Linear Regression-

* ML algorithm based on supervised learning
* Used for finding out relationship between variables (depended and independent) and forecasting (predictive analysis)
* It can be useful in Sales a sales business can use regression ML to predict the next month or year’s sales from a number of factors or variables

Logistic Regression-

- ML algorithm based on supervised learning

- It is used to calculate a binary(yes/no) event occurring

- This can be used in the medical field whether someone is likely to get and illness for example

Decision Tree

- Type of Supervised ML

- The data is continuously split into certain category or group

- This can be used in retail to recommend customers to recommend a holiday or movie based on past information

SVM –

- SVM or Support Vector Machine Algorithm is a supervised learning machine

- Used for regression as well as classification problems but mostly in classification in machine learning

- SVM chooses the extreme points/vectors that help in creating the hyperplane. These extreme cases are called as support vectors

- Can be used to identify a strange looking animal by training model with lots of different images of animals as well as extreme cases.

Naïve Bayes-

- Type of Supervised ML

- Useful for large complex data It is widely used in Spam filtering (identify spam email) and Sentiment analysis (in social media analysis, to identify positive and negative customer sentiments).

- The Naive Bayes classification algorithm is **a probabilistic classifier**. It is based on probability models that incorporate strong independence assumptions. The independence assumptions often do not have an impact on reality. Therefore they are considered as naive.

KNN (K- NEAREST NEIGHBOURS)

* Supervised ML Algorithm
* Can be used used to solve both classification and regression problems
* The KNN algorithm assumes that similar things exist in close proximity. In other words, similar things are near to each other.
* Can be used to determine most popular or top 5 movies on Netflix for example

K MEANS

* k-means is a technique for data clustering that may be used for unsupervised machine learning.
* It is capable of classifying unlabelled data into a predetermined number of clusters based on similarities

OR

* is used when you have unlabeled data (i.e., data without defined categories or groups). The goal of this algorithm is to find groups in the data, with the number of groups represented by the variable K.
* Some examples of use cases are: Behavioral segmentation:Segment by purchase history

RANDOM FOREST

* is a Supervised Machine Learning Algorithm that is used widely in Classification and Regression problems.
* It builds decision trees on different samples and takes their majority vote for classification and average in case of regression.
* Is used in banking to detect customers who are more likely to repay their debt on time. It can also be used to predict who will use a bank’s services more frequently.

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