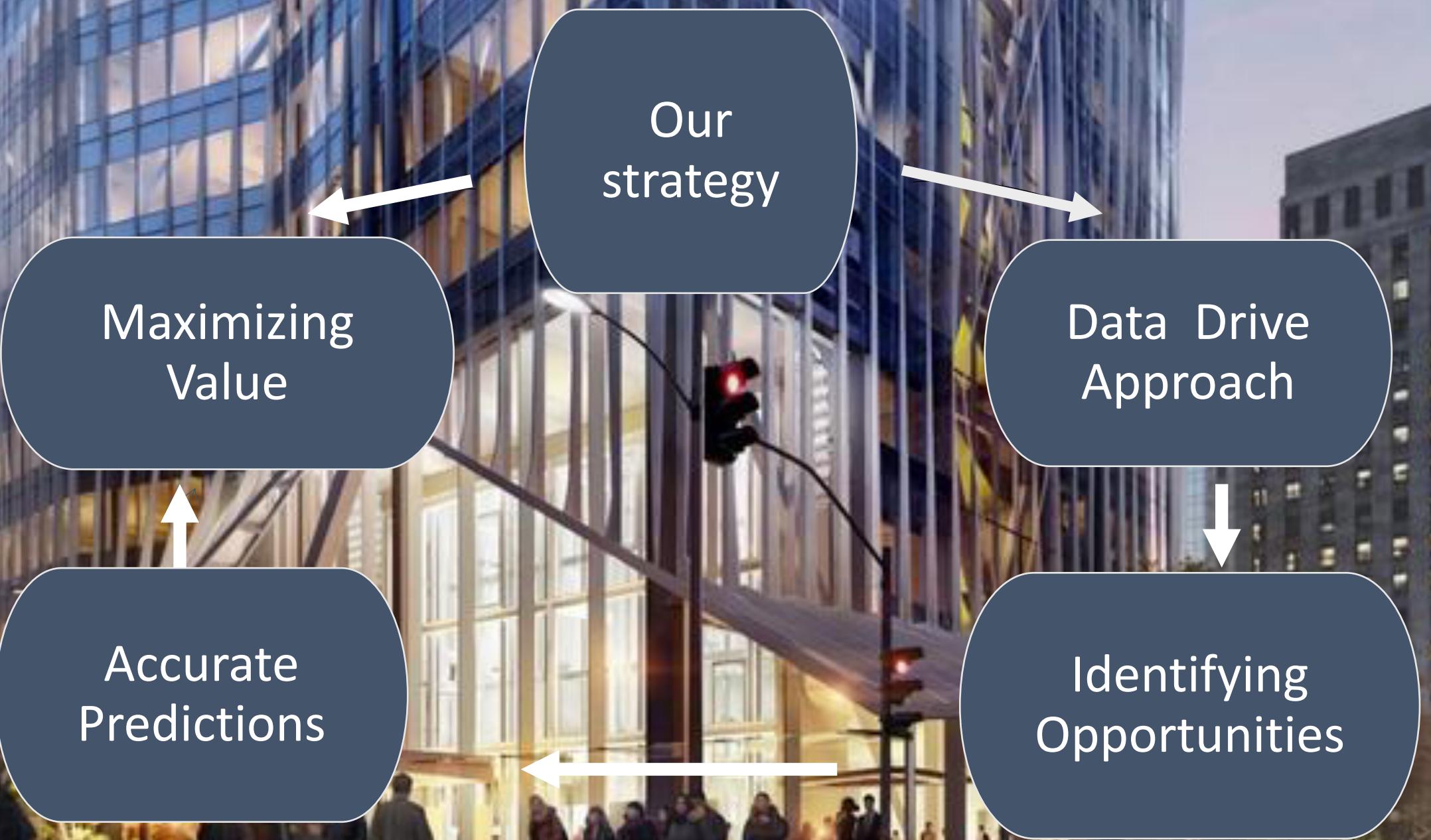




Interregnum
—
Datem



Manipulate data to dig up hidden profit

How do we work?

