



AMES HOUSING DATA AND KAGGLE CHALLENGE

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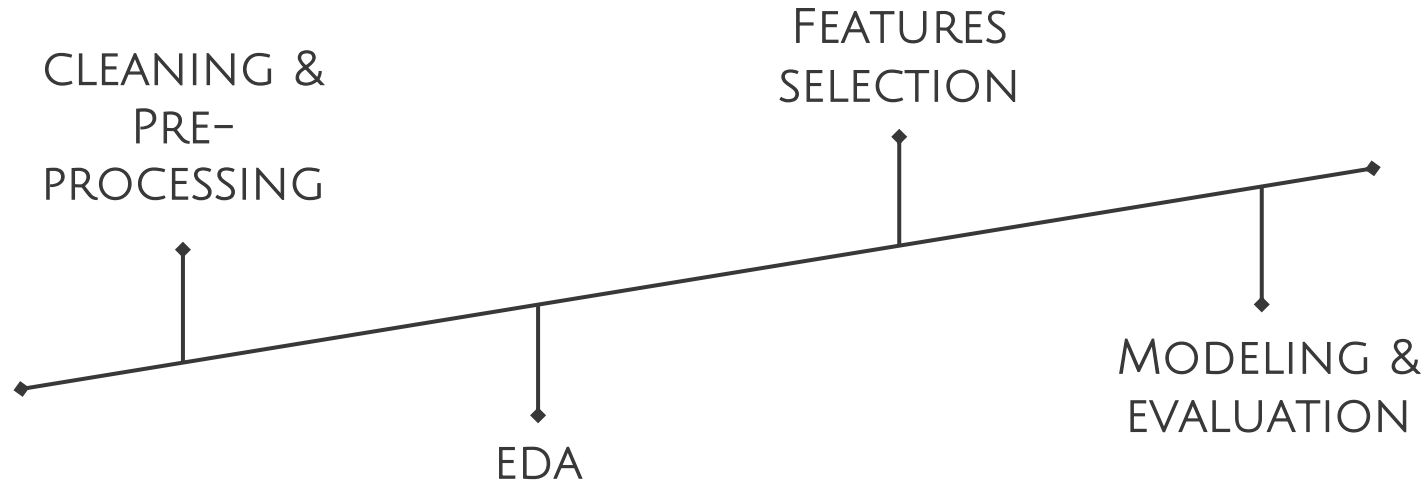
PROBLEM STATEMENT

Properties in low density areas tend to have low selling prices. Create a model to identify the features and characteristics of a property that would help to increase the value.

TABLE OF CONTENTS

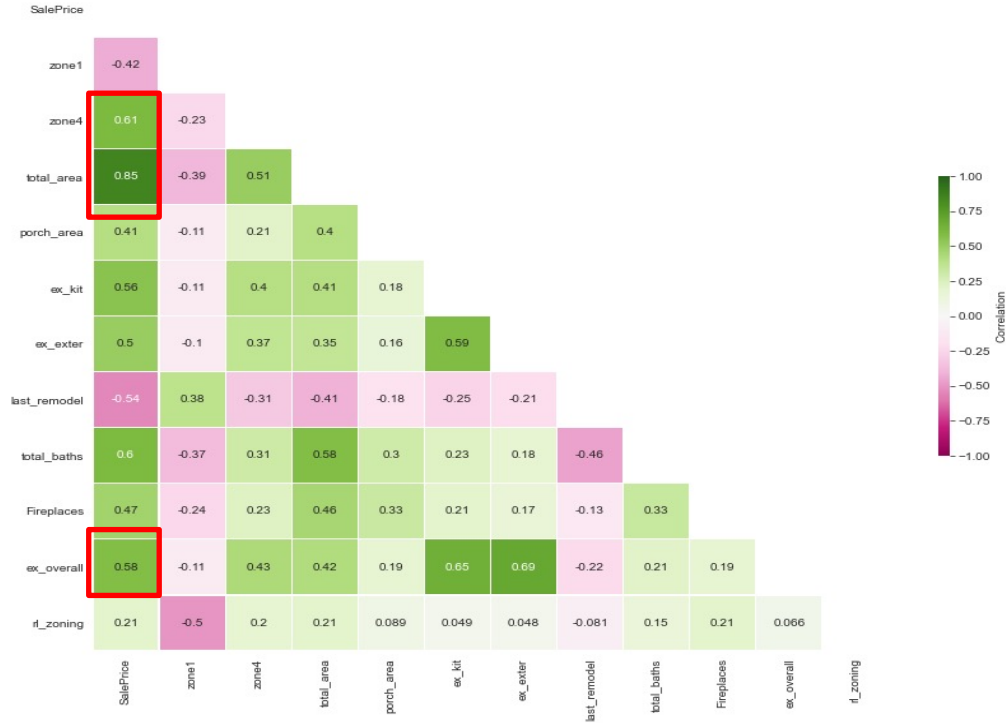
- 01 CORRELATION
- 02 FEATURES
 - Numerical
 - Categorical
- 03 MODEL
- 04 CONCLUSIONS
/RECOMMENDATIONS

