

King County's best historic houses

To sellers (and buyers)





Who am I

Ron Silva

Geographer and Data Analyst

Client

The seller Zachary Brooks





Goal

Finding the best historic houses for the investor who wants them in the best neighborhoods of King County, and to resell them within a year with high profits. He is willing to renovate the house.

Data what I am working on

1. A database that contains information about home sales in King County (USA)
2. Contains 21597 records and 23 variables with informations as bathrooms, bedrooms, living and lots sqft, conditions of the construction/house, if it was renovated or not (and when), year of build, zip code, price, etc

```
df.describe()
```

	id	bedrooms	bathrooms	sqft_living	sqft_lot	floors	waterfront	view	condition	grade	sqft_a
count	21597.000	21597.000	21597.000	21597.000	21597.000	21597.000	19206.000	21534.000	21597.000	21597.000	2159
mean	4580474287.771	3.373	2.116	2080.322	15099.409	1.494	0.008	0.234	3.410	7.658	178
std	2876735715.748	0.926	0.769	918.106	41412.637	0.540	0.087	0.766	0.651	1.173	82
min	1000102.000	1.000	0.500	370.000	520.000	1.000	0.000	0.000	1.000	3.000	37
25%	2123049175.000	3.000	1.750	1430.000	5040.000	1.000	0.000	0.000	3.000	7.000	119
50%	3904930410.000	3.000	2.250	1910.000	7618.000	1.500	0.000	0.000	3.000	7.000	156
75%	7308900490.000	4.000	2.500	2550.000	10685.000	2.000	0.000	0.000	4.000	8.000	221
max	9900000190.000	33.000	8.000	13540.000	1651359.000	3.500	1.000	4.000	5.000	13.000	941

Data what I am working on - Labels

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.

Data what I am working on - Labels

BUILDING CONDITION

Relative to age and grade. Coded 1-5.

1 = Poor- Worn out. Repair and overhaul needed on painted surfaces, roofing, plumbing, heating and numerous functional inadequacies. Excessive deferred maintenance and abuse, limited value-in-use, approaching abandonment or major reconstruction; reuse or change in occupancy is imminent. Effective age is near the end of the scale regardless of the actual chronological age.

2 = Fair- Badly worn. Much repair needed. Many items need refinishing or overhauling, deferred maintenance obvious, inadequate building utility and systems all shortening the life expectancy and increasing the effective age.

3 = Average- Some evidence of deferred maintenance and normal obsolescence with age in that a few minor repairs are needed, along with some refinishing. All major components still functional and contributing toward an extended life expectancy. Effective age and utility is standard for like properties of its class and usage.

4 = Good- No obvious maintenance required but neither is everything new. Appearance and utility are above the standard and the overall effective age will be lower than the typical property.

