

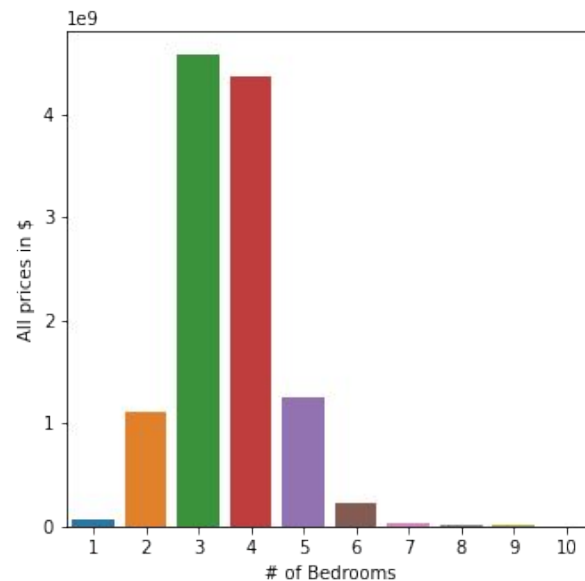
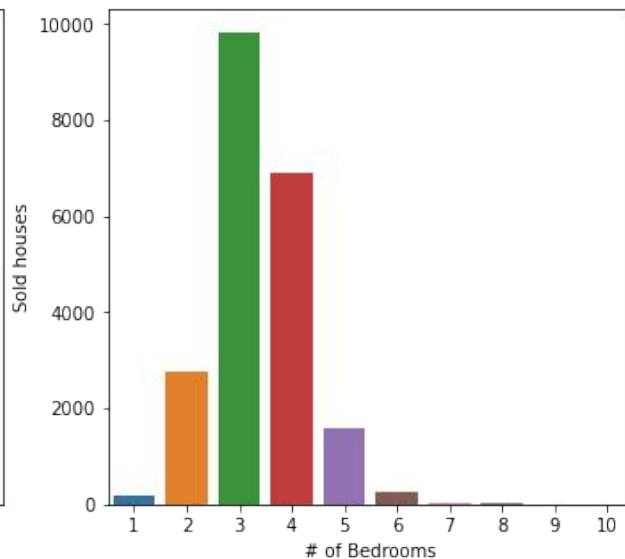
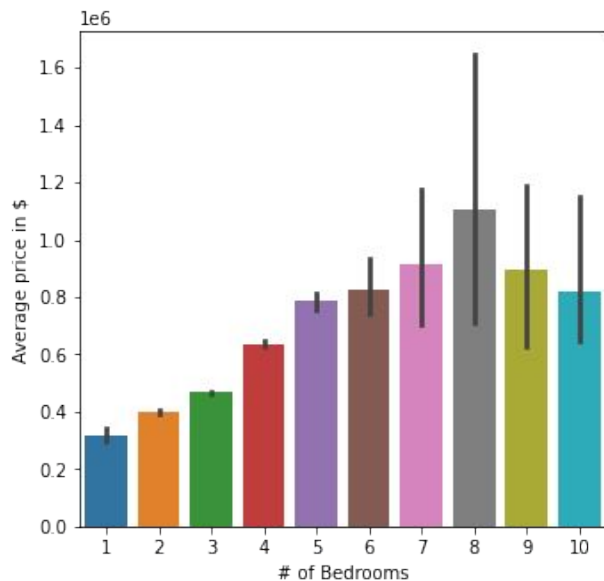
King County House Market

How to increase the selling price for your houses

- Bedrooms / Bathrooms in houses
- Time to sell
- Use grades sensefully to get more out of your property
- Prices over areas
- Price prediction model

