King County Real Estate

Predicting Prices and Assisting Sellers

Outline

Business Problem

Data

Model

Results

Recommendations

Business Problem

Real estate agencies in King County, WA want to be able to

1. Recommend whether sellers should make upgrades to their house before selling

2. Provide accurate estimates for price

Data

King County makes data available to the public
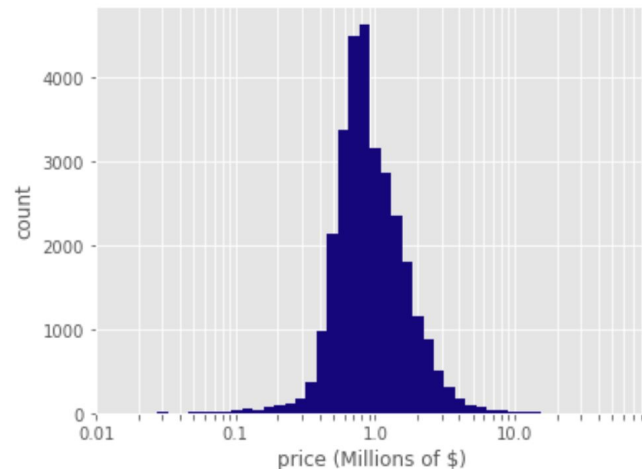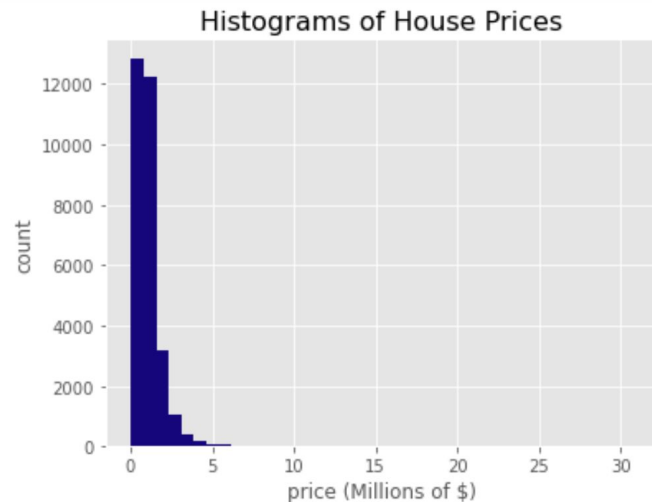
Contains 30,154 house sales

