CONFUSION MATRIX

Suppose we have build an model taking consid eration of 2 classess. Yes and NO. On the performance of classification model Let us draw a 2×2 matrix:—

		Predicted	
		Yes	no
Actual class	Yes	TP	FN
	no	FP	TN

TP—True Positive
FP—False Positive
FN—False Negative
TN—True Negative

TRUE POSITIVE

They are the correctly predicted positive values that is, the value of actual class is yes and predicted class is also yes.

TRUE NEGATIVE

They are the correctly predicted Negative values. which means the actual class and Predicted class are also Negative.

FALSE POSITIVE

when Actual class is no. Predicted class is Yes.

FALSE NEGATIVE

when Actual class is yes. But Predicted class is NO.

ACCURACY

Accuracy is simply defined as the ratio of correctly predicted observation to the total observation.

$$\text{Accuracy} = \frac{TP + TN}{TP + FP + FN + TN}$$