Choice of 3 key
elements



- Land size compared to the squared footage
- Structural Improvements
- Cosmetic Improvements



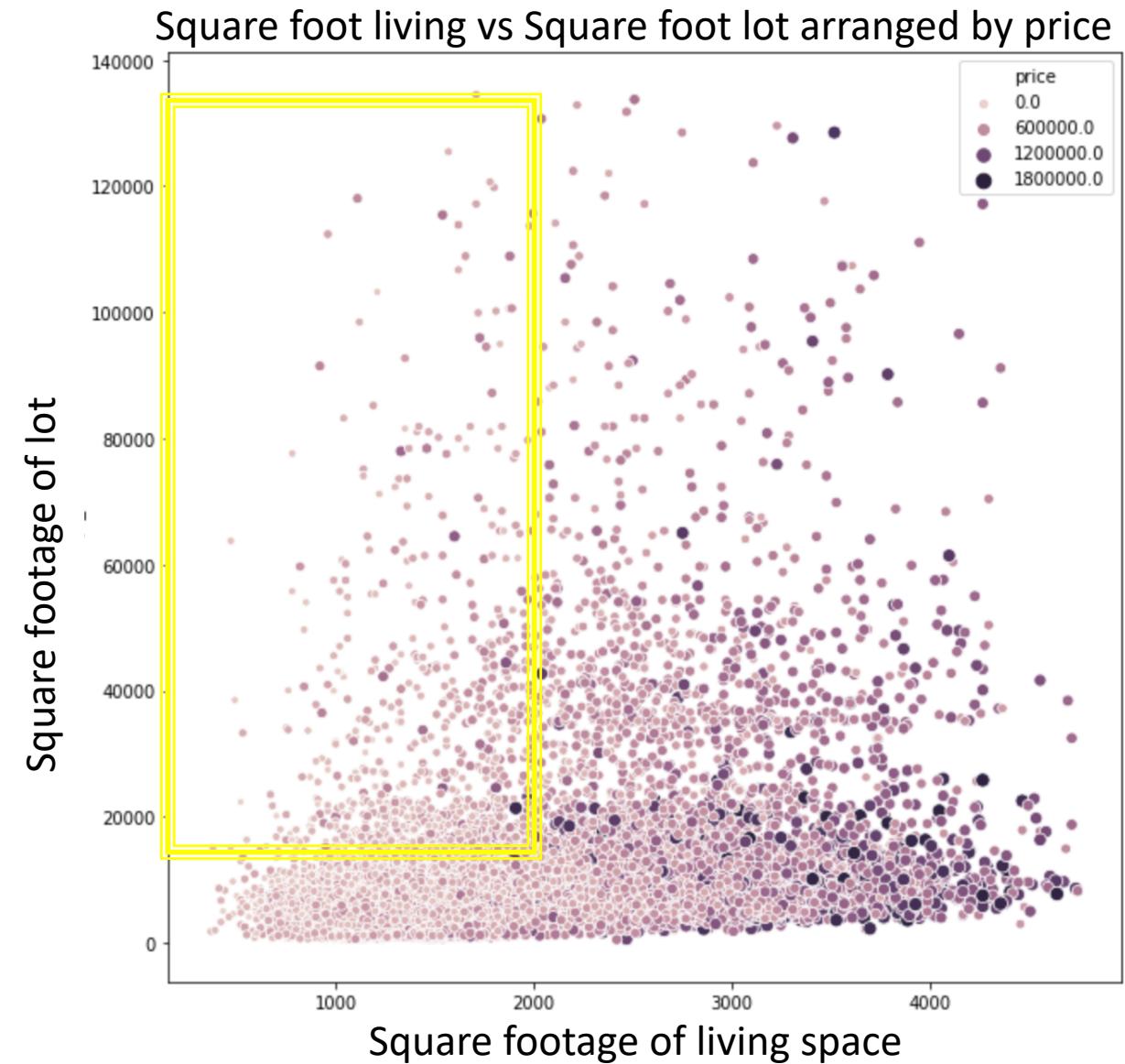
Why these
variables?



