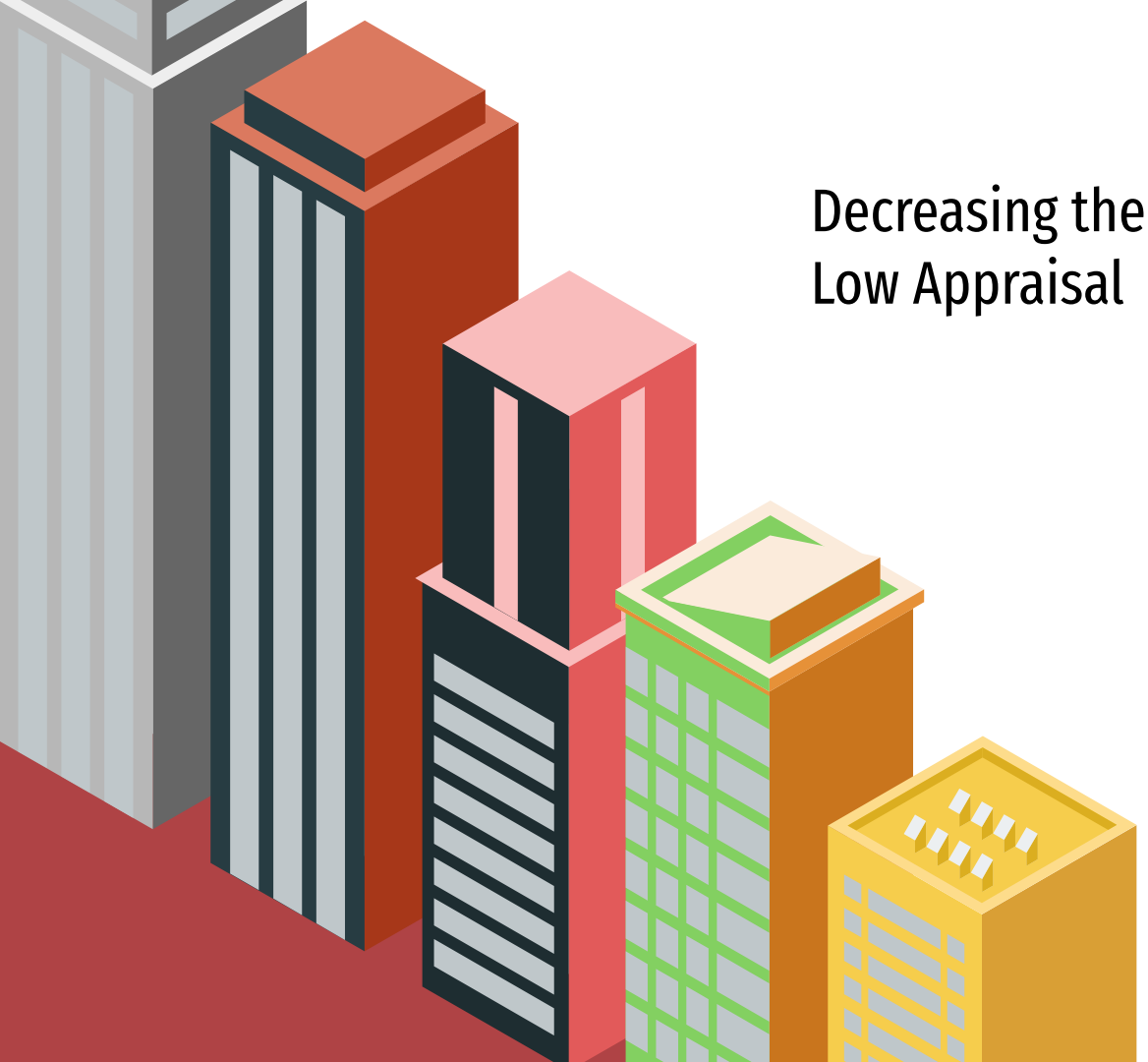


Decreasing the Odds of a Low Appraisal

AMES REALTY

WELCOME HOME

Asia Roy, Data Scientist

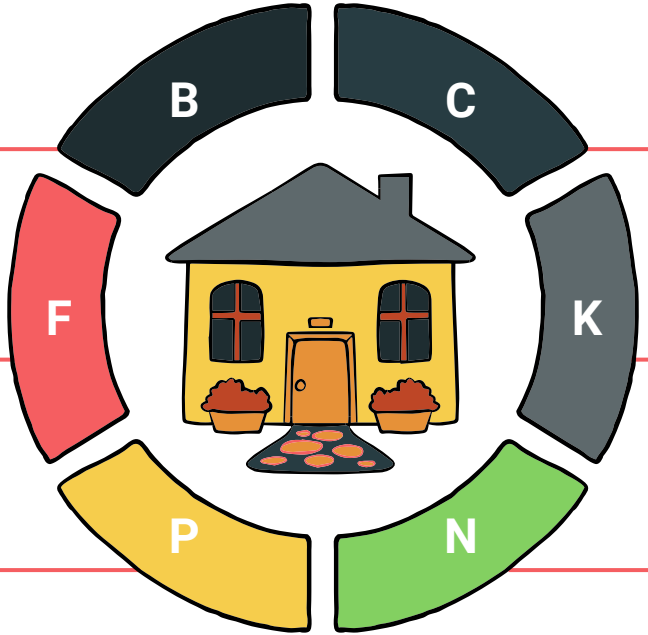
We pride ourselves in the fact that we have true sales success in our areas and the results are *WHERE IT COUNTS*

How can we assist our clients to receive top appraisal price for their homes?

