Project 3

Ames Housing Data

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Welcome to 2010

EDA: Sale Price

Stats :

Samples 987.0
Mean   185.7
Std   82.5
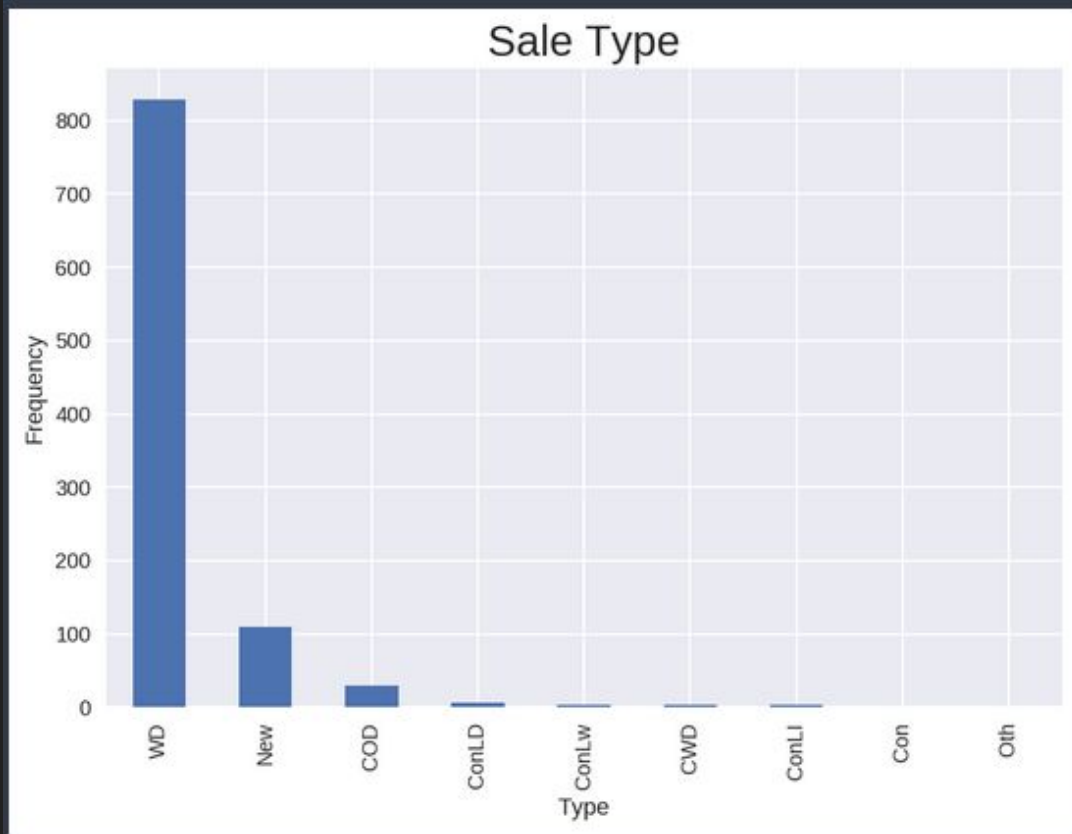Min   35.3
Max   755.0
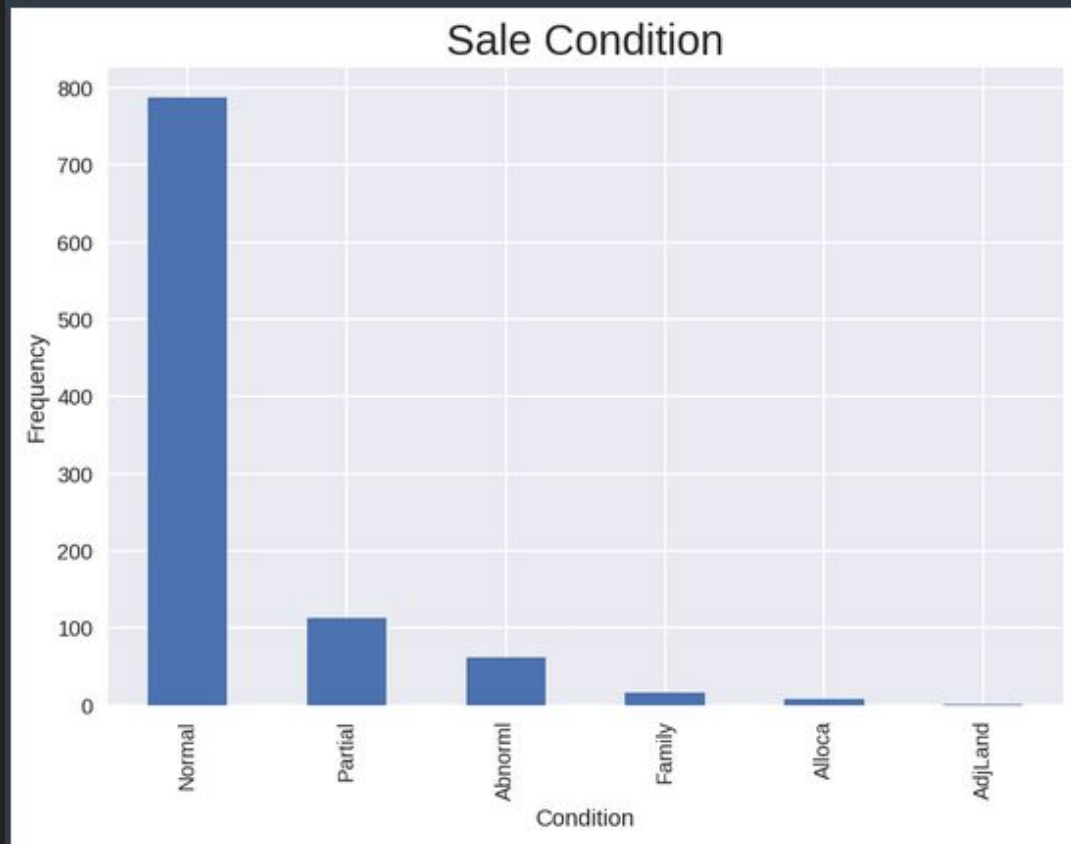25%   131.0
75%   219.0

EDA: Sale Type

WD   Warranty Deed - Conventional
CWD   Warranty Deed - Cash
VWD   Warranty Deed - VA Loan
New   Home just constructed and sold
COD   Court Officer Deed/Estate
Con   Contract 15% Down payment
            regular   terms
ConLw Contract Low Down payment and
            low   interest
ConLI   Contract Low Interest
ConLD Contract Low Down

