**CLASSIFICATION**

[[78, 7], [[38, 11],

[11, 38]] [7, 78]]

* **Accuracy**
* The ratio of correct prediction to the number of input samples
* Formula :

T(P)+T(NP) / T(P)+T(NP)+F(P)+F(NP)

78+38/78+38+7+11 = 116/134 = **0.86**

* **RECALL**
* Recall correctly identifies positive instances (true positives) from all the actual positive samples in the dataset.
* Formula :

T(P)/T(P)+F(N )

78/78+7 = 0.92

38/38+11 = 0.78

* **Precision**
* Precision is intuitively the ability of the classifier not to label as positive a sample that is negative.
* Formula :

T(P)/T(P)+F(P)

78/78+11 = 0.88

38/38+7 = 0.84

* **F1 – Measure**
* The F1 score can be interpreted as a harmonic mean of the precision and recall.
* The relative contribution of precision and recall to the F1 score are equal.
* Formula :

2\*recall\*precision/recall +precision

2\*0.92\*0.88/0.92+0.88 =0.90

2\*0.78\*0.84/0.78+0.84 = 0.81

* Macro Average