

How to Streamline Our Potential Real Estate Investment Analysis Process

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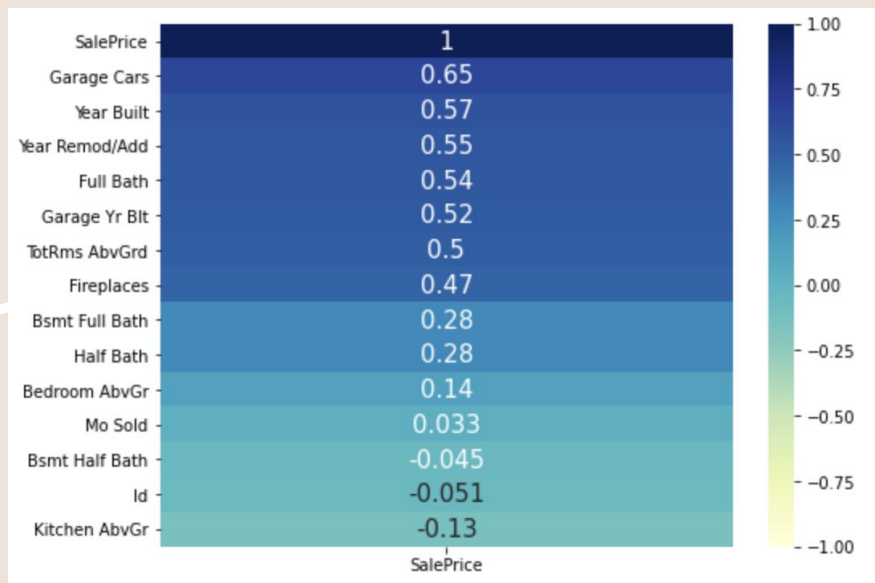


Gold Swan Capital
Real Estate Investments

Data

I was given a dataset of 2,051 houses with 80 different features for houses in Ames, Iowa. These features ranged from number of rooms to roof materials and everything in between.

However a lot of these features did not have a strong correlation with the sale price as we can see in the graph below.

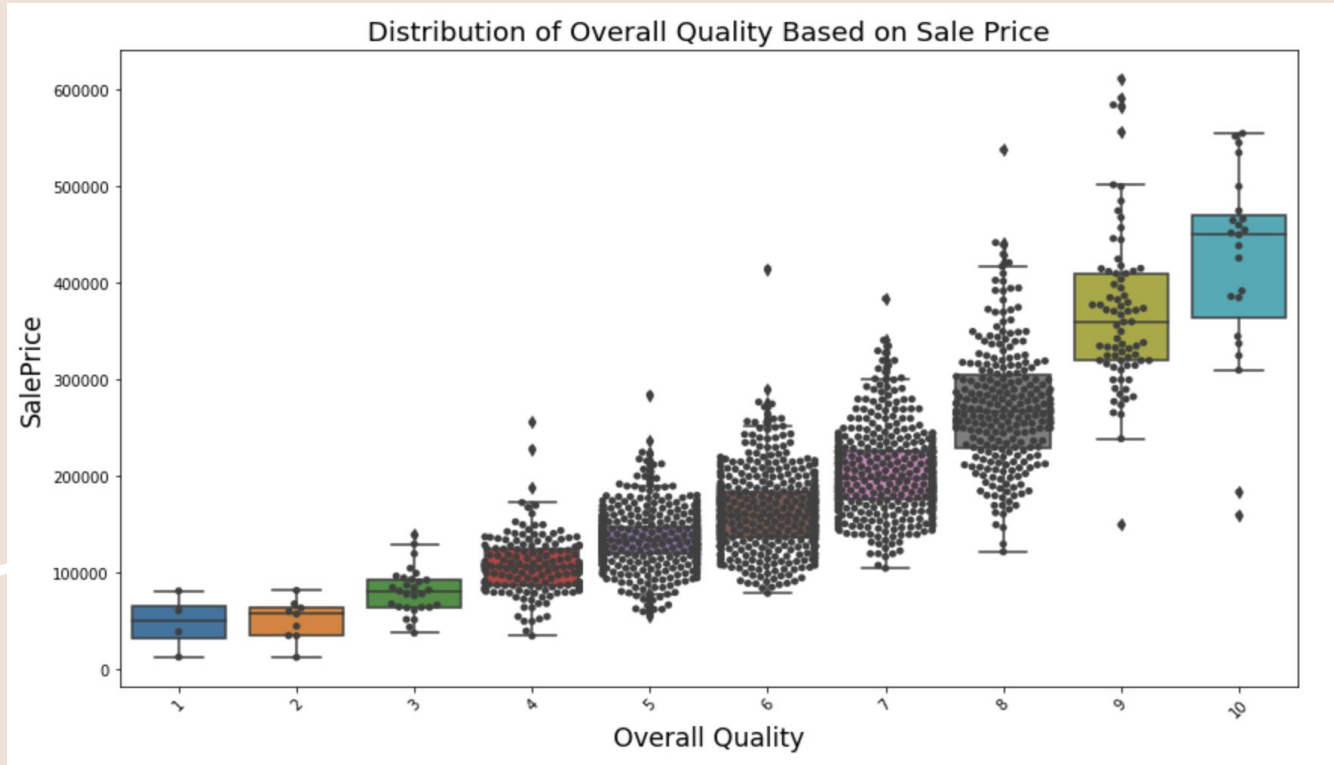


What Features of a House Predict the Sale Price?