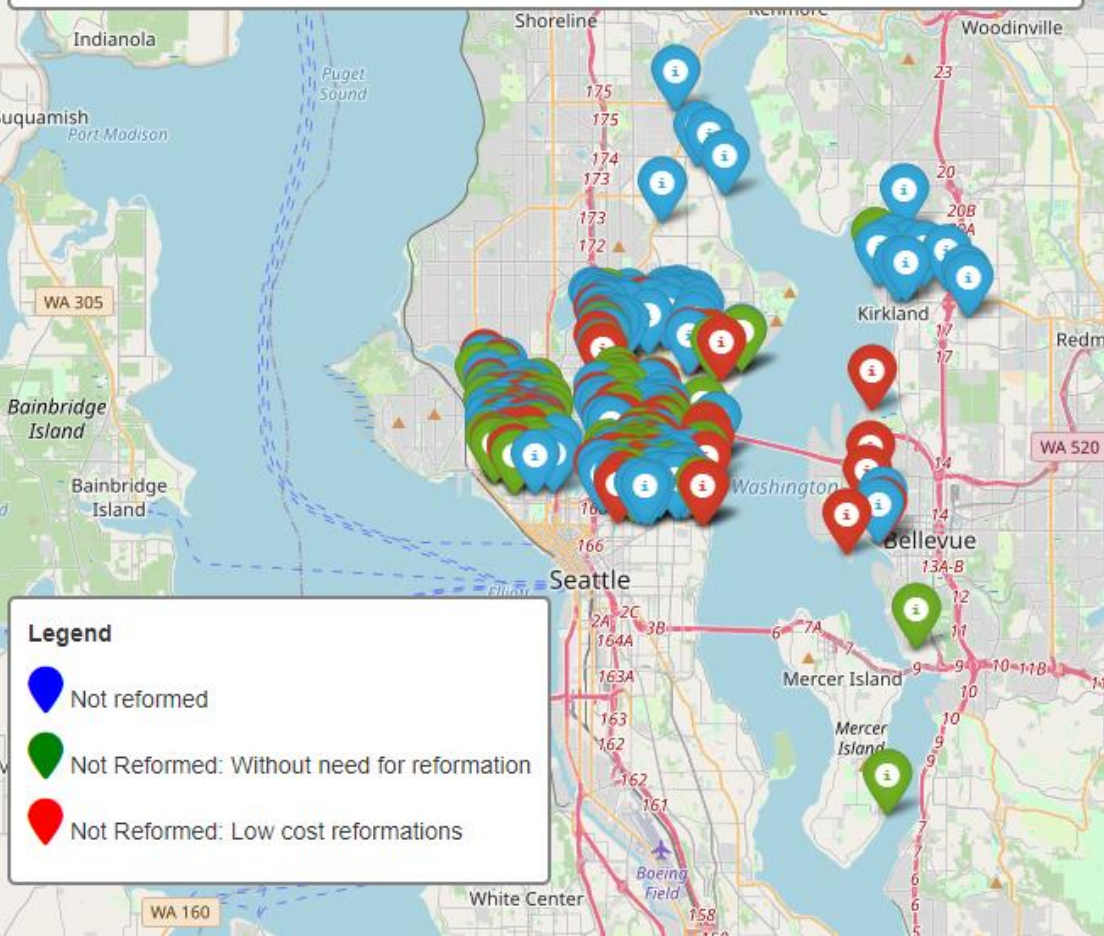
5= Very Good- All items well maintained, many having been overhauled and repaired as they have shown signs of wear, increasing the life expectancy and lowering the effective age with little deterioration or obsolescence evident with a high degree of utility.

Hypothesis



1. How many historic houses (over 100 years old) are there in King County?
2. What is their profile when it comes to the possibility of renovation? Which ones are worth it?
3. How to define a good neighborhood for a investor?
4. Is it possible to find houses in this profile that are worth investing in for later sale?

Pre-selected categorizes historical houses in King County



Results of the hypothesis 1, 2 and 3

Historic houses profile	Count
Not Reformed*: Low cost reforms	198
Not Reformed*: Without need for reformation	235
Not reformed*	1.370
Total	1.803