METHODOLOGY



CORRELATION

Correlation between variables



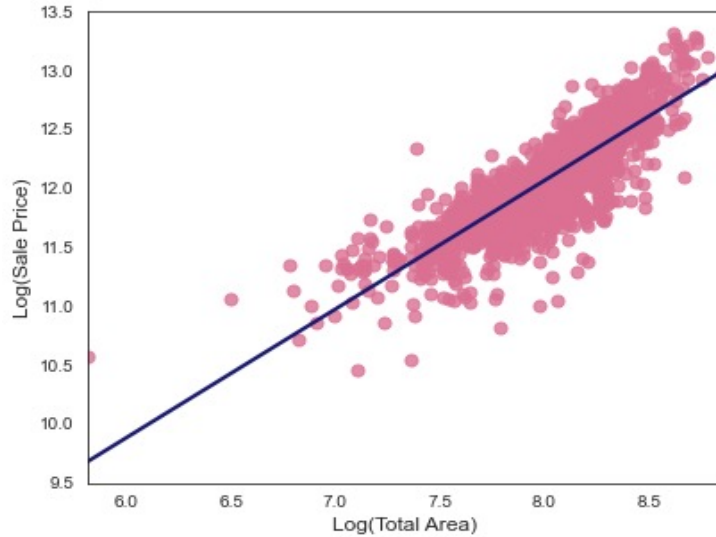
POSITIVE CORRELATIONSHIP WITH PRICE:

- Total area
- Excellent overall quality
- Zone 4.
- Total bathrooms

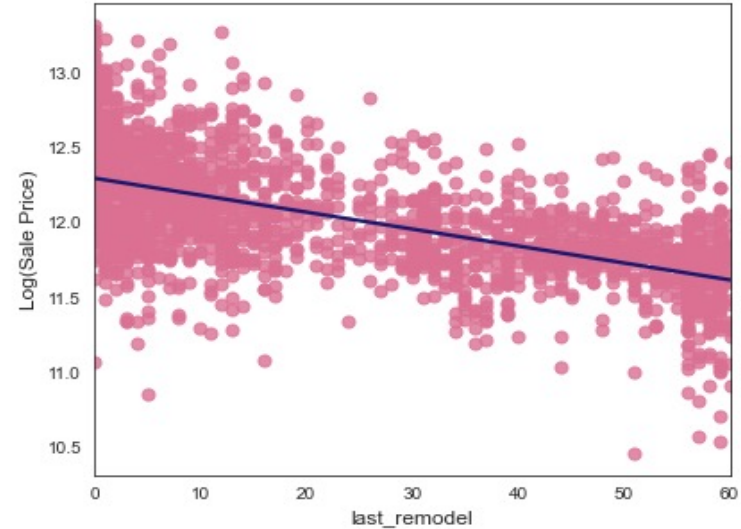
NEGATIVE CORRELATIONSHIP WITH PRICE:

- Zone 1
- House age
- Last remodel

NUMERICAL FEATURES

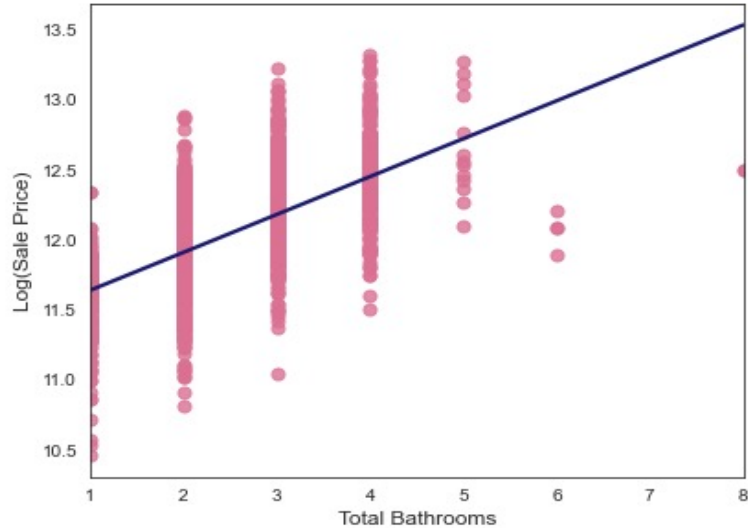


▲ TOTAL AREA HAS A POSITIVE CORRELATION WITH PRICE

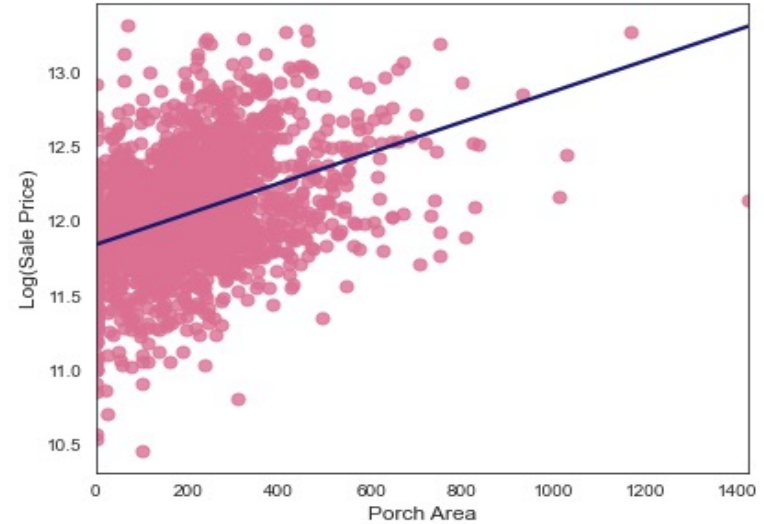


▲ NUMBER OF YEARS SINCE THE LAST REMODEL HAS A NEGATIVE RELATIONSHIP WITH PRICE

NUMERICAL FEATURES

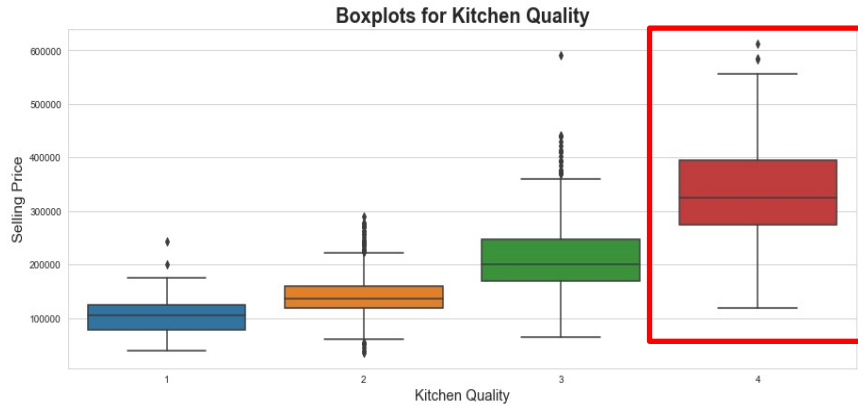


▲ TOTAL NUMBER OF BATHROOMS