EDA: Sale Condition

Normal   Normal Sale
Abnorml Abnormal Sale - trade,
         foreclosure, short sale
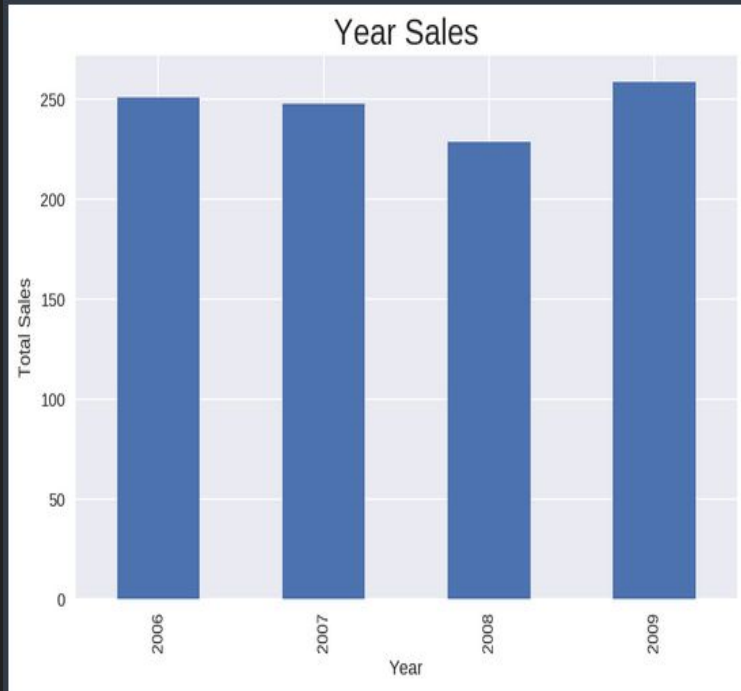AdjLand Adjoining Land Purchase
Alloca   Allocation - two linked properties
         with separate deeds, typically
