



What's the Deal with Ames Housing Prices?

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Data Science Problem

How does house quality
conditions change sale prices?



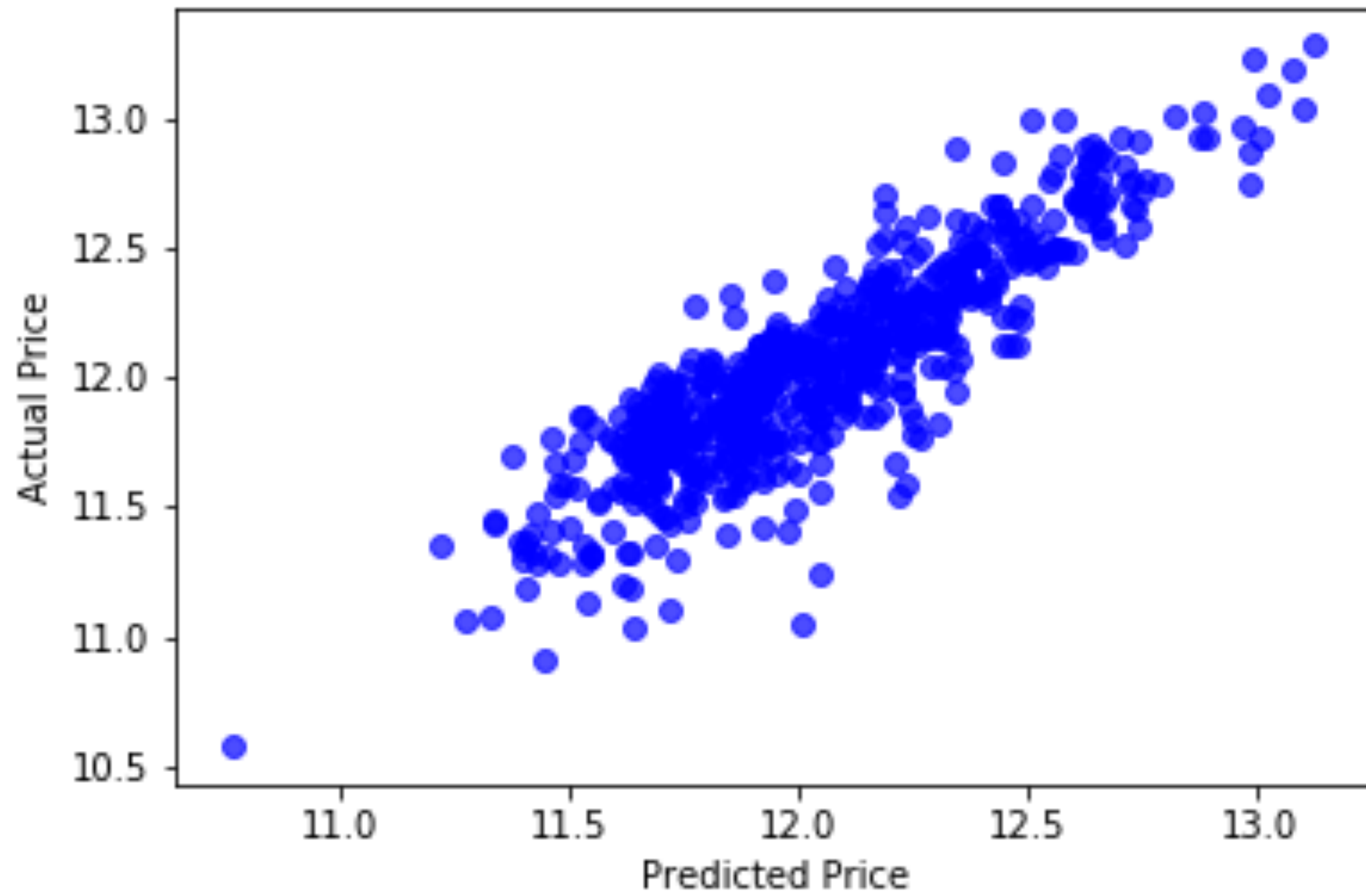
Procedure

- ❖ Co-Relation
- ❖ Linear Model
- ❖ Train-Test-Split
- ❖ R^2 (Coefficients of Determinants)
- ❖ Root Mean Square Error
- ❖ Ridge & Lasso Regression