HAS A POSITIVE RELATIONSHIP
WITH PRICE

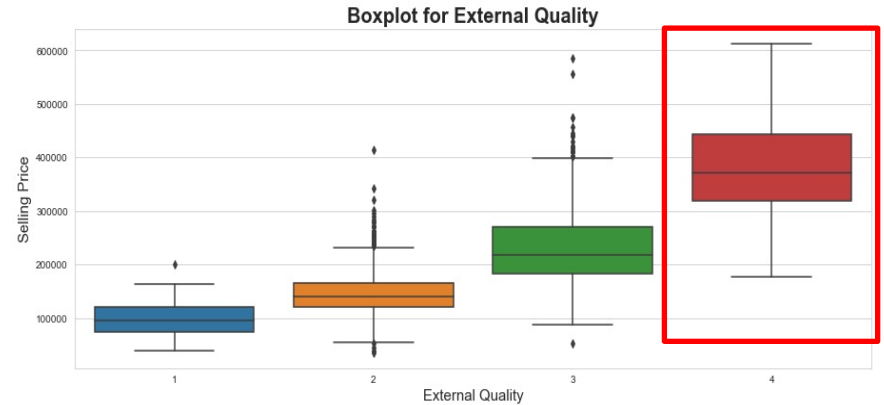


▲ PORCH AREA HAS A POSITIVE
RELATIONSHIP WITH PRICE

CATEGORICAL FEATURES

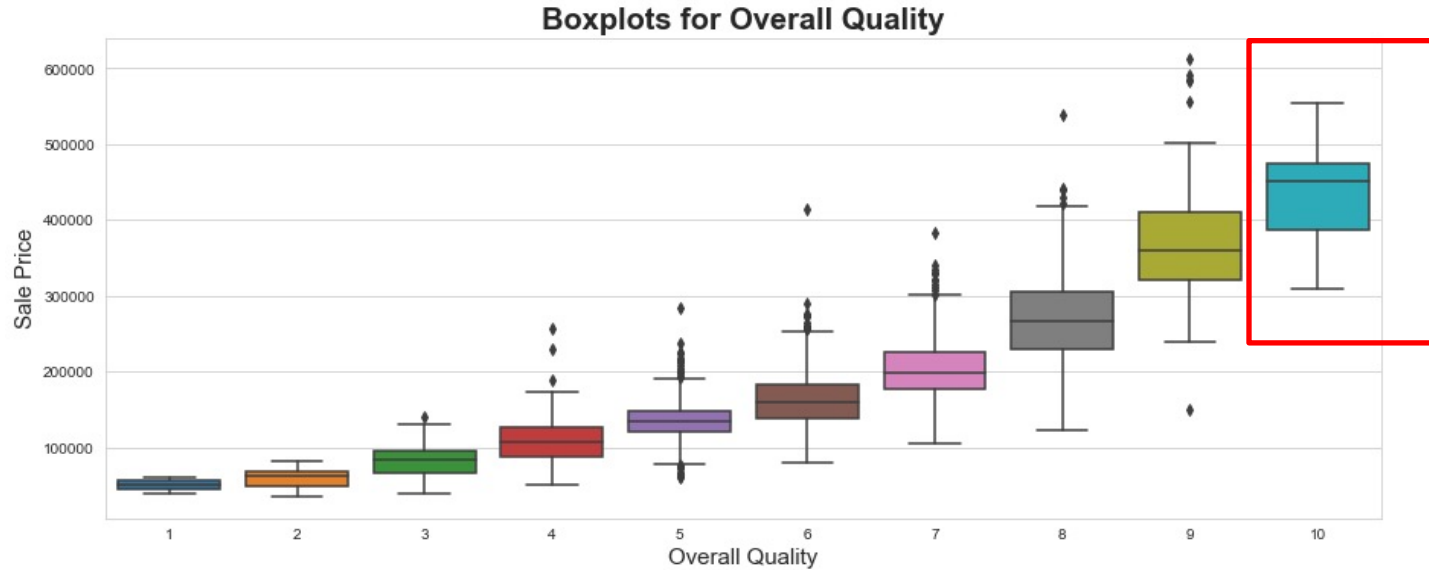


PROPERTIES WITH AN EXCELLENT KITCHEN QUALITY HAS THE HIGHEST MEDIAN SELLING PRICE



PROPERTIES WITH AN EXCELLENT EXTERNAL QUALITY HAS THE HIGHEST MEDIAN SELLING PRICE

