Machine Learning Session 1 Task

It is required to build a model using deep neural networks that can predict either the presence of a cat, dog or a panda in an input image.

Hints:

These hints may help you build the model easily.

1. Create your model structure.
    a. Determine the number of hidden layers of your network.
2. Load the dataset
    a. Don't feed photos to the model with their original sizes (you can resize it to 32x32).
    b. Note that images must be in gray scale.
    c. Don't forget to create an array presenting the target for each image.
3. Training the model
    a. Focus on validation loss more on training loss.
    b. Try using different values for learning rate and iterations and see which combination is the best.

You should handle 2 files which are:

1. The code file, either a .ipynb or .py file.
    - This file should be well documented.
    - State clearly the best values for learning rate and iterations.
2. The model you built, you can save it by calling model.save(path).

Try to generate more images from the dataset.

You can find the training dataset in this link.