King County Housing:

Getting the Most Out of Your Future House Sale

By Jeff Spagnola

Introduction

Your home is the biggest investment you'll ever make. Obviously, **you want to maximize the return on this investment when it's time to sell**. We will attempt to figure out the key features that drive the sale price.

In this presentation, we will be examining house sale data for King County, WA in order **to pinpoint the specific factors that drive the sale price of a house** in this area.

About King County

- King County is located in the northwest of Washington State.
- Population: 2,252,782 (est.)
- Most highly populated county in Washington.
- Home to Seattle-Tacoma-Bellevue metropolitan area.

1.The Data

Let's look at the King County dataset

The Data

The data used in this presentation comes from the King County Housing dataset. This dataset is fairly robust and includes information on many features of a house that can affect the overall sale price.

2.The Process

How does this work?

The Process

The data was processed using the OSEMN data science process. The steps of the OSEMN process are detailed in the image below.

Data Science Process

OBTAIN	SCRUB	EXPLORE	MODEL	INTERPRET
O	**S**	**E**	**M**	**N**
Gather data from relevant sources	Clean data to formats that machine understands	Find significant patterns and trends using statistical methods	Construct models to predict and forecast	Put the results into good use

Originally by Hilary Mason and Chris Wiggins

LEAD
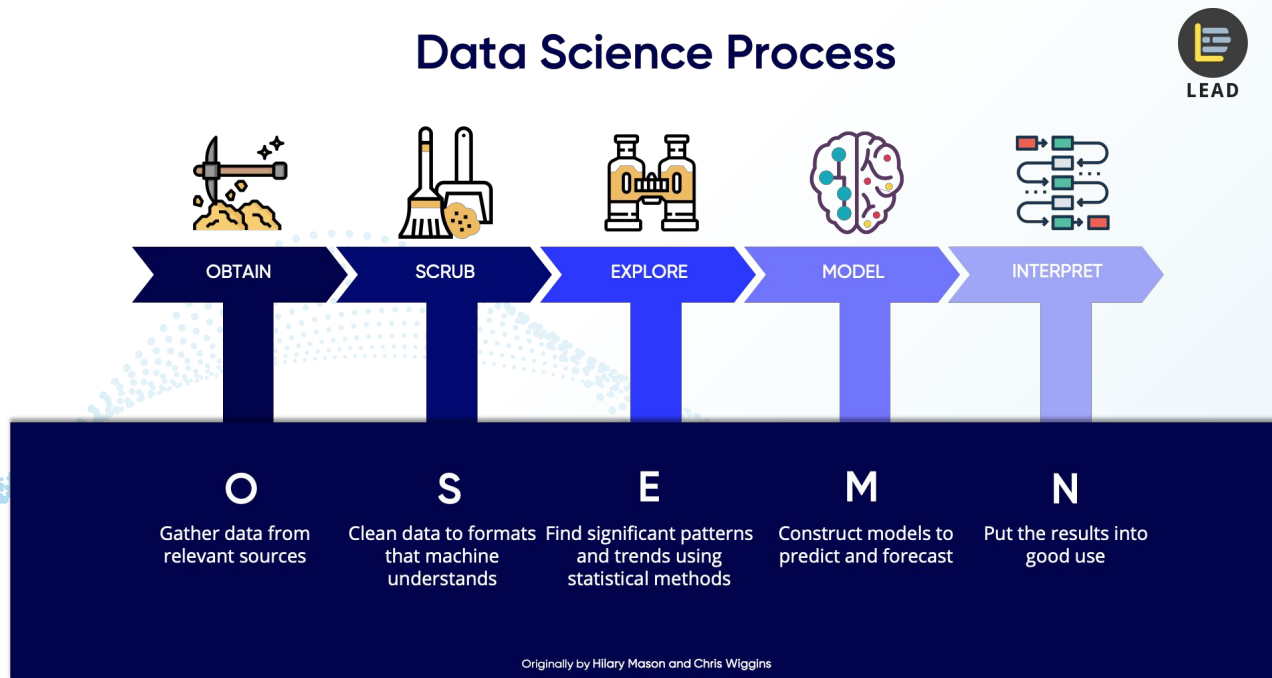
3.The Results

What did we find out?

