

HW 3- CS 549

Nipuni

AdaBoost97 – Implementation of Ada Boost Algorithm  
Weak learner- Decision Tree -depth1

AdaBoost97SVM – Implementation of Ada Boost Algorithm  
Weak learner - Support vector Machine

## Python Console

```
dataset X shape: (1797, 64)
dataset y(target) shape: (1797,)
dataset y(target) classes: [0 1 2 3 4 5 6 7 8 9]
digits :
[0 1 2 3 4 5 6 7 8 9]
odd-even classification:
[-1.0, 1.0, -1.0, 1.0, -1.0, 1.0, -1.0, 1.0, -1.0, 1.0]
predictions
AdaBoost97 :
[-1 -1  1  1  1]
AdaBoost97SVM :
[ 1 -1  1 -1  1]
SK Adabt :
[-1. -1.  1.  1.  1.]
Accuracy of the test set 97 :0.8
Accuracy of the test set 97SVM :0.4
Accuracy of the test set Sklearn AB:0.8944444444444445
```

