Log loss is nothing just to check accuracy of the model. Just like we do after every model we check accuracy; it is also one of that method.

I am using this log loss method because in my Kaggle evaluation it is asked that project is evaluated on the basis of Multiclass log loss but in real case scenario we can use any method to check the model accuracy.

Now, the question arises what is log loss?

First, I will talk about the binary log loss function:

Mathematically we can write it as followed:



Let’s suppose we have x-> input and y-> output and p-> probability of that model’s output.

For p= 0.9 and y=1

We have, log-loss= 0.0457

Similarly, for p=0.4 and y=0

We have, log-loss= 0.22

This shows that the lower the log-loss the more accurate our model and vice versa.

A perfect log-loss would have 0 log-loss.

And now, the main thing multi-class log loss which is quite similar to binary log loss and I am going to use in this project.

Mathematically we can write it as followed:



Where, 1= if xi belongs to class j

0= o/w

So, taking an example of this project as we know that we have 9 classes here in the project.

To check its model accuracy, it is similarly work like our previous binary classification. The difference is that there we just had 2 classes and here we have 9 different classes to classify. Else the results will be provided in the similar manner.

In our case for each row we have some probability from our model and from that probability we decide that where which class lies more importantly log-loss plays that our model’s prediction is how much accurate for the classification here in the project.

NOTE- In log-loss the value can go from 0 to infinity.