Results

We have found that the features that are most important in driving the sale price are Grade, Zipcode, Bathrooms, Basement, and Condition

Coefficient by feature
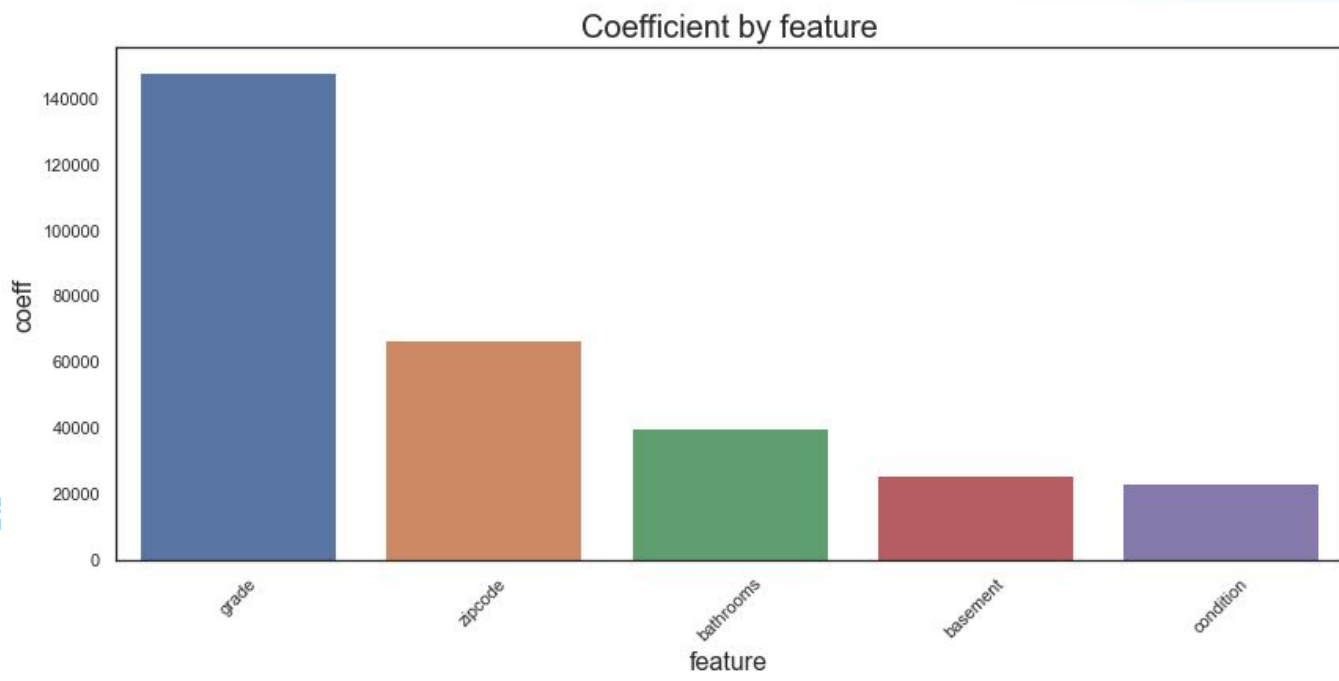
Results - Zipcode

Location Consideration

Houses in certain zipcodes do tend to sell for substantially more than houses in other zipcodes.

