In [2]:
```
#The CIFAR-10 archive contains the files data_batch_1, data_batch_2, ..., data
_batch_5,
#as well as test_batch.
#Each of these files is a Python "pickled" object produced with cPickle.
def unpickle(file):
    import cPickle
    with open(file, 'rb') as fo:
        dict = cPickle.load(fo)
    return dict
```

In [22]:
```
db1=unpickle("data_batch_1") #we get dictionary
print(db1.keys())
print((db1['data']).shape)
print(type(db1['labels']))
print(type(db1['data']))
```

```
['data', 'labels', 'batch_label', 'filenames']
(10000L, 3072L)
<type 'list'>
<type 'numpy.ndarray'>
```

In [66]:
```
import numpy as np
X=db1['data']
print(X.shape)
y=np.array(db1['labels'])
print(y.shape)
```

```
(10000L, 3072L)
(10000L,)
```

In [75]:
```
from sklearn.neural_network import MLPClassifier
from sklearn import tree,cross_validation
clf = MLPClassifier(solver='lbfgs', alpha=1e-5,hidden_layer_sizes=(5, 2), rand
om_state=1)
X_train,X_test,y_train,y_test=cross_validation.train_test_split(X,y,test_size=
0.3)
clf.fit(X_train, y_train)
clf.score(X_test,y_test)*100
```

Out[75]: 9.2666666666666657

In [ ]: