

ACME REALTORS

Home Buyer Offer Price Tool

Created by Shawn Samuel





The Magic Number

DETERMINING THE BEST 'OFFER PRICE'

Harnessing data to empower the
intuitive decision making of
Buyer's Real Estate Agents

Presentation Flow

TOPICS TO COVER

Business Problem
Data
Methods
Results
Conclusions

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Business Problem



FIRST TIME HOME BUYERS

How can we help you help first time home buyers in this sellers market?

DATA TO FUEL INTUITION AND EXPERIENCE

How can Acme Realtors use data to support the intuitive process of determining initial offer price?



The Data

21,597
ROWS

Representing home sales in King County, Washington (including Seattle) between 2014-2015

21
COLUMNS

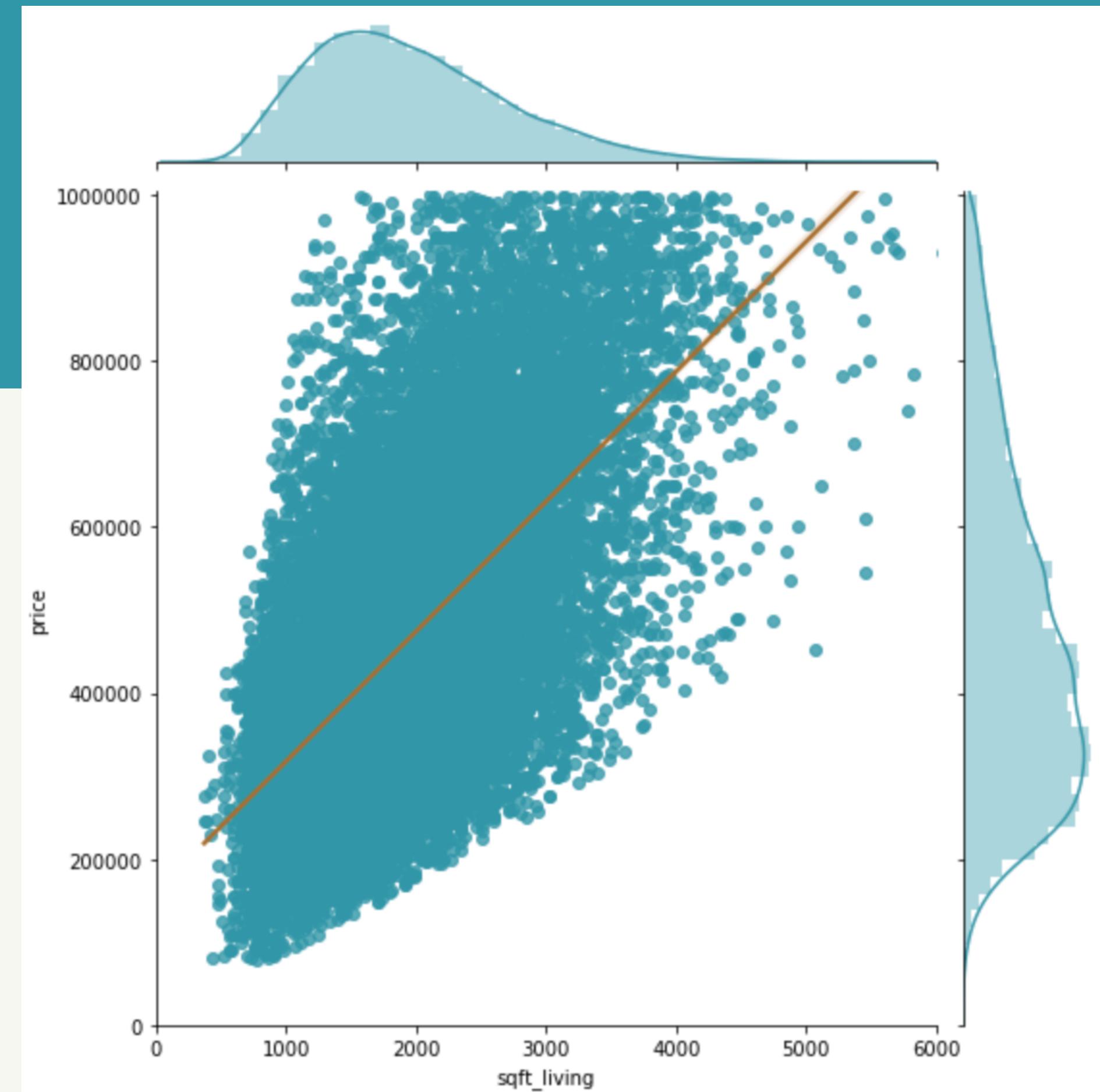
Describes home features including sqft, beds, baths, year built, year renovated, etc.

