King County, WA Housing Data Analysis

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Questions to Ask

What features of a house are linearly related to price?

What are the most important factors when determining price of a house?

Does the location or internal features of a house affect the price?

Housing Dataset

- The data given is from King County, WA
- The dataset contains features about: bedrooms, bathrooms, square footage, location, view, waterfront, number of floors, zipcodes
- Our goal is to build a model to predict the price sale in order to come up with actionable insights

Filters for Our Target Houses

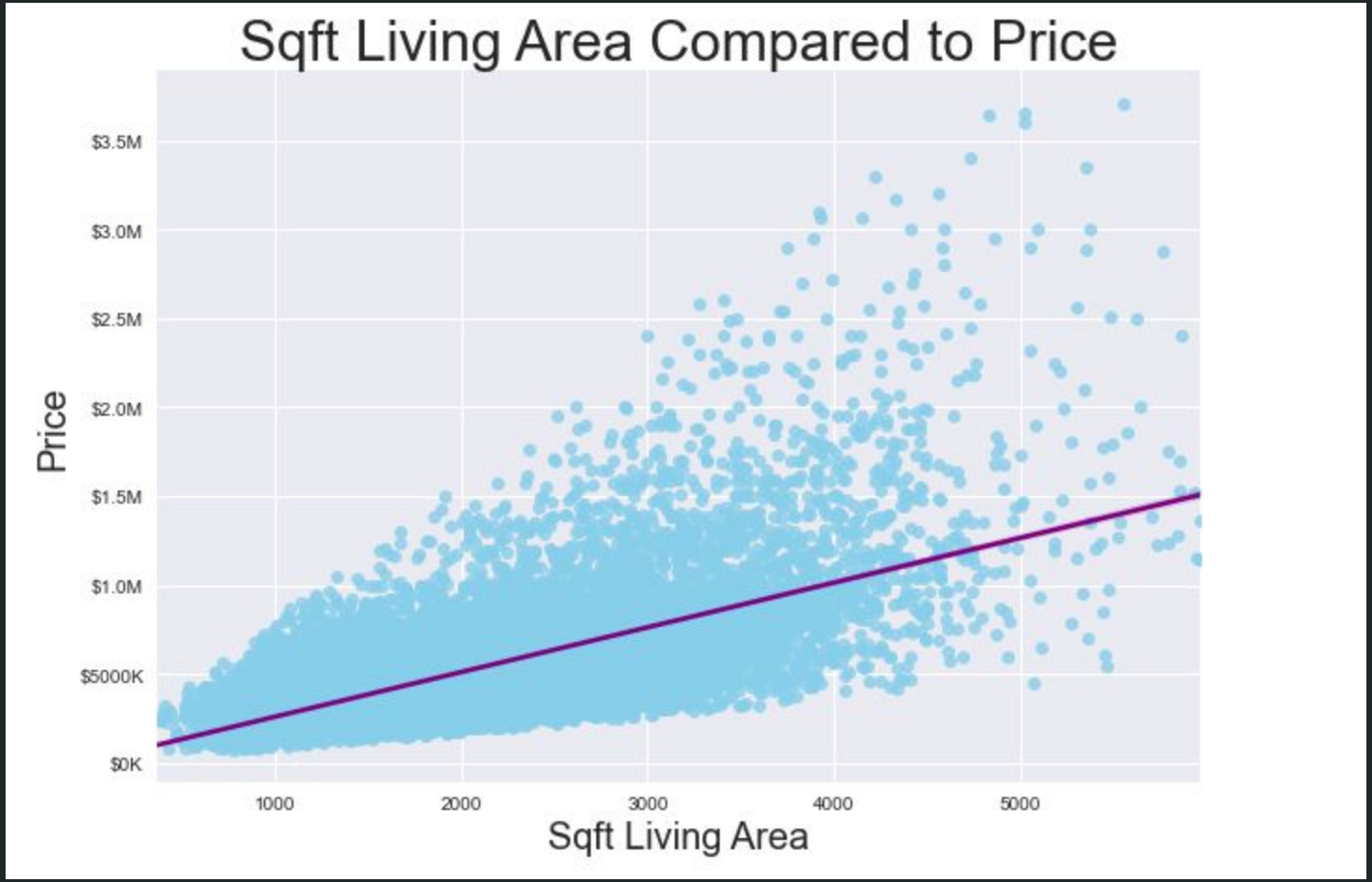
- $78,000>= Price <= $5,570,000
- Bedrooms < 10
- Bathrooms < 4
- Floors < 3
- 370 sqft >= Living <= 5990 sqft

