

KING COUNTY WA. REAL ESTATE MARKET ANALYSIS

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OUTLINE

- Business Problem/Understanding
- Data
- Results
 - Top Level
 - Zone Prices
 - Renovation
 - Square Feet
- Conclusions

BUSINESS SUMMARY

- **Business Problem:**
 - There is not a tool to understand real estate market trends that is accessible to anyone.
- **Solution:**
 - Build an open source real estate market analysis tool.
- **Business Understanding:**
 - I need to provide Google engineers with market trends in King County WA
 - What should prospective home buyers be aware of in Kings County WA?
 - Is the relationship between home features and home price dependent of geographical location within the County?
 - What features have the strongest influence on home price?

DATA

- 20,000 homes in Kings County
 - Sale Price
 - $\leq \$1,600,000$
 - Square Feet
 - # of floors
 - Latitude/Longitude
 - Age
 - Has had a renovation
 - Beds/Baths
 - Has a waterfront
 - # of views

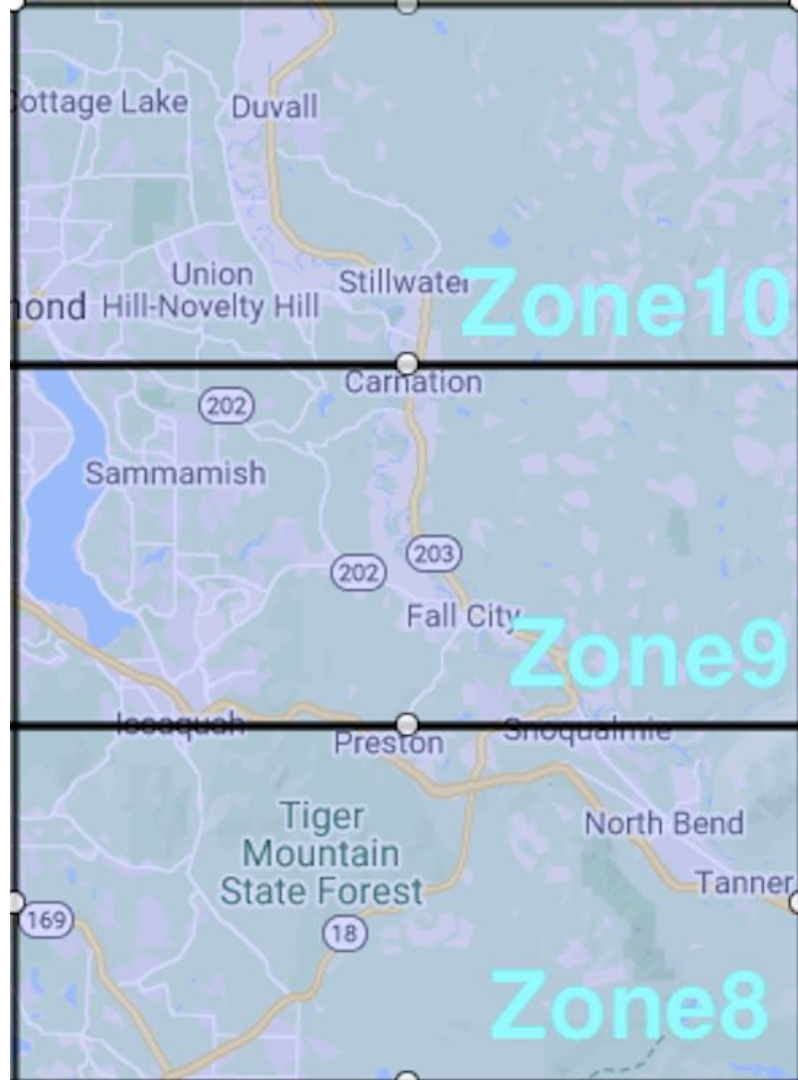
KINGS COUNTY ANALYSIS: TOP LEVEL

- For every 1 unit increase in age, price increases \$1,001
- For every 1 unit increase in sqft_living, price increases \$116
- For every 1 unit increase of floors, price increases \$25,430
- Having a house with a waterfront rather than not, price increases \$195,400
- Getting a renovation rather than not, price increases \$39,020
- For every 1 unit increase in views, price increases \$34,490

