What is Precision?

Precision : Precision tell us how many the correctly predicted cases actually turned out to be positive.

Precision = TP / TP + FP

This would determine whether our model is reliable or not.

What is Recall?

Recall : Recall tell us how many of the actual positive cases we were able to predict correctly with our model.

Recall = TP / TP + FN

Recall is a useful metric in cases where False Negative trumps False Positive.

What is F1-Score, and how it calculated ?

F1 Score : F1 score is used to evaluate the overall performance of the classification model. It is hormonic mean of Precision and Recall.

F1 Score = 2 * Precision * Recall / Precision + Recall

Explain - Macro Average.

Macro Average : In the context of calculating metrics like Precision, Recall and F1 score the Macro average computes the metric independently for each class and then takes the un weighted average of these metrics. Each class is treated equally in computing the average, regarless of its support. (number of instances)

Explain – Weighted Average

Weighted Average : Unlike the macro average, the weighted average calculates the metric for each class and then takes the average, weighted by the number of true instances for each classs. This method gives more weight to classes with more instances, which can be useful in scenarios where class imbalance is present.