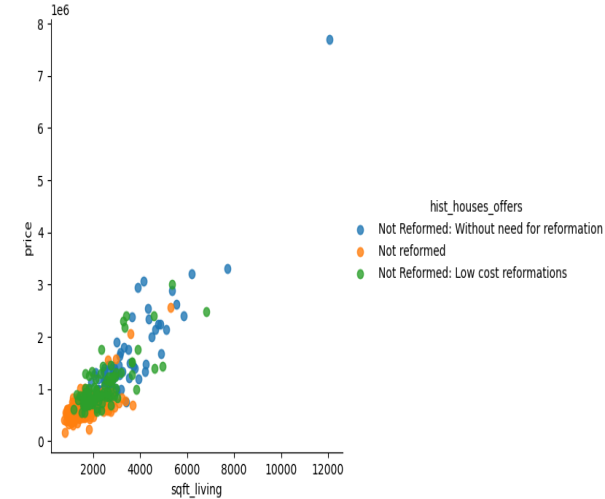
* Not reformed in the last 10 years

Top 10 zip codes

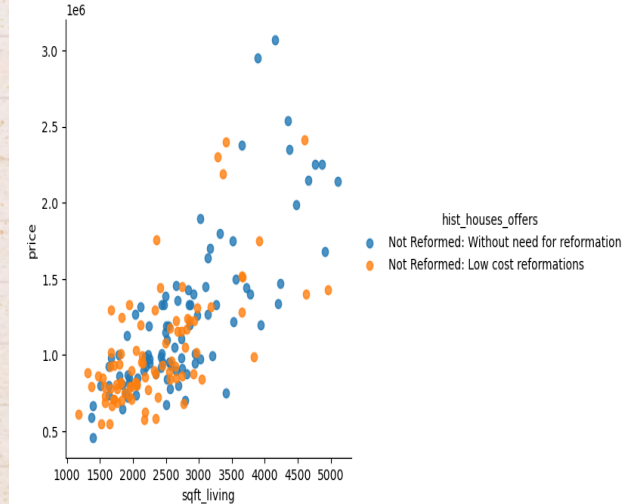
Zip code	mean
98040	1.900.000.000
98004	1.741.428.571
98039	1.160.000.000
98112	1.035.585.020
98102	1.030.032.553
98109	936.178.889
98119	930.065.188
98125	778.240.000
98033	766.227.273
98105	730.700.577

Results of the hypothesis 4

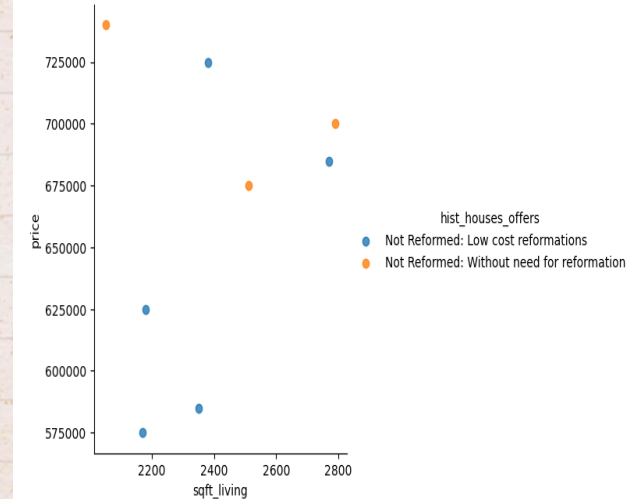
Scatter Plot of House Size vs. Price by Historical House Offers