CATEGORICAL FEATURES

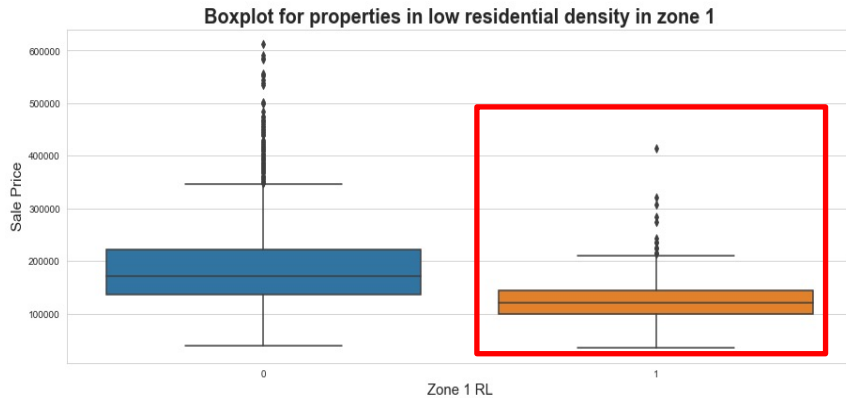


PROPERTIES WITH AN OVERALL QUALITY OF 10 HAS THE HIGHEST MEDIAN SELLING PRICE.

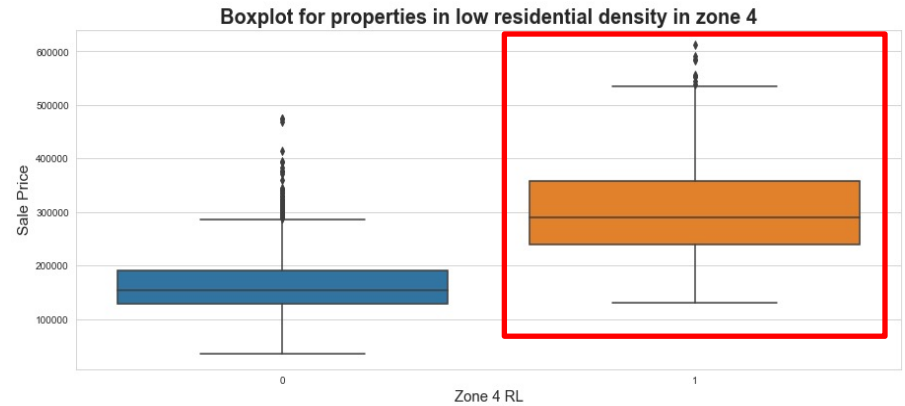
NEIGHBOURHOODS



LOW RESIDENTIAL DENSITY AREA: ZONE 1 VS ZONE 4

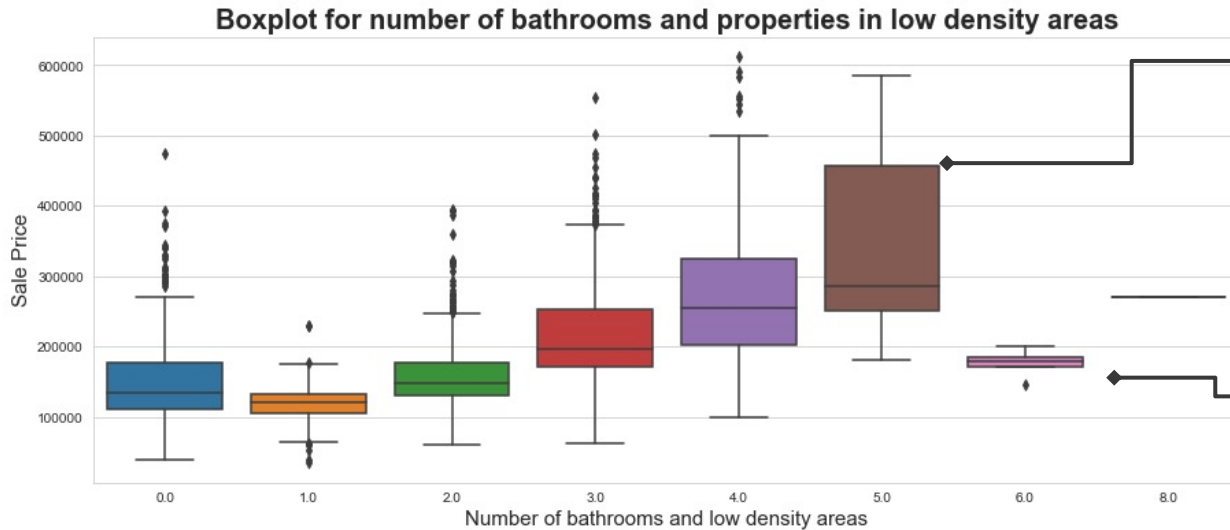


IN ZONE 1, PROPERTIES IN LOW RESIDENTIAL DENSITY AREA HAVE LOWER MEDIAN SELLING PRICE.