KINGS COUNTY ZONES 8-10

(WILL NOT USE)

- Zone 8
 - 190 homes
- Zone 9
 - 9 homes
- Zone 10
 - 16 homes



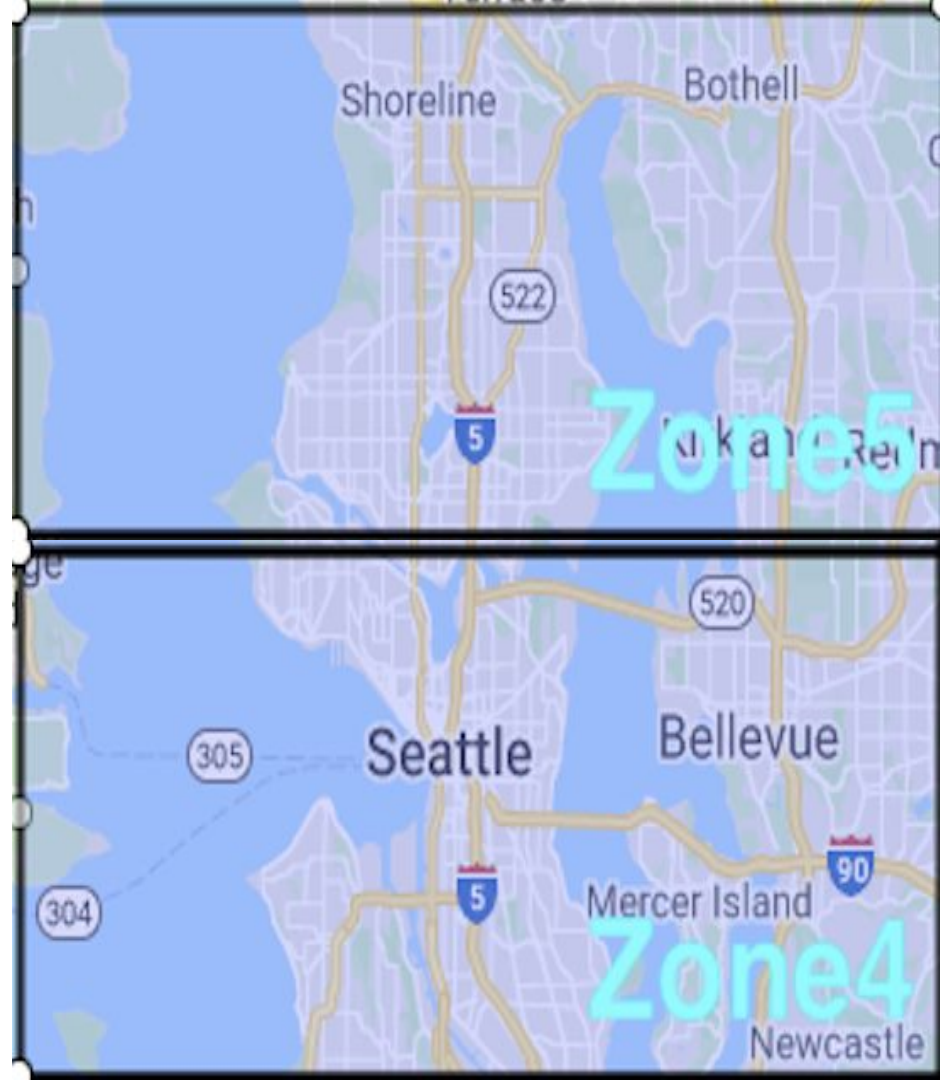
KINGS COUNTY ZONES 2-3

- Zone 2
 - 3857 homes
 - Zone 2 mean price \$310,005
 - Zone 2 lower mean range \$306,380
 - Zone 2 upper mean range \$313,631
- Zone 3
 - 3787 homes
 - Zone 3 mean price \$366,047
 - Zone 3 lower mean range \$360,832
 - Zone 3 upper mean range \$371,263