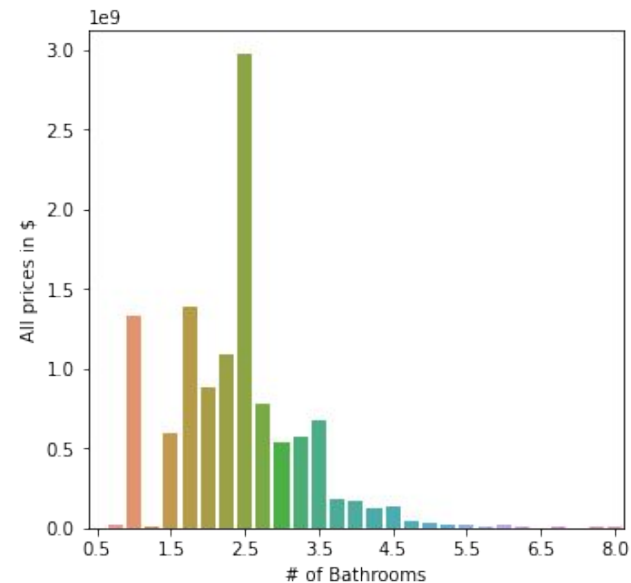
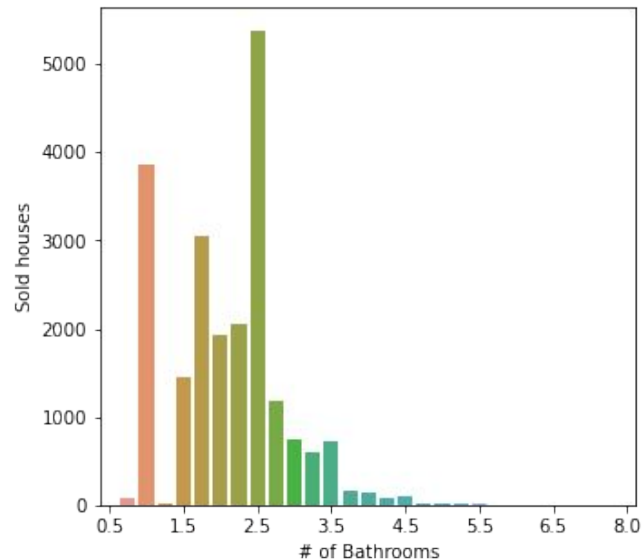
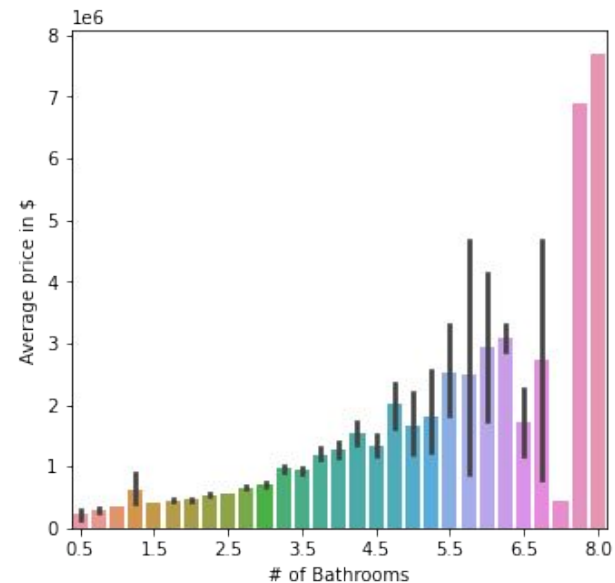
of Bedrooms

- higher prices with more bedrooms
- most sold houses with 3-4 bedrooms (Family 2-3 kids)
- best selling + price rates at 3-4 bedrooms



