

# **King County Housing Analysis**

## **Module 2 Final Project**

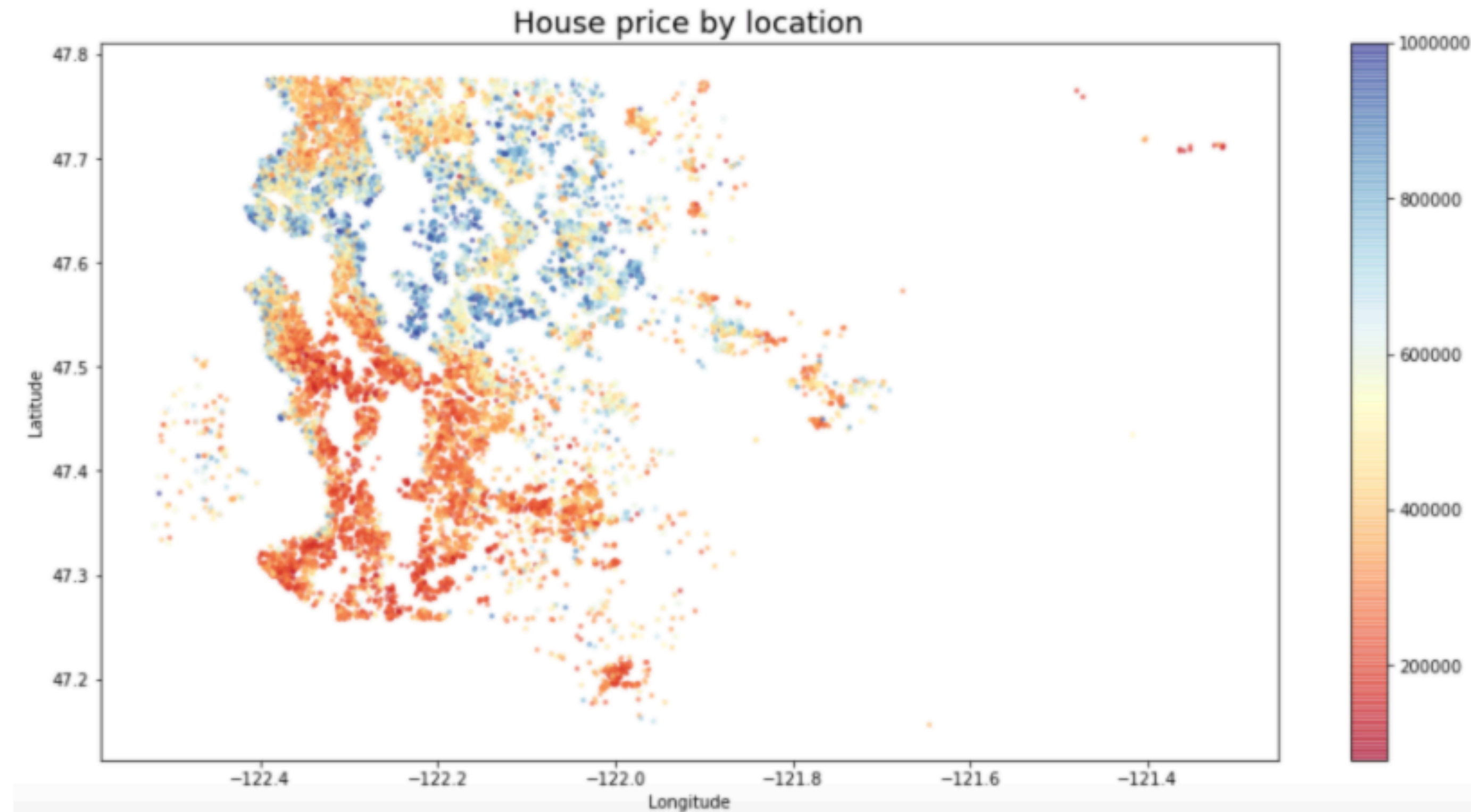
**Josh Blumer 3/2/21**





