Linear Regression Vs Logistic Regression

Linear Regression -- This type of regression models is used when we have continuous data. For example

1) Stock Price prediction.

2) House price prediction.

3) Weather prediction.

All the above use cases have predicted output which is continuous. This method fails when we need to find Categorical Predicted Data/Outcome and hence the solution in this case is Logistic regression.

**Logistic Regression** -- This type of regression models is used when we want Categorical predicted value.

For example:

1) Email is spam or not

2) Will Customer buy Life insurance policy

3) Which party a person is going to vote for -

3.1) Democrat

3.2) Republican

3.3) Independent

Logistic Regression can further be classified based into below categories:

Binary Classification: Let’s take an example.

Will customer buy life insurance policy?

1. Yes
2. No

As we see that the expected outcome can be either Yes or No. This type of classification known as Binary classification.

Multiclass Classification: Let’s take an example.

Which party a person is going to vote for:

1. Democratic
2. Republican
3. Independent

As we see that the expected outcome can be either of any of the above options.This type of classification is known as Multi-Class Classification.