



Kings County House Sales Analysis



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Overview

A real estate agency in King County, Washington State is looking to explore sales and details on houses in the region to identify various features and factors that significantly contribute to the price of houses. As a Data Scientist, I'll analyze and model the data provided to draw insights and predictions on house prices.

The following queries will shed some light on house sales and features of an ideal house and a serve as build up for a predictive model:

- Notable features that contribute to house prices.

- Is there an observable trend of house sales across the year

— Data

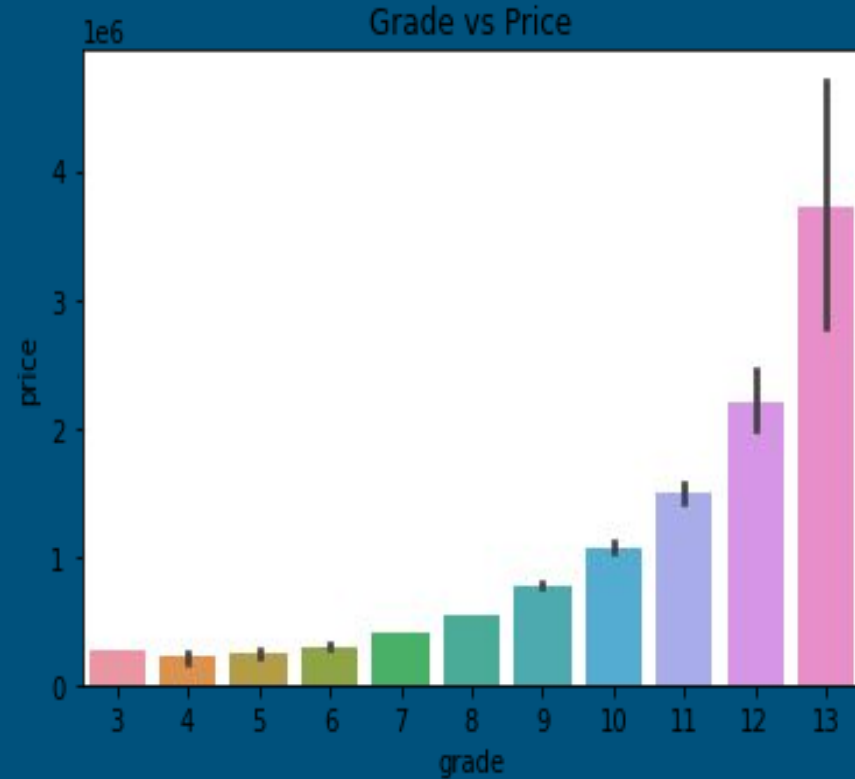
King County House Sales dataset is sourced from [kaggle](#). This dataset contains house sale prices for King County, which includes Seattle. It includes homes sold between May 2014 and May 2015.



Analysis

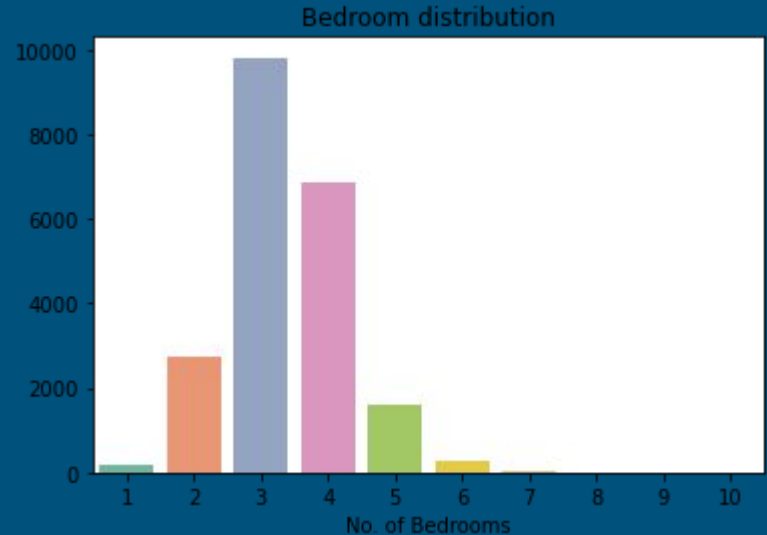
Grade

- The grade of the house refers to the general quality of the house with 3 being poor quality and 13 being more than luxurious.
- Renovations are likely to improve the grade and general condition of the house hence contributing to the overall price.