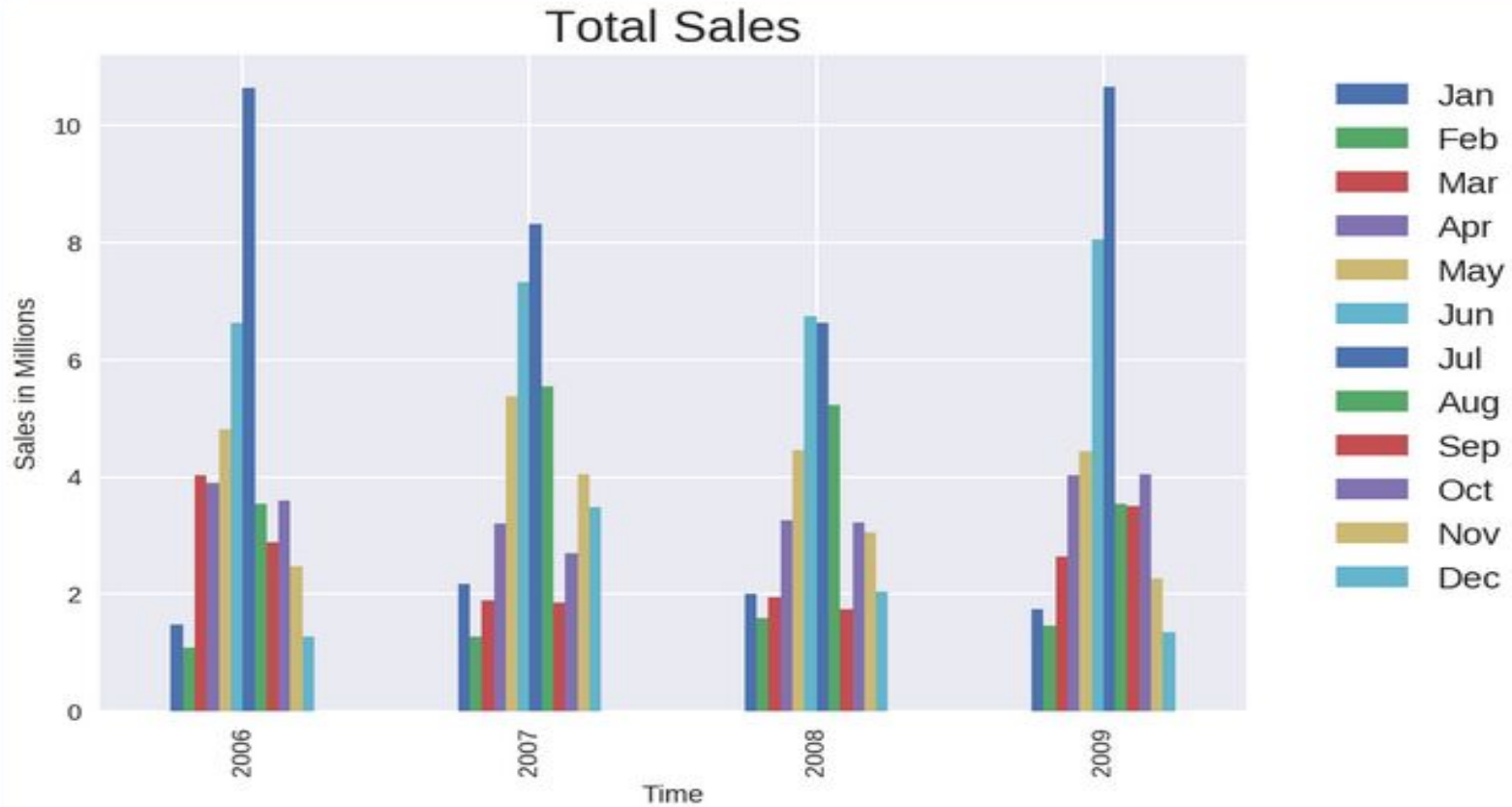   condo with a garage unit
Family   Sale between family members
Partial   Home was not completed when
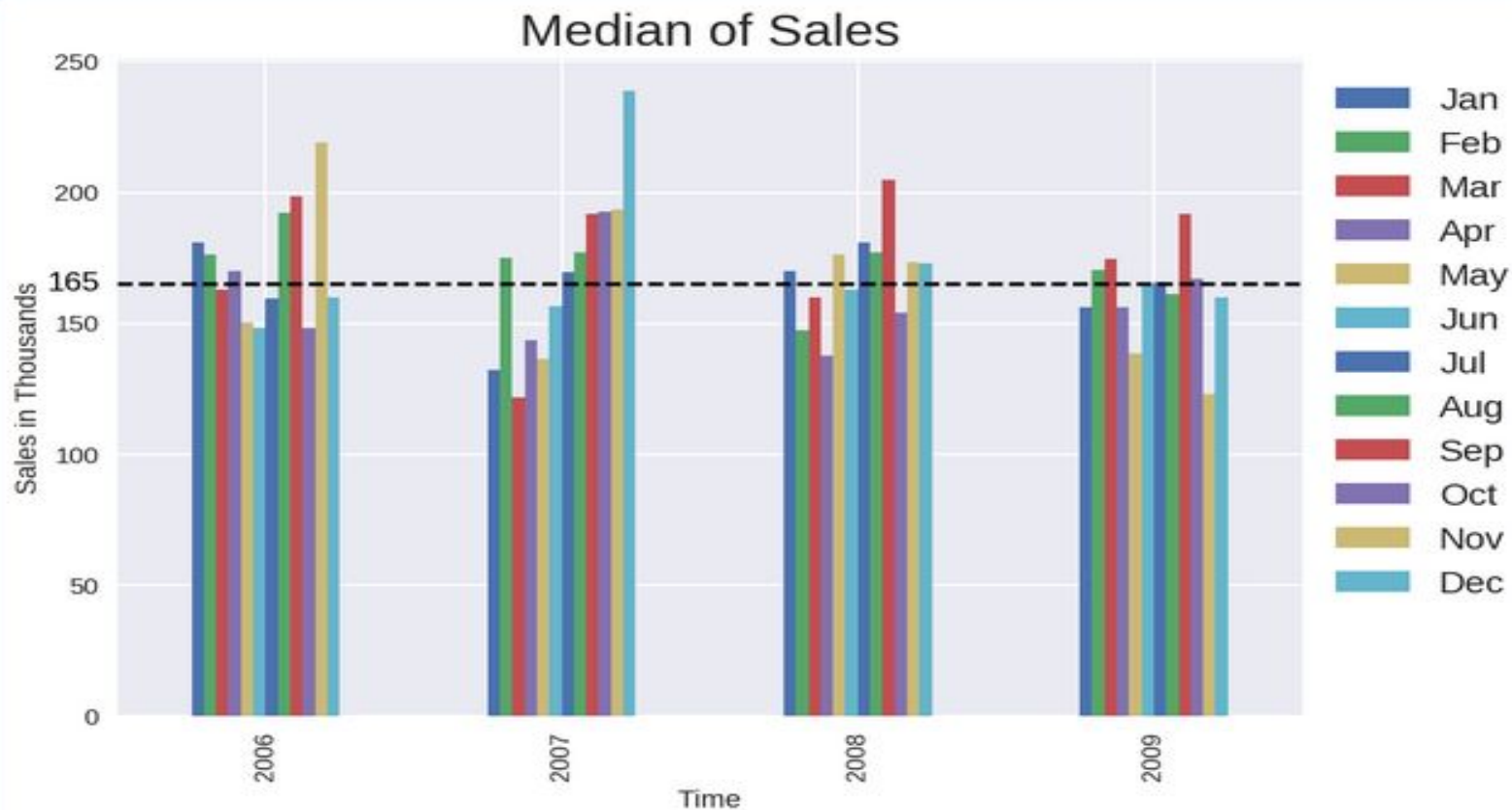   last assessed (associated with
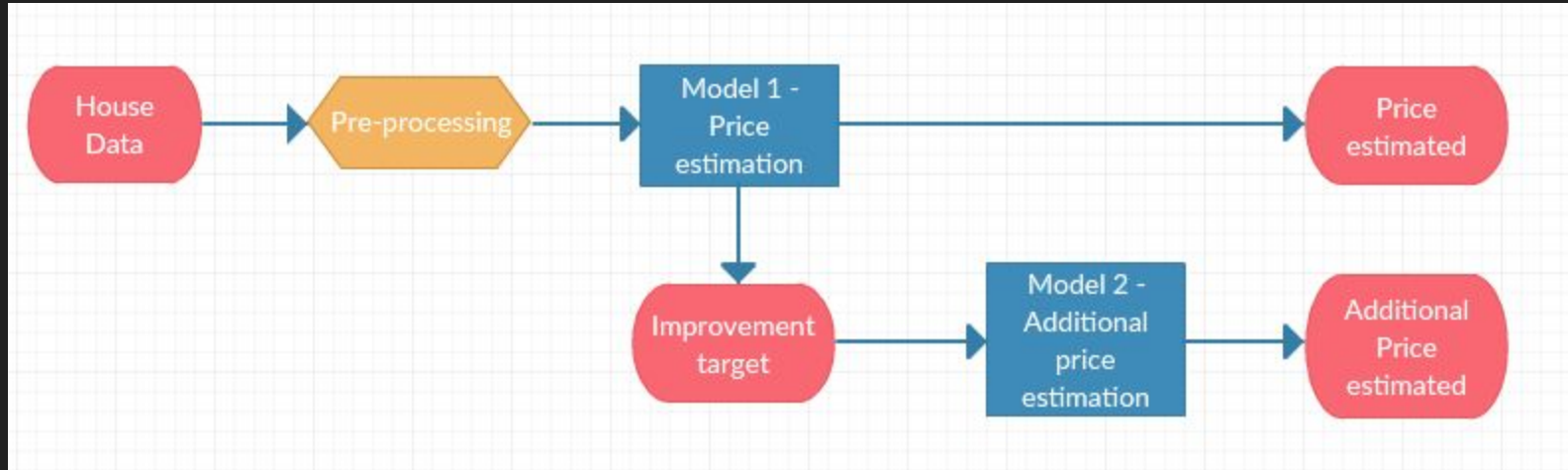   New Homes)