IN ZONE 4, PROPERTIES IN LOW RESIDENTIAL DENSITY AREA HAVE HIGHER MEDIAN SELLING PRICE.

LOW RESIDENTIAL DENSITY AREA: BATHROOMS

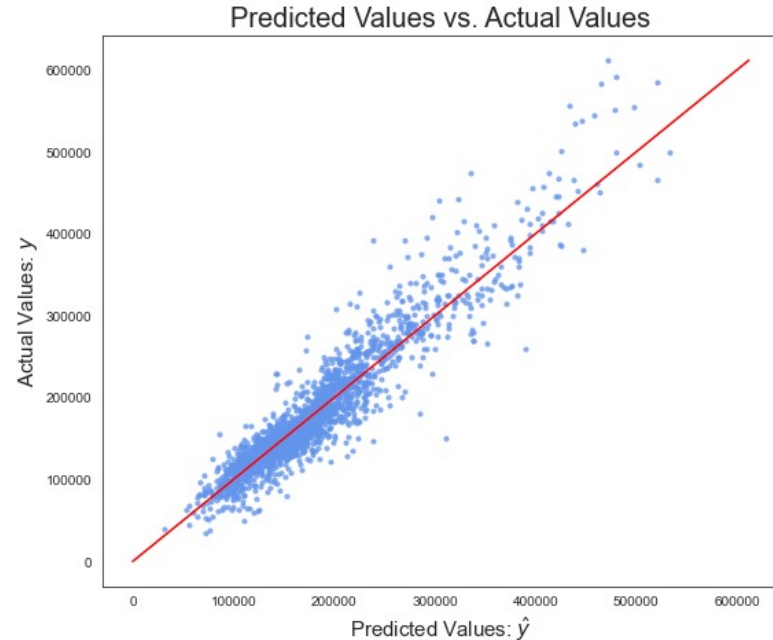


PROPERTIES WITH 5 BATHROOMS HAVE THE HIGHEST MEDIAN SELLING PRICE

THESE PROPERTIES WITH 6 BATHROOMS ARE LOCATED IN THE LEAST PRESTIGIOUS ZONES (1 & 2)

RIDGE MODEL

VARIABLE	COEFFICIENT
log_total_area	0.187
zone4_rl	0.241
ex_overall	0.125
zone4	0.104
ex_exterior	0.057
rl_baths	0.056
ex_kitchen	0.049
fireplaces	0.047
porch_area	0.024
total_baths	-0.013
last_remodel	-0.083
zone1	-0.124
zone1_rl	-0.148



CONCLUSIONS/ RECOMMENDATIONS

▲ SQUARE FEET AREA, LOCATION
AND THE STATE OF THE PROPERTY
ARE IMPORTANT

▲ FEATURES OF THE PROPERTY THAT
THE CLIENT SHOULD CONSIDER :

- Located in Zone 4
- Have more bathrooms
- Fireplace

▲ TO ADD MORE VALUE:

- Maintain the overall property in the best possible state
- Repaint or remodel the interior and exterior of the property and also the kitchen
- Renovate or remodel the property just right before selling



DATA DICTIONARY

VARIABLE	DESCRIPTION
log_total_area	Log of total area (combines GR Liv Area, Total Bsmt SF, Garage Area and Low Qual Fin SF)
zone4_rl	An indicator for properties in low residential density area in zone 4
ex_overall	An indicator for overall quality of the property
zone4	An indicator for properties in zone 4
ex_exterior	An indicator for excellent quality of the property exterior
rl_baths	0.056
ex_kitchen	An indicator for excellent quality of the kitchen
fireplaces	Number of fireplaces
porch_area	Total porch area (combines all the porch area variables and Wood Deck SF)
total_baths	Total number of bathrooms
last_remodel	The number of years since the property was last remodeled
zone1	An indicator for properties in zone 1
zone1_rl	An indicator for properties in low residential density area in zone 4

THANK YOU