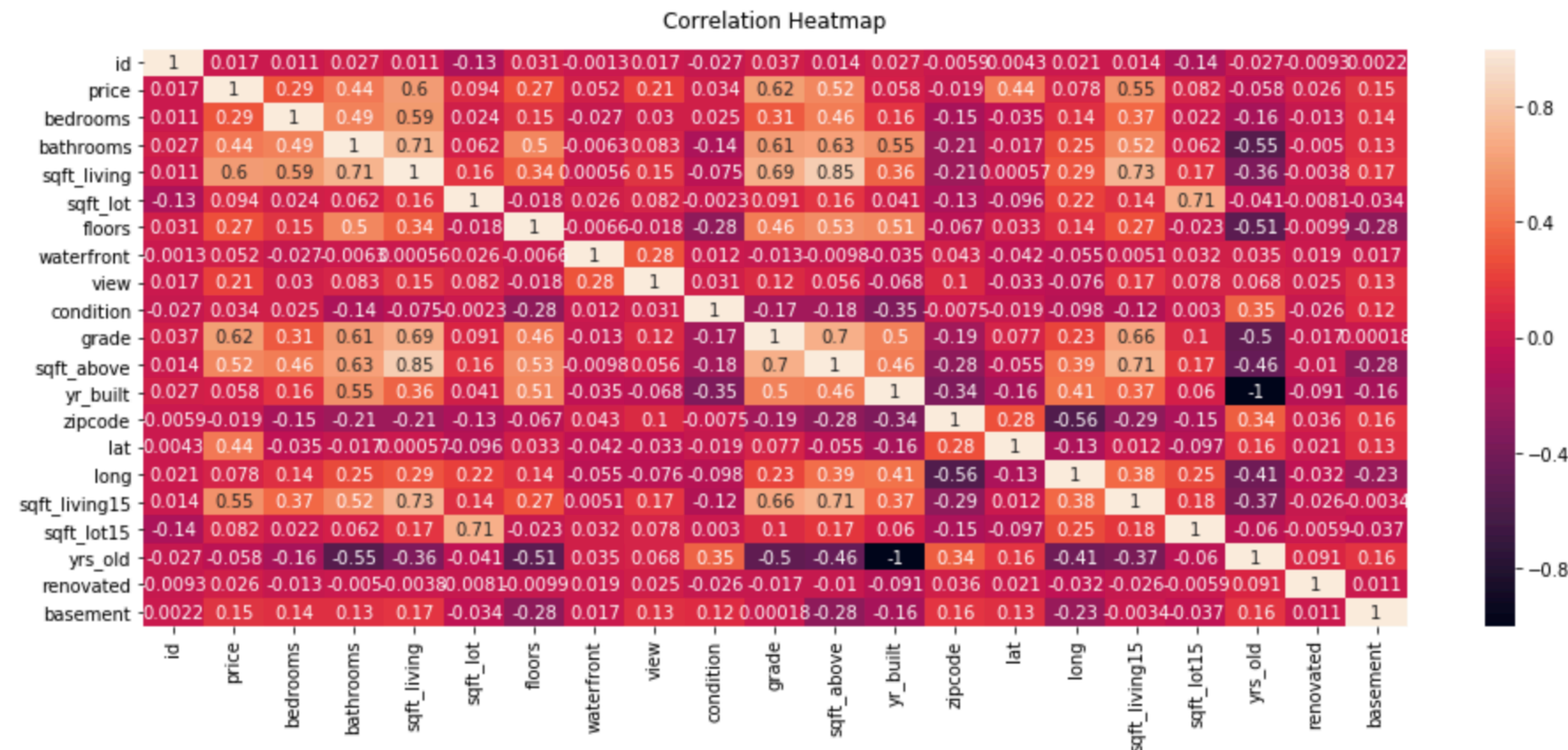
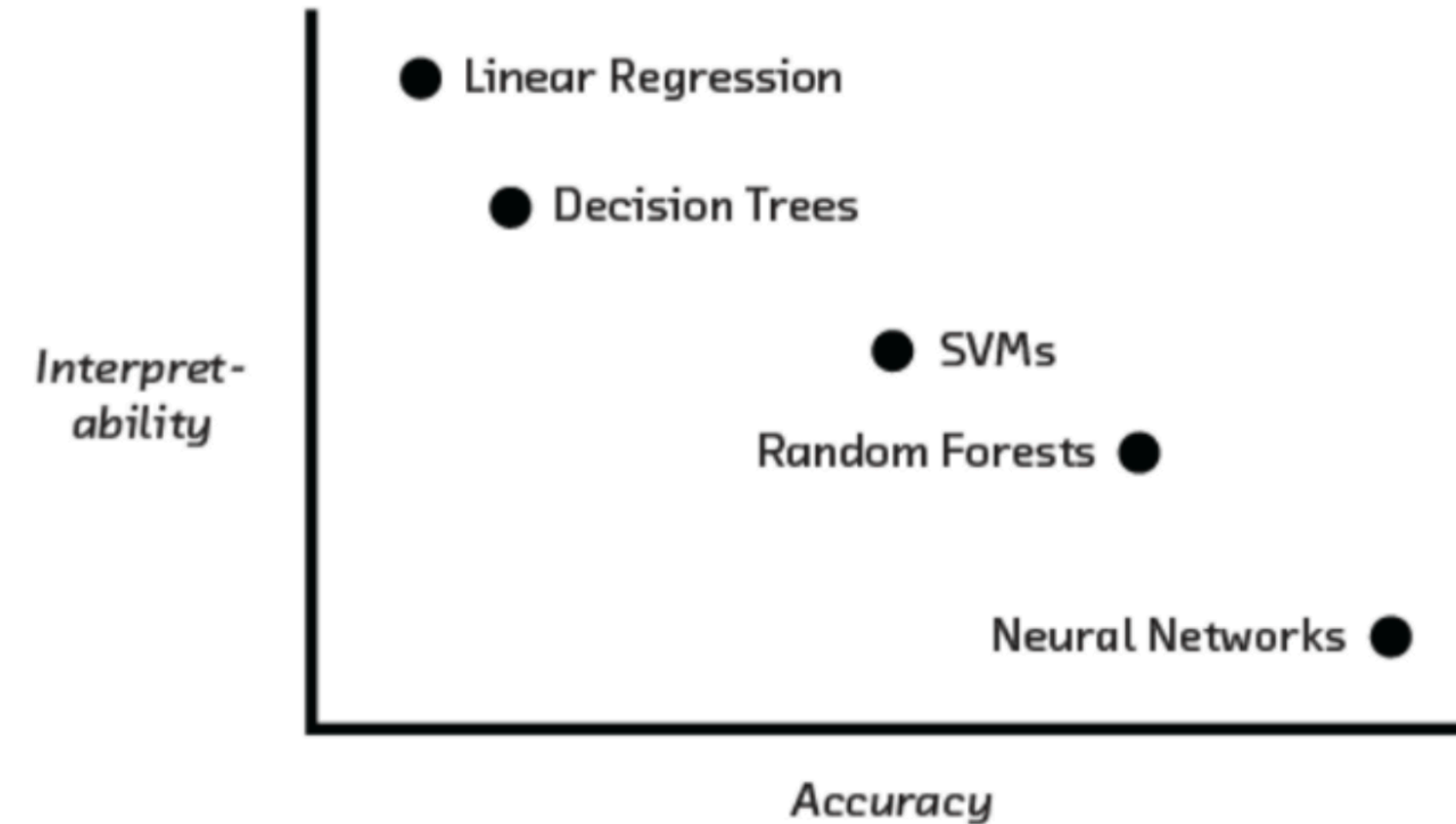
# Introduction