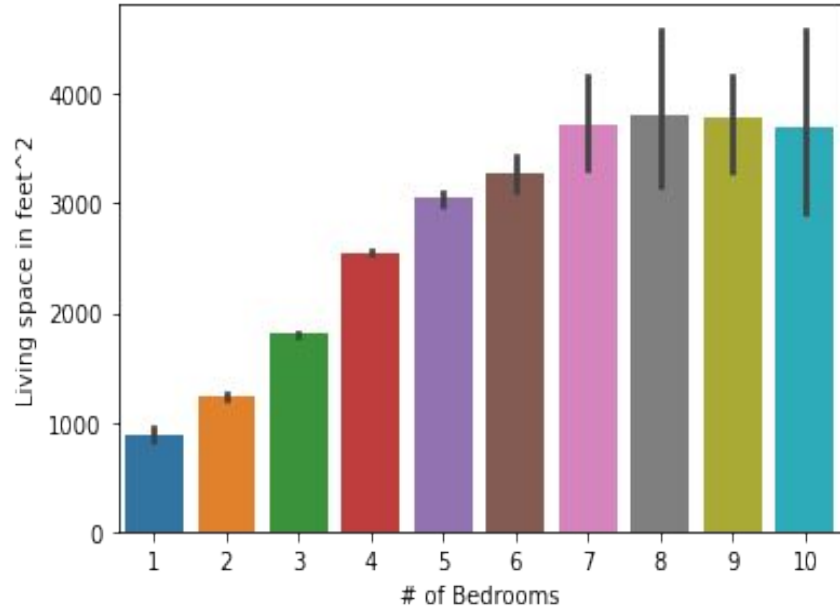
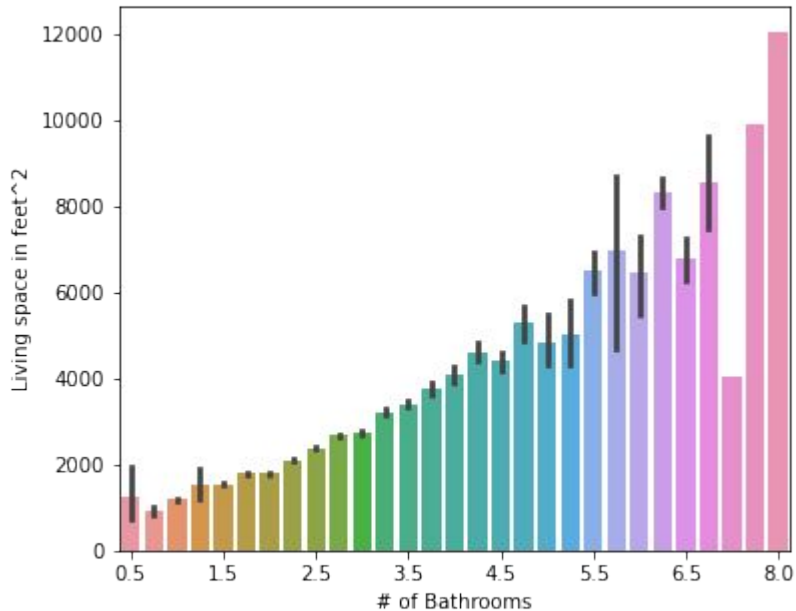
of Bathrooms

- exponential price increase for # of bathrooms < 7
- best selling + price rate for 2.5 bathrooms



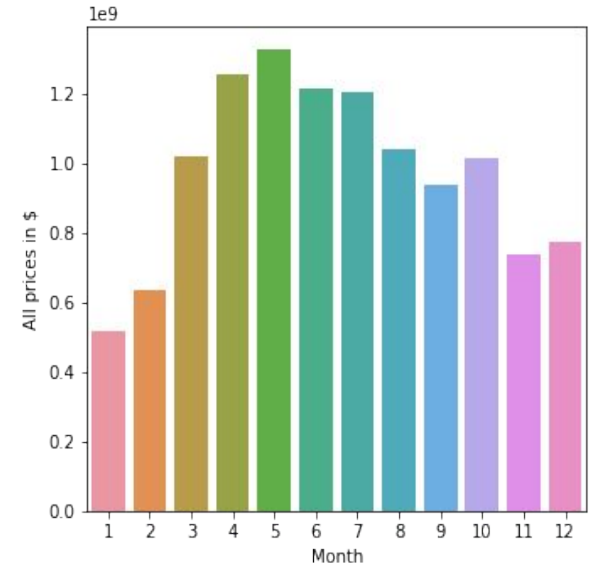
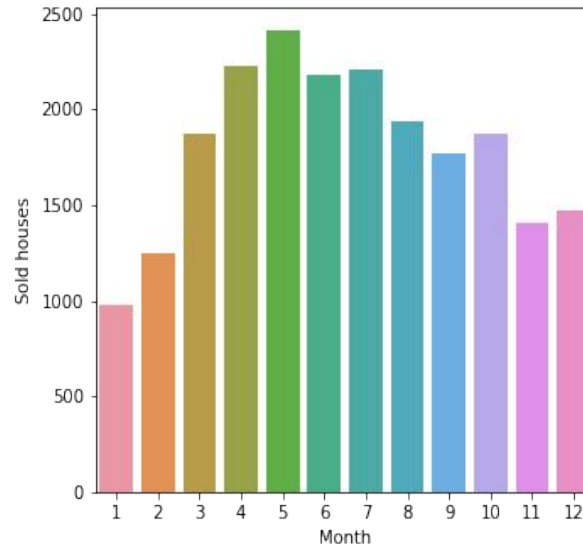
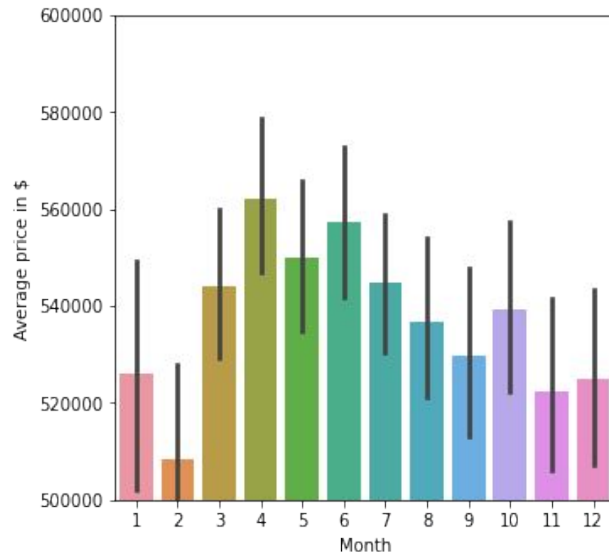
of Bedrooms / Bathrooms

