Regression

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Regression Methods

- Linear
- Logistic
- Polynomial
- LASSO
- Ridge Reduction
- Elastic Nets

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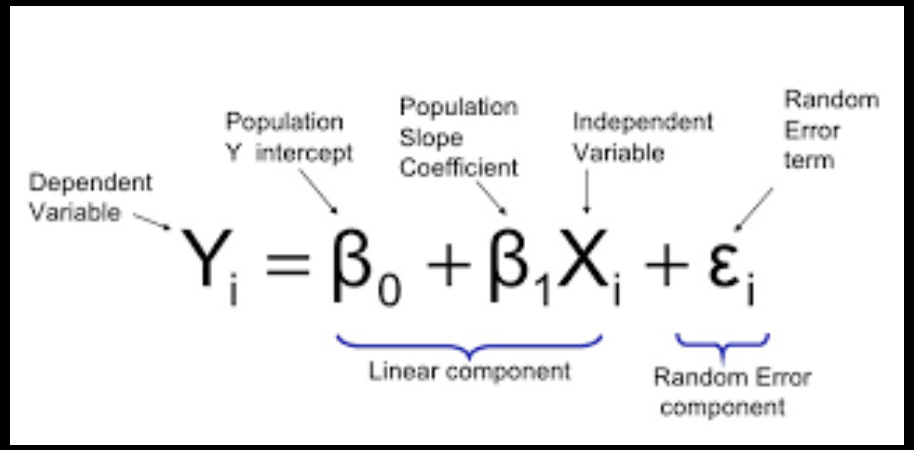
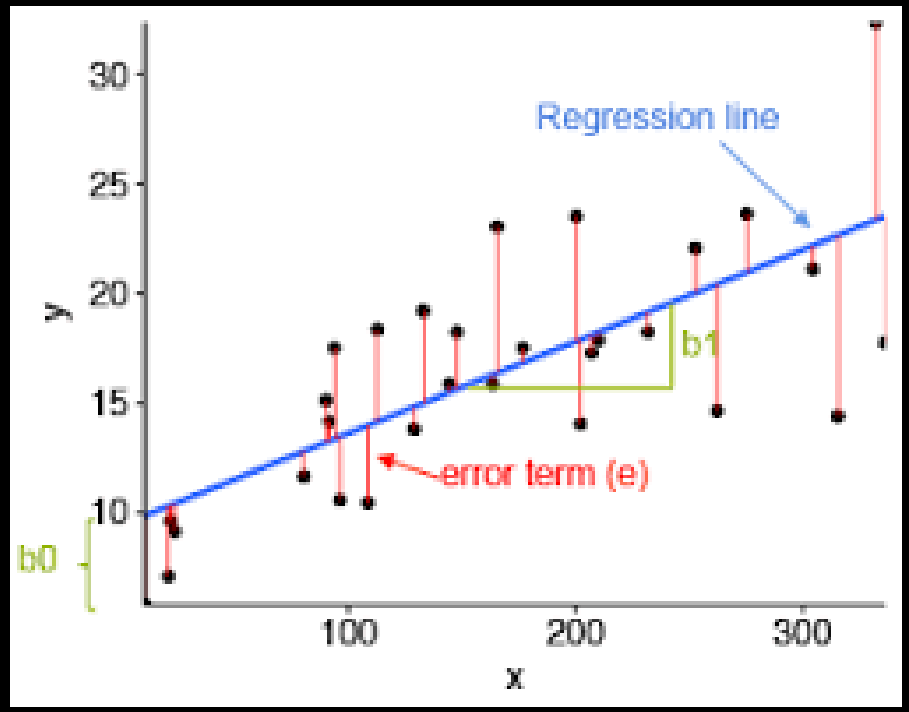
Linear Regression

- Calculates a Slope Function.
- Works best with linear, continuous data.
- Uses Least Square method to find best fit.