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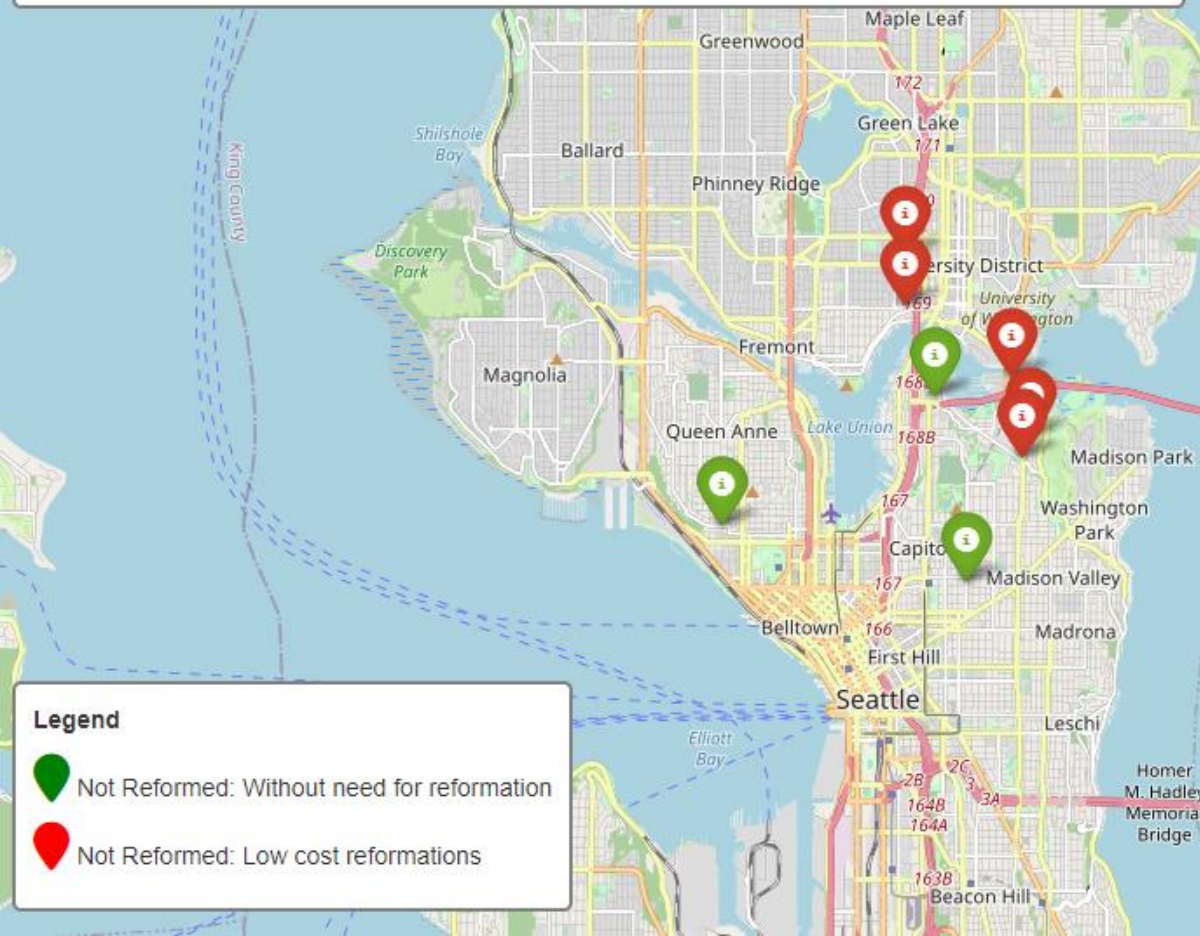


Insights and recommendations



- 8 historic houses
- 5 with low cost reforms
- 3 Without need for reformation!