Top Features

- Zipcode:
  - 98112, 98039, & 98004
- Square Foot Living
- Grade
- Condition
- View

Top Findings

- Zipcode 98039
  - Coef = 1.27, price will increase by 12.7%
- Sqft Living
  - Coef = .17, price will increase by 1.7% per 100 sqft
- Highest Grade
  - Coef = .44, price will increase by 4.4%


Sqft Living Area Compared to Price
Price
$3.5M
$3.0M
$2.5M
$2.0M
$1.5M
$1.0M
$5000K
$0K
1000
2000
3000
4000
5000
Sqft Living Area

Grade based on Price
Price
$3.5M
$3.0M
$2.5M
$2.0M
$1.5M
$1.0M
$5000K
$0K
$-5000K
4
6
8
10
12
Grade

Grade based on Sqft Living Area
Sqft Living Area
$60K
$50K
$40K
$30K
$20K
$10K
$0K
4
6
8
10
12
Grade

Conclusions

The most important features to focus on are grade and square foot living

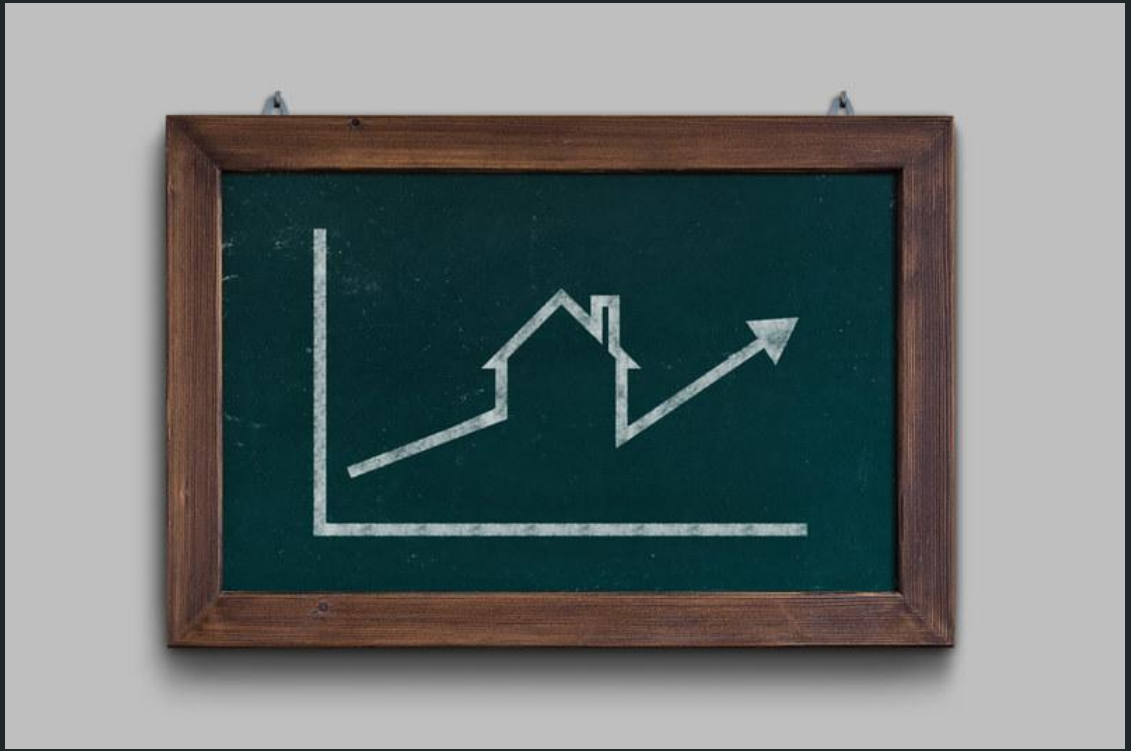
Location (geographic features) is also important

Recommendations

1. Renovate to increase square footage.

2. Target certain areas to buy and resell.

3. Invest in upgrades to improve quality.



Future Work

1. Gather data from different school districts in KC to see if there is a relationship with prices of a house and the quality of schools.

1. Look at location to see how much of a factor it plays into the price of a house (lat/long).

2. Get before/after stats on renovated houses to see the frequency houses are being renovated and if it has an effect on prices.

Thank You!
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