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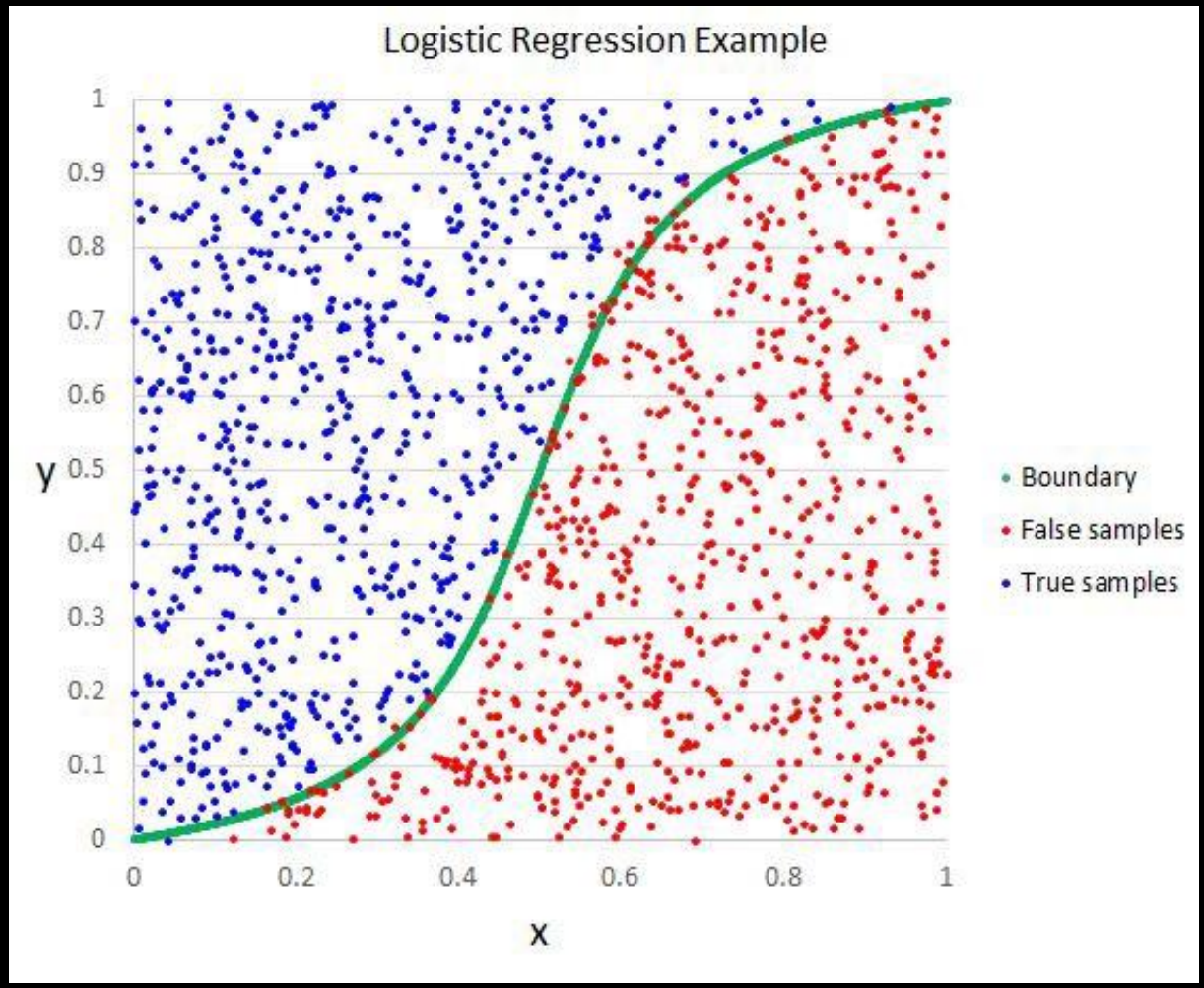
Logistic Regression

- Probabilistic model of relationship between inputs and outputs.
- Only takes binary data.
- Needs big data because of law of large numbers.
- It can work on Non-linear data.
- Prone to overfitting.



