



Project 2: King County Housing

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DATA SCIENCE FULL TIME

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Overview



THE BUSINESS PROBLEM



DATA MODELING/
REGRESSION MODEL



CONCLUSION/
RECOMMENDATION

Business Problem

A realtorship is experiencing an influx of clients as smaller families are coming into King County. As Microsoft has expanded into the movie entertainment sector, it has hired substantial number of workers. The task is to find a price range of a house depending on the specifications of the client.



Microsoft
Movies & TV

+



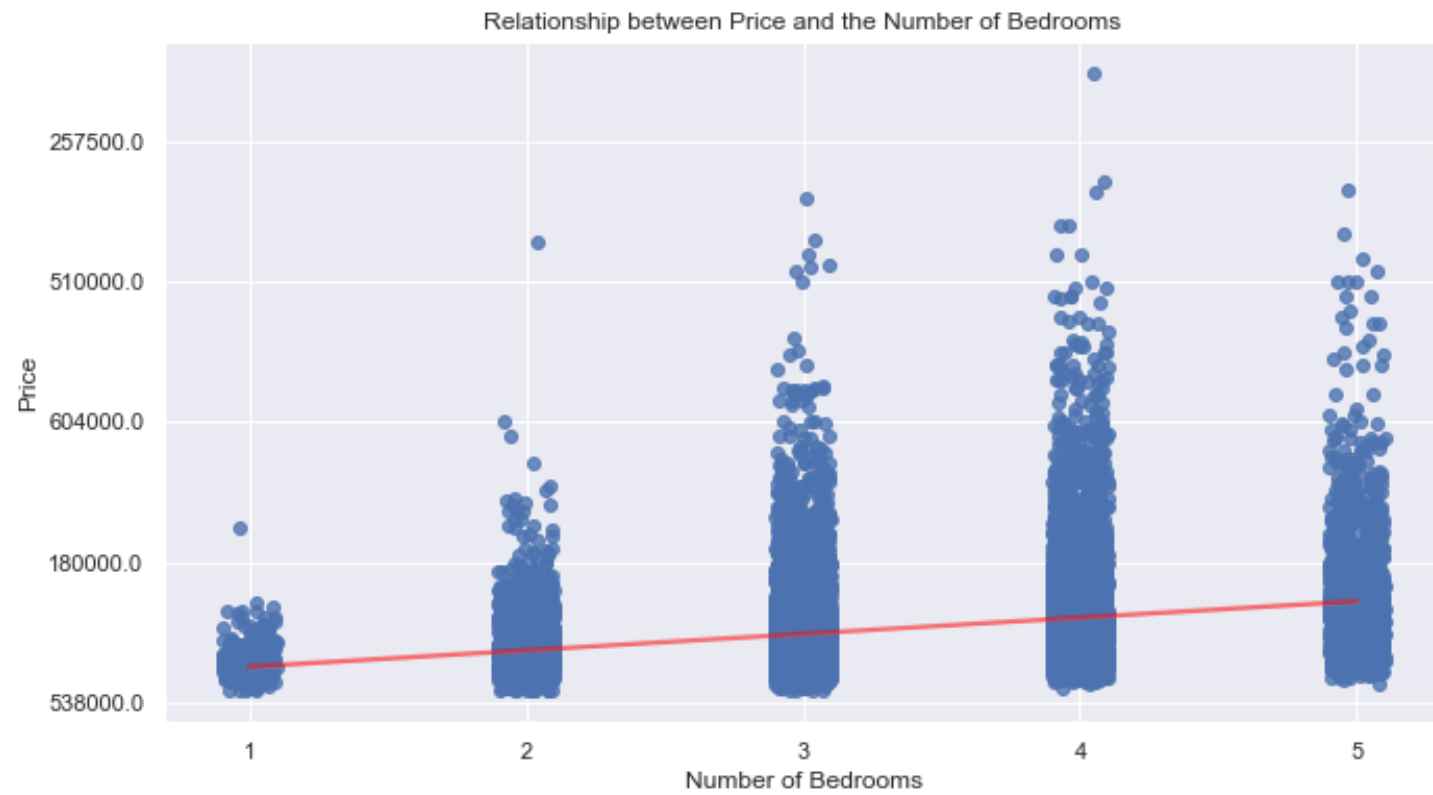
Movies™
Anywhere

MICROSOFT MOVIES & TV JOINS MOVIES ANYWHERE

Data Modeling

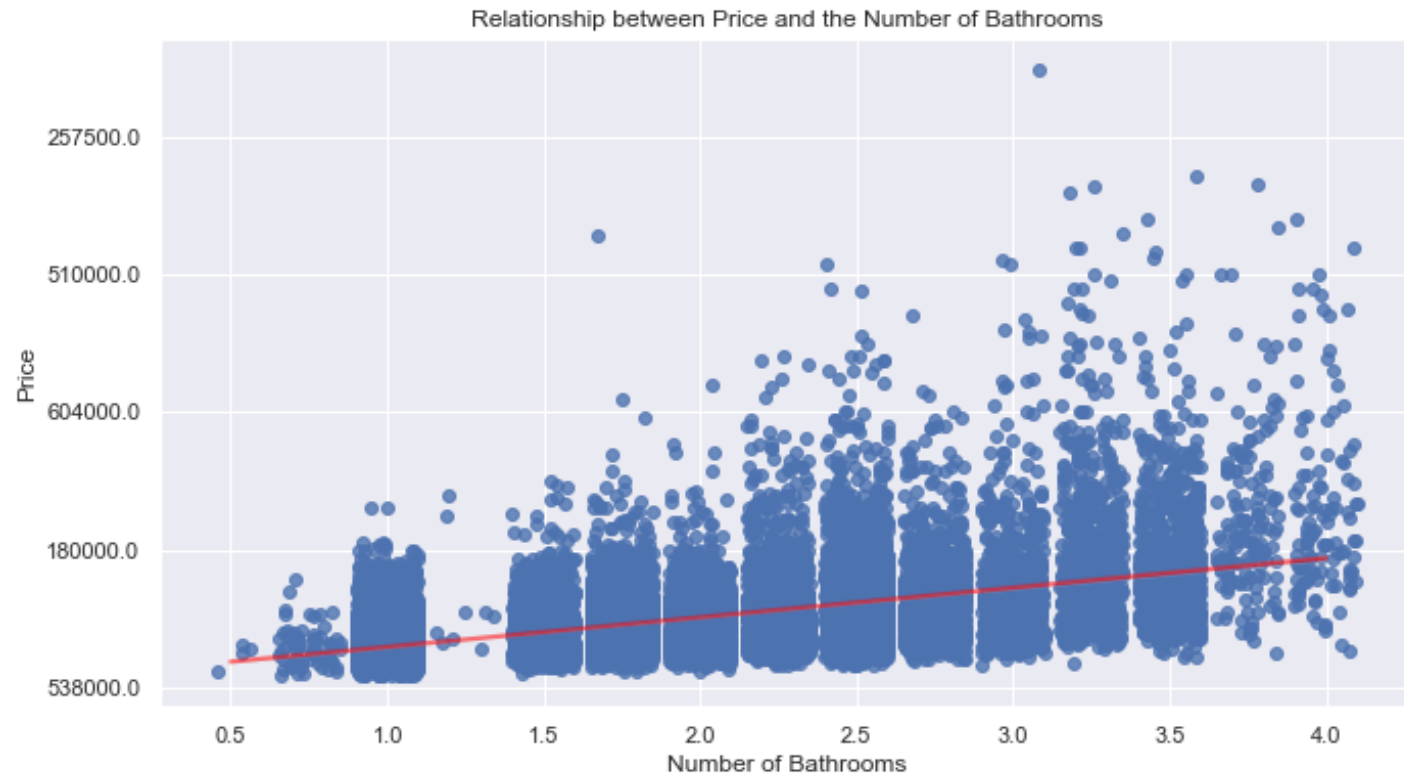
As most clients are going to be living alone or with small to mid-size families, the number of rooms should be set to no more than 5 as well as the number of bathrooms to be no more than 4.

Setting number of bedrooms and bathrooms, the size of lot and living space, as well as the condition as the main independent variables in determining the price.

