PROJECT REPORT

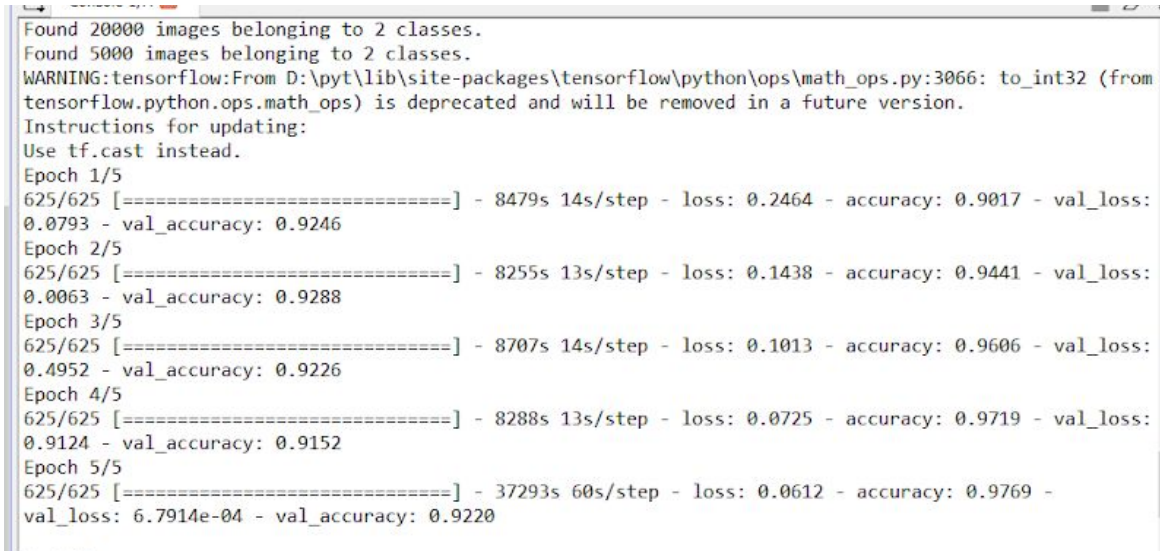
OVERVIEW:

Topic of the project is “**dogs v/s cat classifier**” . In this project we check whether the given image is of cat or dog .It is a binary classification model using **neural network**.

The dataset contain 12499 images of dogs and 12499 images of cats RGB images.

This project is based on transfer learning. Using **VGG-16** architecture and freezing all layers except the deepest one i.e. the last one .

Taking standard batch of 32 and epoch 5. The validation accuracy was found to be 92.2%.



```
Found 20000 images belonging to 2 classes.
Found 5000 images belonging to 2 classes.
WARNING:tensorflow:From D:\pyt\lib\site-packages\tensorflow\python\ops\math_ops.py:3066: to_int32 (from
tensorflow.python.ops.math_ops) is deprecated and will be removed in a future version.
Instructions for updating:
Use tf.cast instead.
Epoch 1/5
625/625 [==============================] - 8479s 14s/step - loss: 0.2464 - accuracy: 0.9017 - val_loss:
0.0793 - val_accuracy: 0.9246
Epoch 2/5
625/625 [==============================] - 8255s 13s/step - loss: 0.1438 - accuracy: 0.9441 - val_loss:
0.0063 - val_accuracy: 0.9288
Epoch 3/5
625/625 [==============================] - 8707s 14s/step - loss: 0.1013 - accuracy: 0.9606 - val_loss:
0.4952 - val_accuracy: 0.9226
Epoch 4/5
625/625 [==============================] - 8288s 13s/step - loss: 0.0725 - accuracy: 0.9719 - val_loss:
0.9124 - val_accuracy: 0.9152
Epoch 5/5
625/625 [==============================] - 37293s 60s/step - loss: 0.0612 - accuracy: 0.9769 -
val_loss: 6.7914e-04 - val_accuracy: 0.9220
```