



Seller Assistance in King County

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Phase 2 Project
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Business Understanding

- Allow individuals to get a real estimate on the market value of their home
- Use data from sales in their area and incorporating house specific details



Examining the data

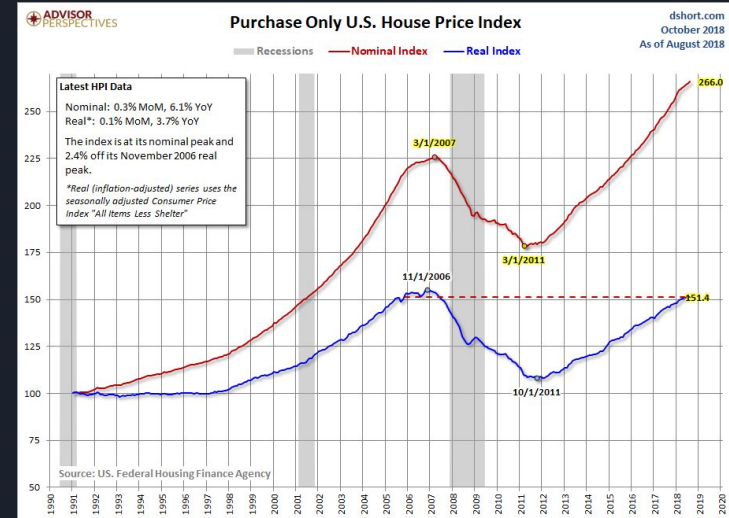
King County Data Set

-Qualitative and Quantitative Features

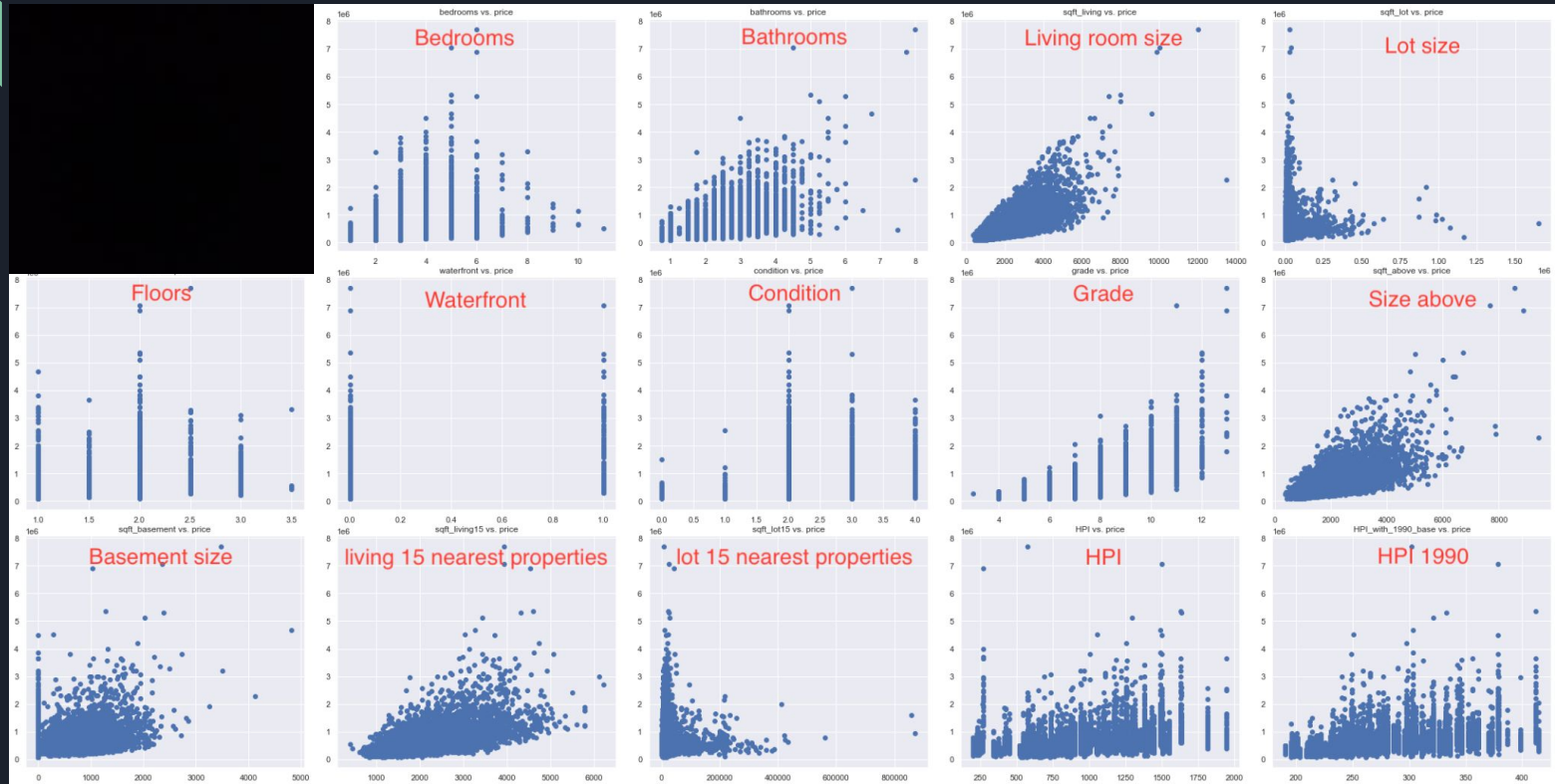
Housing Price Index (HPI)