Coefficient by zipcode
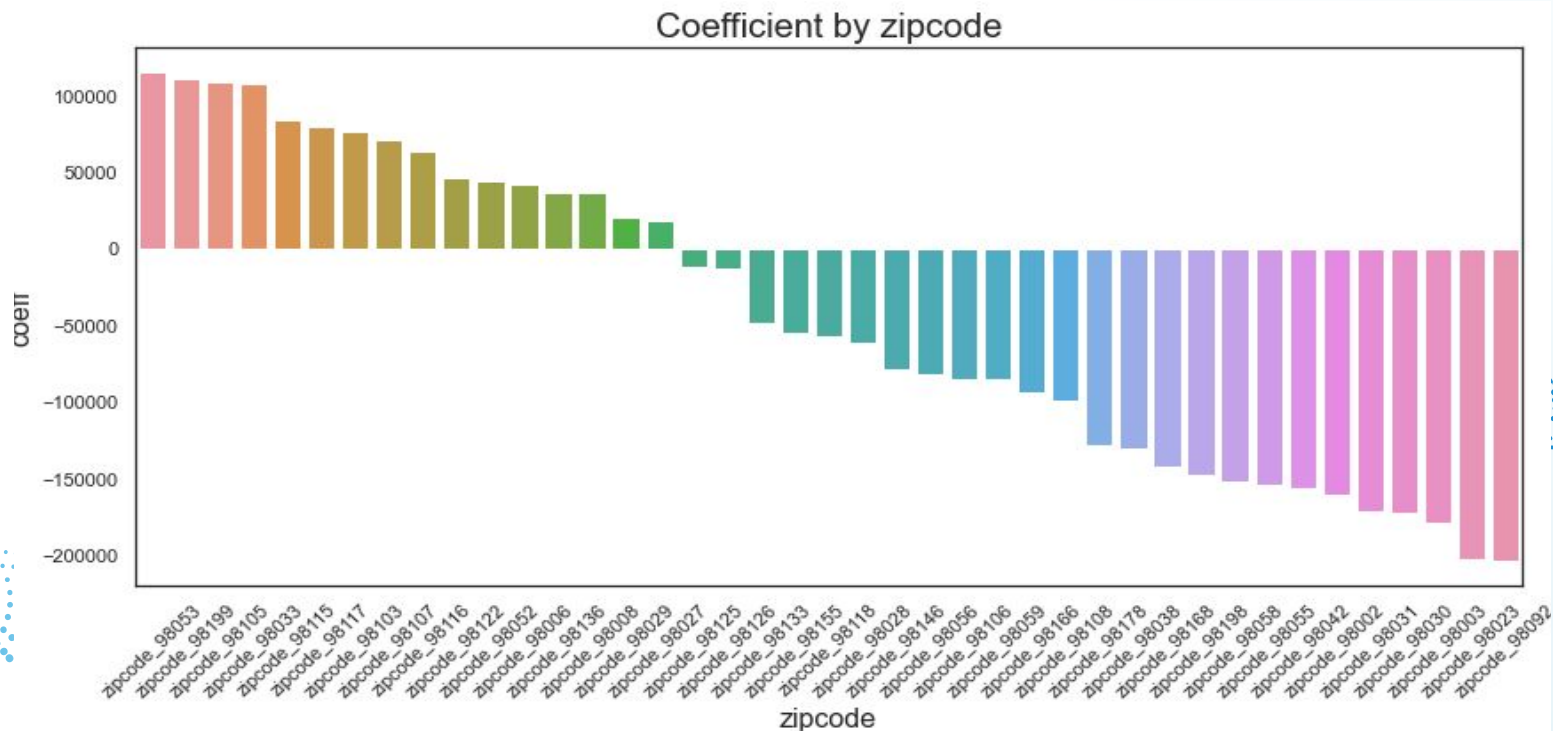
Results - Zipcode Map