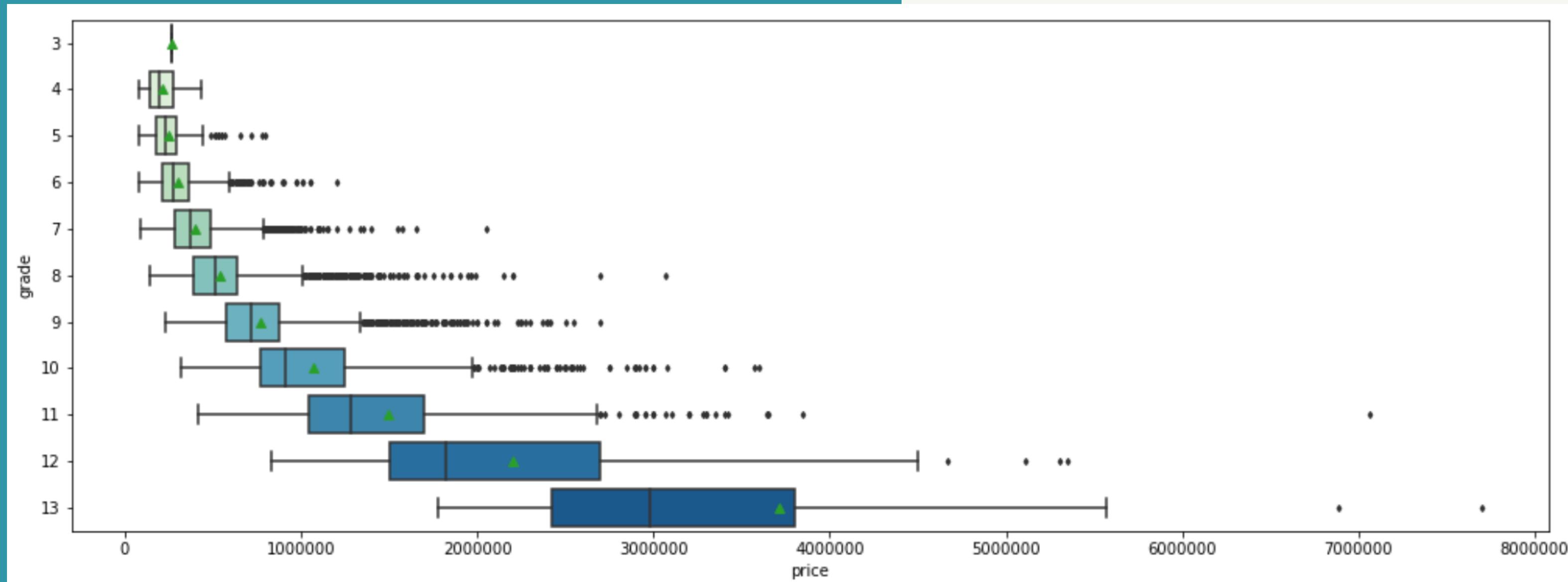
Data Preparation Strategy

- IDENTIFY AND TACKLE OUTLIERS
- LOG CONTINUOUS VARIABLES
- ONE HOT ENCODE CATEGORICAL VARIABLES
- CALCULATE RELATIVE AGE BASED ON YEAR BUILT OR RENOVATED
- CATEGORIZE IN SEATTLE VS. OUTSIDE SEATTLE
- SET PRICE CEILING

