

Important Detail concepts

→ Precision

Let's ex. we have Data set.

a. binary data set, where we have the number of 0 are 900 and Number of 1 are 100.

so we will have total data points 1000.

$$\begin{array}{l} 0 : 900 \\ 1 : 100 \end{array} \rightarrow 1000.$$

so this kind of Data set where our output has huge difference we called it imbalanced Data set.

Note: Always Remember one thing that in imbalanced dataset we can not apply direct accuracy [accuracy formula].

Note: given Data set have 90% accuracy so in this case we don't apply accuracy

so for prevent that we use different P-Matrix, which is precision

$$\rightarrow \text{Formula: Precision} = \frac{P}{P+FP}$$

Let's create another confusion matrix

TP	FP
FN	TN

→ Precision: state that out of all the predicted results, how many are the correctly predicted.

Mtlb saayi predicted result mai sai kitna correctly predicted result ha

Note: in confusion Matrix our aim is to TP ko increase kara aur TN ko increase karna.

baaki ko decrease karo.

	TP↑	FP↓
0	TN↓	TNT

⇒ Recall:

$$\text{Recall} = \frac{\text{TP}}{\text{TP} + \text{FN}}$$

	TP FN	FD
0	FN	TN

Def → out of all the actual results, how many are the correctly predicted results.
so in this we have to reduce the False Negative.