King County Average Sale Price by Zipcode

© 2020 Mapbox © OpenStreetMap
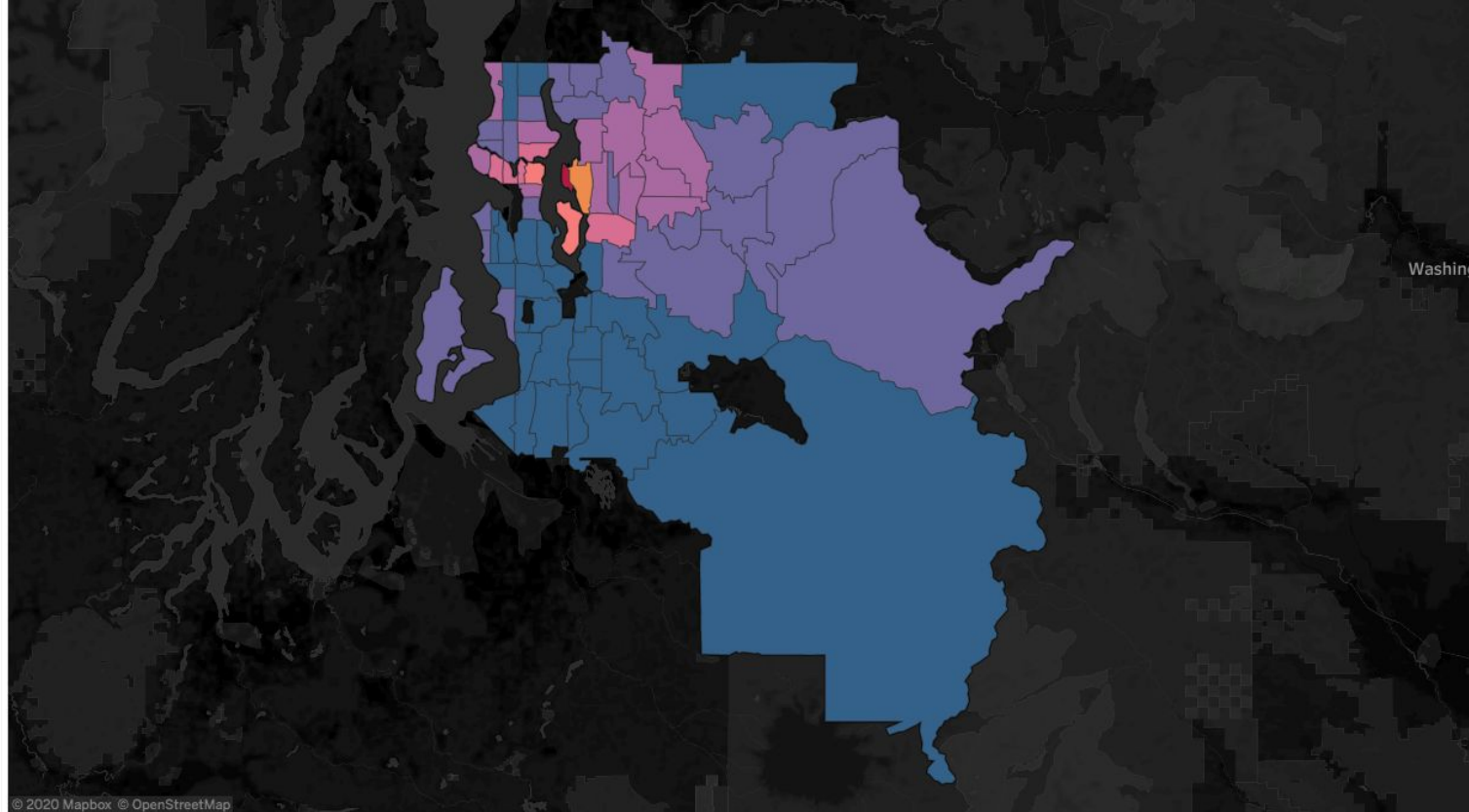
Results - Grade

Grade is the largest contributor to the overall sale price. A grade within 7 and 9 represents highest impact on sale price.