- # of Bedrooms / Bathrooms limited to given living area



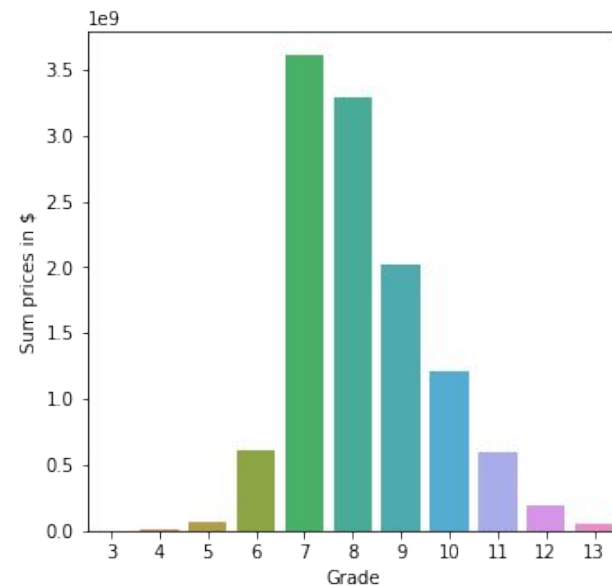
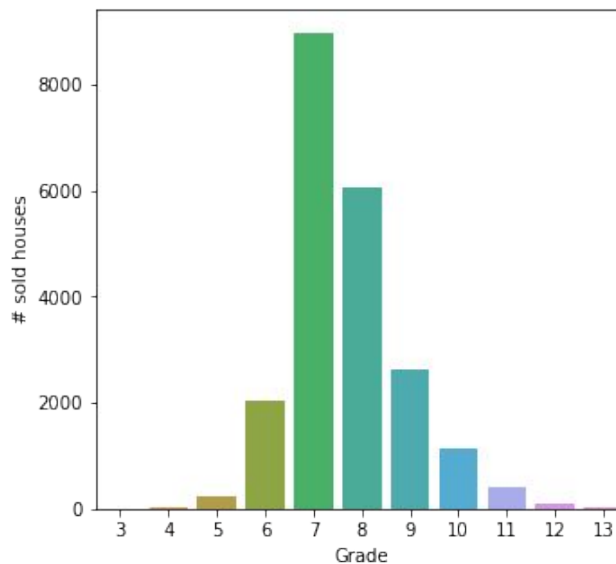
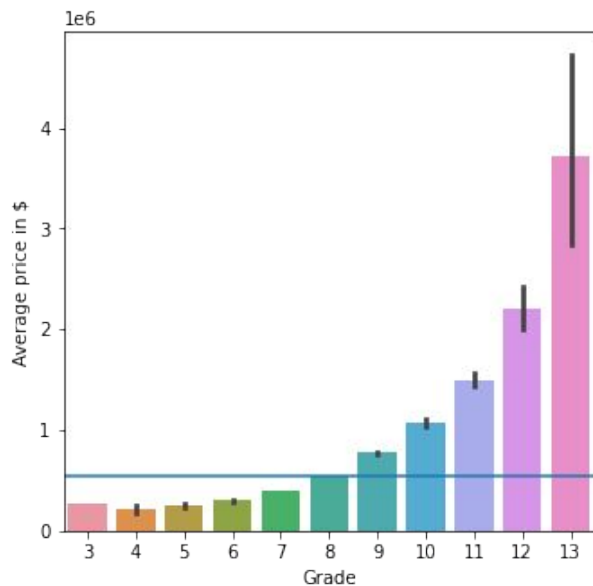
Best Months to sell a House

