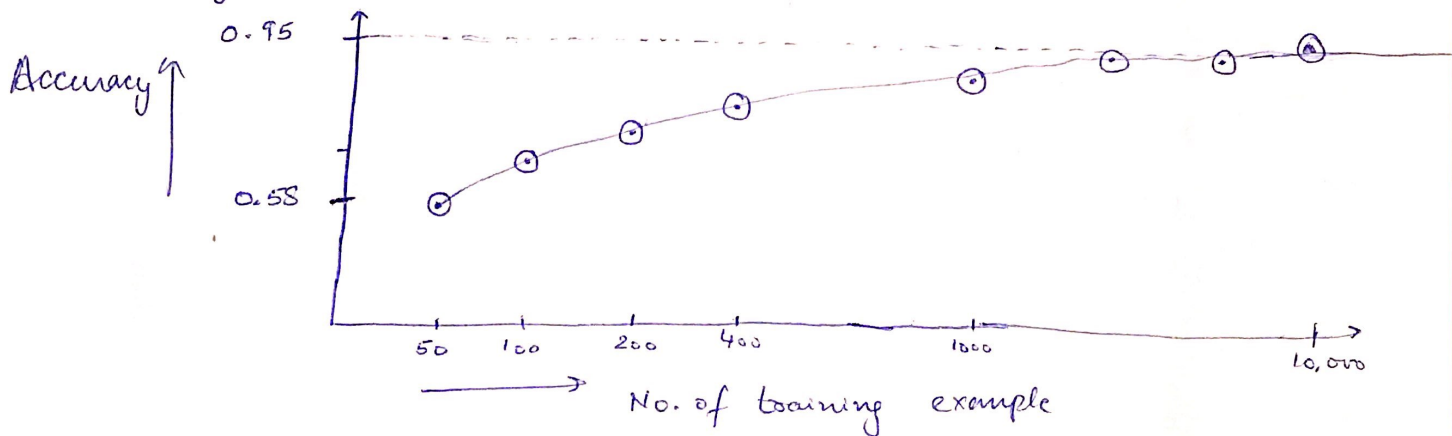


# Analysis

Arvindendra Kumar

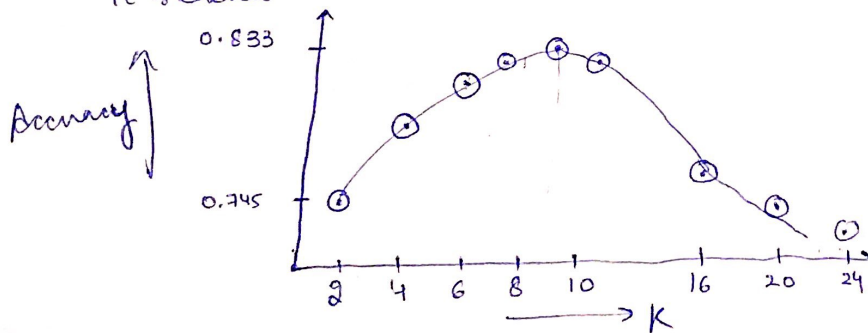
(1) Relationship between number of training examples & accuracy.

It has been observed that the accuracy keeps on increasing as the number of training examples keep on increasing till no. of examples reach around 5000. There's very little improvement in accuracy from 5000 - 10000 training example.



(2) Relationship between  $k$  & accuracy.

It has been observed that accuracy keeps on increasing till  $k=9$ . It reaches maxima at  $k=9$  & it keeps on decreasing as  $k$  increases further.



- (3) (i) 2 is getting confused a lot with 1 & 7 because of similar structure
- (ii) 4 is getting confused with 9, again because of same structure
- (iii) From confusion matrix, 8 & 9 are getting confused a lot probably because of misclassification due to median to break ties