Coefficient by grade
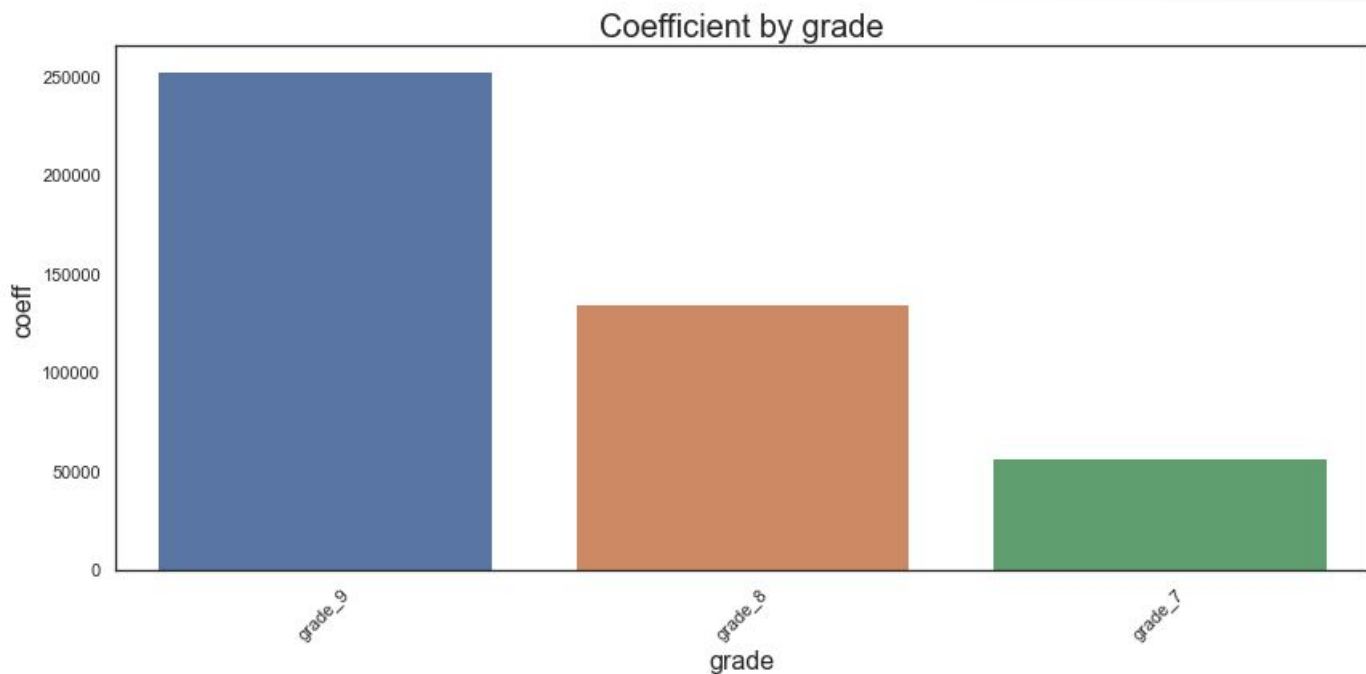
Results - Bathrooms

Bathrooms are another large contributor. Generally, the more bathrooms, the higher the sale price.
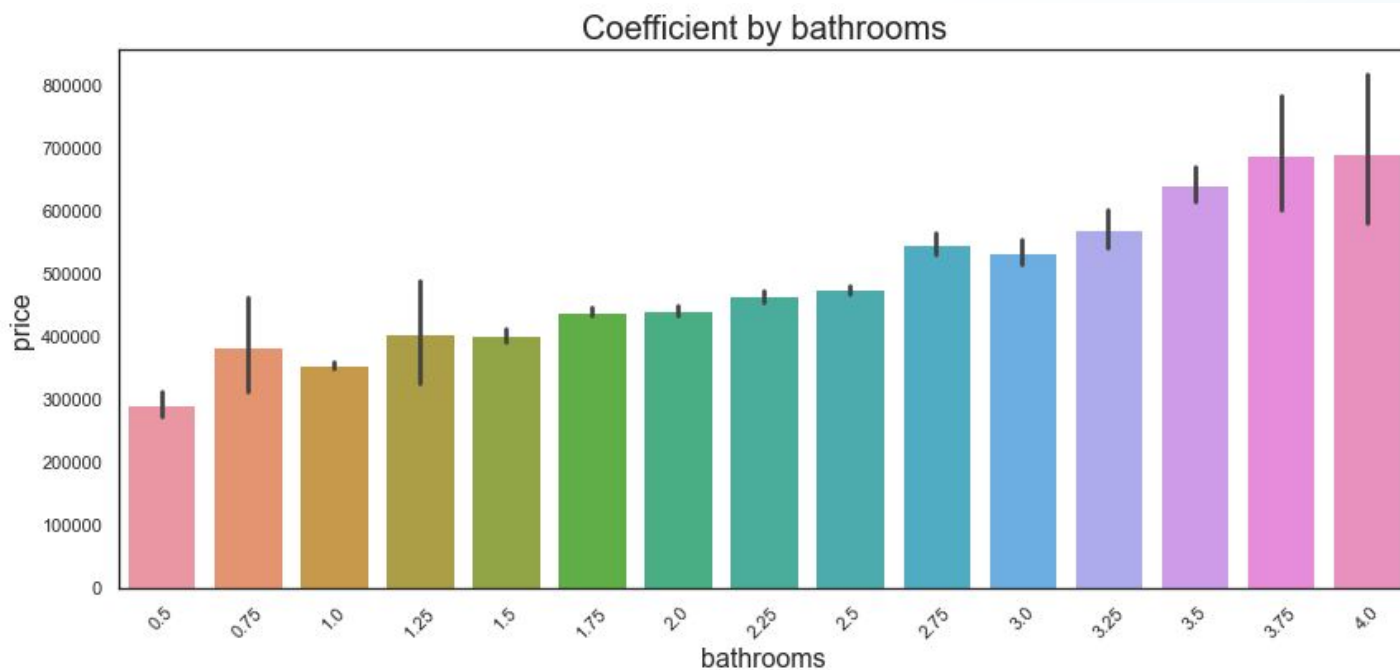
Results - Basement