EDA: Sales

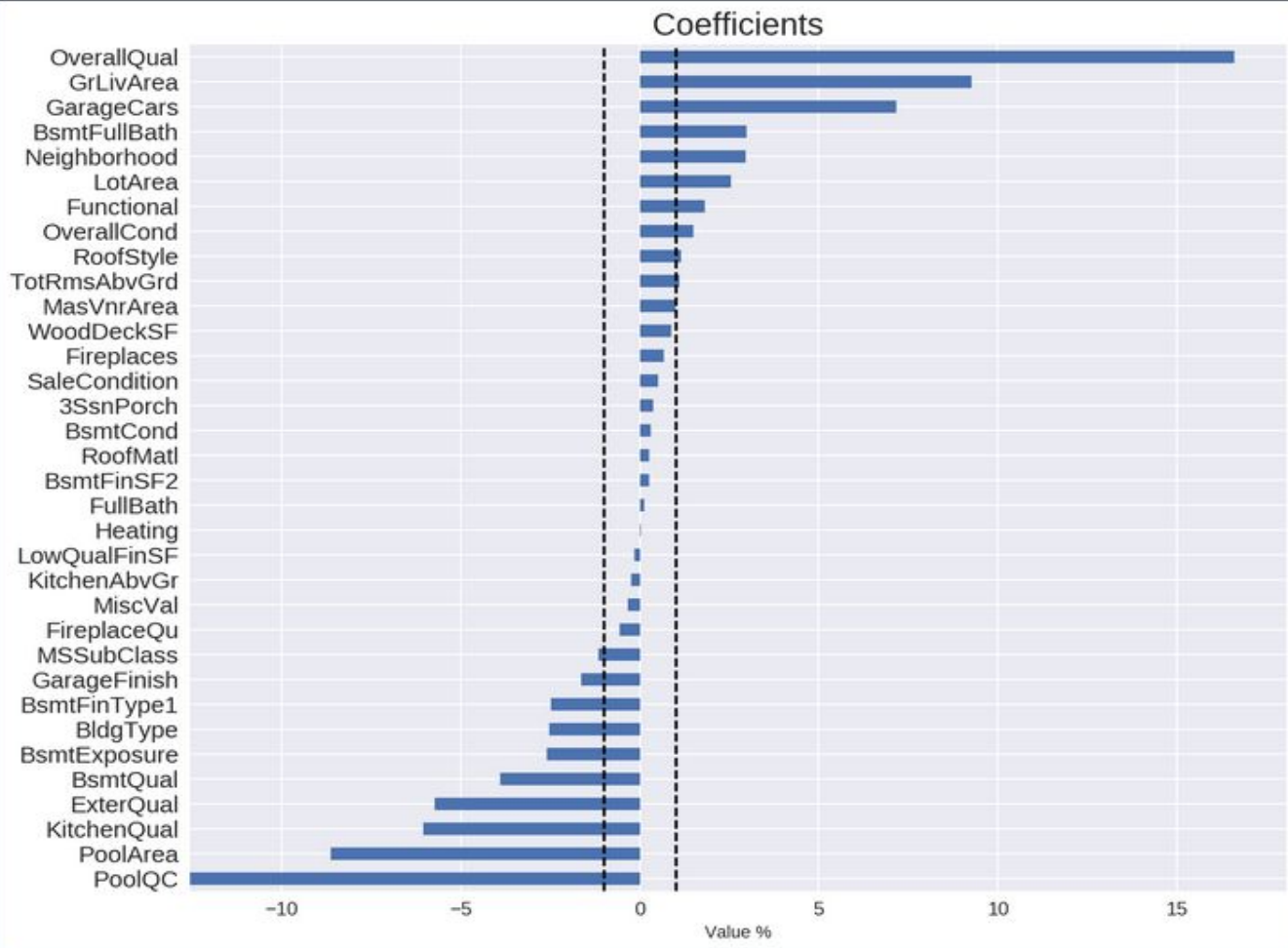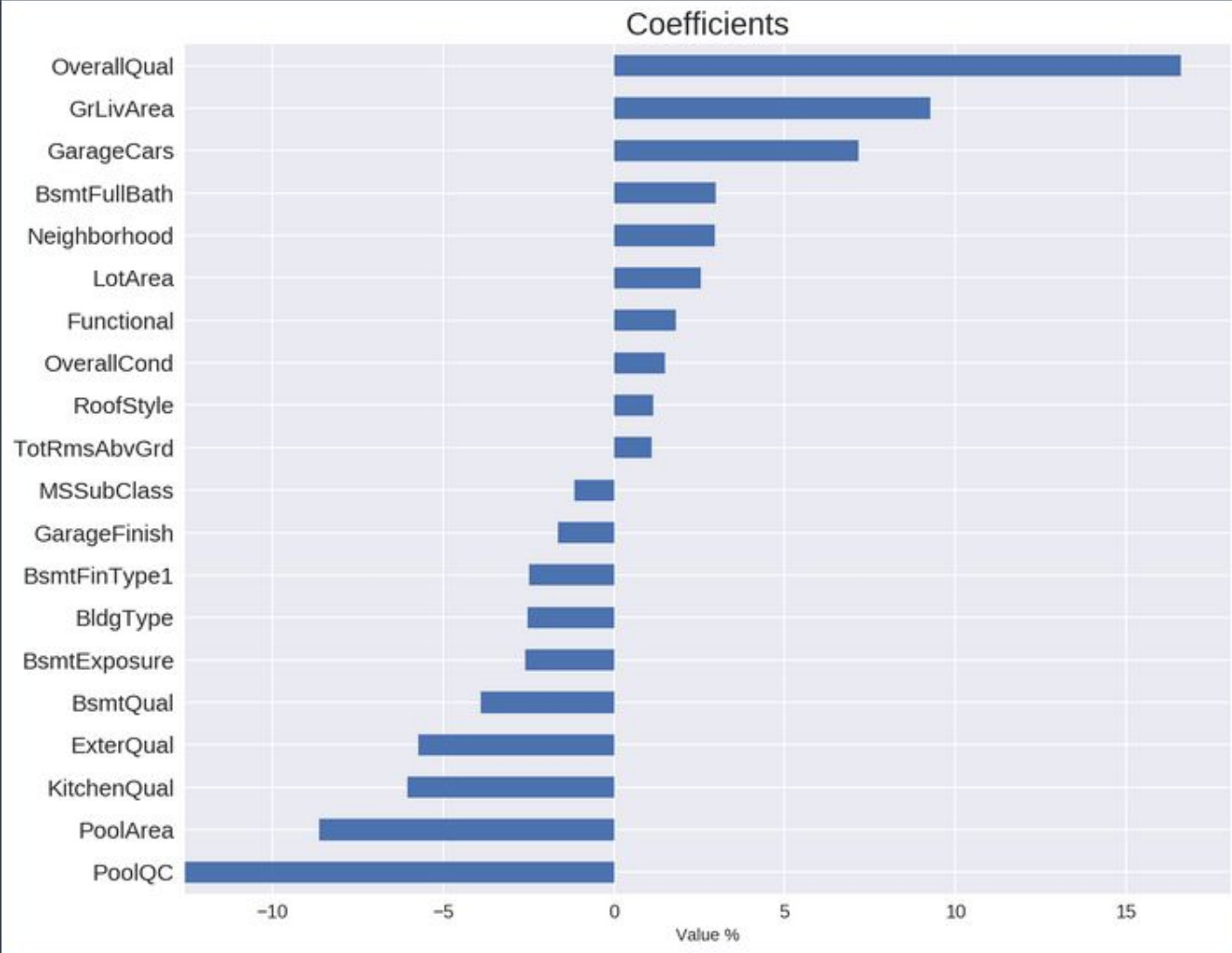# EDA: Sales

