**DECISION TREE ALGORTIHM EXPLANATION ON IRIS(FLOWER) DATASET**

* First we import necessary packages into our python jupyter notebook IDE
* We use scikit-learn package for training model,testing and checking accuracy of model.
* For splitting data into test and train inputs and outputs we use sklearn.model\_selection.train\_test\_split.

x\_train,x\_test,y\_train,y\_test=train\_test\_split(X,Y,test\_size=0.30,random\_state=1)

* In this we use **test\_size** parameter to show how much test data we require ,so we use 30 percent **test data** here by default **25 percent** test data used and **train data** used is **70 percent** automatically.
* **Random\_state** parameter is used when we want same data after every split not in random manner every time.

**DECISION TREE CLASSIFIER FUNCTION**

1. We create a decision tree classifier object by passing criterion=Entropy and random\_state values.
2. Entropy is used for information gain,Less the entropy is more the information gain Is after every split.
3. Then we fit the model using decision tree classifier function and after that we predict target variable using **.predict** method

**ACCURACY**

We use **SKLEARN.METRICS.ACCURACY\_SCORE** a metric for checking accuracy of a model and found it as **97.7 %**