

The Price is Right: A Model For Selecting a Selling Price

Matthew Christopher Skrimmage
Nykaza

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Summary

- Predictive modeling using data from home selling data in King County, WA to assist with inexperienced home sellers get the right price
 - Methods
 - Preparing data and finding relevant correlations
 - Design models for prediction
 - Create pertinent conclusions



Outline



BUSINESS
PROBLEM



DATA
HANDLING



MODELING



CONCLUSIONS

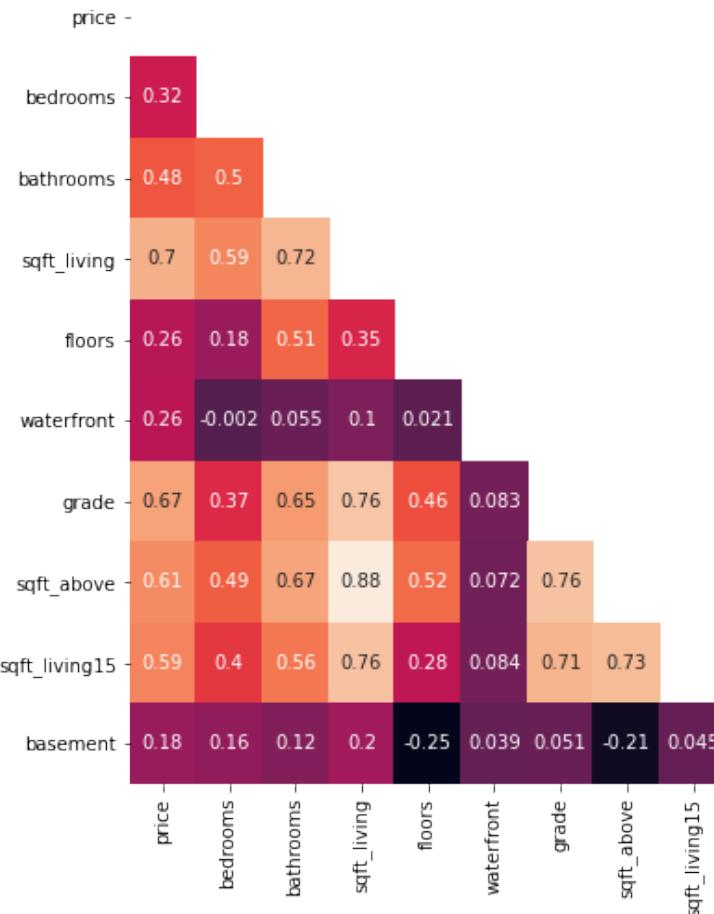
Business Problems

- Home selling for a first-time seller
- Risk of price setting
- Knowing the market
- Selecting the right price



Data Handling

- Reviewing the data
- Handling non-existent data
- Controlling outliers
- Review correlations
- Select appropriate predictors





Modeling

- Split samples into train and test sets
 - Makes sure that data is useful for future seller
- Perform transformations
- Confirm appropriate predictors
- Validate results

First Model



No standardizations performed



Unaltered data accounted for
~65% of mean variability



There was a high degree of errors



The data was highly skewed

Model With Scaling



Transforming the target variable (price)



Standardizing predictor variables



Scaled data accounted for ~60% of variability



Errors in model heavily mitigated



Less skew

Final Model



Transforming both target and predictor variables



~60% variability accounted for



Errors showing the least impact



Data showing most normality



Conclusions

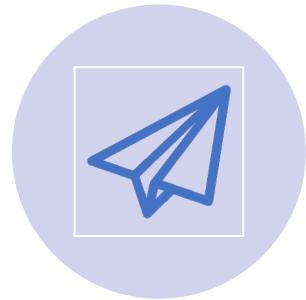
- Able to predict home prices with roughly 60% accuracy
 - Low degree of errors in the modeling
 - Still work to be done
 - Home selling needs to include location for accuracy
 - Homes of the same size can vary widely in price
 - Home selling is not generalizable over a large area

Future Work

- Provide data for location of homes
- Compare prices based on geographic areas
- Review lot sizes, and home types



Thank You!!!



EMAIL: MATT.CS.NYKAZA@GMAIL.COM



GITHUB: @MXCXSN



LINKEDIN:
<https://www.linkedin.com/in/matthew-nykaza-8a0b726a/>