EDA: Sales
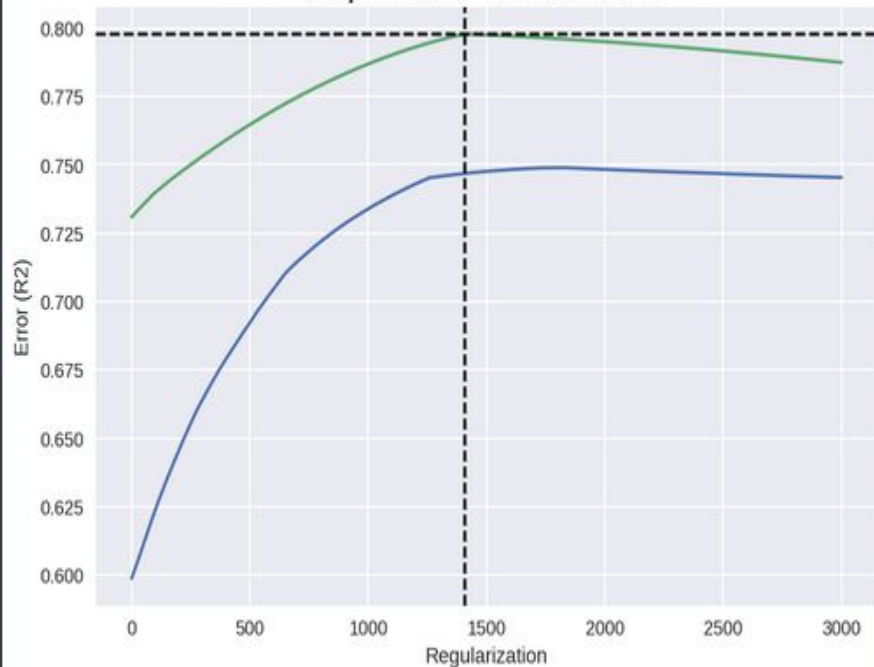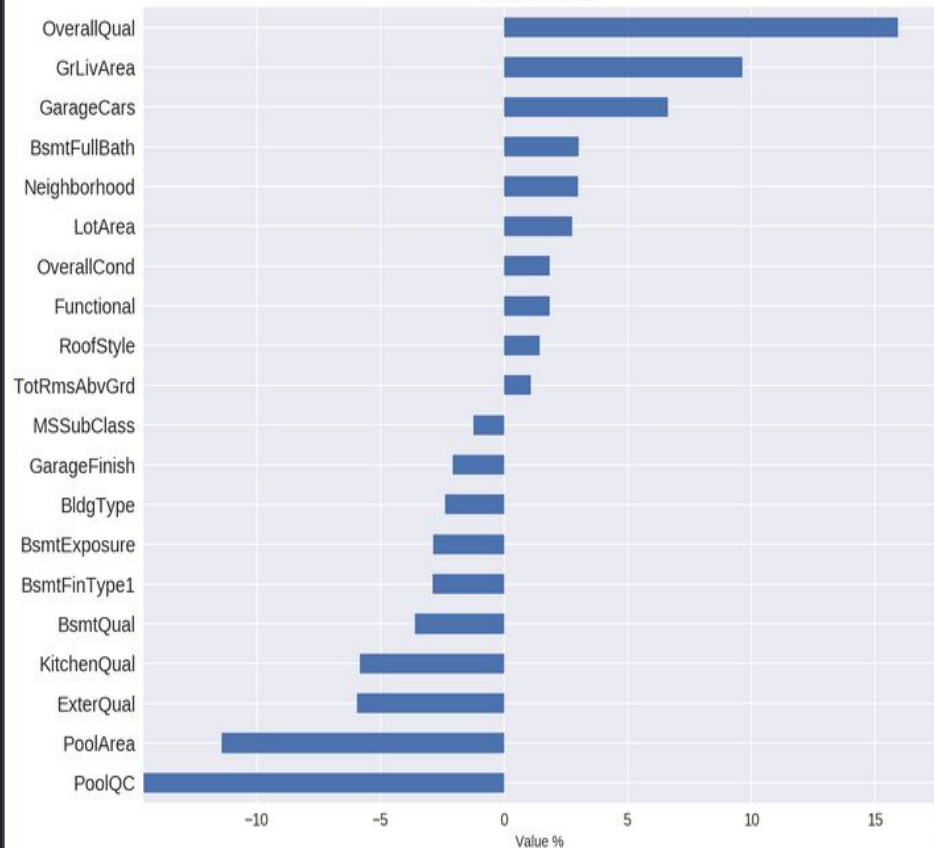
Modeling

Model 1

Price Estimation

Feature Selection

Performance for not remodeled houses

