors that influence the housing price in our dataset.

Interpretable