- prices higher in summer (view, gardens,...)
- more houses sold in summer
- best selling month are April to July

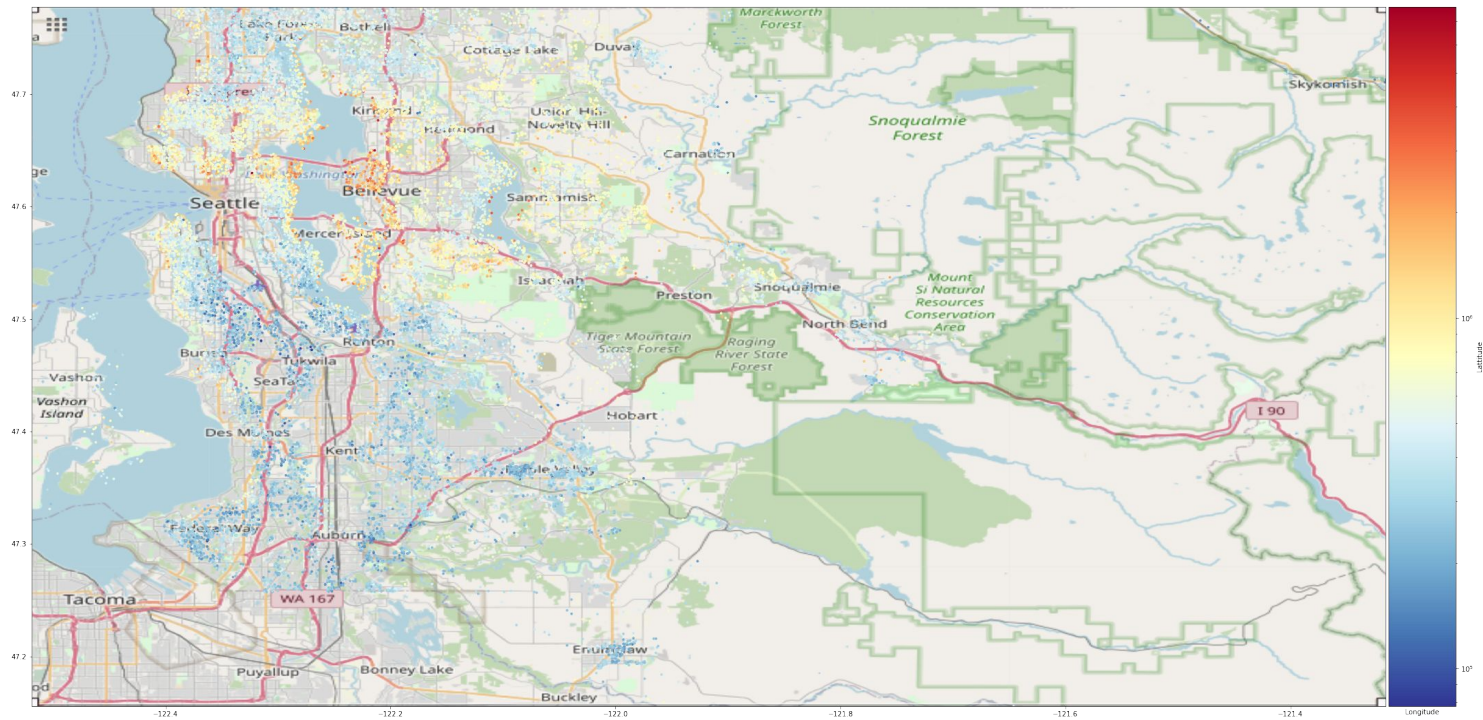


How to use Grades to your advantage?