Coefficients

Coefficients

Model 1

Model 1: Error

Error for not remodeled properties
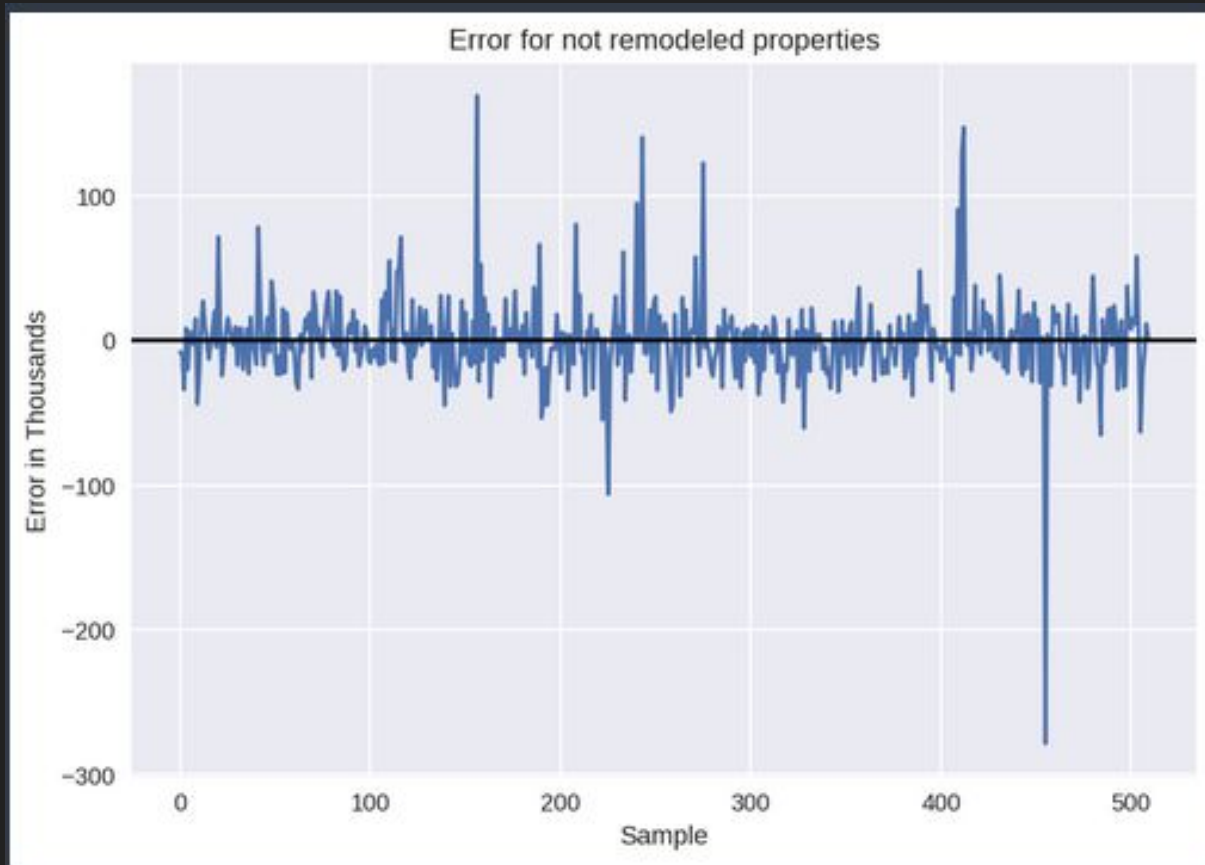
Model 1: Error
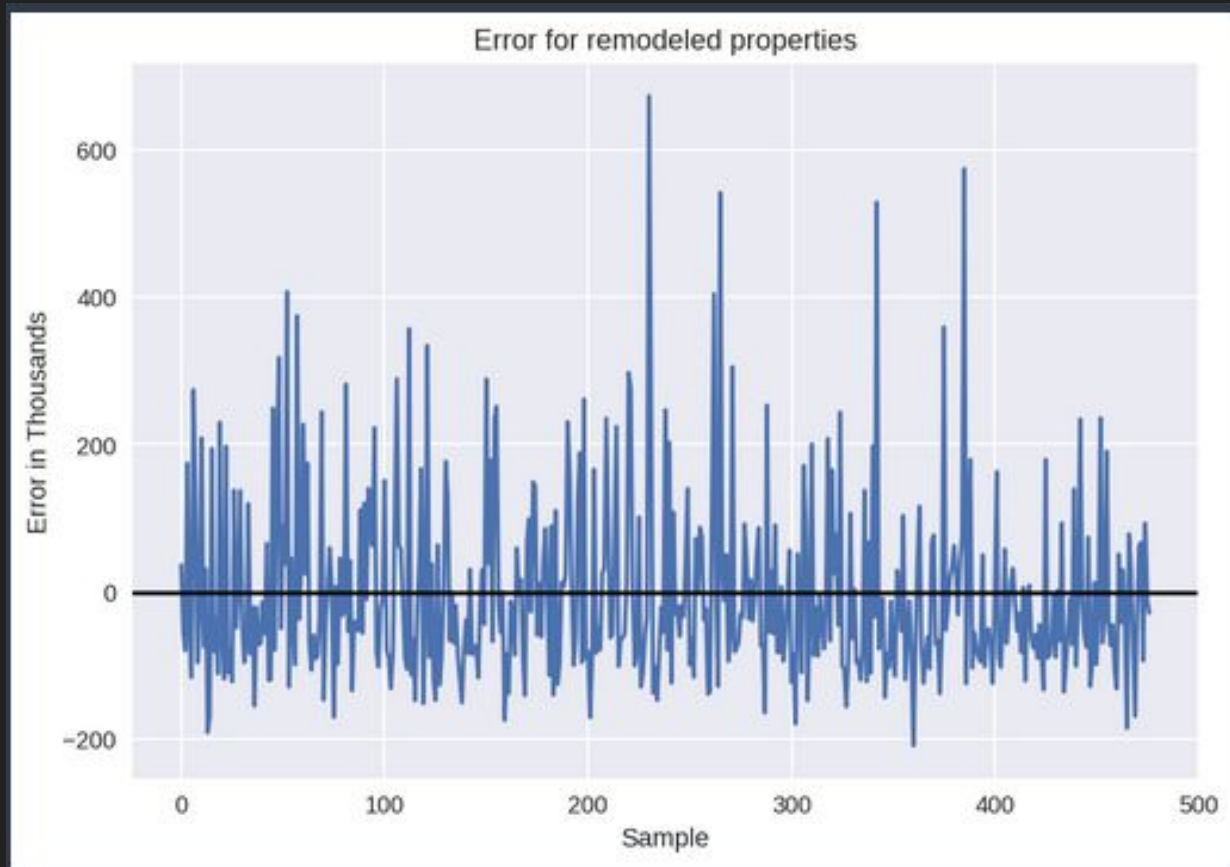
Model 2