Data includes:
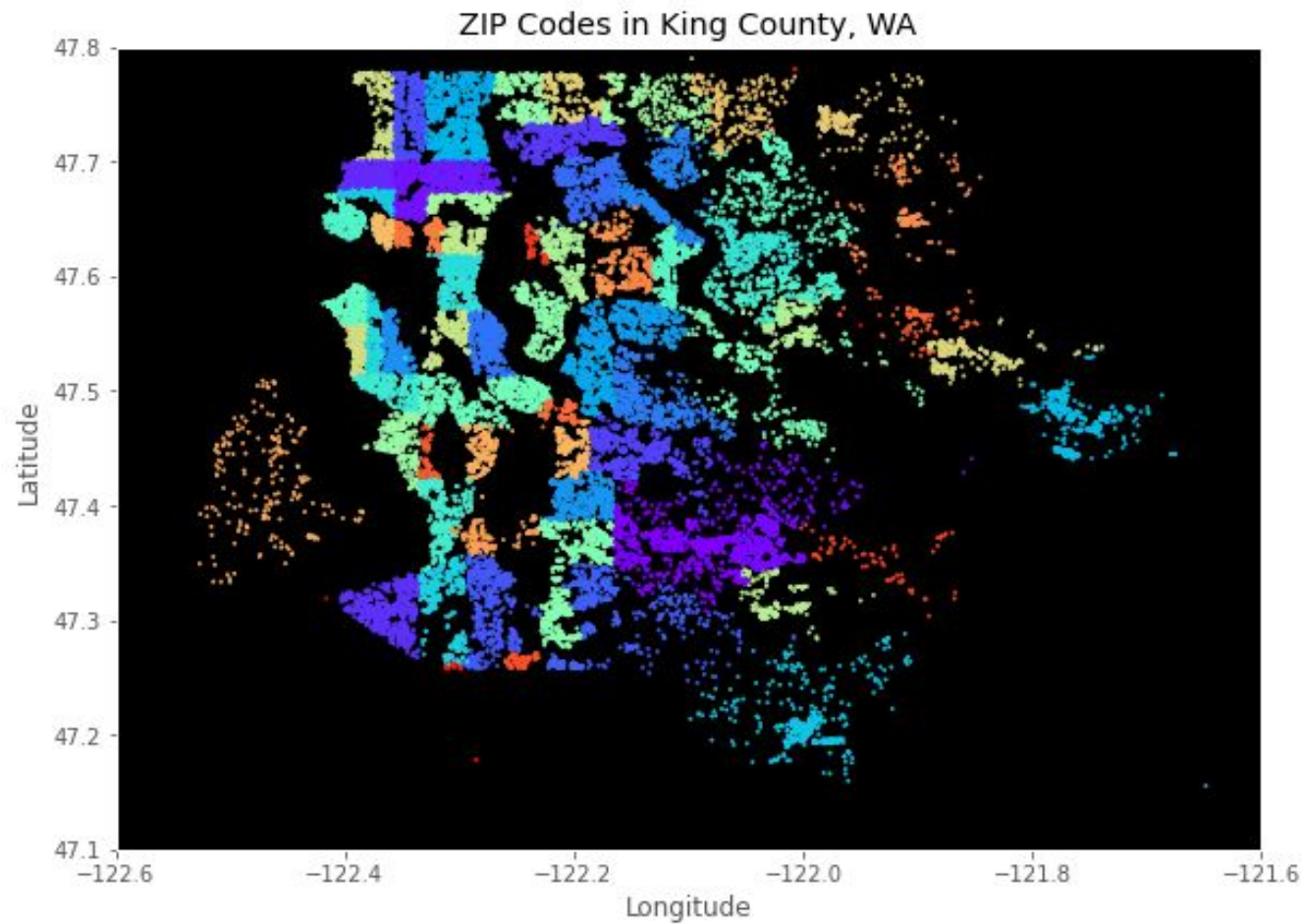
Price   Location

Square footage   Quality of house

Environment around house

Whether house was renovated

Histograms of House Prices

ZIP Codes

ZIP Codes in King County, WA

Model: Linear Regression

Model Predicts Price Based On:	Baseline Model Assumes:
Square feet of living space	1920 square feet
ZIP code	98042 (has most data)
Grade	8
Condition	Average
Whether a renovation was done	No renovation
Whether house is on a waterfront	Not on a waterfront

Model starts with baseline price of $636,057.

Changing any feature multiplies the price by some factor
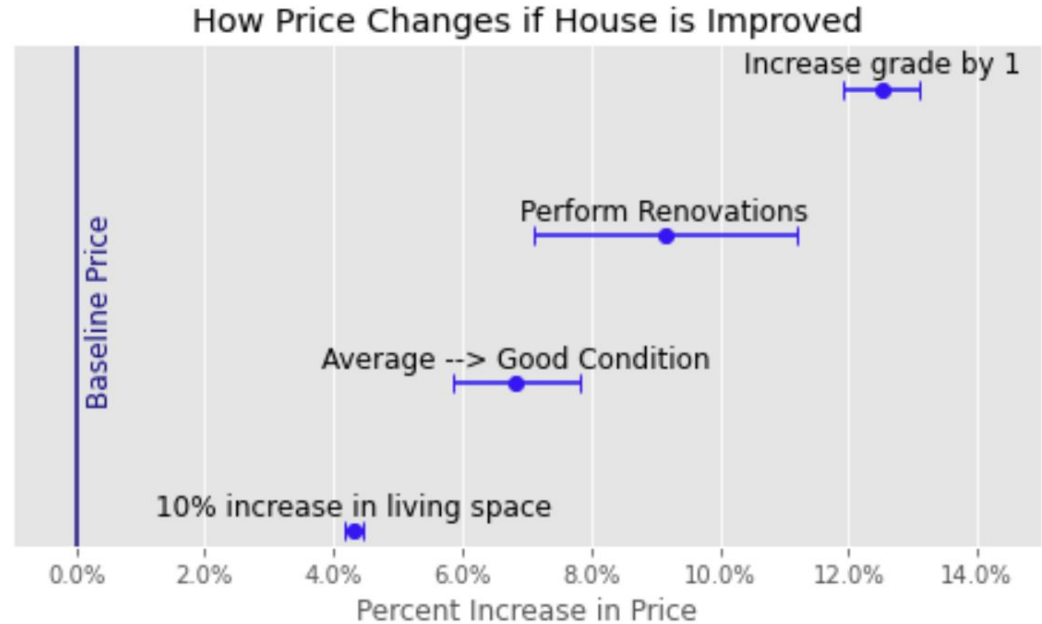
Factors determined by fitting real data

Results

Increasing <u>grade</u> makes the biggest improvement.

<u>Renovations</u> and improving <u>condition</u> also make a significant difference.

Price increases more for more expensive homes according to this model

How Price Changes if House is Improved

Example

Seller has house valued at $750,000.

Performing renovations is predicted to increase the price to $818,632.

As long as the renovations cost **less than $68,632**, the seller would benefit from doing the renovations.

If the renovations would increase the grade, condition, or square footage, it could potentially raise the price even more.

Thank You

Any Questions?

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GitHub For This Project: https://github.com/daviderics/KC-House-Sales-Phase-2-Project

LinkedIn: https://www.linkedin.com/in/david-schenck-57183b264/