

Elastic Net Regression...

- Elastic Net Regression is the combination of Lasso Regression and Ridge Regression.
- It is useful when you don't know about the data. You don't know that which columns are having more usefulness with the output column or not.
- It is also beneficial to be used when the multicollinearity within the column in the data exist. It will provide you the best results.

$$\text{Loss Function (Elastic Net)} = \frac{\sum_{i=1}^n (Y_i - \bar{Y})(X_i - \bar{X}) + a \|W\|^2 + b \|W\|}{\sum_{i=1}^n (X_i - \bar{X})^2}$$

$$\lambda = a + b$$

$$\lambda_1 \text{-ratio} = a / a + b$$