Additional Price Estimation

Coefficients

Feature	Value %
GrLivArea	
ExterQual	
OverallCond	
BsmtFullBath	
Functional	
BsmtFinType1	
PoolArea	
Neighborhood	
KitchenQual	
RoofStyle	

Model 2: Error

Error comparison for remodeled properties

Model 2: Error

Error comparison not remodeled/ remodeled
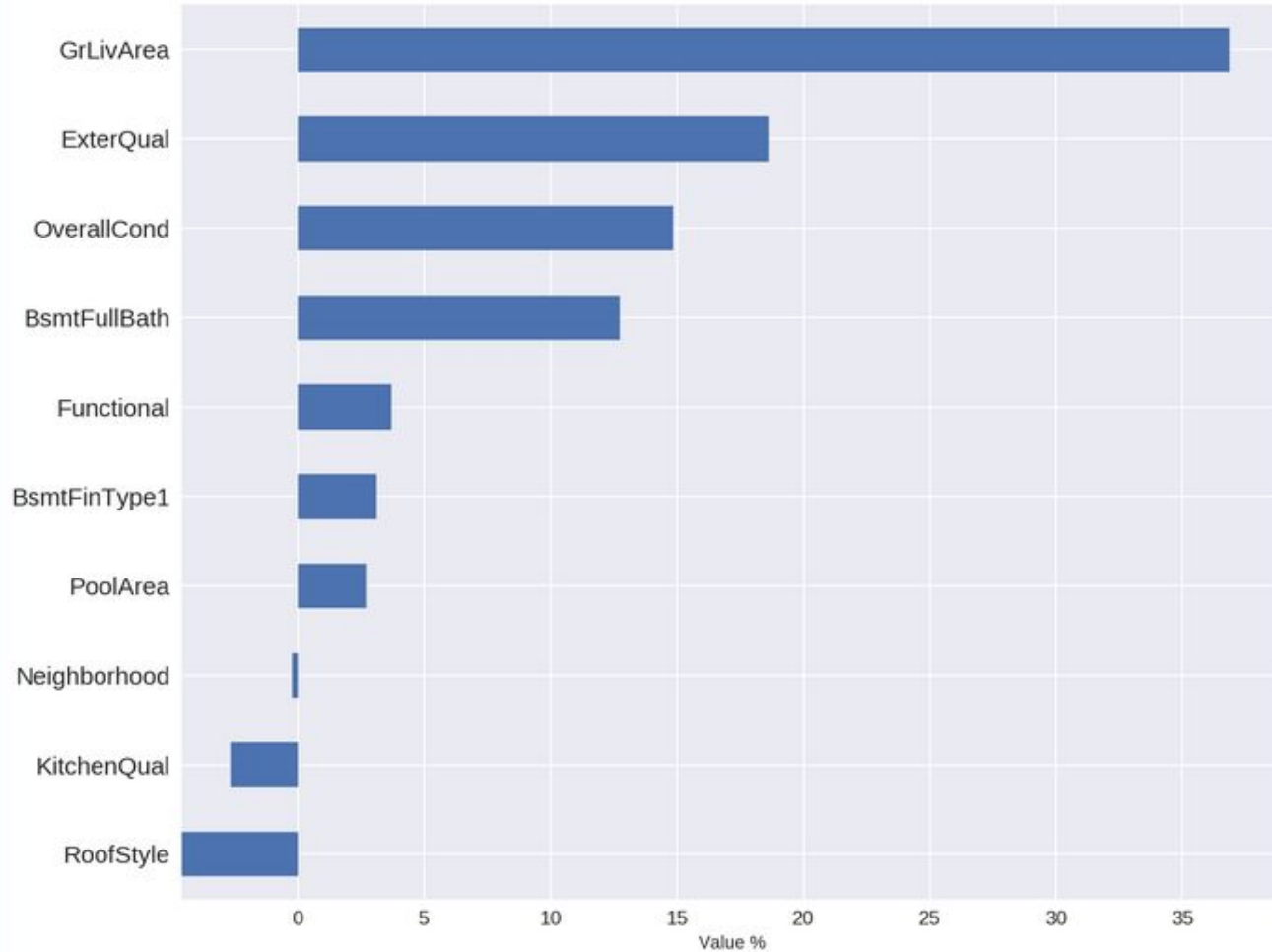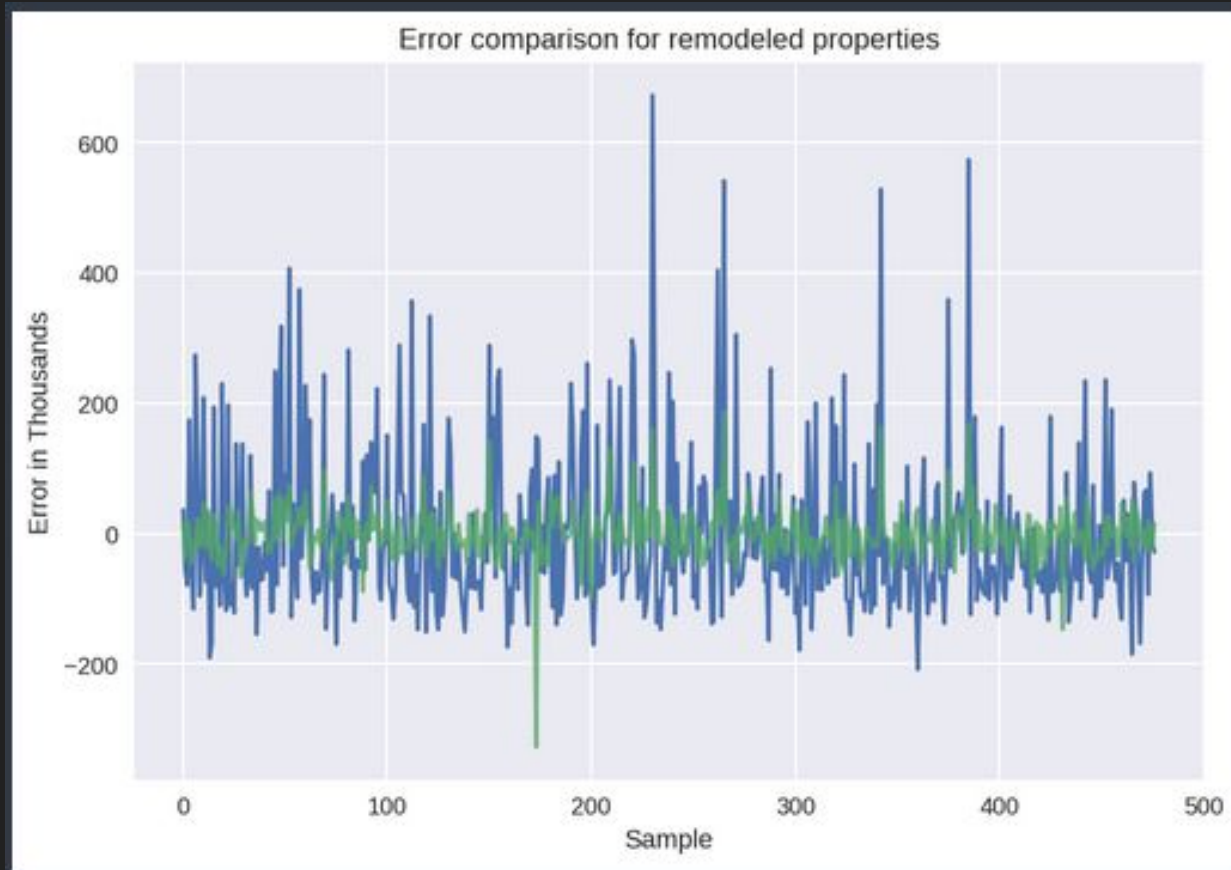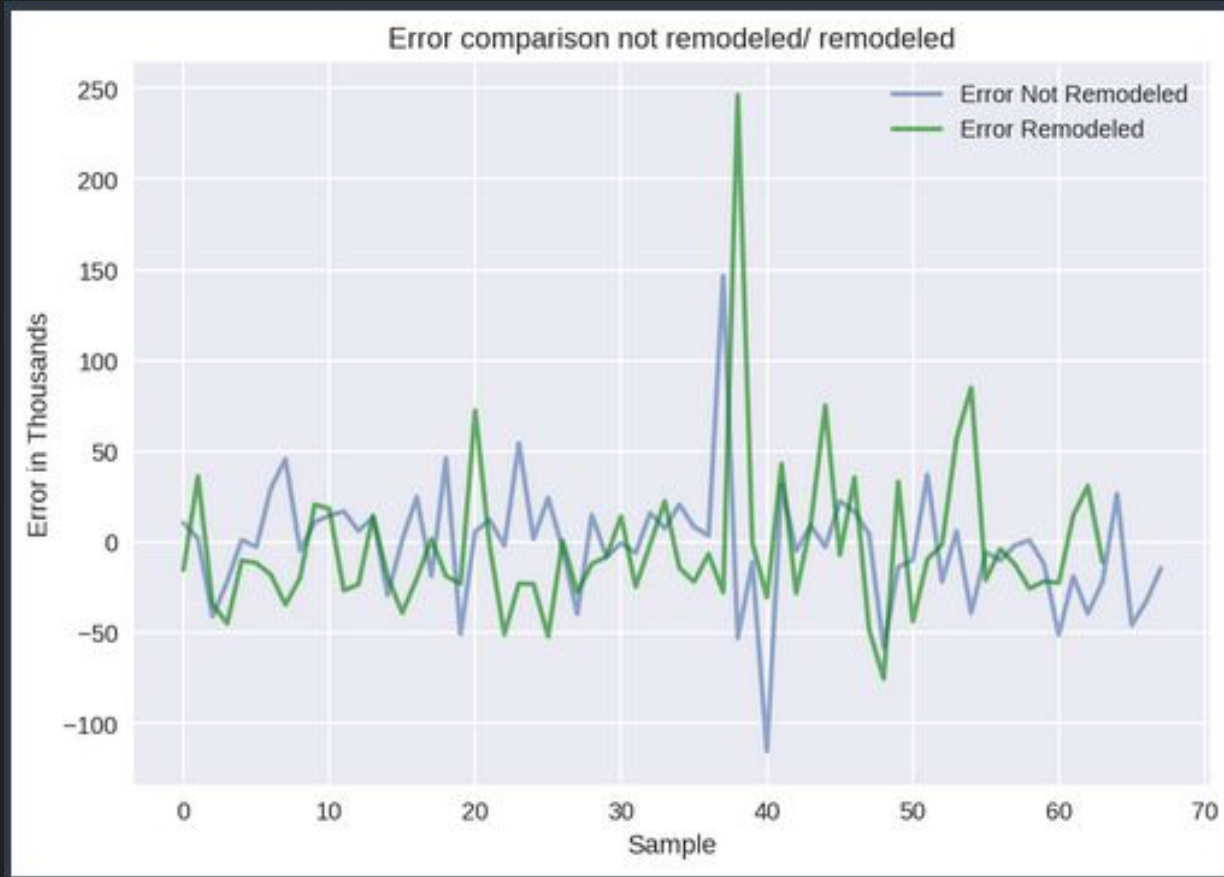
Full Model Performance on 2010

