# Evaluation Metrics

For our regression-based models, we will primarily rely on the mean absolute error (MAE) when evaluating the accuracy of our models. We chose this measure because its units are in dollars, which is the relevant unit for home appraisals and property tax bills. Other metrics that we will provide for each model include mean squared error (MSE) and R-squared. We chose not to rely primarily on MSE to assess accuracy, because its units (squared dollars) are far less intuitive, and we saw no reason to further penalize homes with large errors when these errors will already skew the MAE because it is a measure of average error. In addition, we chose not use R-squared as our primary metric, because it is unit-less and because not all of our models use the same number of features (e.g. the basic linear model has fewer features than the linear model with polynomial features) and R-squared always increases in the number of features—regardless of the predictive power of those features. As a consequence, we will primarily rely on MAE to assess the accuracy of our regression-based models.

For our classification models, [INSERT METRICS + REASONING]

For our clustering models, [INSERT METRICS + REASONING]

In addition, for all models, we will also consider the fairness metrics discussed in detail in the Fairness section of this paper.