House Prediction Analysis

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Overview

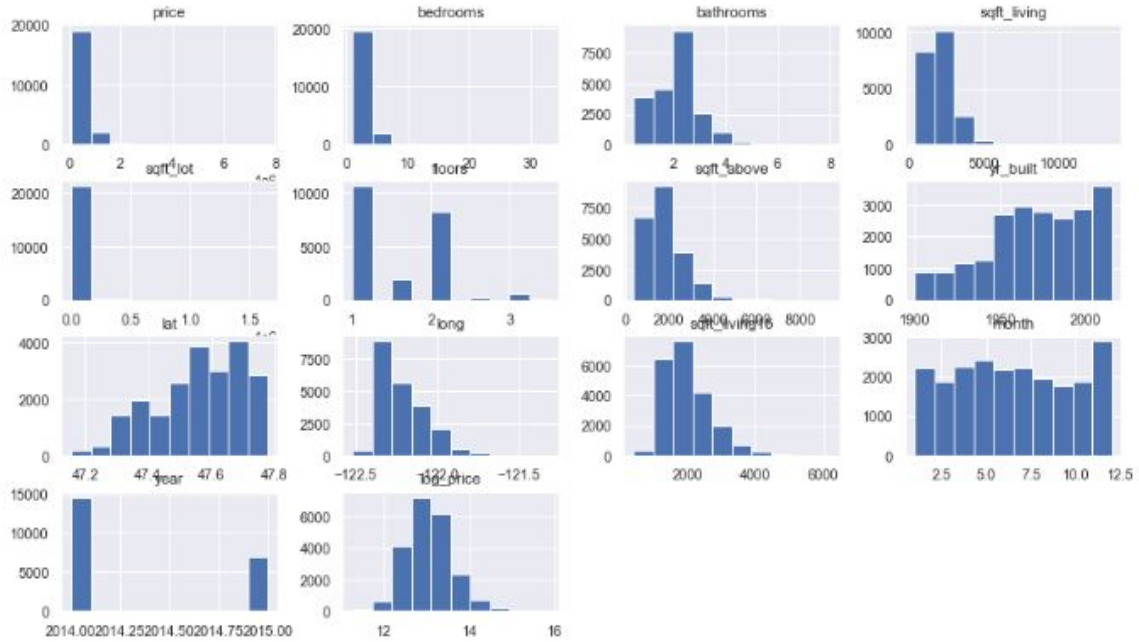
The aim of this project was to build a house prediction model, to aid the agency in predicting future house prices.

This will be helpful as it shall lead to increased profits for the company.

Objectives

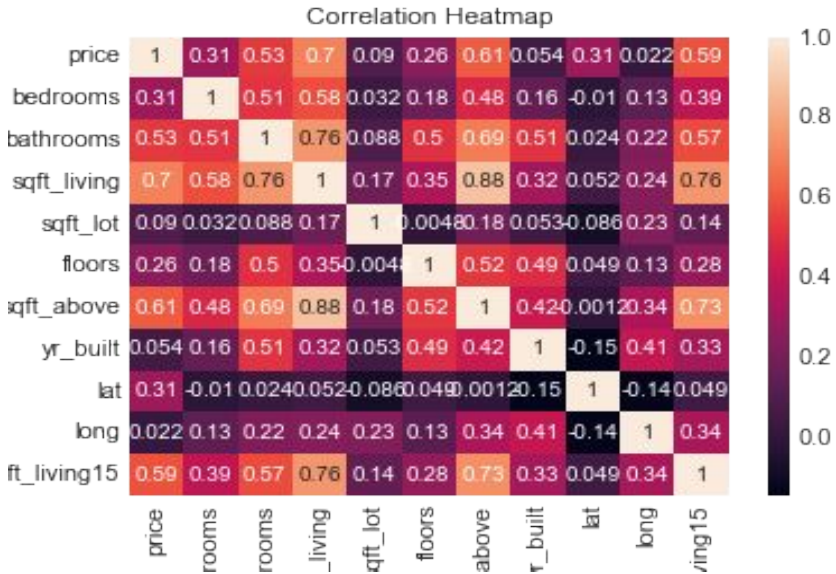
1. Build a model using the data given, that will predict house prices.
2. Determine which factors heavily influence house prices.
3. Suggest areas in which to focus research on.

Data Understanding



This figure shows the distribution of the data provided.

Data Correlation



From this, we can see the correlation between the data.

Bathrooms and sqft_above are strongly correlated with price.

