# Final Project Proposal

## Team: Big Data Geeks

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## Title: Image Classification of Augmented Data using Convolutional Neural Network

## Idea:

Based on an image, classify the name of the object. At the same time, if the image is not recognizable then train the model on the fly and re classify

Dataset sources: <https://www.kaggle.com/c/dogs-vs-cats/data>

Also, there would be on the fly data download based on the Flickr API

## Plan:

1. Spin up AWS instance on AWS with Linux operating system and Python installed
2. Using Keras as backend to the server and Tensorflow for training
3. Train a convolutional neural network based on the data, also augment the data to improve the accuracy of the model
4. Classify the model and check for accuracy, keep repeating until the model gets decent accuracy
5. Develop the whole pipeline using Django python framework for automation
6. Use FlickR API to download new object and update the model to classify the new object
7. In case, model takes a lot of time to train we will use VGG16 pre trained network as a backend and update the bottleneck layer for the new objects

## GitHub:

<https://github.com/Lalit7Jain/>