Evaluation metric:

Your submissions will be scored using the multi-class Log Loss (also called Cross-Entropy Loss) which is defined as:

$$L = -\frac{1}{N}\sum_{n=1}^{N}\sum_{c=1}^{C} y_n^c \log(p_n^c)$$

where N is the number of training/test samples, C is the number of classes and p(n,c) is the probability that sample n belongs to class c as output of your classifier. y(n,c) is the true class probability that sample n belongs to class c.

Note that y(n,c) = 1 if sample n belongs to class c and y(n,c) = 0 otherwise.

Submission Format:

Submission files should contain 13 columns: an 'Id' column identifying the id of the test sample, as well as 12 columns (named with snake case) denoting the class probabilities of the sample belonging to the corresponding class. All values should be separated by a comma and no space. There should be a row for every element of the test set. Make sure that your first row corresponds with the test sample `test_0001`, your second with `test_0002` etc. There is a submission helper function included in the starterskit folder which will create a valid submission for you.

The submission csv file should look as follows:

```
Id,chicken,elephant,fox,german_shepherd,golden_retriever,horse,jaguar,lion,owl,pa
rrot,swan,tiger
1,0.0,0.1,0.9,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0
2,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.2,0.3,0.5,0.0,0.0,0.0
3,0.0,0.0,0.0,0.0,0.0,0.1,0.0,0.0,0.0,0.0,0.0,0.7,0.0,0.2
...
```