

# Homework 6

## *Discussion:*

The accuracy of my MLP is high when the number of hidden neurons is 3 and learning rate is 0.1. Sometimes the accuracy is 100%. The confusion matrix is:

```
Confusion matrix is:  
[[12.  0.]  
 [ 0. 28.]]  
Percentage Correct: 100.0
```

The matrix is a diagonal matrix, which means the result of data group classification is right. The method I used is online Back Propagation. The activation function I use is logistic function. This function is normally used and the accuracy of it could possibly be 100% in this homework.

I use 3 or more nodes on my hidden layer.

I change learning rate by changing the value of eta in run.py. Generally, the accuracy of the result could be higher if the learning rate is set to a lower value.

Generally, the accuracy of the result could be higher if the number of iteration is set to a higher value.