KINGS COUNTY HOUSE SALES PREDICTION

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FACTORS AFFECTING SALES PRICE
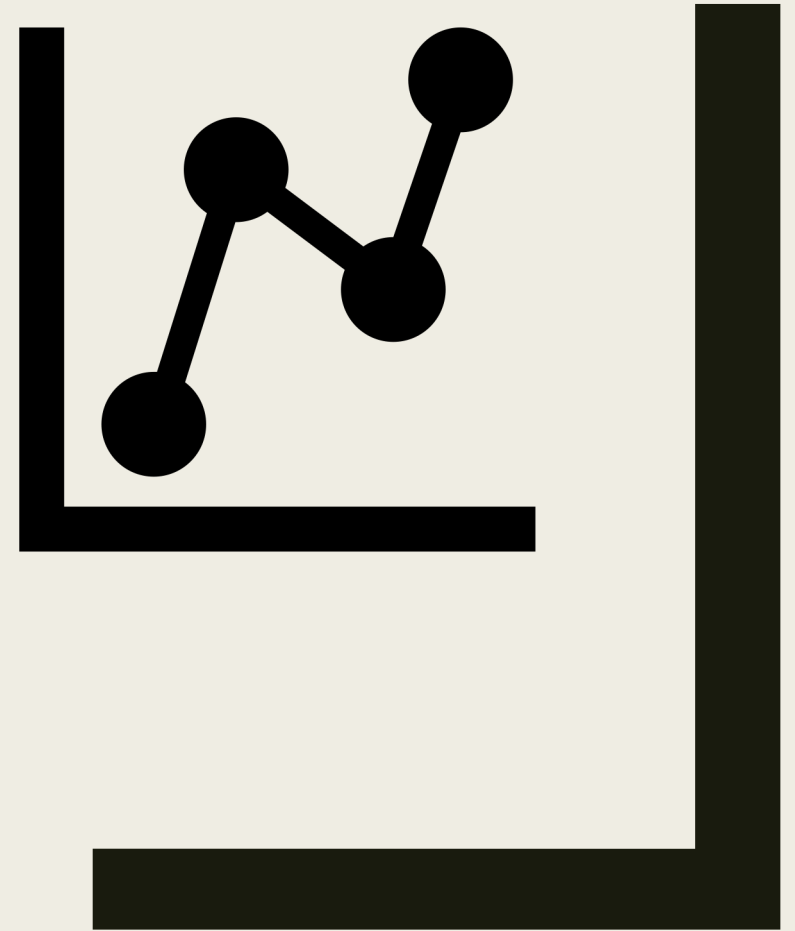
1. Number of bedrooms
2. Number of bathrooms
3. Square footage of the home
4. Square footage of the lot
5. Number of floors
6. Has waterfront view
7. Number of times viewed
8. Grade of home based on KC grading system
9. Square footage of home excluding basement
10. Square footage of the basement
11. Year built
12. Condition of home
13. Whether or not the home has a basement
14. Square footage of home after renovation
15. Whether or not the home was viewed
16. Square footage of lot after renovation

METHODOLOGY

OSEMN MODEL
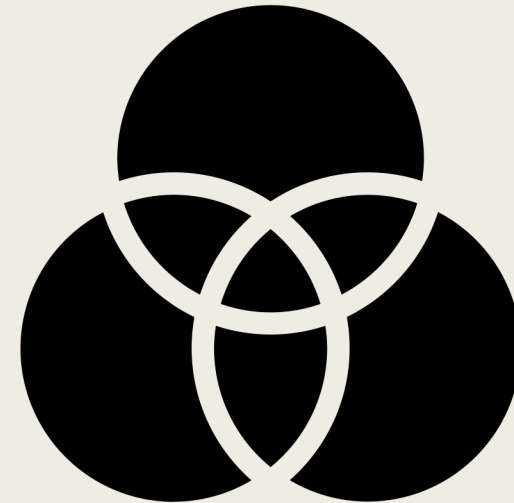
OSEMN MODEL

Obtain

- From different location or file

Scrub

- Filtering lines
- Extracting columns
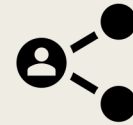- Handling missing values

Explore

- Understanding the data
- Deriving Statistics

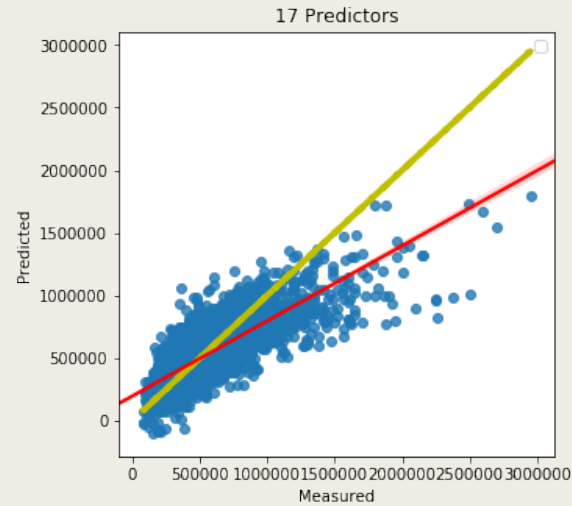### Model

- Clustering
- Classification
- Regression

iNterpret

- Drawing conclusions from data
- Evaluating meaning of results
- Communicating results

MODEL RESULT

R-Squared
0.620655

% Difference MSE(Test vs Train)
-0.943803

17 Predictors

	Predictor	Coefficient(log)	Coefficient	Contribution(%)
5	waterfront	0.400170	2.512872	12.661660
8	grade	0.192811	1.558873	7.854728
14	basement	0.082538	1.209310	6.093378
4	floors	0.078084	1.196973	6.031212
1	bathrooms	0.067054	1.166954	5.879954
15	age	0.064526	1.160182	5.845833
7	condition	0.050389	1.123023	5.658600
16	viewed	0.043601	1.105606	5.570842
6	view	0.029136	1.069390	5.388360
2	sqft_living	0.012926	1.030210	5.190940
9	sqft_above	0.004070	1.009416	5.086166
12	sqft_living15	0.000150	1.000345	5.040462
11	yr_renovated	0.000032	1.000074	5.039095
10	sqft_basement	0.000011	1.000026	5.038851
0	bedrooms	-0.034403	0.923841	4.654980
3	sqft_lot	-0.041172	0.909553	4.582984
13	sqft_lot15	-0.060652	0.869656	4.381955

CONCLUSION

MAXIMIZE SALE PRICE

1. Focus more on homes with waterfront view, a high housing grade given by Kings County, and having or adding basement.
2. Focus less on size of basement, number of bedrooms and size of lot.

THANK YOU