Bedrooms

Finished Basements

Pool



Curb Appeal

Kitchen Remodel

New Roof

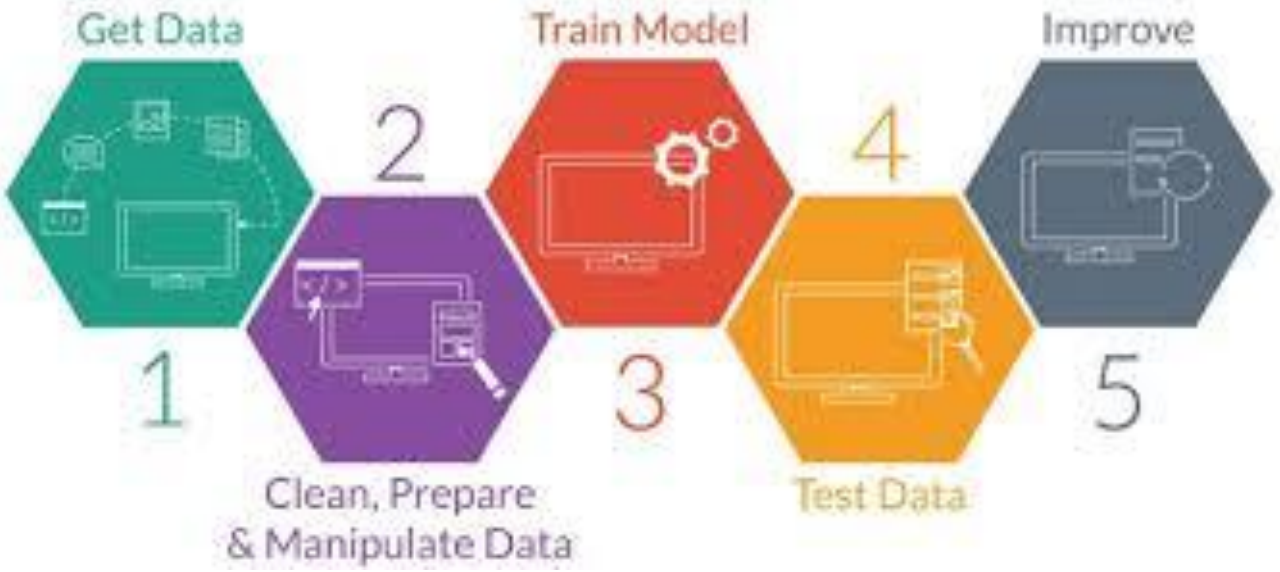
Using Data to solve our problem

Source: Ames, Iowa Assessors Office

Assessment of **over 2,900 Individual residential properties** sold in Ames, Iowa from 2006 to 2010.

Goal:
What factors affect housing prices the most in Ames, IA?

