

The analysis of Adaboost with different stump sizes:

Number of Decision Stumps	Accuracy	Time Required
10	54%	Less than a minute
20	57%	2-3 minutes
30	59%	3-4 minutes
40	62%	7-6 minutes
50	66%	9-10 Minutes
100	69%	35-40 Minutes

For best mode, we are using Adaboost. K near neighbor is giving accuracy of 67% but the algorithm is too over fitting and may fail with different test data set. Hence for best mode we are using Adaboost of 50 stumps. 100 stumps gives slightly better accuracy at the cost of too much time and hence we are by default taking 50 stumps.