King County Property Analysis



Scott Graham 5th June, 2022

Summary

The goal of this analysis is to review data from King County of property sale prices in 2014 and 2015 and provide insight to prospective buyers and sellers what property features will provide the best sale price.

Outline

- Business Problem and Hypothesis
- Data Understanding
- Data Cleaning
- Regression Analysis
- Conclusion

Business Problem And Hypothesis

Provide insight to buyers and sellers

Property features are most effective to achieve greater sale price

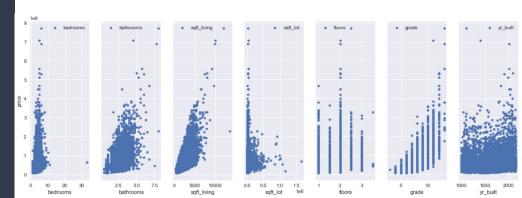
Trying to prove that there are indicators that certain features of a property will provide a higher chance of increased sales price

Data Understanding

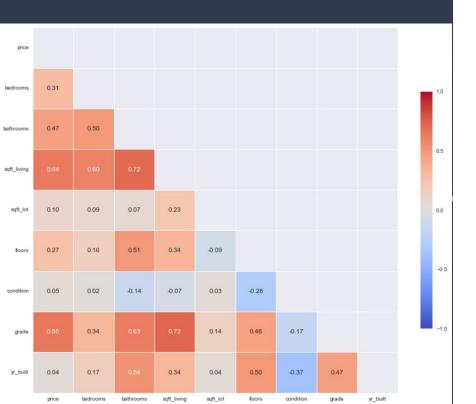
Dataset including 21,500+ rows and 21 columns including:

- Number of bedrooms and bathrooms
- Living area space
- Total lot size
- Year built and renovated
- Property condition and grade

Base model assessment using scatter plots to visualise data dispersion compared to sale price



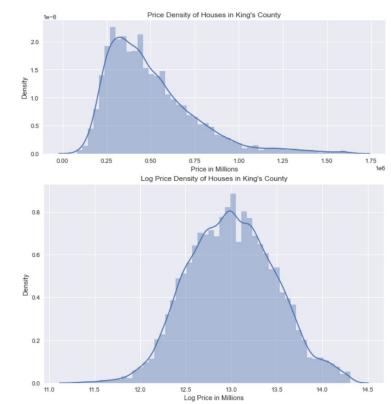
Data Cleaning



Removal of outliers using Z-Score

Normalise price data for easier use

Compare data against each other using a correlation matrix



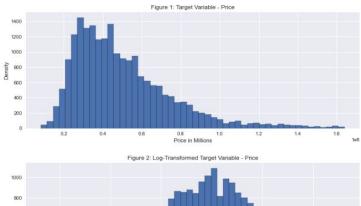
Regression Analysis

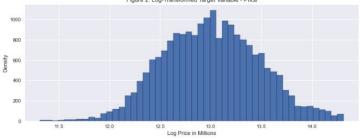
Train-Test-Split done with 70/30 split

Training and test residuals calculated

Train and Test Mean Square Error converged

- Train Mean Squarred Error: 0.4786065657498161
- Test Mean Squarred Error: 0.4852373857492091





Conclusions

Bigger is better!

Factors such as area of living space, bedrooms, bathrooms, etc play a role in the sale price of property

Bigger is better!

Thank You!

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