

CSE472 (Machine Learning Sessional)  
L-4, T-2, January 2018 Term

Report on Assignment 1: Ensemble Learning  
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We ran the program with  $k = 5, 10$ , and  $20$ . For each value of  $k$ , we varied the number of boosting with values  $1, 5, 10, 20$ , and  $30$ . We used F1 score as the performance metric.

We found the following result.

<b>k\Boost</b>	<b>1</b>	<b>5</b>	<b>10</b>	<b>20</b>	<b>30</b>
<b>5</b>	0.6324	0.7741	0.8212	0.8108	0.8345
<b>10</b>	0.6253	0.7695	0.8208	0.8294	0.8345
<b>20</b>	0.6392	0.7204	0.7968	0.8330	0.8312

Table 1: F1 score for different values of  $k$  and boosting

We observe that the value of  $k$  has little relation with the performance of our hypothesis. Whereas increasing the number of boosting improves the performance significantly.