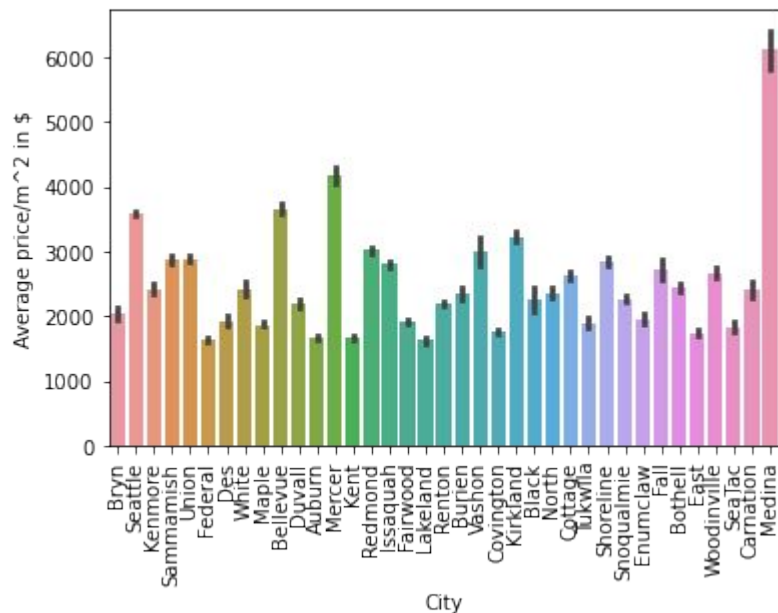
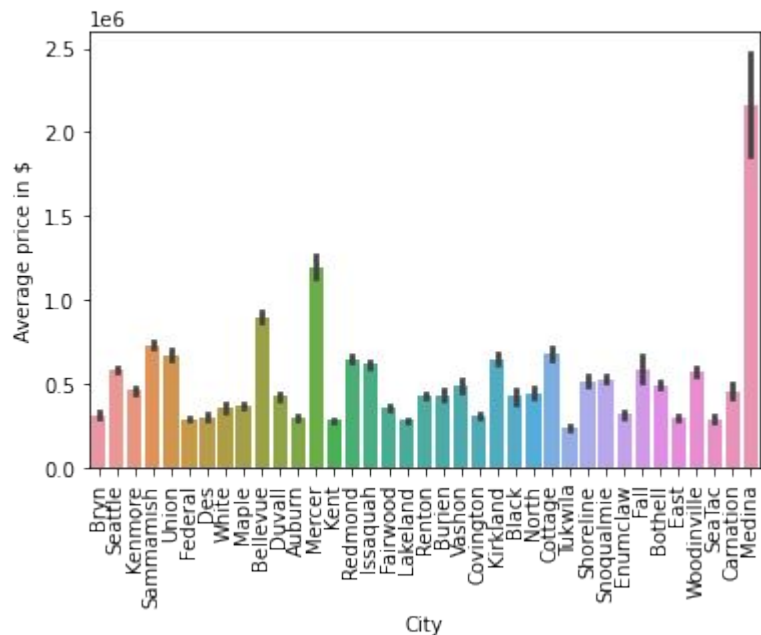
- exponential price increase for grade
- grades < 6 are almost equal
- most wanted grades from 7 onward



Price Map



Prices in areas



How to use the prediction model?

Inputs:

- living area in square feet
- grade (3-13)
- zipcode
- view (0-4)

```
with open('model.pkl', 'rb') as f:  
    model = pickle.load(f)  
model.predict(dataFrame)
```

	sqft_living	grade	zipcode	view
0	3830	9	98122	1.0
1	3390	8	98116	3.0
2	3030	9	98119	0.0
3	1570	8	98199	0.0
4	1690	8	98024	0.0
5	1980	8	98199	0.0
6	1810	8	98022	0.0
7	2420	8	98059	0.0
8	1920	7	98023	0.0
9	2800	8	98028	0.0

Prediction results

- MAPE = 16.1%

	sqft_living	grade	zipcode	view	price	price_pred	APE
0	3830	9	98122	1.0	2050000.0	1012225.0	51.0
1	3390	8	98116	3.0	915000.0	902764.0	1.0
2	3030	9	98119	0.0	879000.0	968408.0	10.0
3	1570	8	98199	0.0	494000.0	633144.0	28.0
4	1690	8	98024	0.0	457000.0	435502.0	5.0
5	1980	8	98199	0.0	759000.0	684105.0	10.0
6	1810	8	98022	0.0	279000.0	301160.0	8.0
7	2420	8	98059	0.0	505000.0	467454.0	7.0
8	1920	7	98023	0.0	210000.0	242101.0	15.0
9	2800	8	98028	0.0	515000.0	541388.0	5.0

Summary

- Sell houses in summer
- Houses with 2.5 Bathrooms and 3 Bedrooms are most wanted, good paid
- If possible, improve house to grade 7 or higher
- If not, don't waste time / money
- Be aware of different prices in different areas