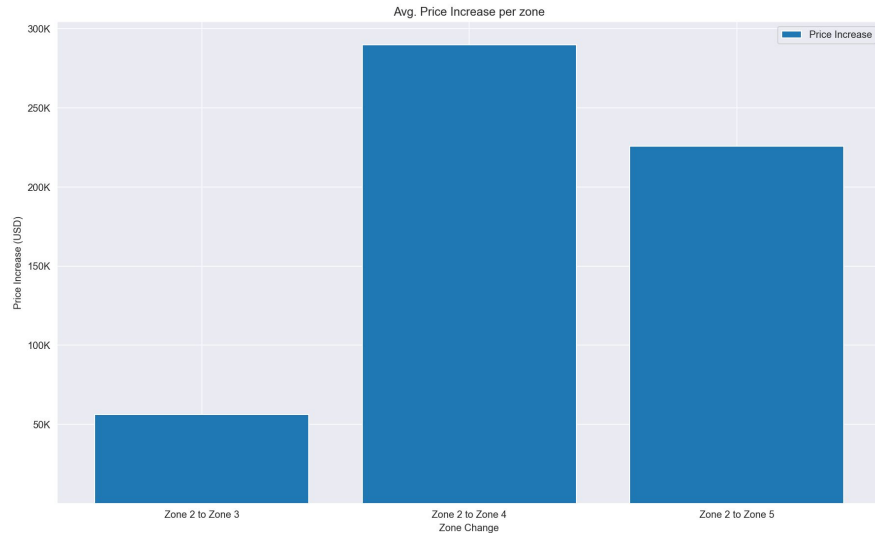
KINGS COUNTY ZONES 4-5

- Zone 4
 - 6070 homes
 - Zone 4 mean price \$599,959
 - Zone 4 lower range \$594,615
 - Zone 4 upper range \$605,302
- Zone 5
 - 6600 homes
 - Zone 5 mean price \$535,793
 - Zone 5 lower range \$531,372
 - Zone 5 upper range \$540,214