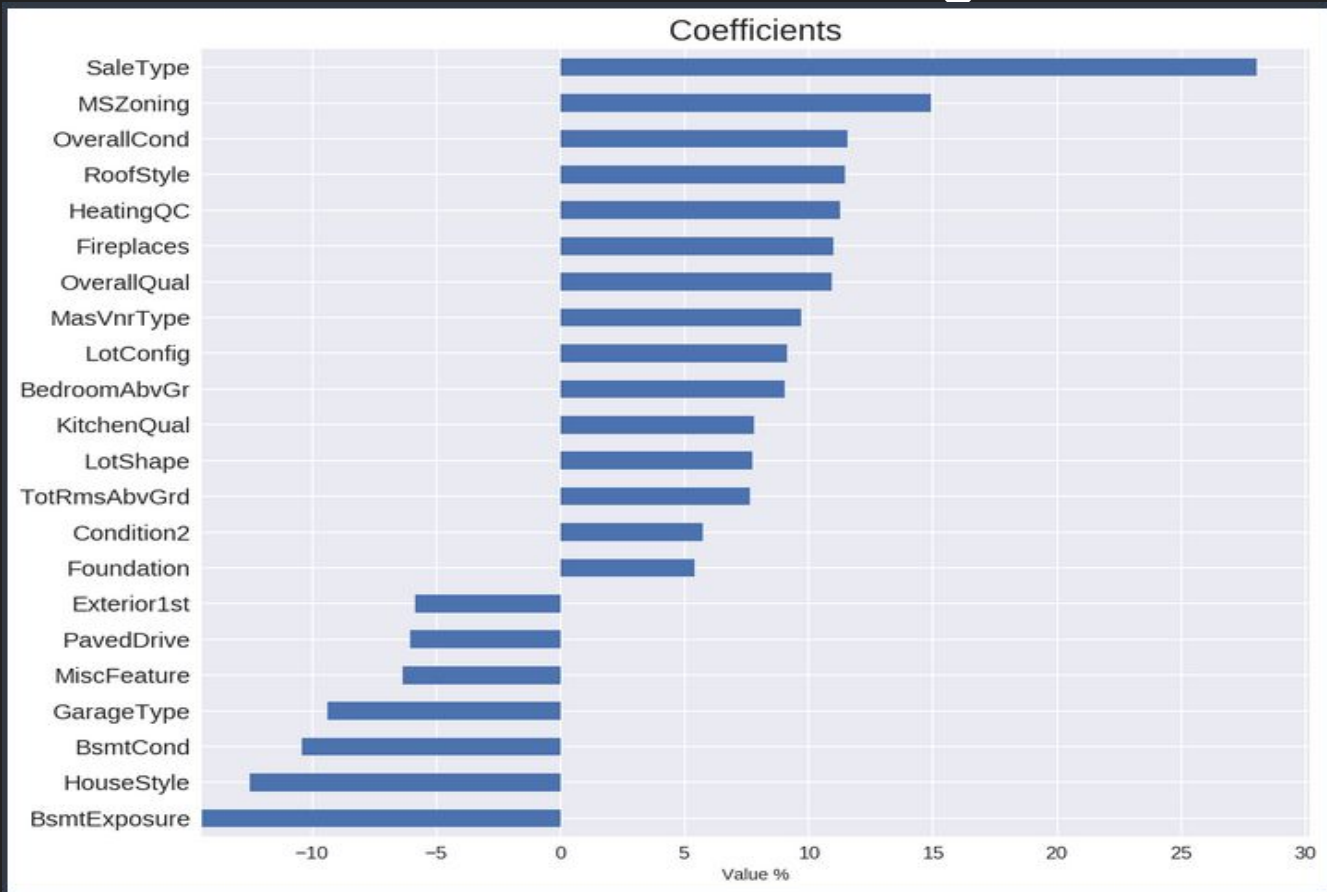|	Error
Not remodeled	0.775
Remodeled, first prediction	0.820
Remodeled, last prediction	0.887

Abnormal: Sale Type

Abnormal Sale - trade, foreclosure, short sale

Abnormal: Sale Type
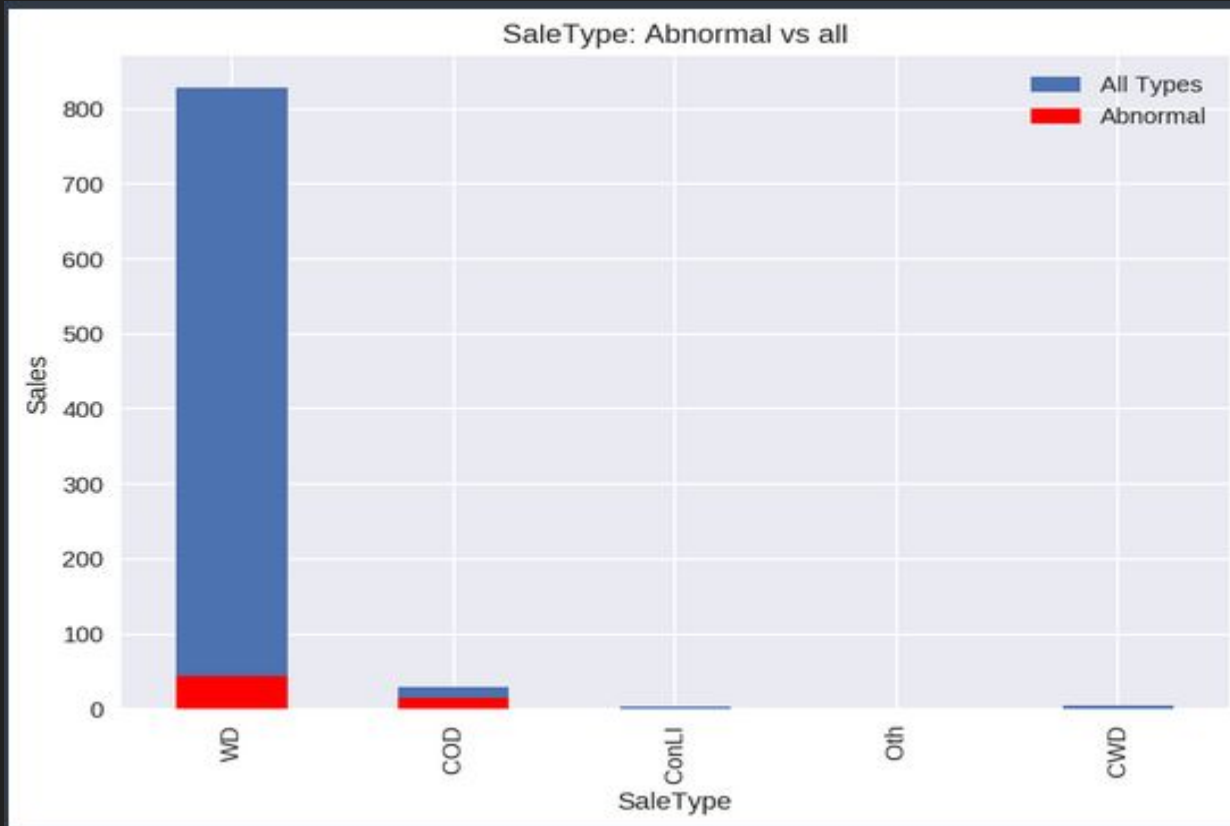
Abnormal Modeling

Abnormal Modeling

	Predicted Not Abnormal	Predicted Abnormal
Not Abnormal	671	254
Abnormal	1	61

	precision	recall	f1-score	support
0	1.00	0.73	0.84	925
1	0.19	0.98	0.32	62
avg / total	0.95	0.74	0.81	987

Questions?