

King County, WA Housing Market Analysis

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Objective

Provide price predictions for housing architects to help determine what qualities of a house they should consider when making their floor plan.



Data

The data provided is from the King County House Sales from 2014-2015

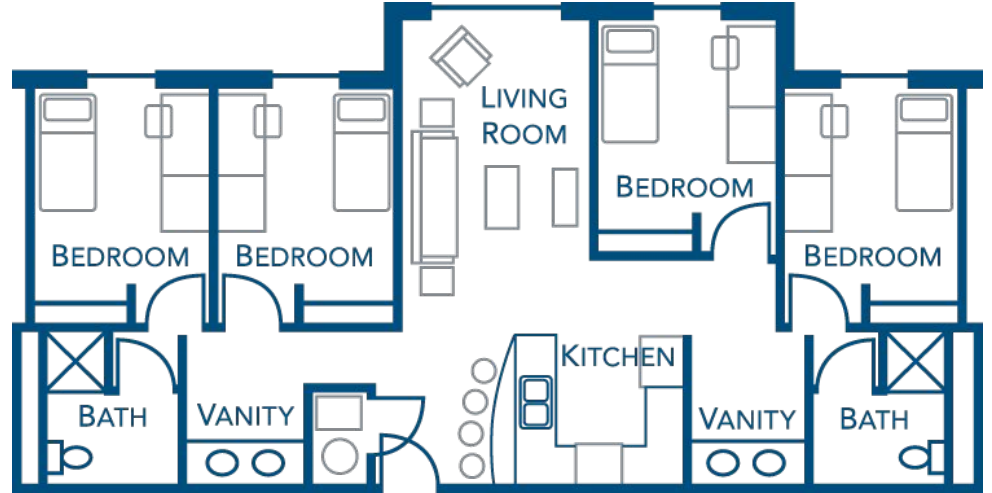
We will be focusing on 94% of the given data in which it is set to:

- Price: \$78,000 - \$1,120,000
- 1-6 Bedrooms
- 1-3.5 Floors



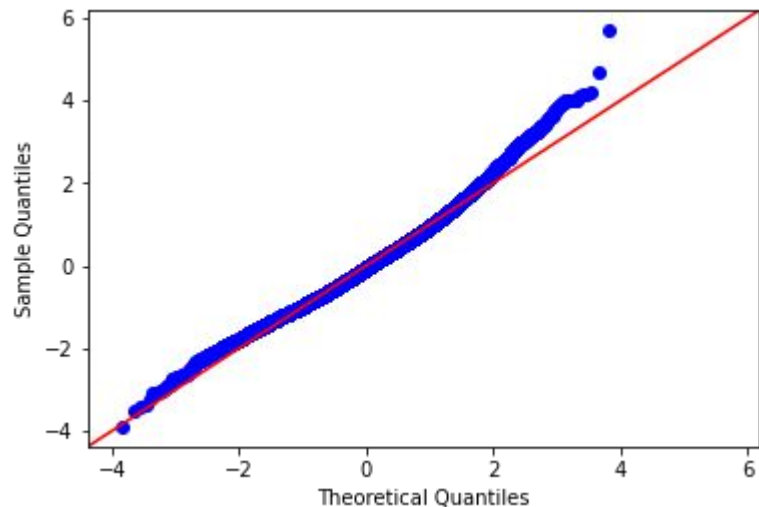
What features should architects consider when creating a housing plan in Kings County, WA?