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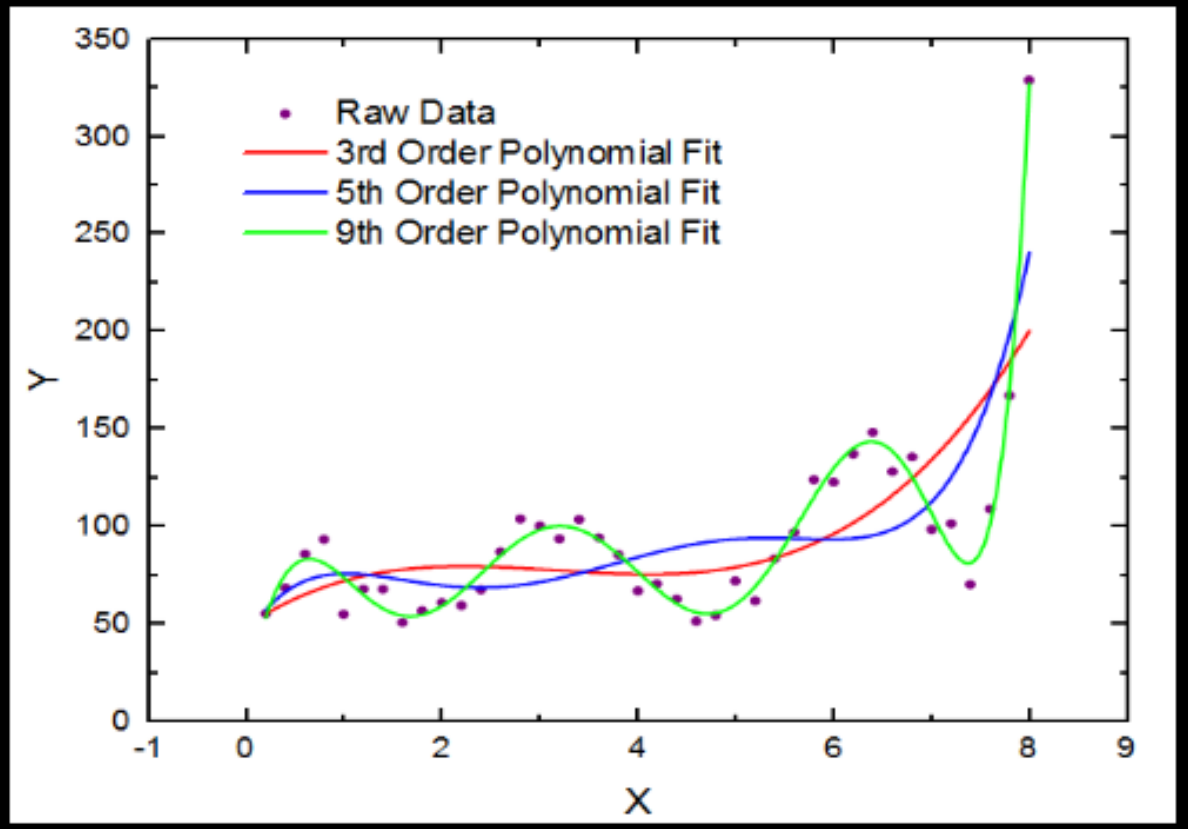
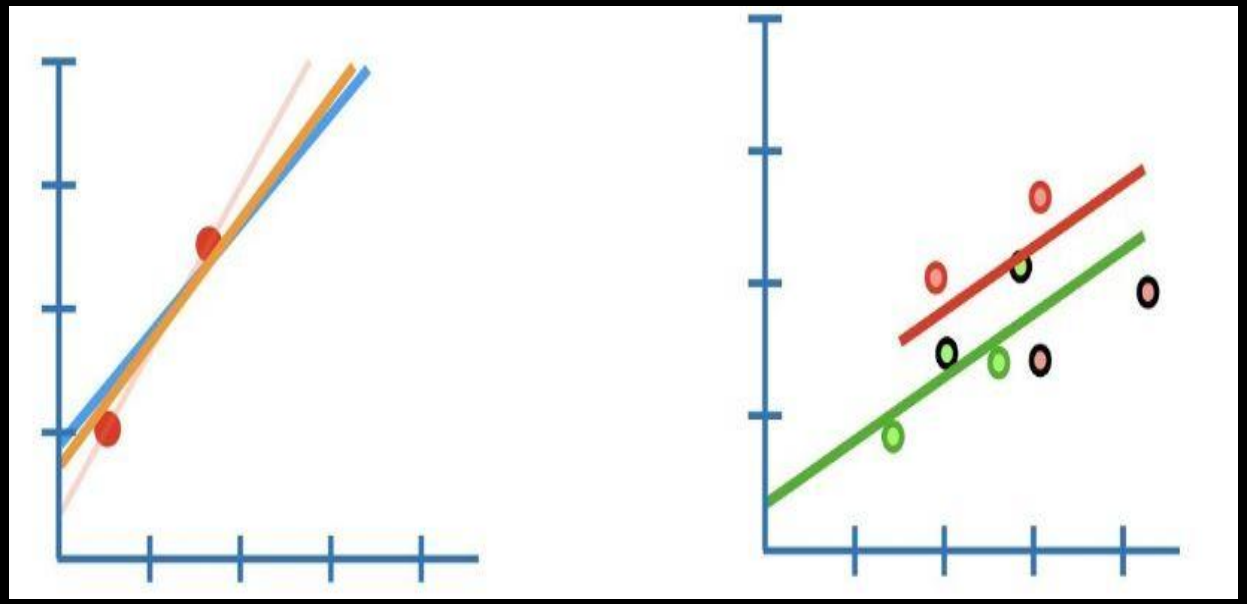
Polynomial Regression

