Home Price Indicators

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Prepared for: Homeowners

Agenda

- o Business Problem
- o Data & Methods
- o Results

Home Values

Business Problem

Advise homeowners on how to maximize on value for their homes
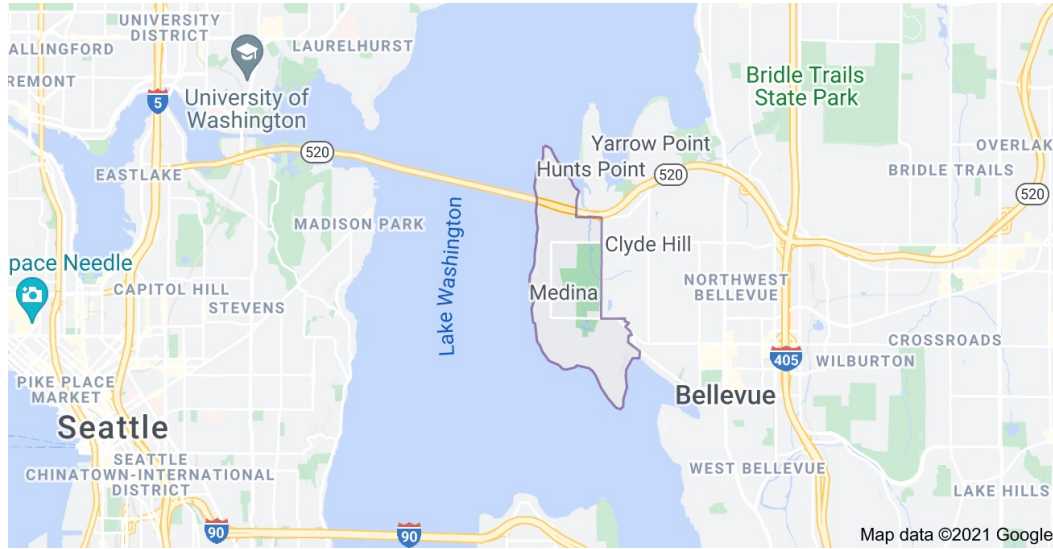
We will explore what kinds of attributes contribute to home value

Data & Methods

- This project uses the King County House Sales dataset
  - 21,597 observations with 21 variables

- The data includes many different types of information about each sale, including selling price, square footage, property type (waterfront or not), ZIP code, etc.

- For this project, I used regression modeling to analyze house sales in King County, which is located in the U.S. state of Washington
  - It the most populous county in Washington, and the 12th-most populous in the US
  - The county seat is Seattle, also the state's most populous city

Location, Location, Location

Map data ©2021 Google

- When it comes to calculating a home's value, location can be more important than even the size and condition of the house.

- ZIP codes accounted for the top 32 parameters when it came to determining value of homes in King County

After location, square footage is the best determinant of value

- When estimating your home's market value, size is an important element to consider, since a bigger home can positively impact its valuation.

- We determined that for every 1 standard deviation increase in the square footage, our dependent variable (price) increases by about 0.20%.

- For every 20% increase in square footage, your home price would increase by about 3.6 percent.

Final Model Results

- Our final model ended up with an R-squared value of 0.833 or 83.3%
  - R-squared is always between 0 and 100%:
    - 0% indicates that the model explains none of the variability of the response data around its mean.
    - 100% indicates that the model explains all the variability of the response data around its mean.

- The final model included 82 features, most of which are dummy variables for ZIP codes.

- RMSE is interpreted as the mean error in USD, so the average of the actual price will be $97,858 more or less than our predicted price.

Thank you

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