Accuracy (%) of KNN:

	K = 1	K = 3	**K = 5**
Binary Representation with Hamming Distance	36.3181818181818 2	39.7727272727272 7	41.8636363636363 7
BOW representation with Euclidean Distance	57.7727272727272 7	58.2272727272727 3	57.3181818181818 2
TF-IDF representation with Cosine Similarity	59.2727272727272 7	64.4545454545454 5	**69.0**

Accuracy (%) of NB:

Smoothing Factor	Accuracy
0.1	91.86363636363636
0.2	**92.04545454545455**
0.3	92.0
0.4	91.72727272727272
0.5	91.72727272727272
0.6	91.72727272727272
0.7	91.68181818181819
0.8	91.45454545454545
0.9	91.36363636363637
1.0	91.31818181818183

Testing 50 times:

	Best KNN model	Best NB model
1	73.63636363636364	92.72727272727272
2	73.63636363636364	95.45454545454545
3	72.72727272727273	96.36363636363636
4	61.81818181818182	90.0
5	72.72727272727273	96.36363636363636
6	72.72727272727273	93.63636363636364
7	73.63636363636364	95.45454545454545
8	71.81818181818181	93.63636363636364
9	66.36363636363636	90.0
10	63.63636363636363	90.9090909090909
11	59.09090909090909	92.72727272727272
12	68.18181818181819	95.45454545454545
13	55.45454545454545	90.0
14	62.72727272727273	88.18181818181819
15	60.0	90.9090909090909
16	66.36363636363636	90.0
17	72.72727272727273	91.81818181818183
18	66.36363636363636	92.72727272727272
19	68.18181818181819	91.81818181818183
20	60.0	88.18181818181819
21	55.45454545454545	84.54545454545455
22	70.0	97.27272727272728
23	68.18181818181819	94.54545454545455
24	65.45454545454545	93.63636363636364
25	67.27272727272727	89.0909090909091
26	66.36363636363636	89.0909090909091
27	74.54545454545455	87.27272727272727
28	60.0	90.0
29	54.54545454545455	87.27272727272727
30	61.81818181818182	94.54545454545455
31	62.72727272727273	90.9090909090909
32	62.72727272727273	93.63636363636364
33	67.27272727272727	92.72727272727272
34	64.54545454545455	94.54545454545455
35	70.0	90.0
36	66.36363636363636	92.72727272727272
37	56.36363636363637	90.0
38	59.09090909090909	90.9090909090909
39	69.0909090909091	96.36363636363636
40	64.54545454545455	96.36363636363636
41	56.36363636363637	89.0909090909091
42	65.45454545454545	95.45454545454545
43	58.18181818181818	90.0
44	70.9090909090909	90.0
45	71.81818181818181	93.63636363636364

46	60.90909090909091	93.63636363636364
47	63.63636363636363	89.0909090909091
48	66.36363636363636	88.18181818181819
49	54.54545454545455	88.18181818181819
50	66.36363636363636	94.54545454545455

- Using scipy's ttest_ind() function, the values obtained for t_stat and p_value are respectively 29.271637869313974 and 3.0336649885380764e-50.
- The Null Hypothesis here is that there is no significant difference between the accuracies of NB and KNN.
- For all three significance levels of 0.005, 0.01, and 0.05, the p_value is less than the significance levels. So we reject the Null Hypothesis.