Selling Homes in Ames, Iowa

Lucas Winter June 28, 2019 GA DSI 8

Agenda

- Overview
- Observations
- Recommendations
- Conclusion

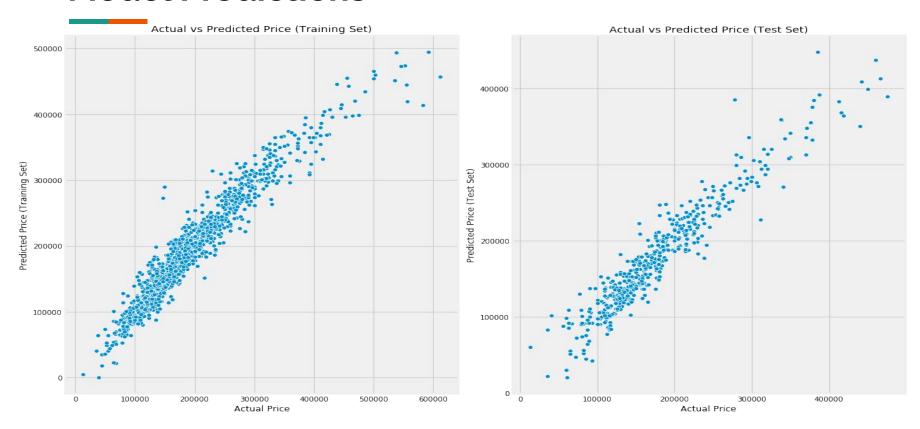


Overview

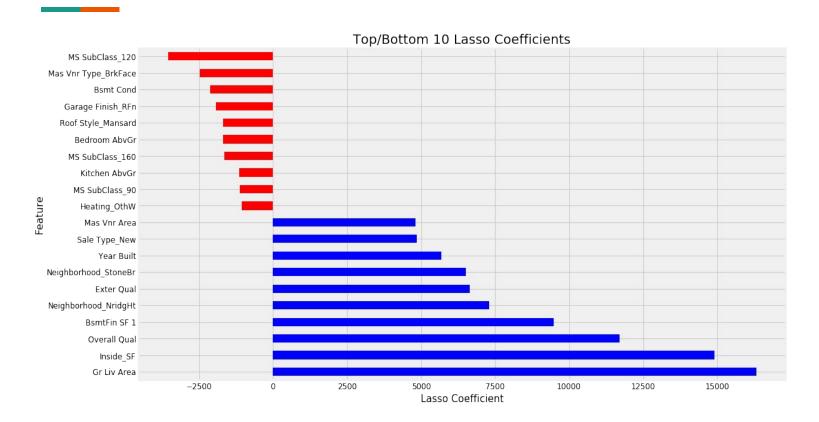
Problem: What is the best price to list your house? As a real estate broker, it is important to know what price a client should list their home in order to obtain the most value and for it to sell in a reasonable time. I created a model to predict a baseline sale price for homes in Ames, lowa that also provides manners in which the seller can increase the home's value.

Data: Ames, Iowa housing data for homes sold between 2006 and 2010.

Model Predictions



Sale Price Predictors



Increasing Value

Sale Price Correlations

- Square footage is highly correlated with Sale Price.
- Improving the quality of the home will increase the value.
- An unfinished garage will detract value from a home.

Top/Bottom 10 Correlations

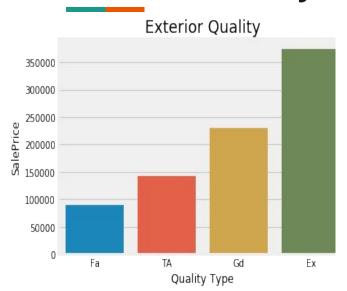
-0.4

	Top/Bottoill to Collelations
Inside_SF	0.86
Overall Qual	0.81
Exter Qual	0.72
Gr Liv Area	0.72
Kitchen Qual	0.69
Total Bsmt SF	0.67
Garage Area * Garage Cond	0.66
Garage Area	0.66
1st Flr SF	0.65
Garage Cars	0.65
Garage Type_None	-0.23
Roof Style_Gable	-0.25
MS SubClass_30	-0.25
PID	-0.26
MS Zoning_RM	-0.28
Lot Shape	-0.29
Foundation_CBlock	-0.36
Garage Type_Detchd	-0.37
Mas Vnr Type_None	-0.41
Garage Finish_Unf	-0.43
SalePrice	

Overall Quality



Exterior Quality



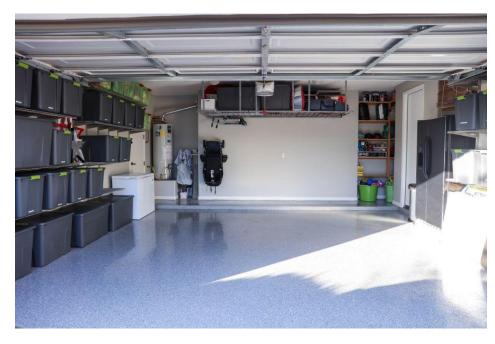
- Having a high quality exterior is correlated to higher sales price.
- Stone and cement board were associated with higher prices.



Garage Finish



 A finished garage has a significantly larger mean sale price compared to an unfinished garage.



Roof Style



Hip roofs are associated with higher sales prices. They are stable and can withstand harsh weather climates.



Conclusion

- Using my model, a real estate broker or home owner will be able to predict an accurate price to list his/her home.
- Square footage has the highest correlation to sales price.
- Improving the quality of the exterior, garage and roof can increase the overall value of a home.

Resources

- https://www.kaggle.com/c/dsi-us-8-project-2-regression-challenge/data
- https://en.wikipedia.org/wiki/Ames,_lowa
- https://plasticinehouse.com/roof-styles-sheds/
- https://www.trulia.com/real_estate/Ames-lowa/