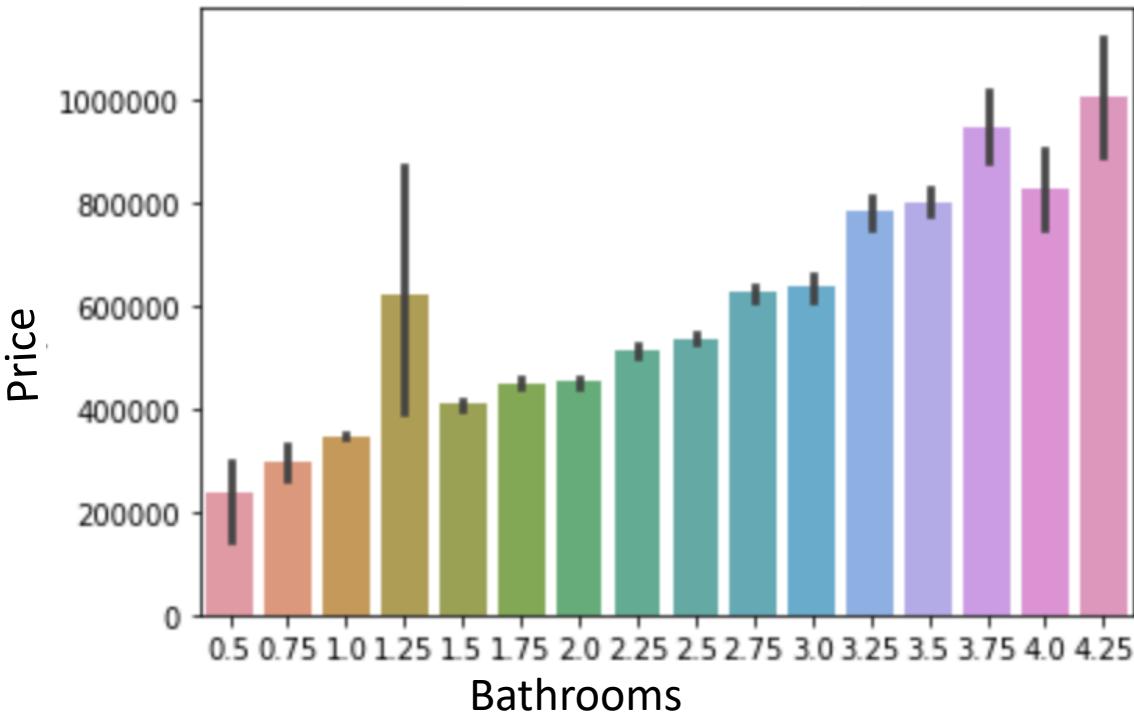
- Strong correlation with the price
- Significant opportunities for profit