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- “A broad measure of the movement of single-family property prices in the United States” - Investopedia (<https://www.investopedia.com/terms/h/house-price-index-hpi.asp>)
- Provided by the Federal Housing Finance Agency (FHFA)
- Tracks housing prices, mortgage defaults and affordability



Correlations Overview



Model

- Model Values
 - $R^2 = 0.72$
 - The fluctuation in the predictors relative to the fixed variable (Price)
- Predictors
 - Bedrooms
 - Bathrooms
 - Year Built
 - On the Waterfront
 - Square-footage of the home
 - Square-footage of the lot
 - Condition of home



Model V. Zillow



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\$484,997 3 bd | 1 ba | 1,360 sqft

1032 S 128th Street, Seattle, WA 98168

Est. payment: \$2,533/mo [Get pre-qualified](#)



What's your zipcode? 98168

How many bedrooms does your home have? 3

How many bathrooms does your home have? 1

What year was your home built? 1957

Is your home on the waterfront? (YES/NO) no

What is the square footage of your home's living area? (in ft) 1360

What is the square footage of your lot? (in ft) 8999

What condition would you say your home is in? (On a scale of 1-5) 4

The estimated value of your home is \$ 453689


Estimate 2

\$680,000 5 bd | 3 ba | 2,960 sqft

Price cut: \$14K (3/16)

1620 Lucille Parkway NW, Gig Harbor, WA 98335

● **Active** | Zestimate®: **\$680,000**

Est. payment: \$3,636/mo  [Get pre-qualified](#)



```
# Estimate 2  
get_home_info()
```

What's your zipcode? 98335

How many bedrooms does your home have? 5

How many bathrooms does your home have? 3

What year was your home built? 1980

Is your home on the waterfront? (YES/NO) no

What is the square footage of your home's living area? (in ft) 2960

What is the square footage of your lot? (in ft) 13068

What condition would you say your home is in? (On a scale of 1-5) 5

The estimated value of your home is \$ 811150

Estimate 3

\$124,900 2 bd | 1 ba | 752 sqft

Price cut: \$4.1K (3/30)

3702 Hunt Street NW UNIT 23, Gig Harbor, WA 98335

● Active

Est. payment: \$653/mo  [Get pre-qualified](#)



Estimate 3

get_home_info()

What's your zipcode? 98335

How many bedrooms does your home have? 2

How many bathrooms does your home have? 1

What year was your home built? 1969

Is your home on the waterfront? (YES/NO) no

What is the square footage of your home's living area? (in ft) 400

What is the square footage of your lot? (in ft) 13068

What condition would you say your home is in? (On a scale of 1-5) 3

The estimated value of your home is \$ 140156



Conclusions

- Using our model we can give homeowners a better option for assessing the value of their property
- Complicating factors:
 - Inflation (2014 and 2015 prices)
 - Grade
 - What to do about apartments?
 - Waterfront properties
- Building dashboard for homeowner use