

### 1. Results For kNN:

	Hamming Distance	Euclidean Distance	TF-IDF
K = 1	30	48.29	78.71
K = 3	32.55	48.52	82.12
<b>K = 5</b>	31.70	46.60	<b>83.84</b>

### 2. Results for NB:

Alpha	Accuracy
<b>0.1</b>	<b>91.86</b>
0.2	91.72
0.3	91.72
0.4	91.59
0.5	91.45
0.6	91.50
0.7	91.41
0.8	91.36
0.9	91.27
1.0	91.18

### 3. All Iterations:

- Iteration: 0
  - Accuracy kNN: 53.63636363636363 Accuracy NB: 93.63636363636364
- Iteration: 1
  - Accuracy kNN: 60.0 Accuracy NB: 94.54545454545455
- Iteration: 2
  - Accuracy kNN: 60.90909090909091 Accuracy NB: 94.54545454545455
- Iteration: 3
  - Accuracy kNN: 62.72727272727273 Accuracy NB: 92.72727272727273
- Iteration: 4
  - Accuracy kNN: 60.90909090909091 Accuracy NB: 95.45454545454545

- Iteration: 5
  - Accuracy kNN: 62.72727272727273 Accuracy NB: 92.72727272727273
- 
- Iteration: 6
  - Accuracy kNN: 70.0 Accuracy NB: 95.45454545454545
- 
- Iteration: 7
  - Accuracy kNN: 53.63636363636363 Accuracy NB: 93.63636363636364
- 
- Iteration: 8
  - Accuracy kNN: 67.27272727272727 Accuracy NB: 90.9090909090909
- 
- Iteration: 9
  - Accuracy kNN: 69.09090909090909 Accuracy NB: 87.27272727272727
- 
- Iteration: 10
  - Accuracy kNN: 62.72727272727273 Accuracy NB: 92.72727272727273
- 
- Iteration: 11
  - Accuracy kNN: 65.45454545454545 Accuracy NB: 94.54545454545455
- 
- Iteration: 12
  - Accuracy kNN: 65.45454545454545 Accuracy NB: 87.27272727272727
- 
- Iteration: 13
  - Accuracy kNN: 61.81818181818182 Accuracy NB: 90.0
- 
- Iteration: 14
  - Accuracy kNN: 64.54545454545455 Accuracy NB: 92.72727272727273
- 
- Iteration: 15
  - Accuracy kNN: 66.36363636363636 Accuracy NB: 90.0
- 
- Iteration: 16
  - Accuracy kNN: 71.81818181818181 Accuracy NB: 91.81818181818181
- 
- Iteration: 17
  - Accuracy kNN: 64.54545454545455 Accuracy NB: 93.63636363636364
- 
- Iteration: 18
  - Accuracy kNN: 60.90909090909091 Accuracy NB: 90.9090909090909
- 
- Iteration: 19
  - Accuracy kNN: 56.36363636363637 Accuracy NB: 88.18181818181819

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- Iteration: 20
  - Accuracy kNN: 70.9090909090909 Accuracy NB: 87.27272727272727
- 
- Iteration: 21
  - Accuracy kNN: 69.0909090909091 Accuracy NB: 96.36363636363636
- 
- Iteration: 22
  - Accuracy kNN: 63.63636363636363 Accuracy NB: 92.72727272727273
- 
- Iteration: 23
  - Accuracy kNN: 54.54545454545455 Accuracy NB: 92.72727272727273
- 
- Iteration: 24
  - Accuracy kNN: 72.72727272727273 Accuracy NB: 89.0909090909091
- 
- Iteration: 25
  - Accuracy kNN: 64.54545454545455 Accuracy NB: 89.0909090909091
- 
- Iteration: 26
  - Accuracy kNN: 53.63636363636363 Accuracy NB: 87.27272727272727
- 
- Iteration: 27
  - Accuracy kNN: 58.18181818181818 Accuracy NB: 89.0909090909091
- 
- Iteration: 28
  - Accuracy kNN: 64.54545454545455 Accuracy NB: 89.0909090909091
- 
- Iteration: 29
  - Accuracy kNN: 63.63636363636363 Accuracy NB: 96.36363636363636
- 
- Iteration: 30
  - Accuracy kNN: 72.72727272727273 Accuracy NB: 89.0909090909091
- 
- Iteration: 31
  - Accuracy kNN: 67.27272727272727 Accuracy NB: 90.9090909090909
- 
- Iteration: 32
  - Accuracy kNN: 63.63636363636363 Accuracy NB: 93.63636363636364
- 
- Iteration: 33
  - Accuracy kNN: 70.0 Accuracy NB: 93.63636363636364
- 
- Iteration: 34

- Accuracy kNN: 65.45454545454545 Accuracy NB: 89.0909090909091
- 
- Iteration: 35
  - Accuracy kNN: 59.09090909090909 Accuracy NB: 90.0
- 
- Iteration: 36
  - Accuracy kNN: 63.63636363636363 Accuracy NB: 88.18181818181819
- 
- Iteration: 37
  - Accuracy kNN: 69.0909090909091 Accuracy NB: 91.81818181818181
- 
- Iteration: 38
  - Accuracy kNN: 66.36363636363636 Accuracy NB: 95.45454545454545
- 
- Iteration: 39
  - Accuracy kNN: 68.18181818181819 Accuracy NB: 94.54545454545455
- 
- Iteration: 40
- Accuracy kNN: 65.45454545454545 Accuracy NB: 90.0
- 
- Iteration: 41
  - Accuracy kNN: 63.63636363636363 Accuracy NB: 94.54545454545455
- 
- Iteration: 42
  - Accuracy kNN: 69.0909090909091 Accuracy NB: 89.0909090909091
- 
- Iteration: 43
  - Accuracy kNN: 59.09090909090909 Accuracy NB: 87.27272727272727
- 
- Iteration: 44
  - Accuracy kNN: 57.27272727272727 Accuracy NB: 91.81818181818181
- 
- Iteration: 45
  - Accuracy kNN: 63.63636363636363 Accuracy NB: 94.54545454545455
- 
- Iteration: 46
  - Accuracy kNN: 70.0 Accuracy NB: 89.0909090909091
- 
- Iteration: 47
  - Accuracy kNN: 59.09090909090909 Accuracy NB: 88.18181818181819
- 
- Iteration: 48
  - Accuracy kNN: 60.90909090909091 Accuracy NB: 88.18181818181819
-

- Iteration: 49
  - Accuracy kNN: 68.83495145631068 Accuracy NB: 94.54545454545455

#### 4. T-stats:

- For significance: 0.005:
  - Naive Bayes is better than kNN. P\_value: 3.324453234552815e-32
- For significance: 0.01:
  - Naive Bayes is better than kNN. P\_value: 3.324453234552815e-32
- For significance: 0.05:
  - Naive Bayes is better than kNN. P\_value: 3.324453234552815e-32