Sqft of living VS Sqft lot

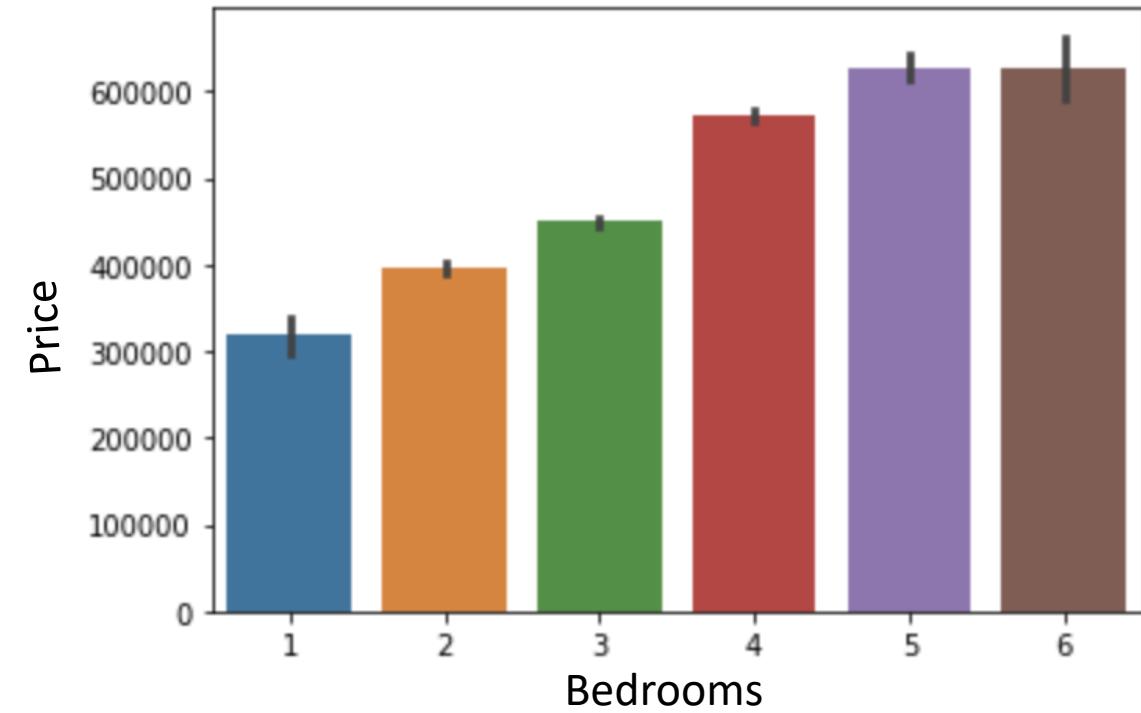
- The size of the lot has no significant impact on property price
- The size of the property does have impact on the price
- Our strategy will be to find small properties on large plots of land and extend the property