- Square Footage of the Homes
- Number of Floors
- Number of Bedrooms

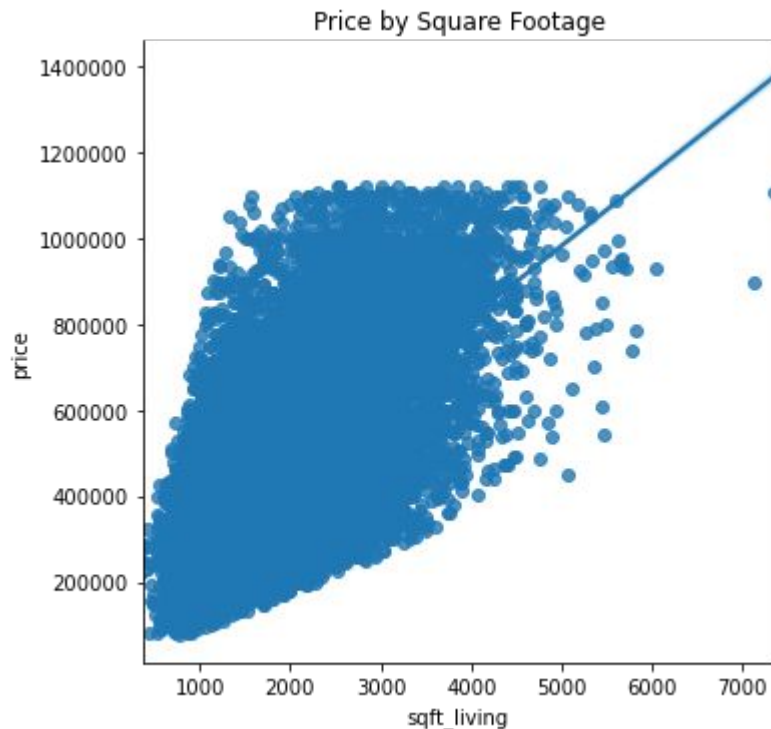


Our Model

	Coef.	Std.Err.	t	P> t	[0.025	0.975]
const	474818.5649	1159.2854	409.5787	0.0000	472546.2269	477090.9028
bathrooms	-3636.8107	1929.3053	-1.8850	0.0594	-7418.4797	144.8584
sqft_living	71035.7513	2405.6009	29.5293	0.0000	66320.4859	75751.0167
sqft_lot	-1611.8602	1195.5988	-1.3482	0.1776	-3955.3768	731.6564
view	20839.2406	1198.2575	17.3913	0.0000	18490.5127	23187.9685
condition	23800.3024	1230.8155	19.3370	0.0000	21387.7568	26212.8479
grade	91799.7840	1826.1448	50.2697	0.0000	88220.3219	95379.2461
sqft_basement	13202.1891	1550.9129	8.5125	0.0000	10162.2143	16242.1639
floors_1.5	25964.5465	1228.7999	21.1300	0.0000	23555.9519	28373.1412
floors_2.0	1465.9175	1784.6790	0.8214	0.4114	-2032.2668	4964.1018
floors_2.5	3702.2738	1178.3293	3.1420	0.0017	1392.6074	6011.9401
floors_3.0	8687.3297	1271.3648	6.8331	0.0000	6195.3026	11179.3568
bedrooms_1	6122.2374	1167.0655	5.2458	0.0000	3834.6494	8409.8254
bedrooms_2	15597.0154	1112.8765	14.0150	0.0000	13415.6444	17778.3865
bedrooms_3	-4513.3592	763.7693	-5.9093	0.0000	-6010.4385	-3016.2800
bedrooms_4	-5607.3925	898.6752	-6.2396	0.0000	-7368.9034	-3845.8816
bedrooms_5	-4141.7331	1149.0252	-3.6046	0.0003	-6393.9599	-1889.5062
bedrooms_6	-597.9335	1171.8613	-0.5102	0.6099	-2894.9218	1699.0548



Housing Square Footage vs. Price



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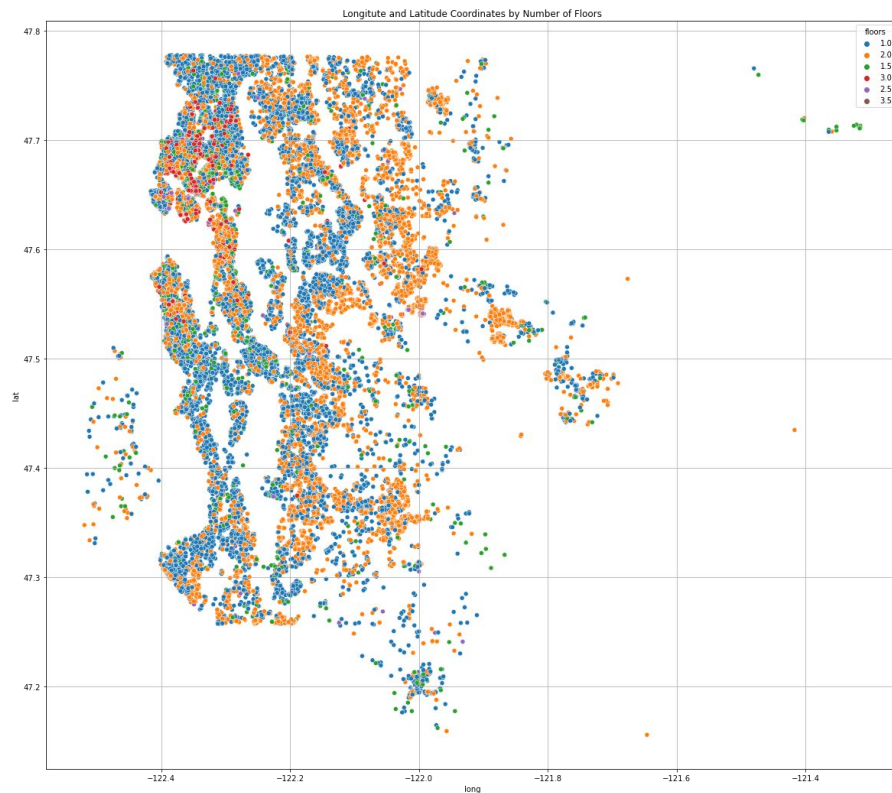
Our Findings

- Increasing the square footage of a home will increase by \$71,000
- Stick to a housing plan with 2 bedrooms otherwise the price of house will lower
- 1.5 floor levels is sufficient to increase the price of the house build another level will decrease in prices



Future Work

- Refine to different price ranges
- Look at a more updated dataset
- Research on other features like living room square footage
- Does location have an effect on building structure (Suburb vs. City)



Thank You!

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