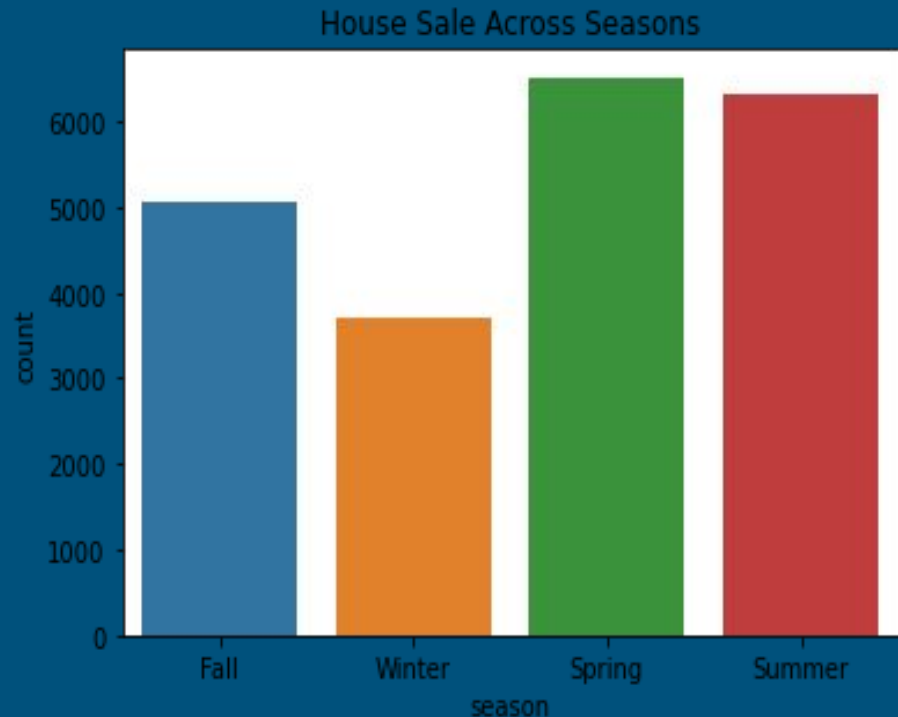
Bedroom distribution

- Most houses in the area have 3 to 4 bedrooms.
- This is atypical household for a middle class family.
- A marketing campaign for this specific group will increase sales in this category.



