
# Assignment

## Part 1:

Build a dog breed image classification model with the architecture specified below.
**Dataset** - https://www.kaggle.com/c/dog-breed-identification/data

- The classifier should only predict scores for these breeds : beagle, chihuahua, doberman, french_bulldog, golden_retriever, malamute, pug, saint_bernard, scottish_deerhound, tibetan_mastiff.
- Any of these frameworks can be used : Tensorflow, Keras, Pytorch, Caffee.
- The classifier should only be built using Resnet50 CNN architecture.
- Evaluation metrics i.e Accuracy, Confusion Matrix, F1 Score, ROC-AUC Score shall be calculated on test data.
- The entire process should be clearly logged in a Jupyter Notebook and uploaded to a public github repo, the exact link to this notebook is to be submitted as a result of this assignment.

## Part - 2: ( Extra brownie points! )

Build an API around the model inference pipeline which takes in an Input image in Base64 and responds with the appropriate dog breed. Any framework of choice can be used but the API needs to follow REST architecture and shall be deployed publicly for us to test.

- The input format needs to be :
  {
  image : <base64 encoded image>
  }

- Expected response:
  {
  breed : <resulting label>
  score : <prediction score of the above label >
  }

- A working api endpoint needs to be submitted as a result of this assignment.