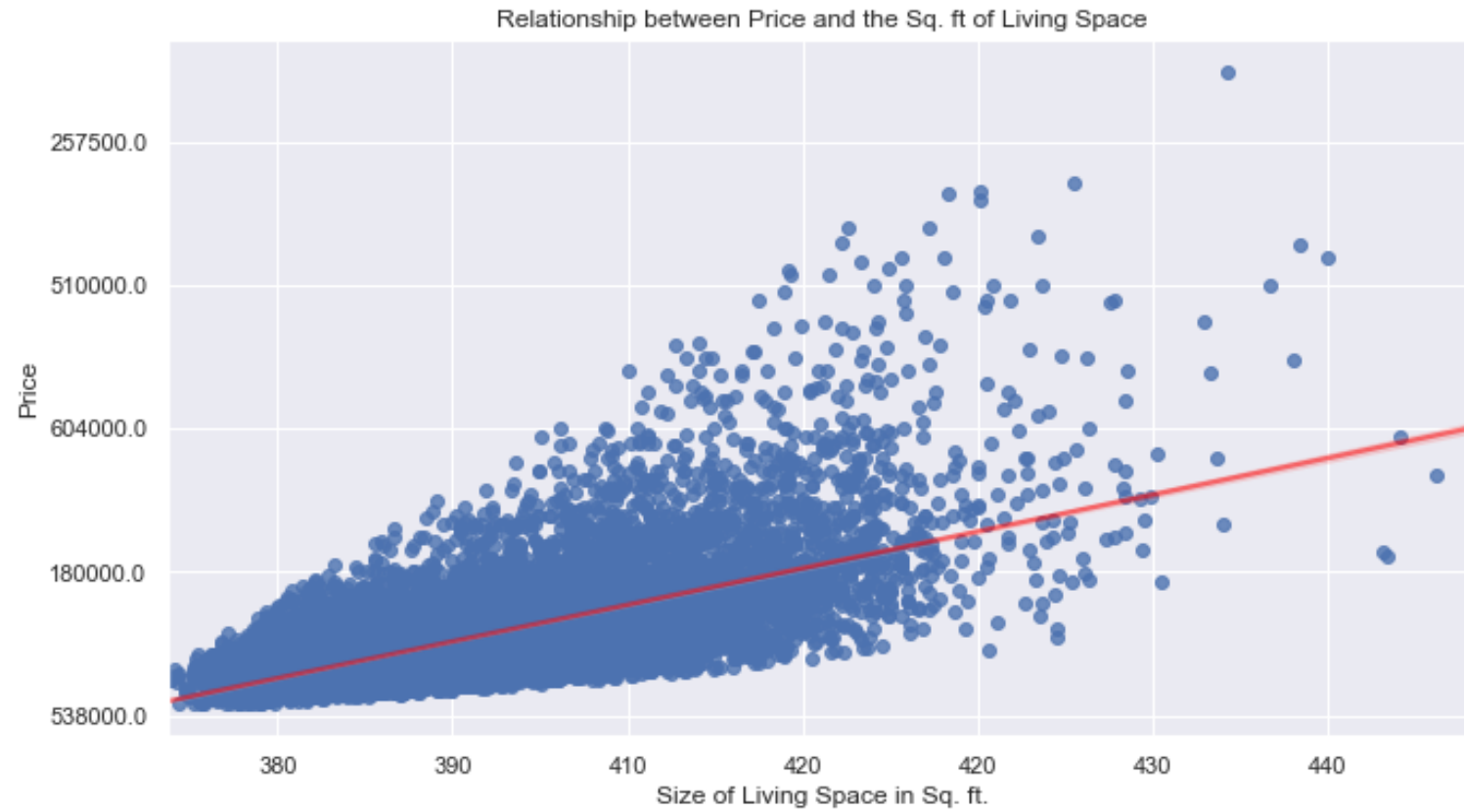


Bedrooms

Bathrooms



Sqft Living

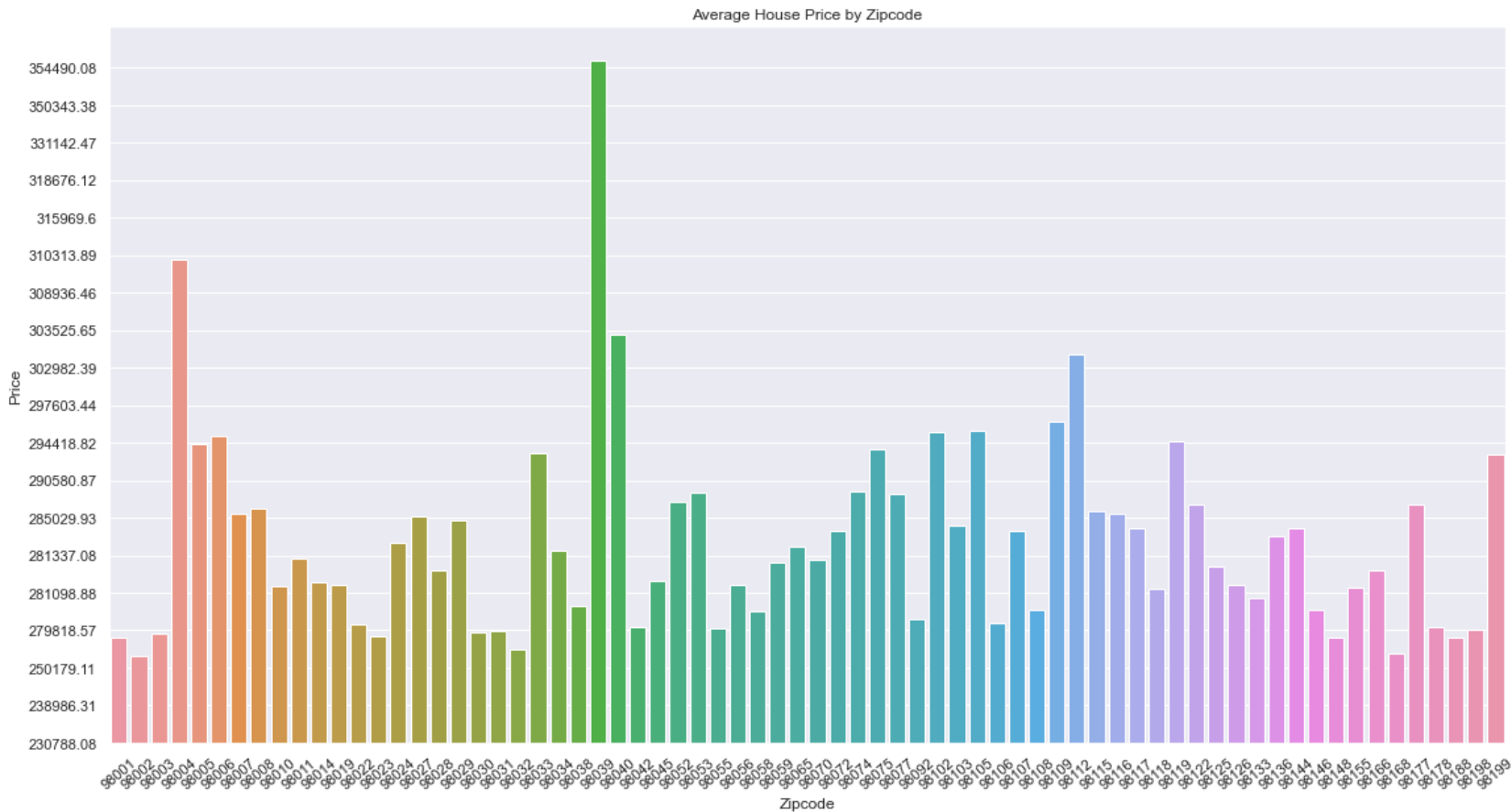


Sq. ft Lot



Conclusion

- Housing prices varies greatly by location in King County. While factors such as the number of bed and bathrooms as well as the square footage of the living space and the building lot affected pricing, location, by far, had the greatest effect in determining the housing price.
- Many of the areas with higher housing prices also had one of the best public schools in King County.
- Apartments/condos are more costly than most other housing.
- After factoring out the price difference by location(zip codes), increasing the number of bedrooms will **decrease** the price by \$39,000, bathroom will **increase** the price by around \$9,947 and each sq. ft of living space and lot space will **increase** the price by \$245.67 and \$0.32 respectively.
- Having a better conditioned house will also increase the price. A house with a condition of 1 does not have a price increase, but from condition of 2 to 5, the price will increase by \$23,720, \$40,810, \$58,100, and \$97,040 respectively



Recommendation

- For new families and individuals moving into King County that are looking for a home, determining their price range to find zip code(s) that match that range.
- Categorizing the zip codes by the average housing price, public education ratings, and other locational factors could help with improve recommendation quality and speed.

Thank You

Q & A

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