- It fits a polynomial function instead of a linear function.
- Higher orders are more likely to overfit the data.
- Lower orders are more likely to underfit the data.



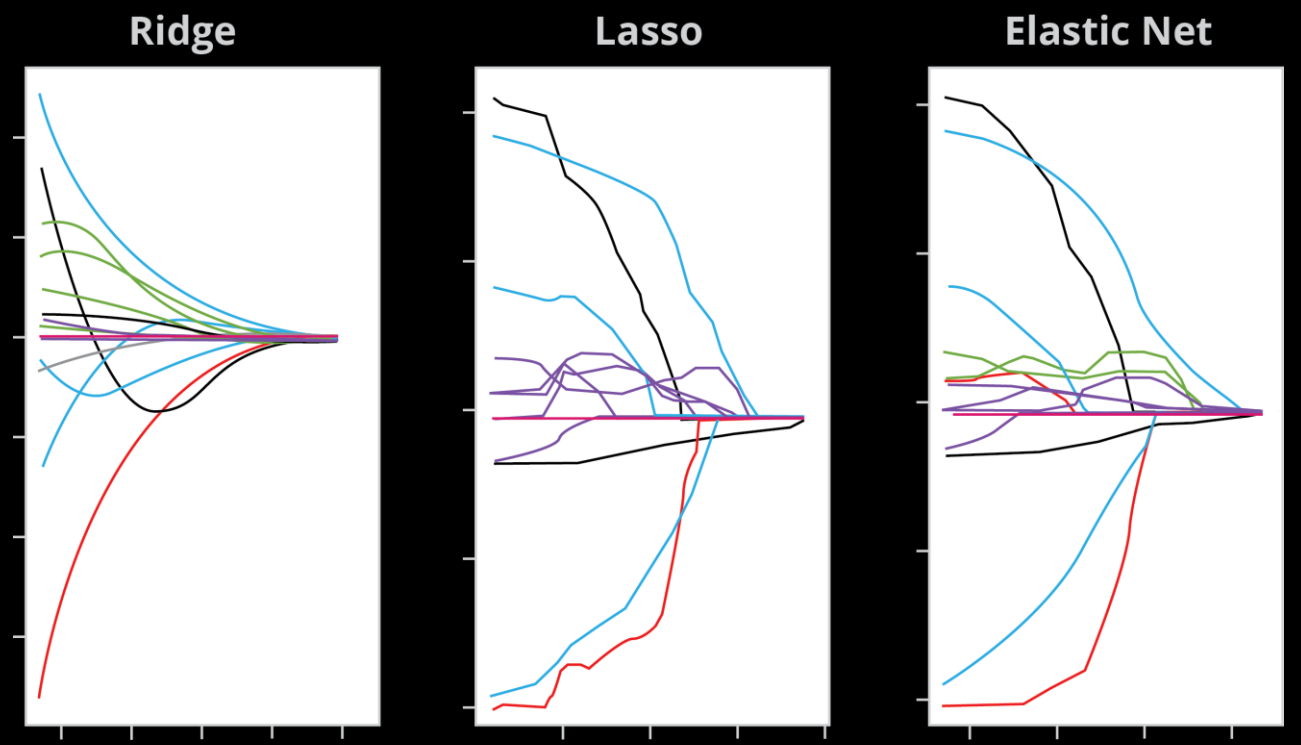
LASSO

- Works well with highly correlated data.
- Penalizes cost function for correlations.
- Uses L1 regularization.
- Can ‘turn off’ features of our data.



Elastic Nets

- Hybrid of LASSO and Ridge Reduction.
- Uses L1 and L2 regularization.
- Can train on very highly correlated variables.



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