Bathrooms vs Price



Bedrooms vs Price

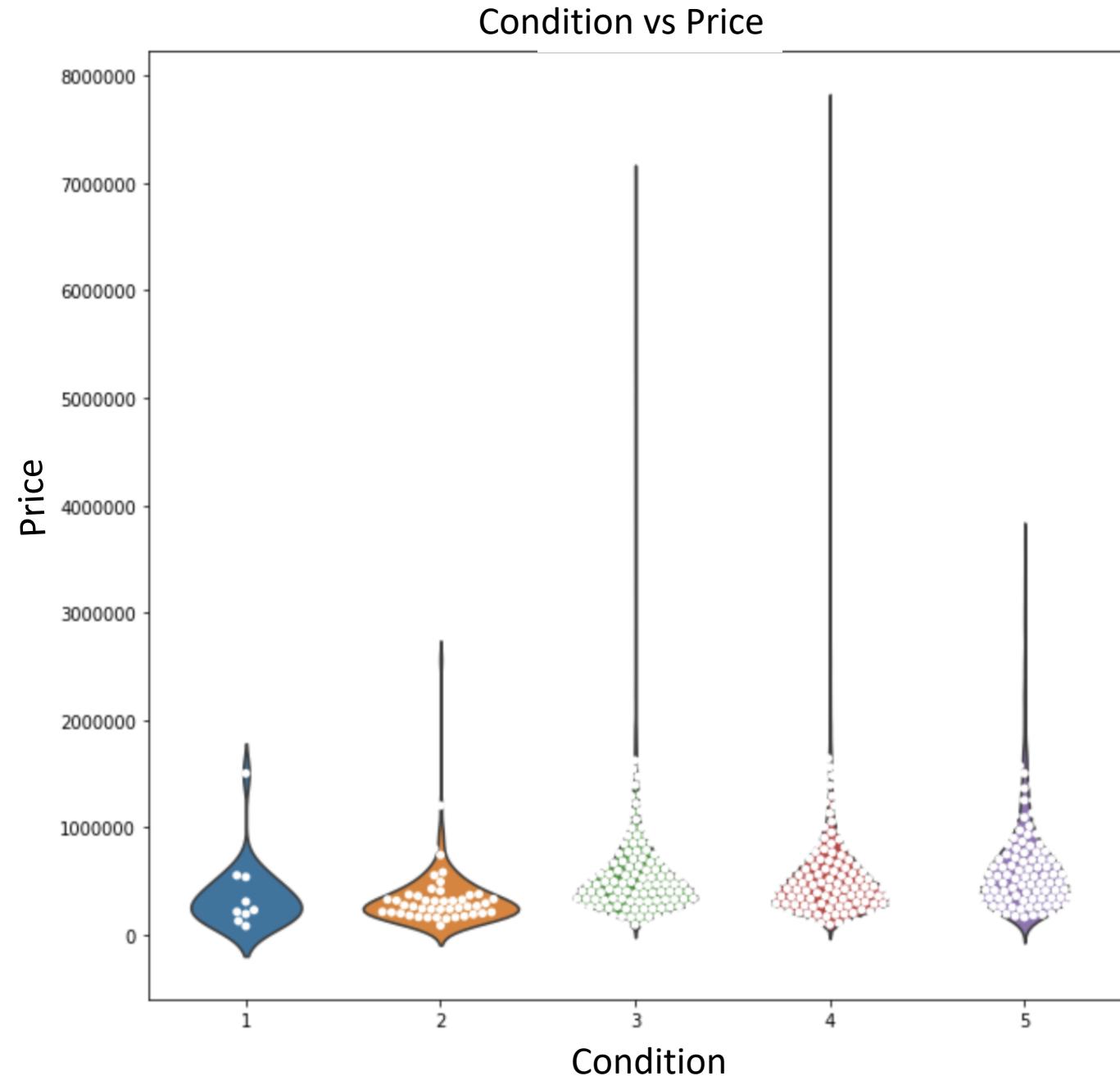


Which structural improvements have the biggest impact on price?

- Adding bathrooms has a much bigger impact on price than adding a bedroom.
- The number of bathrooms accounts for nearly 10% more of the price than the number of bedrooms

How does the condition of the property impact price?

- A relatively small increase in condition can lead to heightened price return
- The largest increase can be seen between levels 2 and 3
- This means only a small investment is needed to maximise gains



Which structural features have the largest impact on price?

Dep. Variable:	price	R-squared:	0.202
Model:	OLS	Adj. R-squared:	0.201
Method:	Least Squares	F-statistic:	282.5
Date:	Wed, 22 Jan 2020	Prob (F-statistic):	0.00
Time:	08:20:55	Log-Likelihood:	-2.7634e+05
No. Observations:	20156	AIC:	5.527e+05
Df Residuals:	20137	BIC:	5.529e+05
Df Model:	18		
Covariance Type:	nonrobust		

coef std err t P>|t| [0.025 0.975]

Intercept	2.517e+05	2.77e+04	9.082	0.000	1.97e+05	3.06e+05
d_bedro_2	5.553e+04	1.67e+04	3.316	0.001	2.27e+04	8.84e+04
d_bedro_3	6.526e+04	1.65e+04	3.959	0.000	3.29e+04	9.76e+04
d_bedro_4	1.439e+05	1.67e+04	8.631	0.000	1.11e+05	1.77e+05
d_bedro_5	1.551e+05	1.76e+04	8.823	0.000	1.21e+05	1.9e+05
d_bedro_6	1.362e+05	2.29e+04	5.948	0.000	9.13e+04	1.81e+05
d_bathr_1	7.045e+04	2.63e+04	2.681	0.007	1.89e+04	1.22e+05
d_bathr_2	1.73e+05	2.64e+04	6.554	0.000	1.21e+05	2.25e+05
d_bathr_3	3.656e+05	2.69e+04	13.601	0.000	3.13e+05	4.18e+05
d_yrs_s_minus1	-6746.4042	4018.450	-1.679	0.093	-1.46e+04	1130.087
d_yrs_s_0	1.33e+05	1.79e+04	7.410	0.000	9.78e+04	1.68e+05
d_yrs_s_10	1.706e+05	1.84e+04	9.296	0.000	1.35e+05	2.07e+05
d_yrs_s_20	1.245e+05	1.92e+04	6.487	0.000	8.69e+04	1.62e+05