Best historical houses for sellers (and buyers) in King County



**Insights and
recommendations**

Insights and recommendations

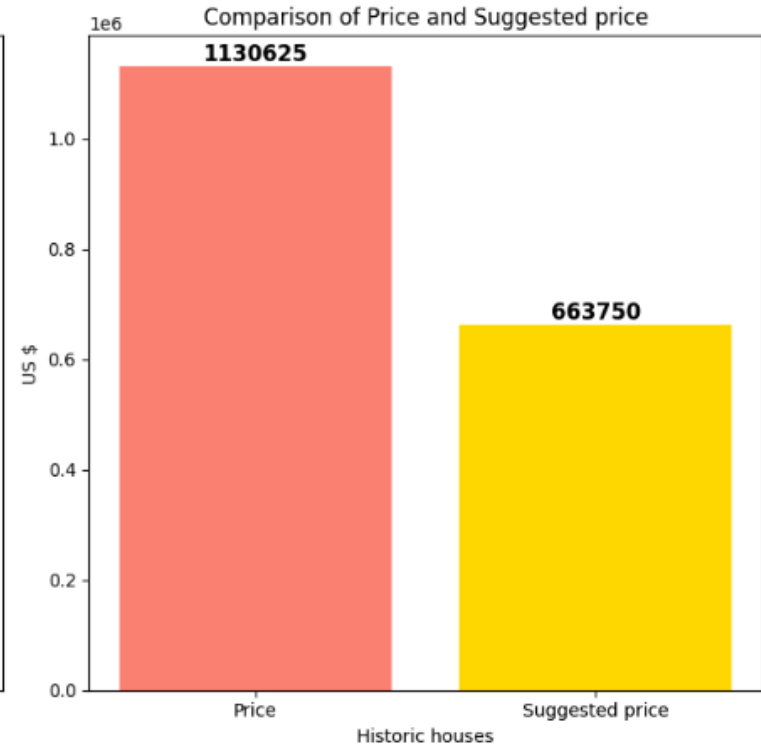
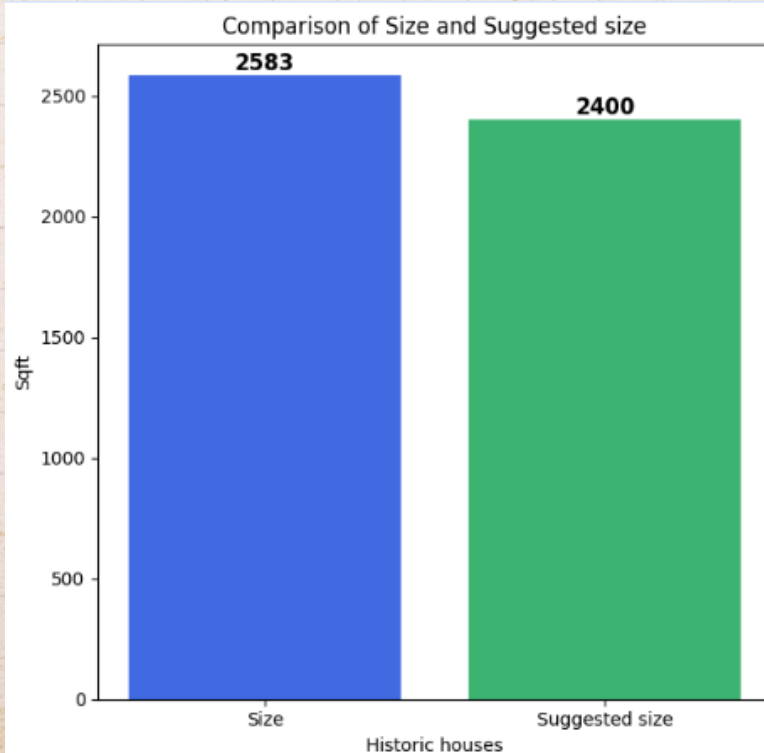
Type of the historic hauses	Price	Bedrooms	Bathrooms	Sqft_living	Sqft_lot	Floors	Built year	zipcode	lat	long	id
Not Reformed: Low cost reformations	USD 575.000	3	2	2168	4000	1.5	1907	98105	476.561	-122.325	4206901155
Not Reformed: Low cost reformations	USD 585.000	5	3	2350	4178	1.5	1922	98112	476.388	-122.3	8712100320
Not Reformed: Low cost reformations	USD 625.000	4	2	2180	4431	1.5	1912	98112	47.636	-122.302	8722101370
Not Reformed: Low cost reformations	USD 685.000	6	2	2770	5854	1.5	1921	98112	476.466	-122.304	5605000595
Not Reformed: Low cost reformations	USD 725.000	6	2	2380	4080	2.0	1917	98105	476.629	-122.325	1890000225
Not Reformed: Without need for reformation	USD 675.000	3	2	2510	3600	2.5	1907	98112	476.195	-122.313	6003001760
Not Reformed: Without need for reformation	USD 700.000	6	3	2790	4550	2.5	1907	98119	47.627	-122.361	3880900245
Not Reformed: Without need for reformation	USD 740.000	4	2	2050	4400	1.5	1922	98102	47.644	-122.319	1959700550

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- Kitchen remodel: \$20,000 to \$50,000
 - Bathroom remodel: \$10,000 to \$25,000
 - Interior painting: \$5,000 to \$10,000
 - Flooring remodel: \$5,000 to \$10,000
 - Electrical and plumbing system upgrades: \$10,000 to \$20,000
 - Total average cost: **US\$ 100.000 ***

**Average cost to
remodel a 2500sqft
house in Seattle**

- * For houses in a worse average state of repair than those selected in this study
 - Source: <https://www.homebuilderdigest.com/>
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Insights and Recommendations





Thanks!

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