- An exploratory data analysis of the King County housing dataset provided by Flatiron School and found at [kaggle.com](https://www.kaggle.com/datasets/kc-housing)
- Goal: Extract meaningful insights from the data about the King County housing market and apply them to the use case of maximizing profitability when selling a home in that market.



# Methodology

- The data that led to my recommendations was generated through a machine learning algorithm called linear regression that compares correlations of features with each other and a target, which in our case is the price of a home, in order to predict the price of a home given specific values of the chosen features.





# Grade Feature

- The average grade score for a home is 7 and each increase of one point corresponds with a price increase of \$119,500. If you're able to increase your home's grade score by updating design and finish work for less than \$119,500 then you stand to make the difference back from the home sale in profit.

## BUILDING GRADE

Represents the construction quality of improvements. Grades run from grade 1 to 13. Generally defined as:

1-3 Falls short of minimum building standards. Normally cabin or inferior structure.

4 Generally older, low quality construction. Does not meet code.

5 Low construction costs and workmanship. Small, simple design.

6 Lowest grade currently meeting building code. Low quality materials and simple designs.

7 Average grade of construction and design. Commonly seen in plats and older sub-divisions.

8 Just above average in construction and design. Usually better materials in both the exterior and interior finish work.

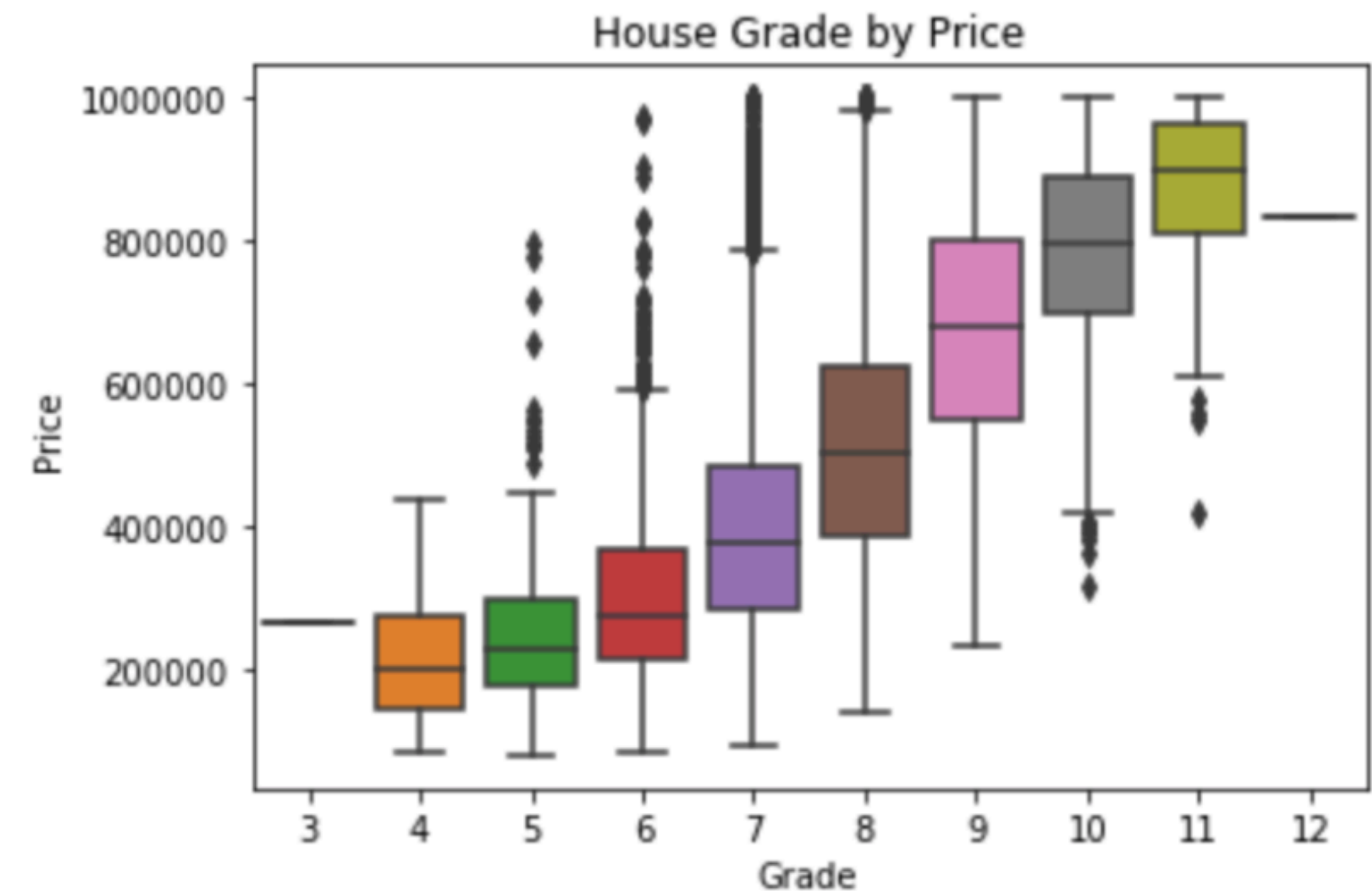
9 Better architectural design with extra interior and exterior design and quality.

10 Homes of this quality generally have high quality features. Finish work is better and more design quality is seen in the floor plans. Generally have a larger square footage.