How much impact does cosmetic condition have on price?

Dep. Variable:	price	R-squared:	0.022
Model:	OLS	Adj. R-squared:	0.021
Method:	Least Squares	F-statistic:	32.50
Date:	Wed, 22 Jan 2020	Prob (F-statistic):	3.45e-87
Time:	08:26:22	Log-Likelihood:	-2.7839e+05
No. Observations:	20156	AIC:	5.568e+05
Df Residuals:	20141	BIC:	5.569e+05
Df Model:	14		
Covariance Type:	nonrobust		

	coef	std err	t	P> t 	[0.025	0.975]
Intercept	3.42e+05	4.57e+04	7.483	0.000	2.52e+05	4.32e+05
d_condi_2	-2.893e+04	4.95e+04	-0.584	0.559	-1.26e+05	6.81e+04
d_condi_3	1.475e+05	4.56e+04	3.233	0.001	5.81e+04	2.37e+05
d_condi_4	1.417e+05	4.57e+04	3.102	0.002	5.22e+04	2.31e+05
d_condi_5	2.116e+05	4.6e+04	4.602	0.000	1.21e+05	3.02e+05
d_yrs_s_minus1	-4404.8358	4446.303	-0.991	0.322	-1.31e+04	4310.281
d_yrs_s_0	1.766e+05	1.99e+04	8.885	0.000	1.38e+05	2.16e+05
d_yrs_s_10	2.167e+05	2.03e+04	10.671	0.000	1.77e+05	2.56e+05
d_yrs_s_20	1.37e+05	2.12e+04	6.455	0.000	9.54e+04	1.79e+05
d_yrs_s_30	3.382e+04	3.04e+04	1.112	0.266	-2.58e+04	9.34e+04
d_yrs_s_40	-1.613e+04	4.04e+04	-0.399	0.690	-9.53e+04	6.3e+04
d_yrs_s_50	-3.152e+04	4.84e+04	-0.651	0.515	-1.26e+05	6.33e+04
d_yrs_s_60	-6.224e+04	8.53e+04	-0.729	0.466	-2.3e+05	1.05e+05
d_yrs_s_70	-1.032e+05	1.21e+05	-0.855	0.392	-3.4e+05	1.33e+05

Are higher prices associated with larger properties, larger land, or both?

Dep. Variable:	price	R-squared:	0.391			
Model:	OLS	Adj. R-squared:	0.391			
Method:	Least Squares	F-statistic:	6459.			
Date:	Wed, 22 Jan 2020	Prob (F-statistic):	0.00			
Time:	08:29:46	Log-Likelihood:	-2.7362e+05			
No. Observations:	20156	AIC:	5.472e+05			
Df Residuals:	20153	BIC:	5.473e+05			
Df Model:	2					
Covariance Type:	nonrobust					
	coef	std err	t	P> t	[0.025	0.975]
Intercept	9.395e+04	3803.401	24.700	0.000	8.65e+04	1.01e+05
sqft_living	208.0297	1.850	112.430	0.000	204.403	211.656
sqft_lot	-0.9958	0.118	-8.467	0.000	-1.226	-0.765

Conclusion

Data driven business model

- Resulting in a strategy of buying small properties with extension possibilities in the right locations
- Huge potential for huge profit