The Data Science Workflow

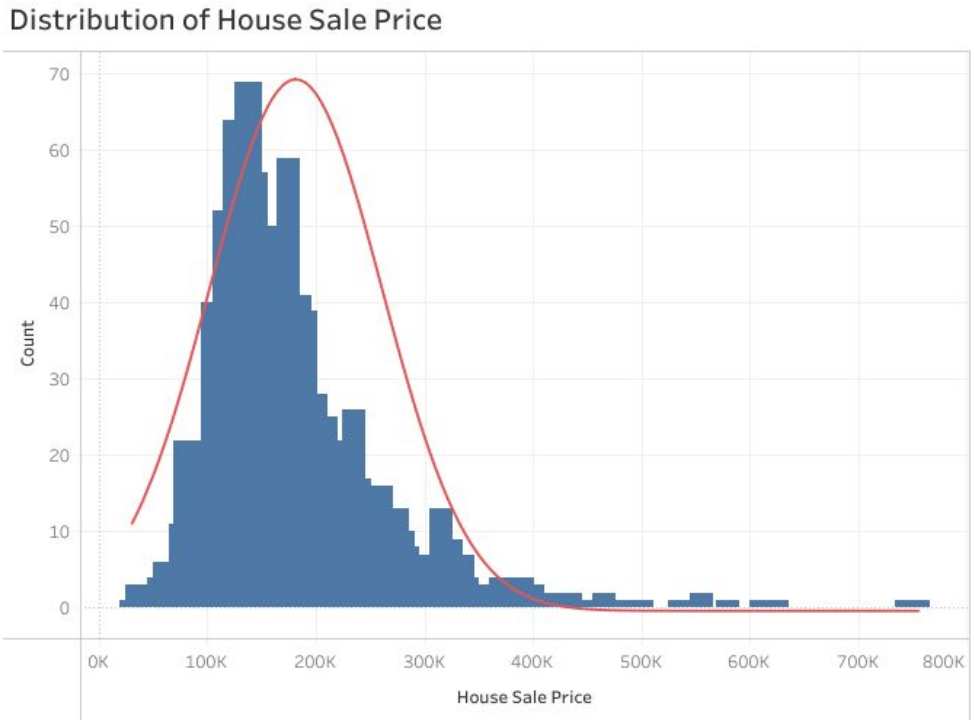


AVG Sale Price

$180K

Sales Price Distribution

Property Count



- Asymmetrical, right-skewed.
- Take the log of sale price, necessary to change the shape for our model.

90% of the change in sale price for houses in Ames can be explained by 15 features

- As a realtor, it is important to know these features, in order to assist clients in allocating funds to improve the value of their homes.
- Most clients do not want to complete 15 repairs or even have the money or time because time is crucial in the selling market

