REAL ESTATE

The Effect of the Quality and Above Ground Living Area on Sale Price

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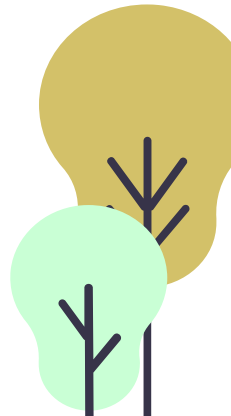
WHICH WOULD YOU PREFER?

Problem Statement

What effect does overall quality and above ground living space have on the sale price of a home?
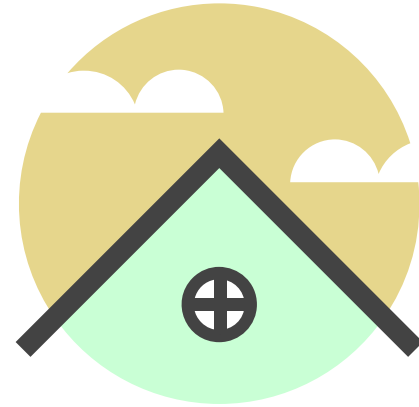
Above Ground Living Area

Above ground living area in square feet

Overall Quality

Rates the overall material and finish of the house

Success will be evaluated on successfully finding the correlation between our **target** (the sale price of a home) and our **features** (above ground living area, and the overall quality of a home).

Some more fancy definitions...

Target

The sale price.

Feature

What we use to predict the sale price.

Data Intake

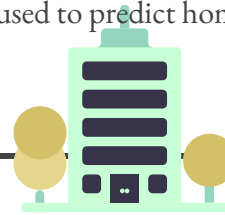We took a large dataset with 70 columns of different features relating to houses in Ames, Iowa.

Data Cleaning

We cleaned the data in order to build our model.

Modeling

We used this data to make (and will continue to improve) a model that we then used to predict home prices.

Actual vs. Predicted Sale Price

Overall Home Quality

All else constant, for each unit increase in the overall quality of a home, there was ~$33,000 increase.

Above Ground Living Area

All else constant, for each unit (square foot) increase in above ground living area, our model predicted a $56 increase.
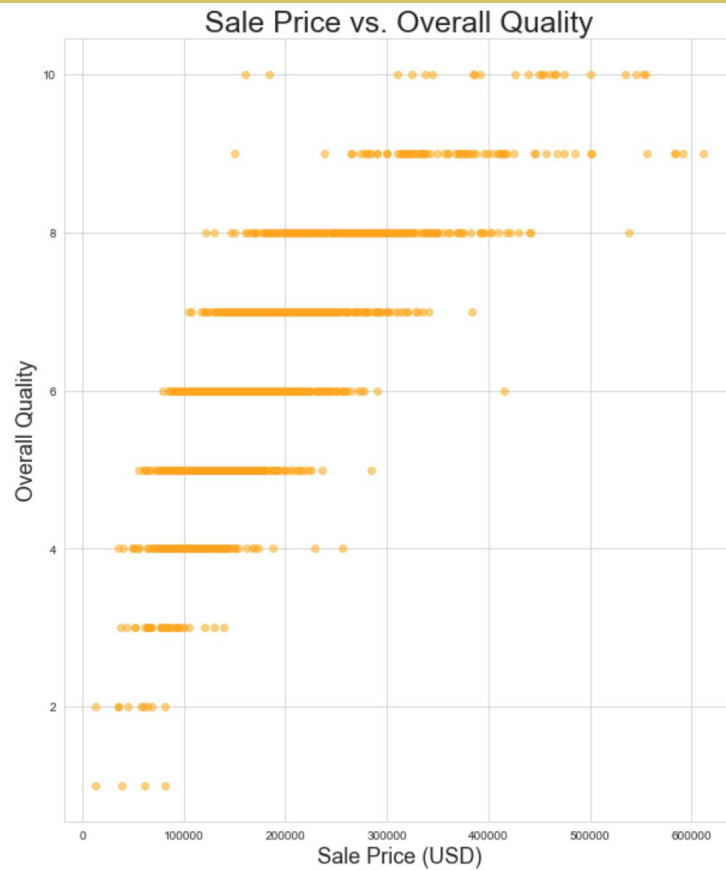
What can you do with this?