If a house has a basement, it will sell for a higher price than a house without a basement.
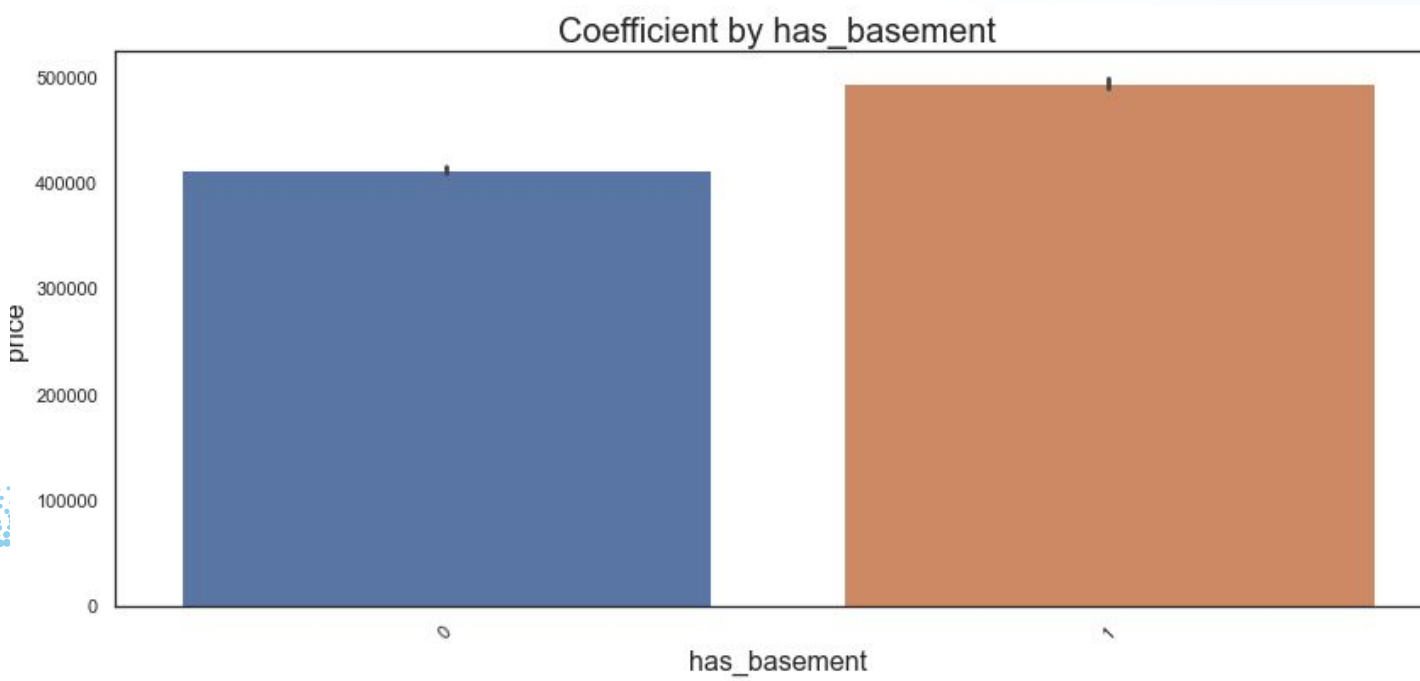
Results - Condition

Generally, the higher the condition grade, the more the higher the sale price.