11 Custom design and higher quality finish work with added amenities of solid woods, bathroom fixtures and more luxurious options.

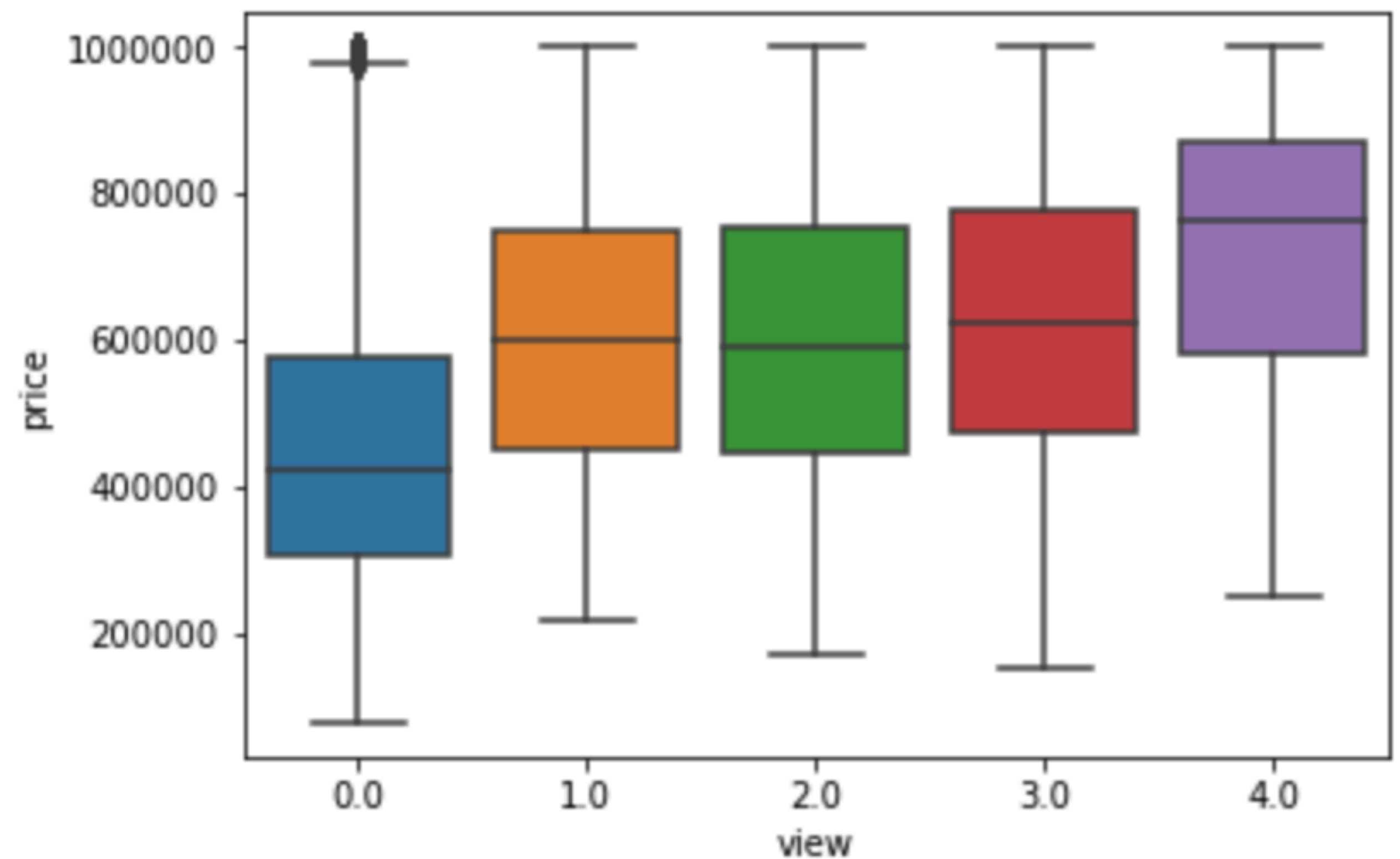
12 Custom design and excellent builders. All materials are of the highest quality and all conveniences are present.

13 Generally custom designed and built. Mansion level. Large amount of highest quality cabinet work, wood trim, marble, entry ways etc.