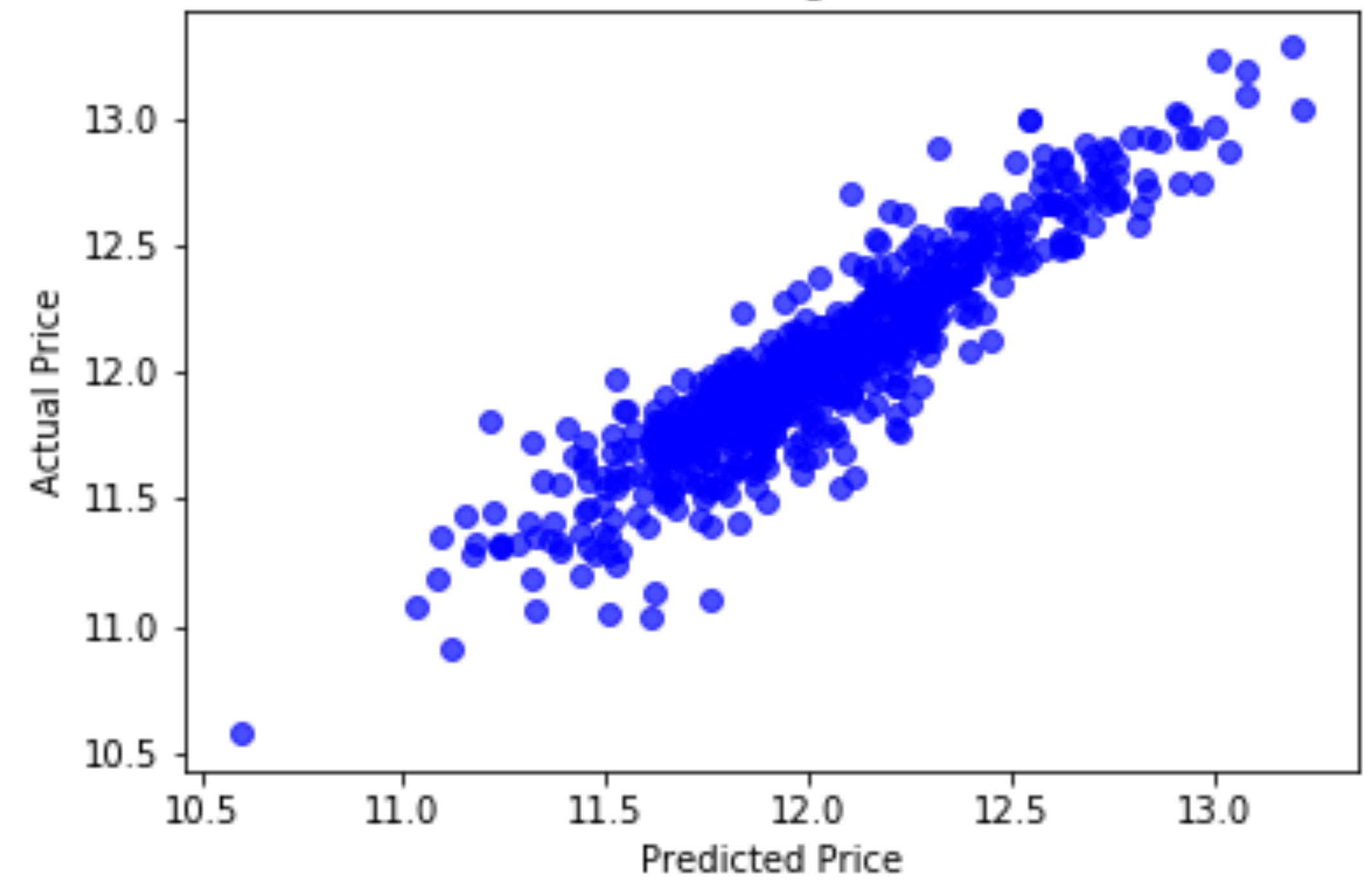


Models

Model 1 Linear Regression Model

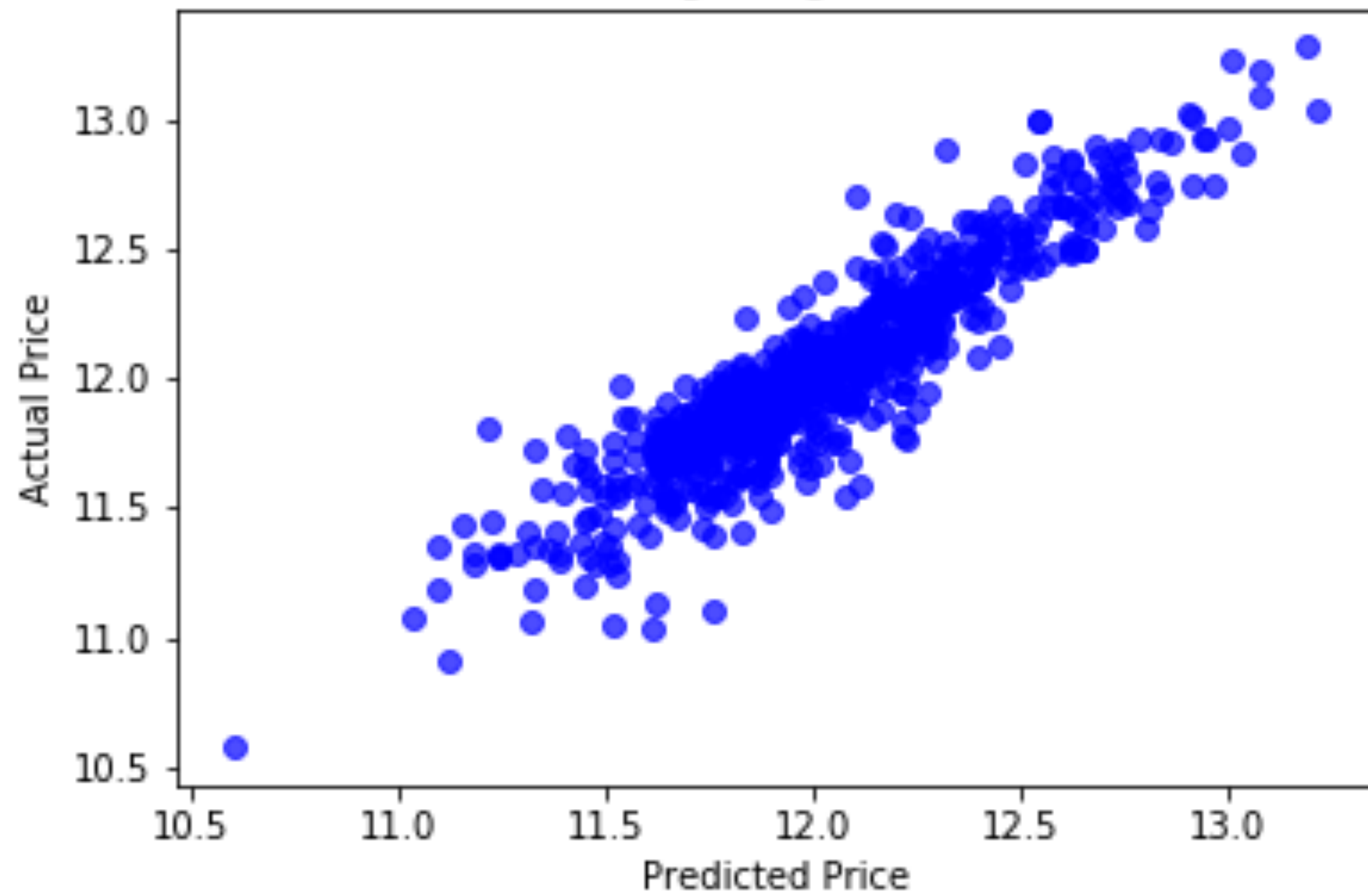


Model 2 Linear Regression Model

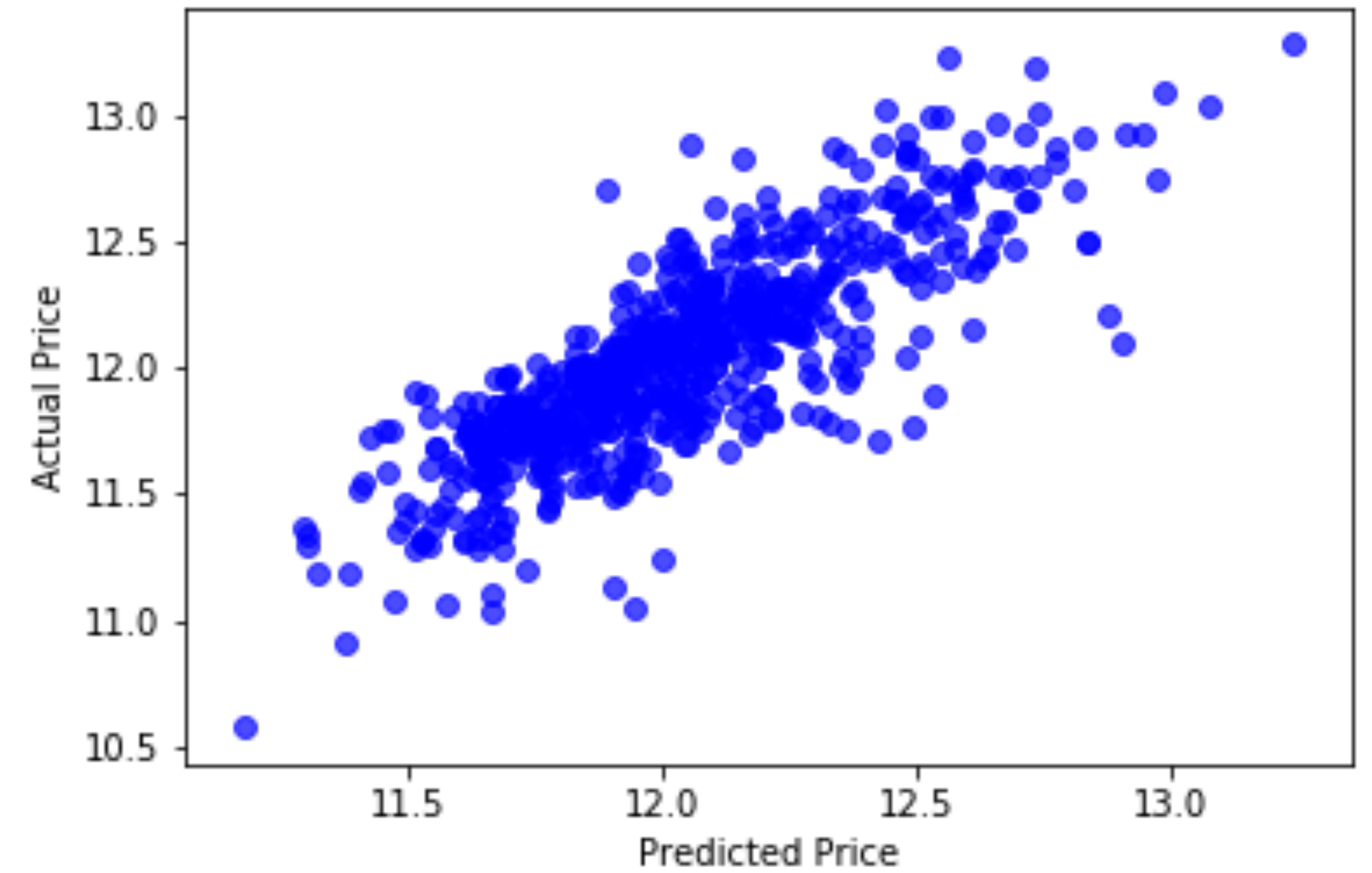


Alternative Models

Model 3 Ridge Regression Model



Model 4 Lasso Regression Model



Findings

Model	R^2	RMSE
1	0.78	0.04
2	0.84	0.03
3	0.84	0.03
4	0.84	0.03

- ❖ Model 2 improvement over Model 1
- ❖ Model 3 & 4 have the same results

Recommendation

- ❖ Yes, house quality conditions does change sale prices
- ❖ More new and / or improved conditions mean high sale prices
- ❖ Don't settle for less if your house is in top condition