In my model I chose a handful of features that had a strong correlation with sale price and that are easy to obtain from a real estate agent or just public knowledge. These features were:

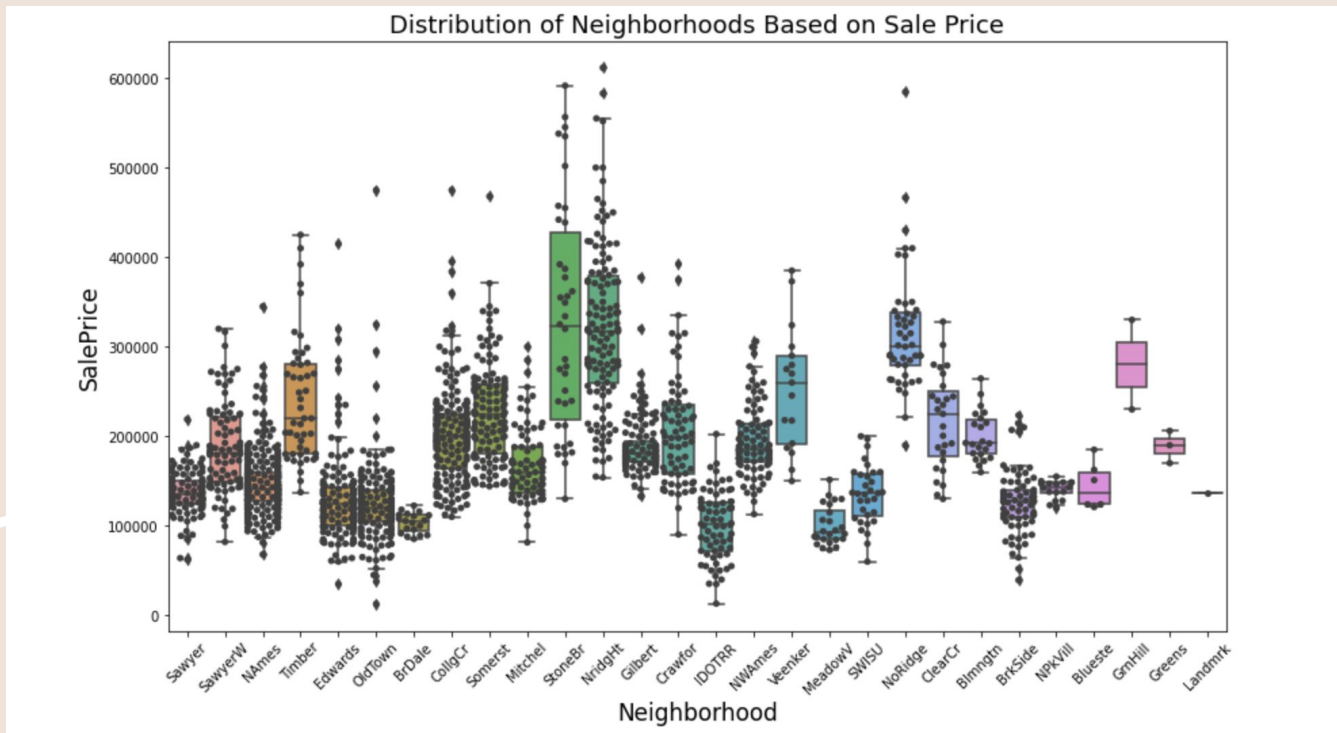
- Total Basement Square Feet
- First Floor Square Feet
- Above Ground Living Area Square Feet
- Garage Area
- Neighborhood
- Year Built
- Full Baths
- Total Rooms Above Ground
- Overall Quality
- Exterior Quality
- Basement Quality
- Kitchen Quality

The Relationship Between Quality and Sale Price



Location, Location, Location

As we all know location is one of the most important contributing factor towards the value of a home.



How Did My Model Perform?

My model is around \$29,000 off from predicting the actual sale price of the house. However this is not a problem since we are searching for houses that are undervalued due to their quality features. This number gives us room for negotiations, renovations, and a good profit margin when we resell the property. We will be able to determine if a property is overvalued in a model due to the average price of the other houses with similar qualities and neighborhood.

Potential Investment Analysis Steps

When we have deals come across the table it would be smart to run them through this model to get a baseline idea of the potential sale price. If the sale price is under the average of the other houses in that neighborhood it could be a potential investment property.

Once we have a deal that meets that requirement we can now look at the quality features and see if they are improvable or not. If they are we should investigate the property more thoroughly in person and then make the final decision to buy or not.

Future Steps

Since this is only Version 1.0 there is a lot of room for growth. So, we are looking for an approval on continued improvement of this model. The model will eventually be able to use interest rates, housing growth rates for that specific area, area demographics, school districts and much more as features that predict the sale price of the home.

We believe we will have a 40% increase in accuracy in our model within 6 months of development. This will take our model from an error of \$30,000 to \$20,000. This model will also take in new data easier and will be able to be applied to every neighborhood in the United States.

Future Steps

Our next step is once we get approval and a satisfactory replicable model we hope to add a section to our website that will make the process of predicting easier. This section on our website will have places to input the features we use to predict the sale price so we don't have to manually enter them into a csv file and run all of the code again. This will enable us to get a prediction instantly and make decisions to look further into the property much quicker. This feature will only be accessible to our great team at Gold Swan.

Questions?