

Classification Metrics

classmate

Date _____

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1. Confusion matrix :-

		Actual	
		Positive (1)	Negative (0)
Predicted	Positive (1)	TP	FP
	Negative (0)	FN	TN

2. Accuracy :-

Accuracy gives the no. of correct predictions made by the model.

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

Accuracy should be used for balanced dataset.

3. Precision :-

Precision is used when we want to minimize FP.

$$\text{Precision} = \frac{TP}{TP + FP}$$

4. Recall :- (or sensitivity)

Recall is used when we want to minimise FN.

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

5. specificity :-

$$\text{specificity} = \frac{TN}{TN + FP}$$

6. F1 score :-

$$\text{F1 score} = \frac{2 \text{ Precision} \times \text{Recall}}{\text{Precision} + \text{Recall}}$$