Features that directly affect the price of a home

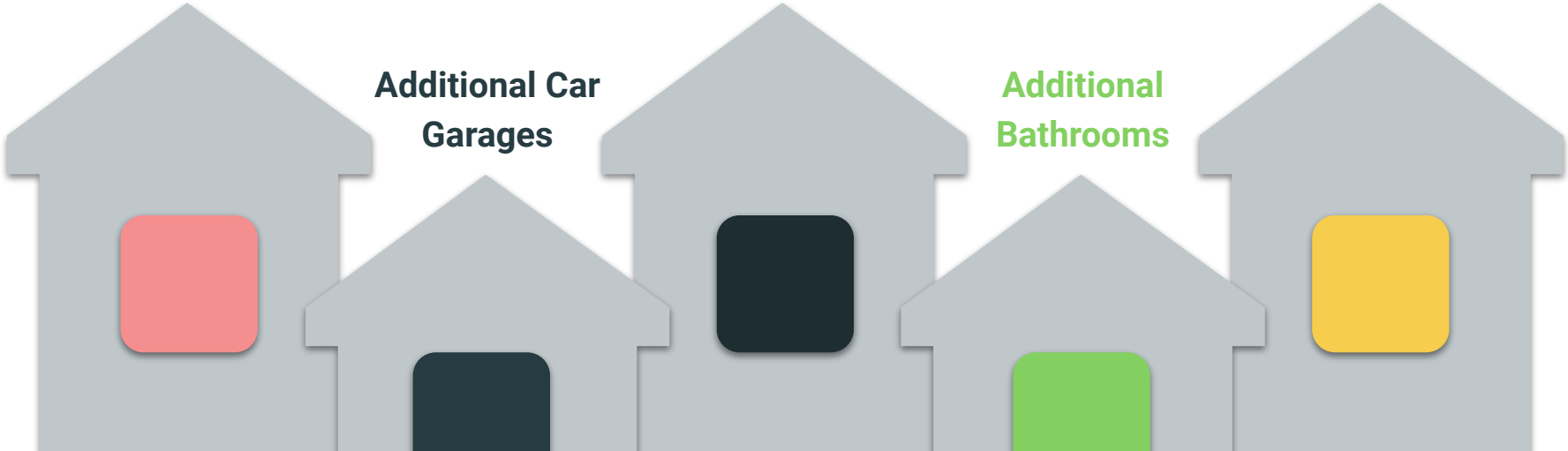
Kitchen Remodeling

Additional Car Garages

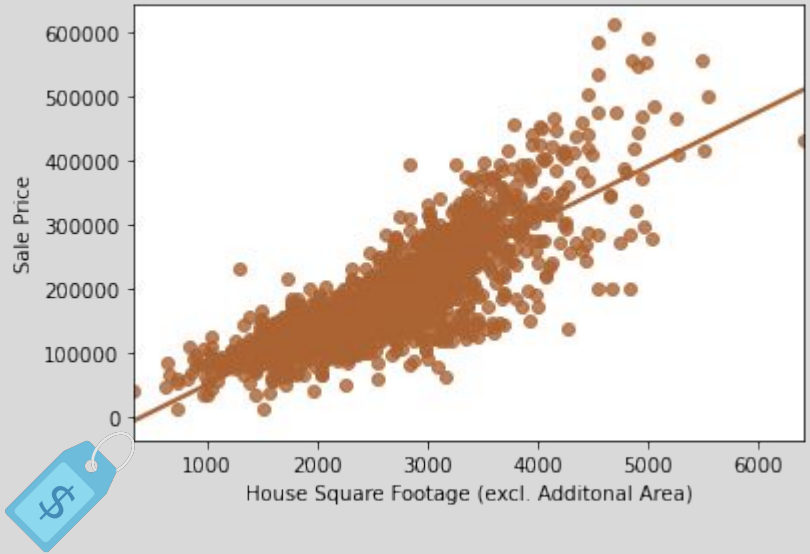
Siding/Roofing

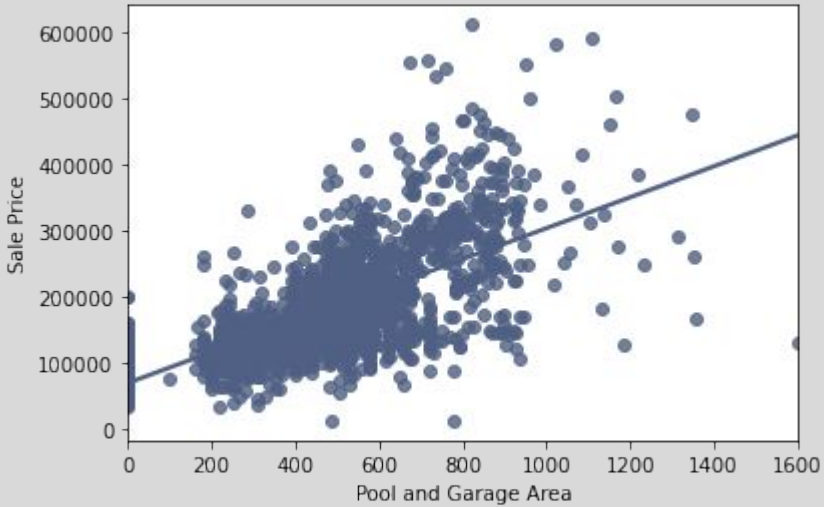
Additional Bathrooms

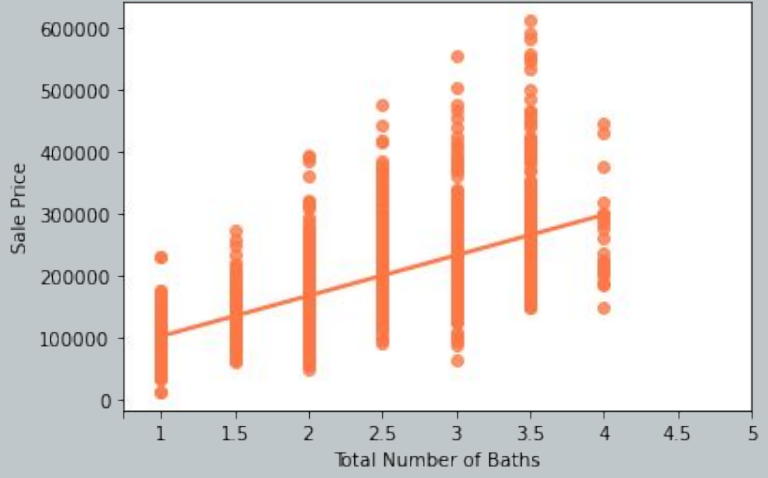
Fireplaces

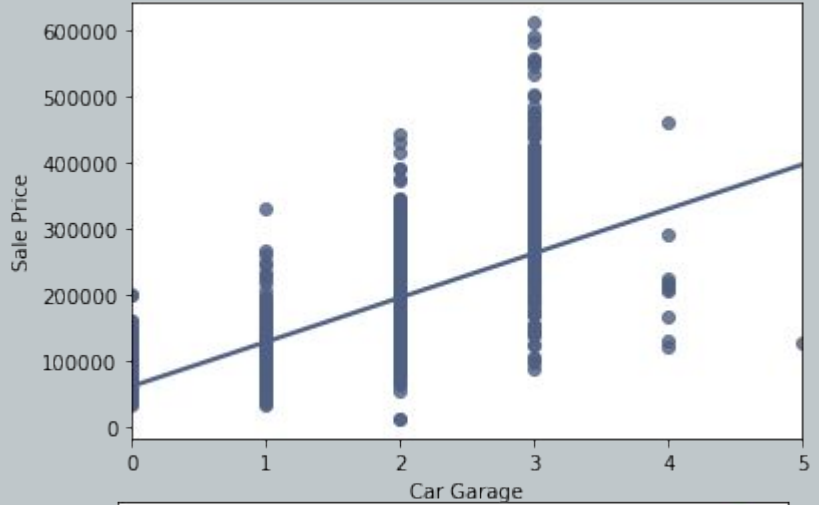


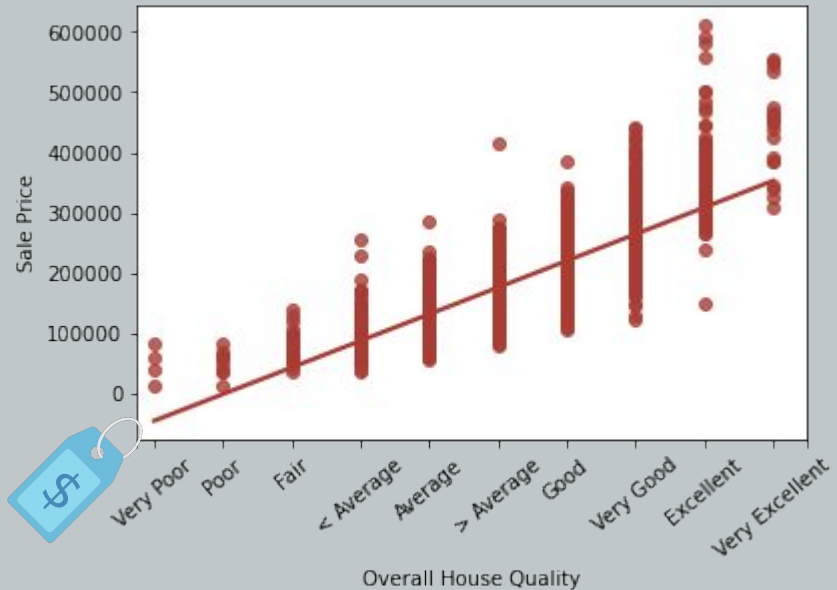
Correlation between Sale Prices &

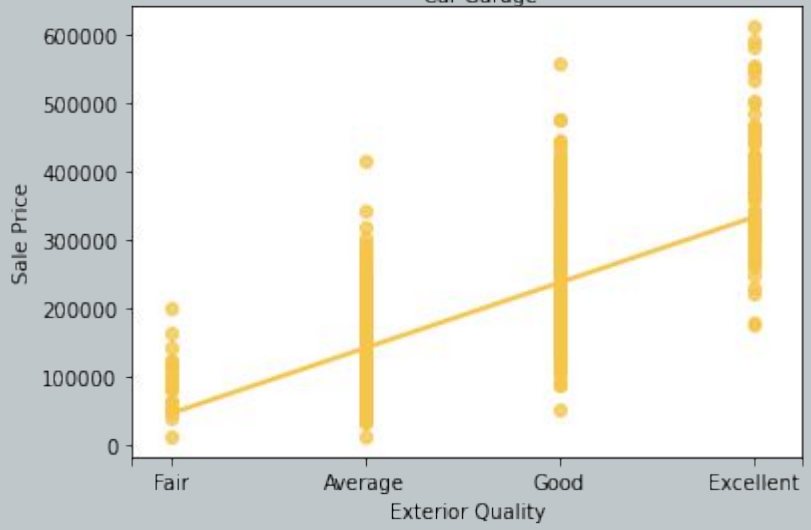





Sale Price
600000
500000
400000
300000
200000
100000
0
1
1.5
2
2.5
3
3.5
4
4.5
5
Total Number of Baths


Sale Price
600000
500000
400000
300000
200000
100000
0
0
1
2
3
4
5
Car Garage

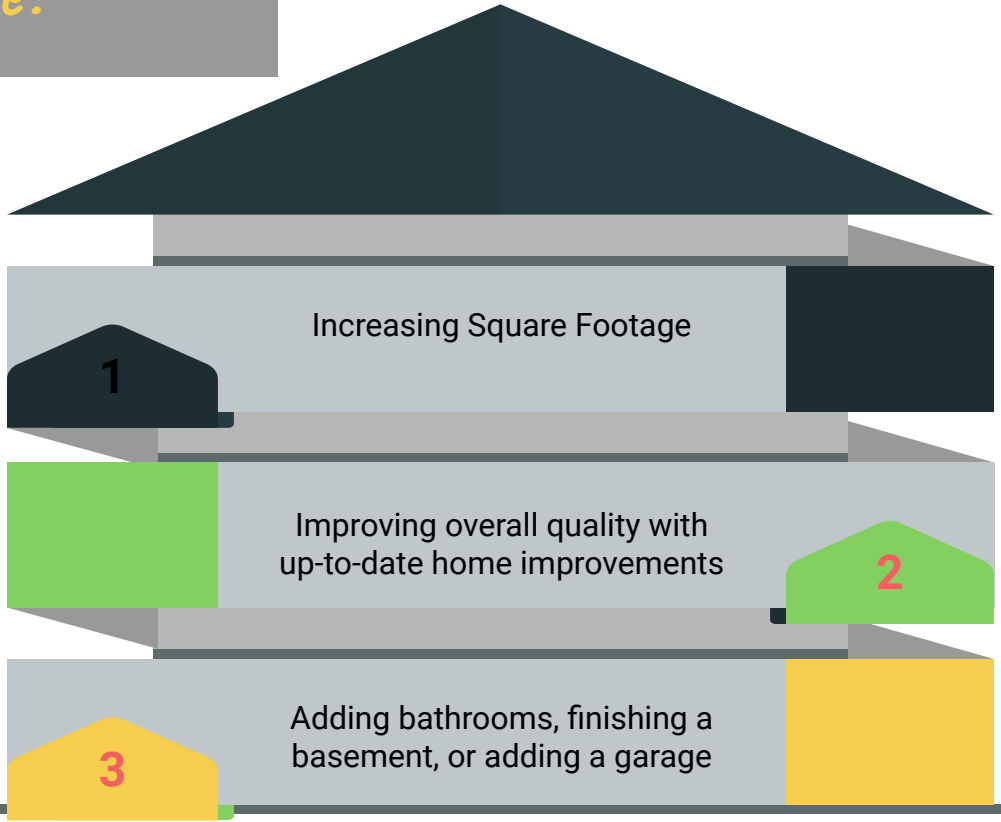

Sale Price
600000
500000
400000
300000
200000
100000
0
Very Poor
Poor
Fair
< Average
Average
> Average
Good
Very Good
Excellent
Very Excellent
Overall House Quality


Sale Price
600000
500000
400000
300000
200000
100000
0
Fair
Average
Good
Excellent
Exterior Quality

As Realtors, we recognize that there are some housing factors, that are fixed such as:

- Neighborhood/location in Ames
- Home type
- Year built

What areas to improve?



Questions?