# View Feature

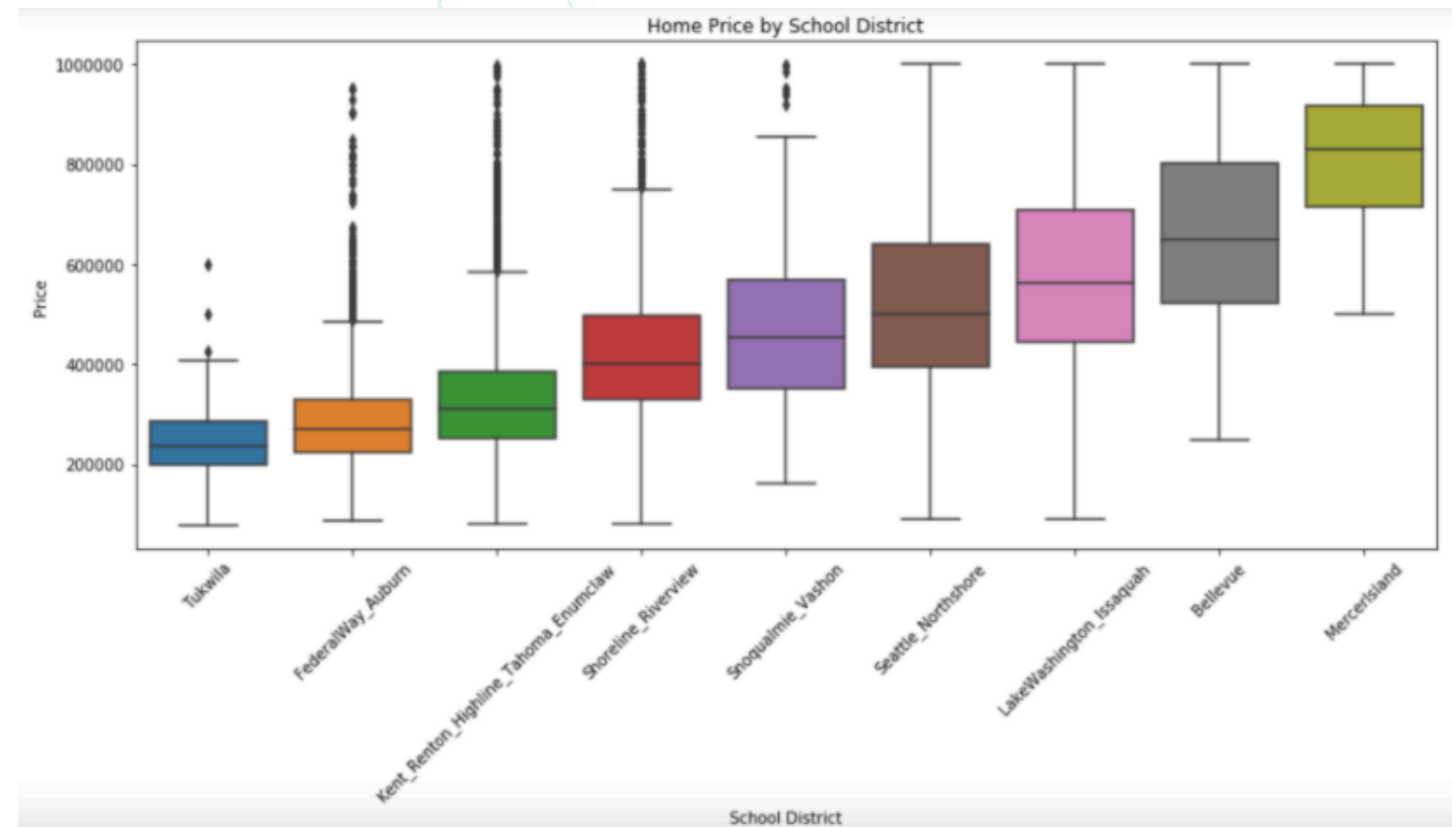
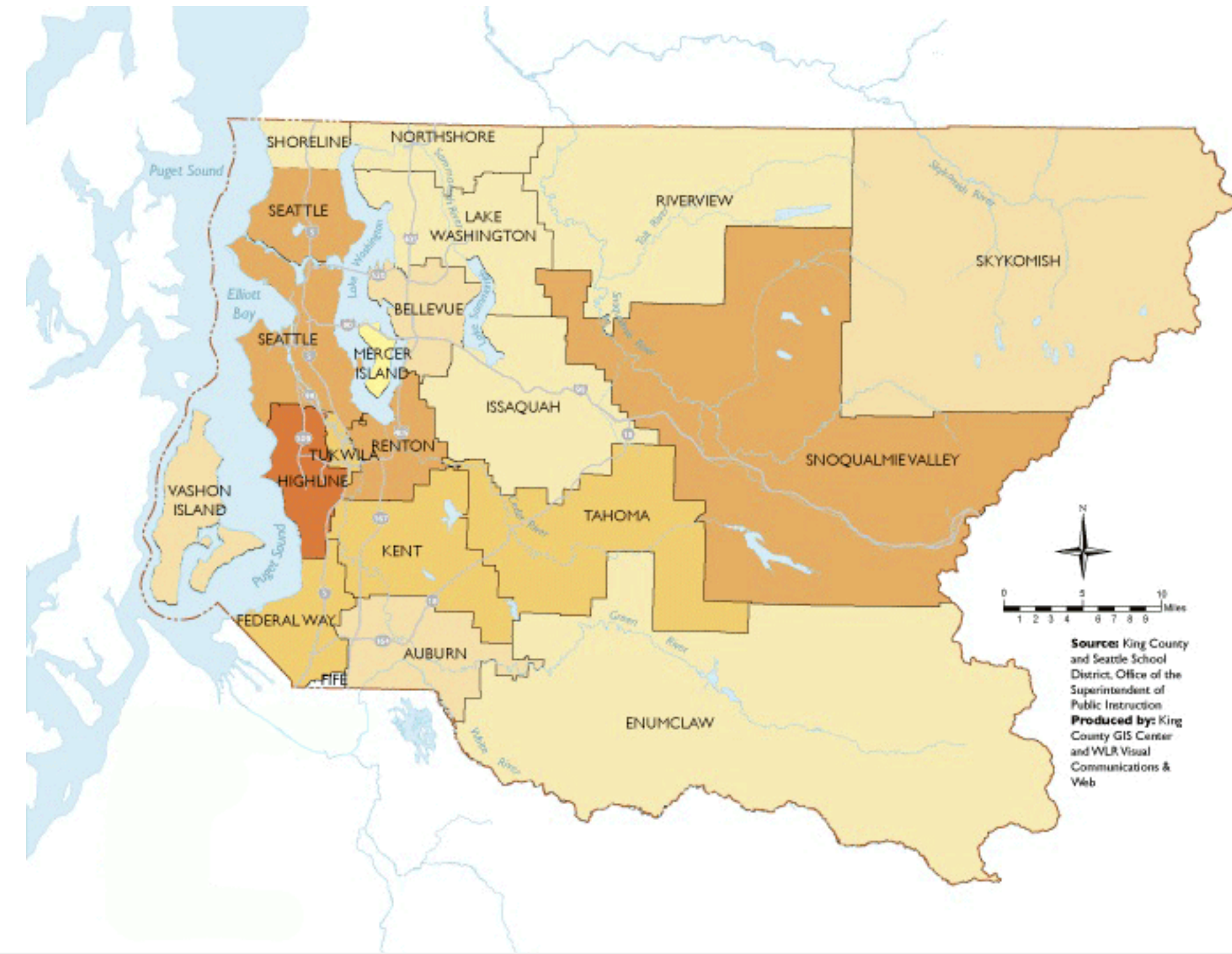
- The mean view score for homes sold in the dataset is 0.23, and each increase of one interval corresponds with a price increase of \$38,870. The more views a home owner is able to attract the more likely they are to obtain a higher selling price. This may indicate that investing money into realtors and advertising to aid in the selling process is worth the cost due to the added visibility of your property.





# School District Feature

- Home price averages for each school district can provide a reference point for how to price your home when selling it. If your home appraisal price falls in between average values of two districts and you reside in the district with the higher average it could be a good indication to wait to receive your asking price rather than accepting a lower offer.



# Summary

- Remodeling and adding on to a home are sure ways to add value to your home and increase profits when selling, but they also require capital to invest into the renovation process.
- If someone doesn't have the capital to invest in renovating their home they can maximize their sale profit by leveraging the school district they reside in and increasing the number of views their home receives before selling by refraining from selling for offers lower than their asking price.