Coefficient by condition
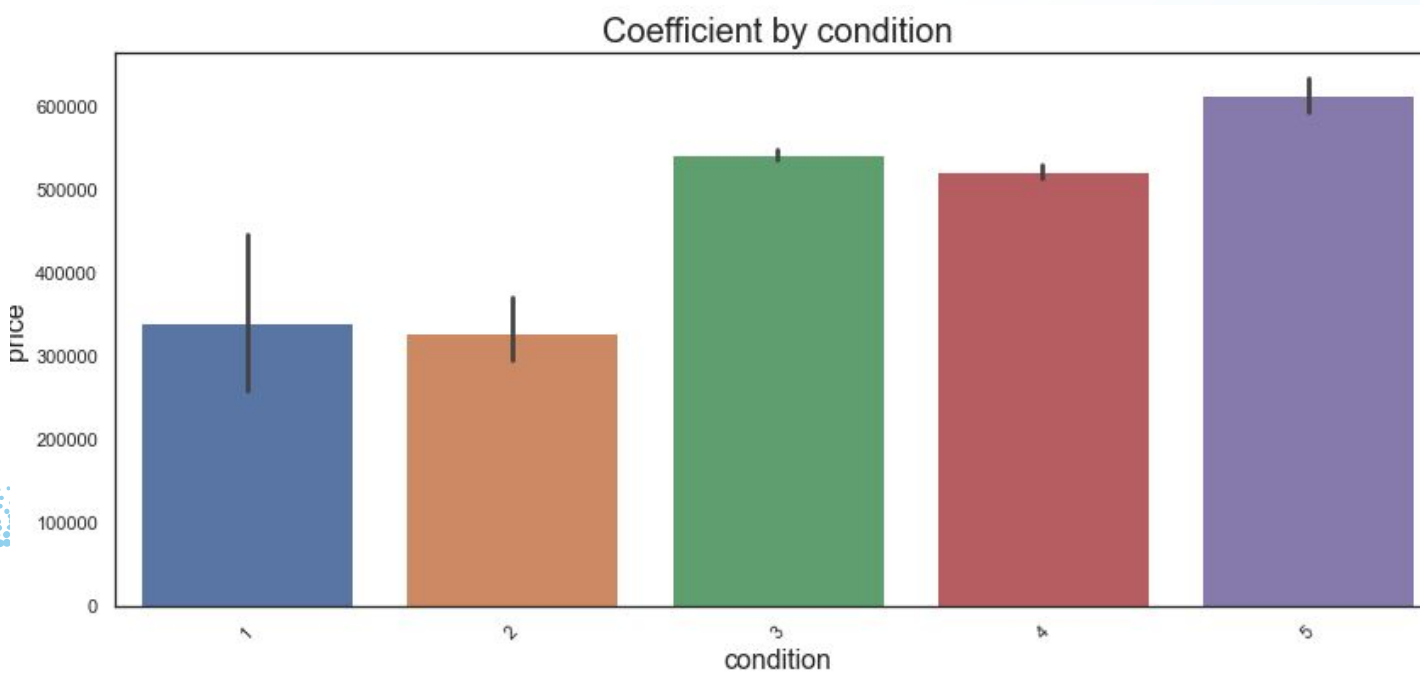
Results - By the Numbers

If certain conditions are met, you can expect the following increase to your sale price.

By the Numbers:

Grade (7-9): $148,018.74 (average)

Top Zipcodes: $66, 629.05 (average)

Bathrooms: $40,018.49 per bathroom

Basement: $25,934.89 if present

Condition: $23,521.84 if score is 5

4.Recommendations

What do we recommend?

Recommendations

Based on the results, we have the following recommendations:

- Aim for having a Grade of 9.

- If possible, increase the amount of bathrooms.

- If possible, consider creating a basement.

- Make sure your house is able to achieve a Condition grade of 5.

Future Work

With more time, we could establish a deeper understanding of the housing market and pull different insights.

Accuracy

With more time, we can increase the accuracy of our models in order to be able to dive deeper into the data.

Timing

Is there an emerging trend in your neighborhood? If the market is on the rise in your zipcode, it may be worth waiting til the optimal time to put your house on the market.

Investment Properties

Are there houses in King County that could see a huge return on investment with only minor renovations?

Thanks!

Any questions?

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