King County House Sales Analysis

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Outline

Business Problem

Star Real Estate Agency (imaginary real estate company in Seattle) is seeking advice to close deals with higher housing sales prices. In this project, we are providing analysis on which features can bring more monetary value as well as strategy. We are also creating a model to estimate the price of a home when those criterias are met. Questions to consider:

1. Is a waterfront property worth more than an inland property?

2. Does the number of viewings to potential buyers affect the housing price?

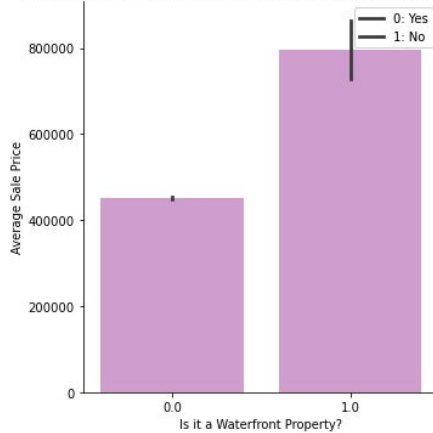3. Does the King County grading system affect the housing price?

King County House Sales Dataset

- Began with ~21,600 rows of real estate transactions from King County, Seattle (WA) from 2014-2015
- Worked with ~16400 rows of data after removing the outliers using IQR method
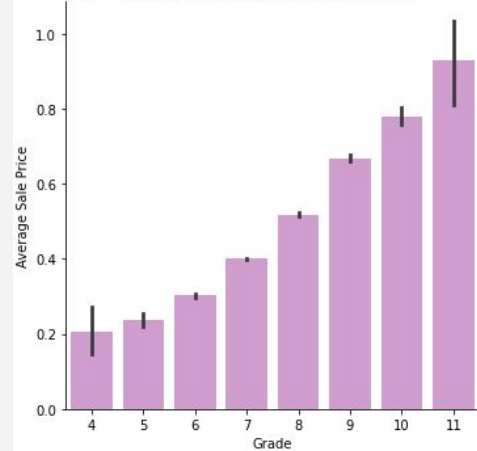
On average,
a **waterfront** property is worth

$344,597

more
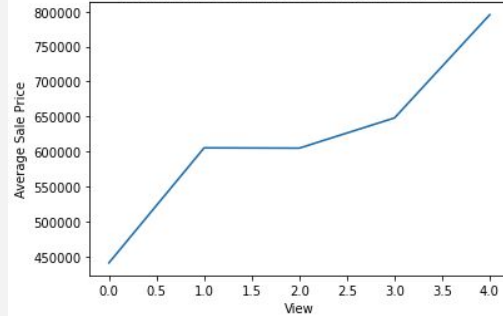
On average,
a property with **the most number of views** is worth

$354,748

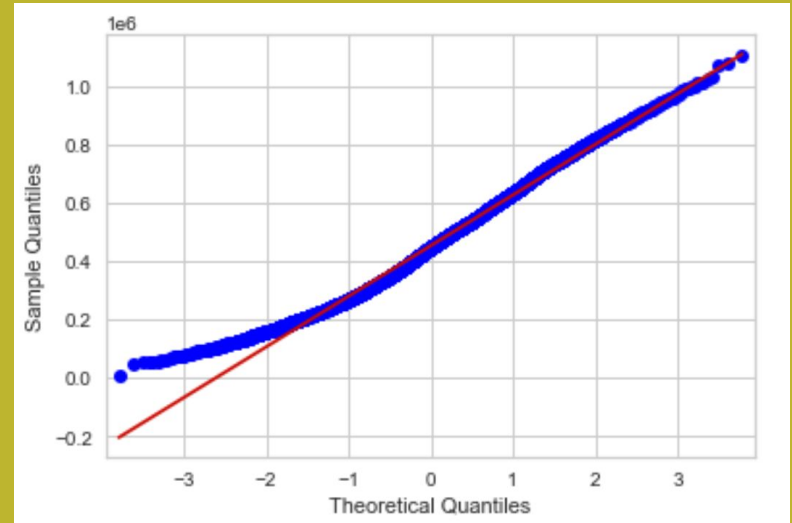more than a property with 0 views

On average,
a property with **the highest grade** is worth

$723,700

more than a property with the lowest grade

Features	Uses feature engineering on zipcode to improve model's predictability
Precision	83%
Error	$78,833

The best model was able to explain 83% of the variance in the average sale price within $78,833.

sqft_living

- one additional sqft can increase the sales price by $40,288

Grade

- Uses King County grading system
- For every increase in grade, the housing price can increase by $36,012

sqft_above

- Within the total sqft of the space, the overall living space apart from the basement matters.
- An increase in sqft_above can up the sales price by $33,100

1. The larger the better! The bigger the living space is, the higher the sales price will be.

2. Overall living space matters, but the space apart from basement matters more.

3. Secure waterfront properties when available.

4. Advertise and show the properties to many people.

5. Grading matters. Try to get properties with higher grades if possible.

THANKS!

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