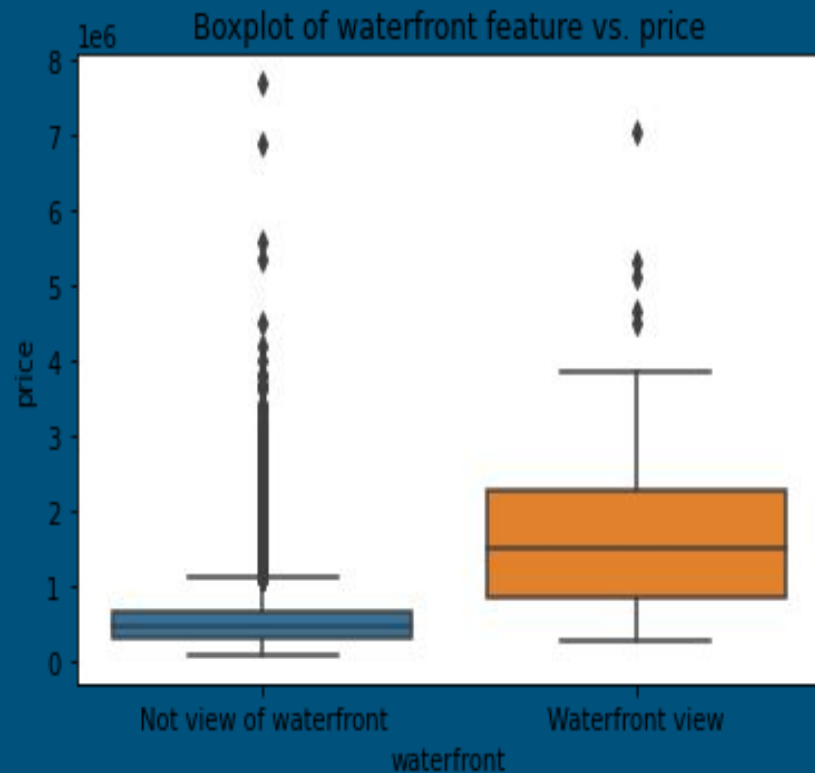
Seasonal Sales

- The season has little to no impact on the overall price of the house.
- Many houses are sold/bought in Spring and Summer.
- Gearing our market campaigns during Fall and Winter could get the ball rolling and complete purchase/sale in Spring and Winter



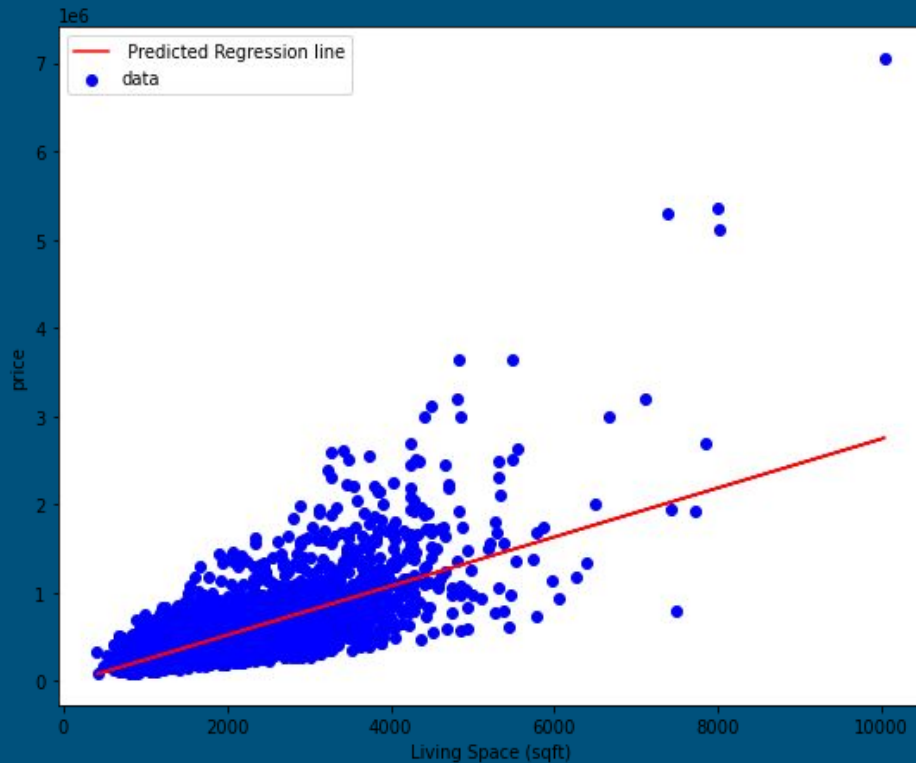
Waterfront feature

- Houses with access to the waterfront come at a premium price.
- The median price of houses with this feature go for about \$ 1,717,214.73 whereas houses without a waterfront go have a median price of \$ 532,281.77 .



Modelling

- The baseline model explained only 43 % of the variation
- Our second model performed much better explaining a variance of 55 %
- The final model improved upon adding more features thus explaining about 66% of the variance.



Conclusions & Further Considerations.

- The Real Estate company should purchase more of 3 and 4 bedroom houses to make more sales.
- The company should also try their best to secure lots that have a waterfront view in order to maximize the potential sale price of their home.
- Timing of marketing campaigns is key. The trend in house prices tend to increase towards Spring and Summer.
- Renovations tend to increase the general condition and grade of houses. The company could improve revenue from house sales upon face lifting.
- Further research on location could provide useful information on aspects such as landmarks, schools and hospitals in proximity.