

## KNNIMPUTER NOTES

### 1.Note about KNNImputer.

**KNNImputer** is a scikit-learn class used to fill out or predict the missing values in a dataset. It is a more useful method which works on the basic approach of the KNN algorithm rather than the naive approach of filling all the values with mean or the median. In this approach, we specify a distance from the missing values which is also known as the K parameter. The missing value will be predicted in reference to the mean of the neighbours.

It is implemented by the **KNNImputer()** method which contains the following arguments:

KNNImputer is **a scikit-learn class used to fill out or predict the missing values in a dataset**. It is a more useful method which works on the basic approach of the KNN algorithm rather than the naive approach of filling all the values with mean or the median.

### ADVANTAGES OF USING KNN IMPUTATION:

One of the most significant advantages of using the KNN algorithm is that **there's no need to build a model or tune several parameters**. Since it's a lazy learning algorithm and not an eager learner, there's no need to train the model; instead, all data points are used at the time of prediction.

### IMPUTER USED FOR

The imputer is an estimator used **to fill the missing values in datasets**. For numerical values, it uses mean, median, and constant. For categorical values, it uses the most frequently used and constant value. You can also train your model to predict the missing labels.