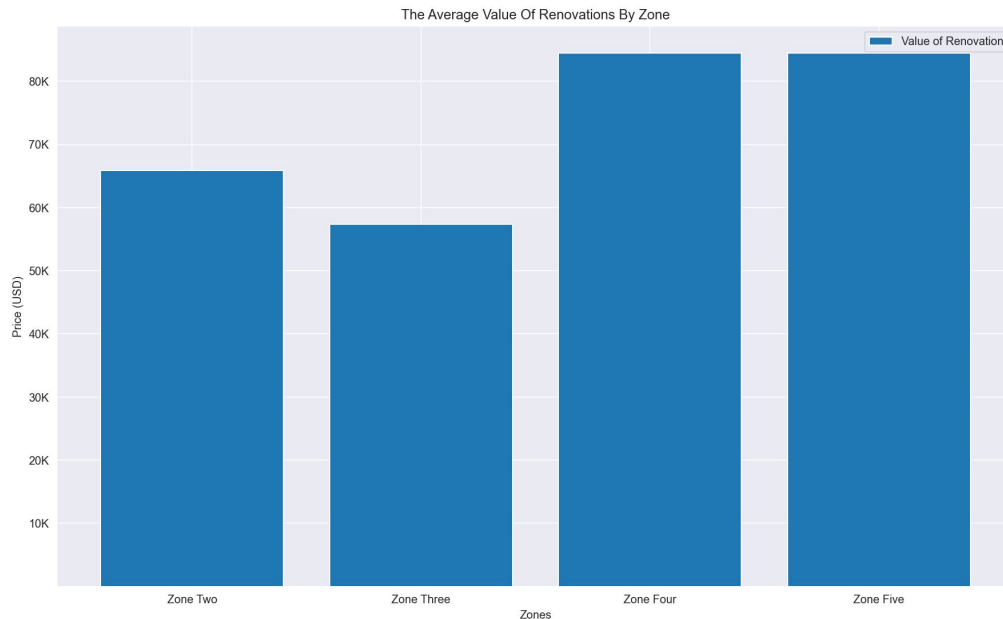
AVERAGE HOME FROM ZONE 2 TO ZONES 3,4,5

- Houses in Zone 3, on average, are \$54,452 to \$57,632 greater than houses in zone 2
- Houses in Zone 4, on average, are \$288,235 to \$291,671 greater than houses in zone 2
- Houses in Zone 5, on average, are \$224,993 to \$226,583 greater than houses in zone 2



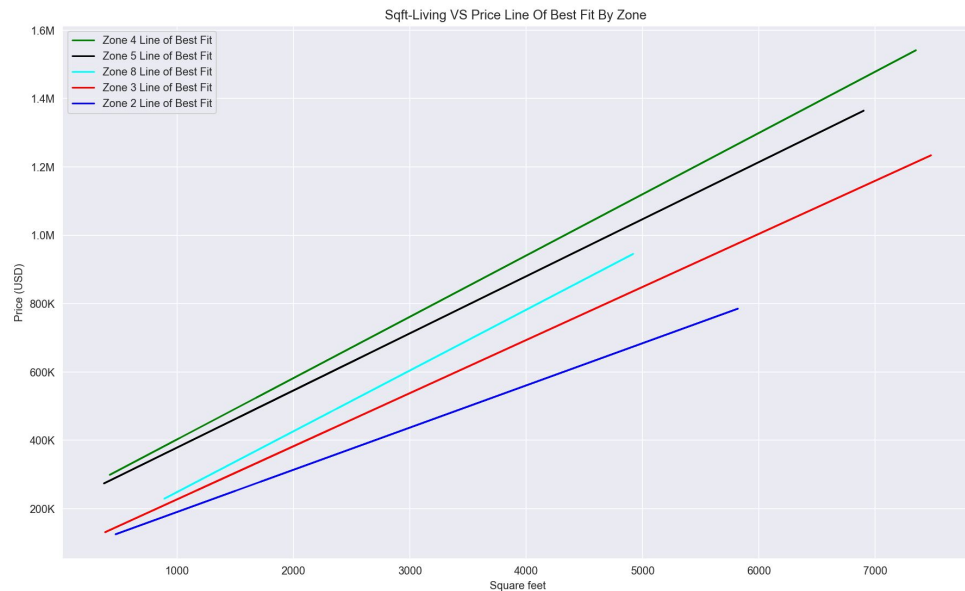
RENOVATION BY ZONE

- Adding a renovation to your home in Zone 2 will increase the price on average \$26,086 to \$105,645
- Adding a renovation to your home in Zone 3 will increase the price on average \$23,914 to \$90,769
- Adding a renovation to your home in Zone 4 will increase the price on average \$60,838 to \$108,156
- Adding a renovation to your home in Zone 5 will increase the price on average \$68,860 to \$119,518



SQUARE FEET BY ZONE

- Per unit increase in `sqft_living`, house prices in zone two will increase \$123
- Per unit increase in `sqft_living`, house prices in zone three will increase \$155
- Per unit increase in `sqft_living`, house prices in zone four will increase \$179
- Per unit increase in `sqft_living`, house prices in zone five will increase \$167
- Per unit increase in `sqft_living`, house prices in zone eight will increase \$177



FURTHER WORK

- Scalable Analysis:

- Make Lat_Long zones at smaller and bigger scales
- This will allow users to understand how geographical boundaries influence the relationship between house attributes and house price.
- Insights from smaller scales include neighborhoods, streets, local history, etc.
- Insights from scales include political districts, population, regional laws, etc.

- Price prediction feature:

- Develop a product that will predict a users “dream house” price based on provided parameters and geographical location.

THANK YOU



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