CONTINUOUS VARIABLES

Eg. Square Feet vs. Price



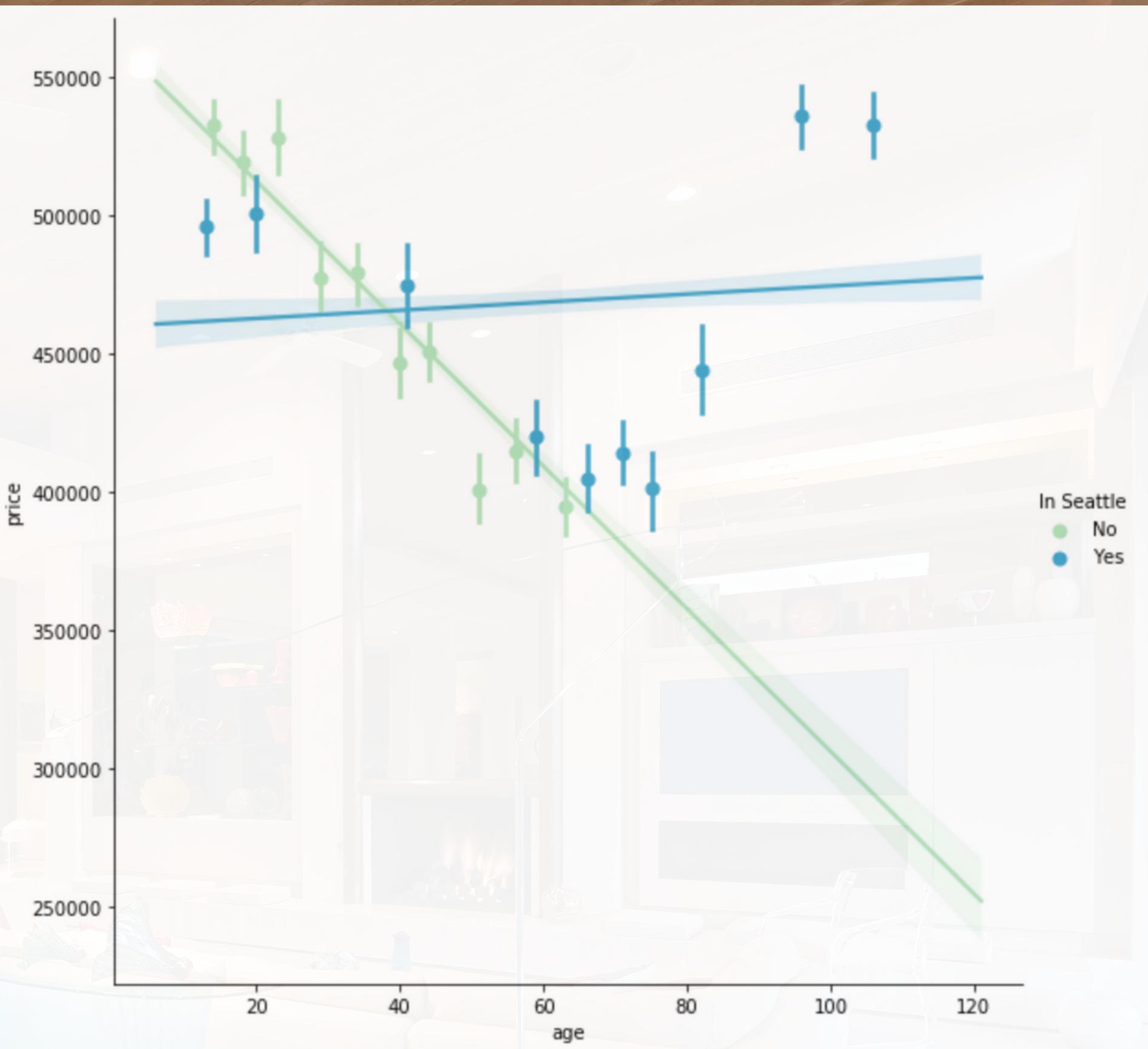
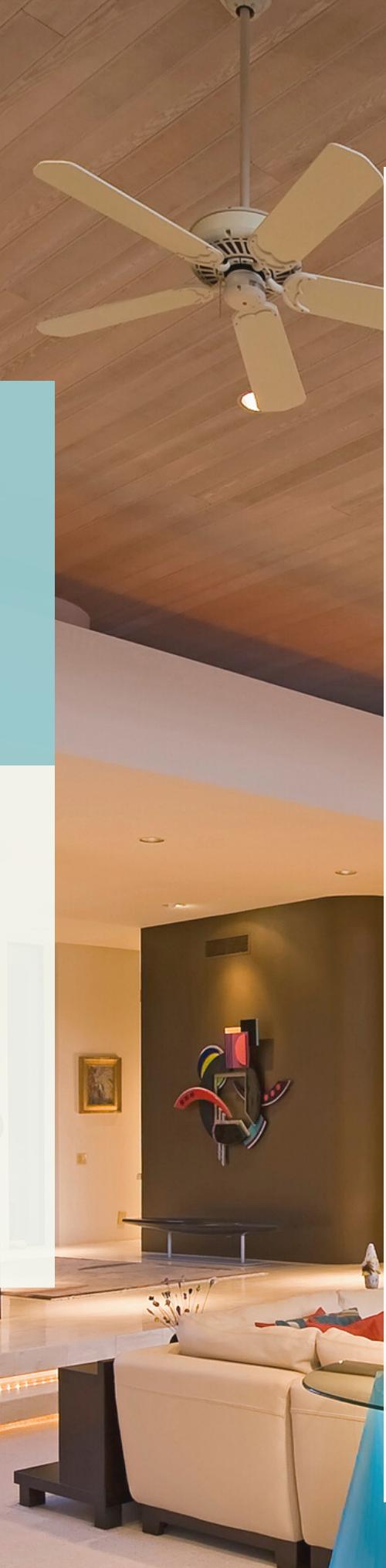


CATEGORICAL VARIABLES

Eg. Grade vs. Price

INTERESTING FINDING

Some older homes in Seattle (85+) tend to be more expensive than newer homes





RESULTS

Current model can explain 51.3% of variance and is generalizable for new data

Next Steps

USE ALL VARIABLES

Properly transform and utilize all available variables for better predictions

BUILD SEPARATE MODELS

Factor in what is important for home-flippers, first-time home buyers and luxury markets

CREATE GUI FOR DATA ENTRY

Make the tool easy to use for home buyer real estate agents



Thank You



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