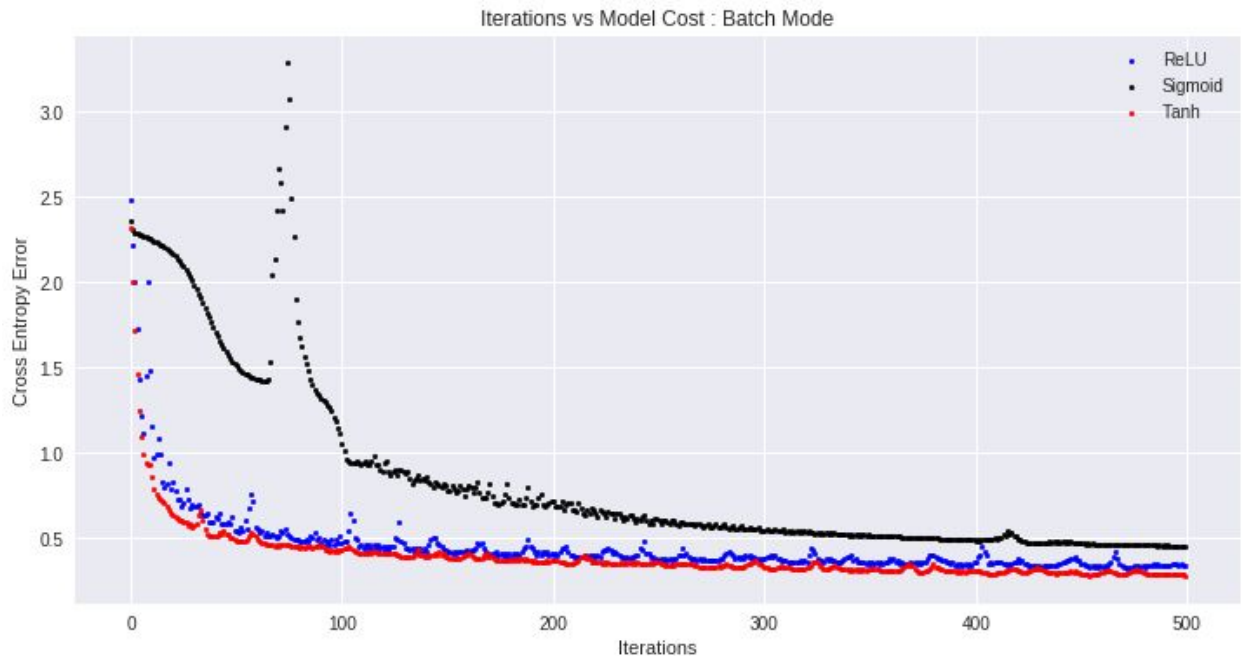# Assignment Report

1) Model Cost vs Iterations

As the number of iterations increases, the model cost starts decreasing. However, the loss oscillates up and down but overall the graph falls down. However, increasing the iterations to a large value may lead to extra time consumption because the gradient saturates after a certain number of iterations.

2) Accuracy vs Hidden Layers :
In my case, the best count for hidden layers was 2. Each hidden layer had 60 neurons. These metrics were derived after performing lot of experiments.

3) Model Performance :

```
Minimum Error by ReLU :    0.3235392965852052
Minimum Error by Tanh :    0.282460187514714
Minimum Error by Sigmoid :    0.45354197474190233


ACCURACY USING BATCH MODE:
RELU :    86.54166666666666
SIGMOID :    84.15
TANH :    87.40833333333333
```