Knowing that overall home quality has a high correlation to sale price means you can capitalize on home materials and quality more than above ground living area (Although I am sure that matters to some, hello fixer upper-ers!).
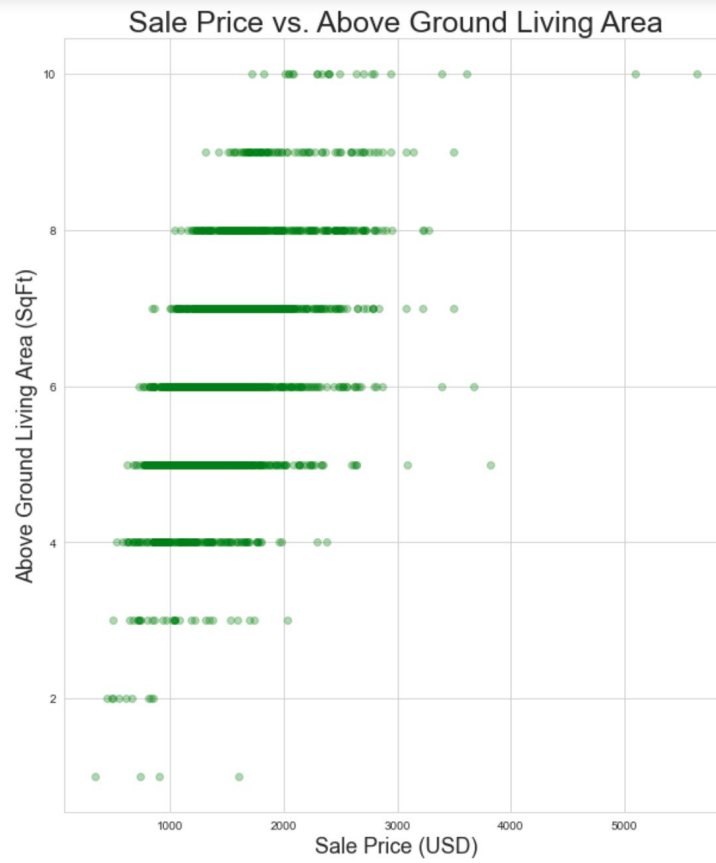
Sale Price Distribution

Sale Price vs. Overall Quality

Sale Price vs. Above Ground Living Area

So What?

This information is crucial to clients like yourself (real estate agents) looking to maximize return on a home sale.

Knowing what effect these variables have on the price of a home will allow you to help your clients sell their homes for maximum profit, advising them on where to allocate resources for a successful sell (renovating the kitchen, adding on another room, etc.).

This will increase the value of the home, the speed of sale, and as a result will increase the funds you retain from the transaction as their agent.
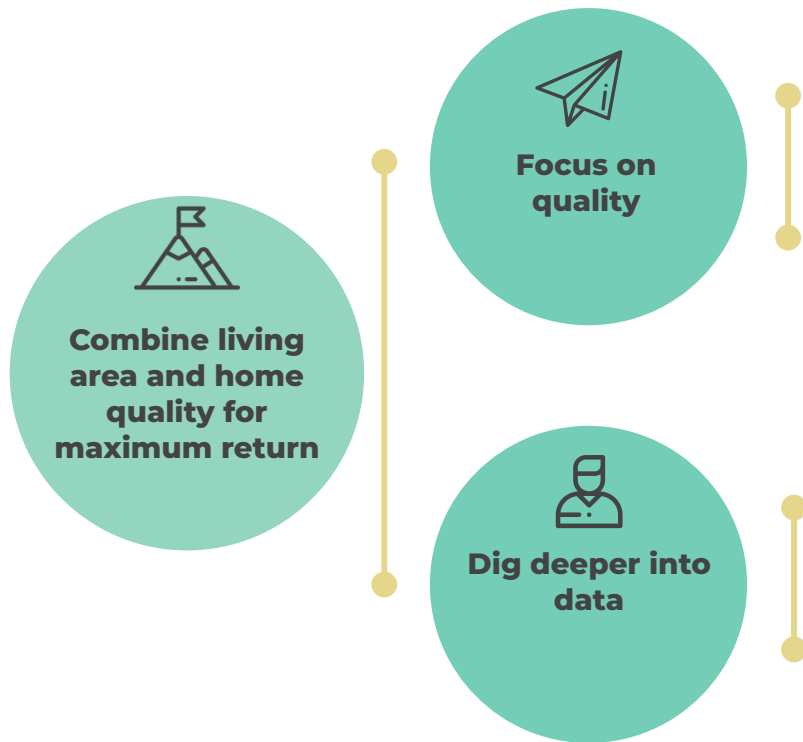
CONTENT PLAN

"Capitalize on overall home quality while selling a home! Suggest a new tile job for the kitchen backsplash, new hardwood floors, etc. when your client asks for tips on maximizing profit and quickening sale time."

—Your new-found intuition

RECOMMENDATIONS

Combine living area and home quality for maximum return

Focus on quality

Dig deeper into data

RESOURCES

SOURCES

- http://jse.amstat.org/v19n3/decock/DataDocumentation.txt
- https://matplotlib.org/stable/api/_as_gen/matplotlib.pyplot.title.html
- Project One Readme for structure reference
- https://avitarassociates.com/Portals/0/PDF/UnderstandingYourPropertyRecordCard.pdf
- https://git.generalassemb.ly/DSIR-0124/lesson-feature-engineering/blob/master/solution-code/solution-code.ipynb
- https://www.kaggle.com/c/dsir-0124-project-2-regression-challenge/overview

THANKS

Does anyone have any questions?

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All questions welcome :)