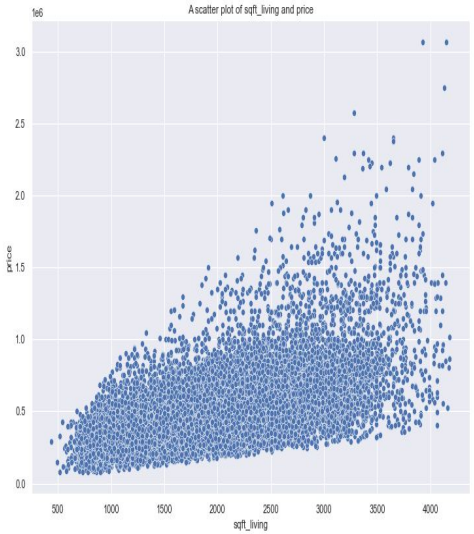
Data Analysis and Modelling

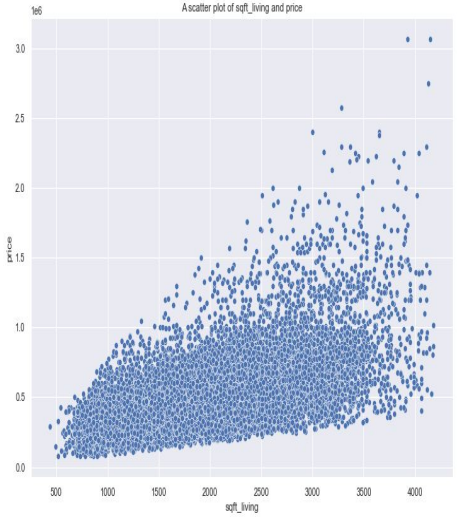
In this section we shall probe our data so as to come up with relationships in the data that will help us in the modelling.

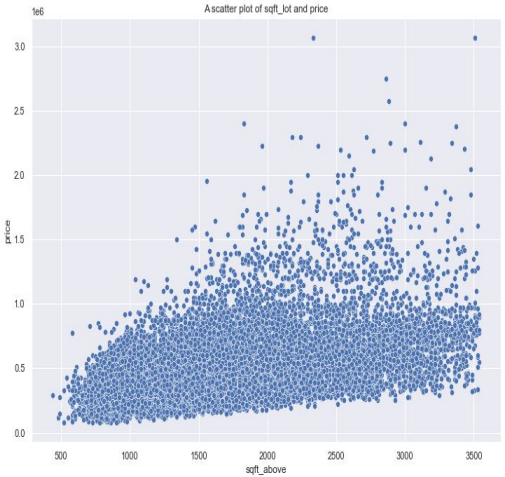
Price

We shall first look at what our model aims to predict which is the price. The figure shows that the distribution is positively skewed.

Continuous data with Price

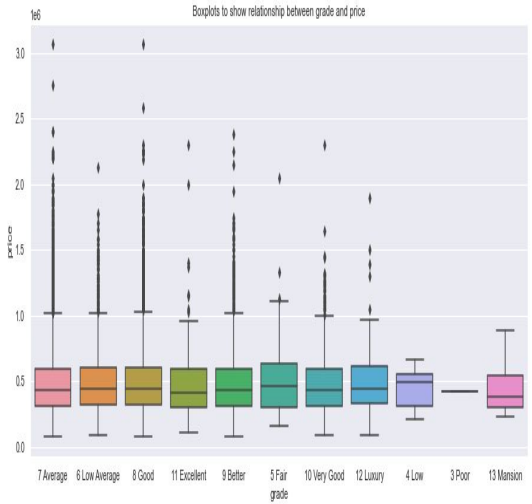


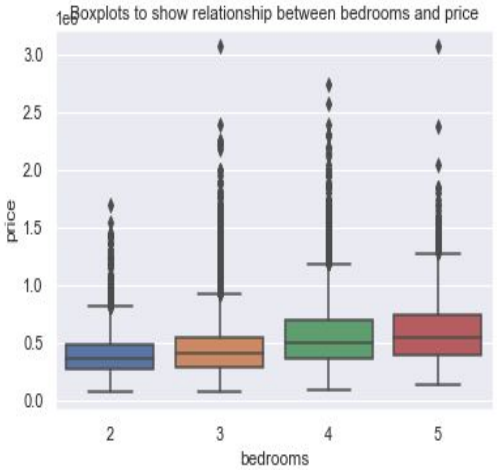


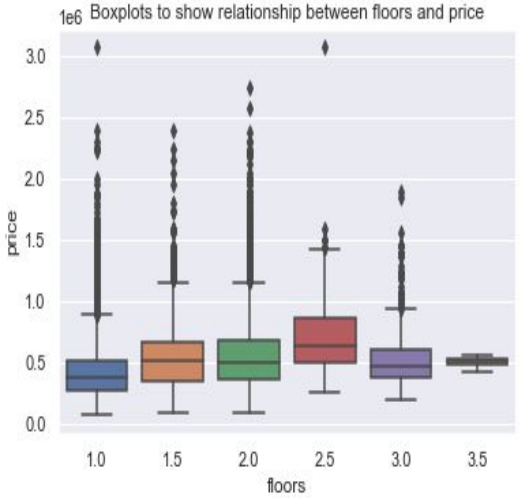


These are all positively correlated with price.

Categorical Data with Price







Conclusion and Recommendations

The Agency should adopt the last model with has an accuracy of 67%.

The agency should advice homeowners to improve features such as waterfront, view as they have a great impact to the house prices.

Next Steps

To further improve the results of this project, other factors that might affect house prices should be analyzed. These factors include:

1. The year the house was initially built (yr_built)
2. Square footage of the land space (sqft_lot)
3. The square footage of the interior housing space that is below ground level (sqft_basement)

Questions

Thank You!