/anaconda3/envs/AI/bin/python "/School/Data Mining/DMProject/createClassifier.py"

('The number of keywords used for generating features (frequencies): ', 1551)

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The total number of training tweets: 5834 (3314 positives, 2520: negatives)

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The estimated w:

[[ 0.03314535 0. -0.16060189 ... -0.0462595 0.02444094

0. ]]

The estimated b:

[1.00004321]

The estimated C after the grid search for 10 fold cross validation:

{'C': 1}

The total number of testing tweets: 1459 (1361 are predicted as positives, 98 are predicted as negatives)

[1 1 1 ... 1 1 1]

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('Accuracy of the model: ', 0.6353666895133653)

Process finished with exit code 0

Experiment 2 –

/anaconda3/envs/AI/bin/python "/School/Data Mining/DMProject/createClassifier.py"

('The number of keywords used for generating features (frequencies): ', 909)

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The total number of training tweets: 5834 (3314 positives, 2520: negatives)

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0.00000000e+00]]

The estimated b:

[1.0000502]

The estimated C after the grid search for 10 fold cross validation:

{'C': 1}

The total number of testing tweets: 1459 (1349 are predicted as positives, 110 are predicted as negatives)

('Accuracy of the model: ', 0.6353666895133653)

Process finished with exit code 0

Experiment 4.5 (Best SVM)

/anaconda3/envs/AI/bin/python "/School/Data Mining/DMProject/createClassifier.py"

('The number of keywords used for generating features (frequencies): ', 824)

('Words are: ', {'evidence': 778, 'caused': 1, 'ever!': 2, 'rules,': 3, 'obstruction': 4, '@the\_trump\_train': 48, 'follow': 7, 'hate': 8, '\xf0\x9f\x92\x97\xf0\x9f\x92\x97trump': 9, 'issues': 10, 'votes': 11, 'voter': 12, 'buddy': 13, "'shall'": 14, 'send': 15, 'charge': 16, 'praised': 17, 'https://t.co/13ncoufpwe': 19, 'sent': 20, '"almost': 21, 'division': 23, 'woman': 24, 'worse': 25, 'balls': 26, 'facebook': 27, 'exact': 28, '@nypostsports': 29, 'look': 551, 'treating': 31, 'school': 240, 're-elect': 33, 'nonsense!': 34, 'did': 35, 'peeps': 36, 'democrat': 37, '#jacobmarley': 38, 'large': 274, 'democrats\xe2\x80\x99': 40, 'guy': 41, 'deplorable': 42, 'whirlwind': 43, '@booboorx': 753, 'talked': 44, 'says': 45, 'come.': 482, 'fence': 46, '@atrickledown': 47, 'hanging': 6, 'has!': 49, 'sign': 50, 'past': 51, '@nickreisman': 622, 'second': 52, 'run': 696, 'others.': 54, 'blue': 55, 'she\xe2\x80\x99s': 781, 'records.': 56, 'constitution': 57, 'richard': 58, 'associate': 293, 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The total number of training tweets: 5040 (2520 positives, 2520: negatives)

('Vectors: ', array([[0, 0, 0, ..., 0, 0, 0],

[0, 0, 0, ..., 0, 0, 0],

[0, 0, 0, ..., 0, 0, 0],

...,

[0, 0, 0, ..., 0, 0, 0],

[0, 0, 0, ..., 0, 0, 0],

[0, 0, 0, ..., 0, 0, 0]]))

('Labels: ', array([0, 0, 0, ..., 1, 1, 1]))

The estimated w:

[[ 0.00000000e+00 1.02639955e-01 0.00000000e+00 0.00000000e+00

-1.28361733e-01 0.00000000e+00 -1.16048098e-02 0.00000000e+00

-2.94620098e-01 0.00000000e+00 -4.16157607e-01 0.00000000e+00

0.00000000e+00 5.57609886e-02 -9.98733259e-02 0.00000000e+00

-5.82583771e-02 1.23315228e-01 3.18458281e-01 0.00000000e+00

1.69322202e-01 0.00000000e+00 3.65809794e-01 1.02639955e-01

0.00000000e+00 0.00000000e+00 3.09567636e-01 0.00000000e+00

0.00000000e+00 0.00000000e+00 2.21441491e-02 0.00000000e+00

0.00000000e+00 0.00000000e+00 0.00000000e+00 -4.79142183e-01

3.77517653e-02 -1.18298331e-01 0.00000000e+00 0.00000000e+00

-2.00000000e+00 -1.16048098e-02 0.00000000e+00 0.00000000e+00

0.00000000e+00 -9.98733259e-02 0.00000000e+00 0.00000000e+00

5.04877962e-01 4.83626152e-03 0.00000000e+00 1.02639955e-01

5.11959436e-02 0.00000000e+00 0.00000000e+00 -9.51310590e-03

0.00000000e+00 0.00000000e+00 0.00000000e+00 6.05887625e-02

0.00000000e+00 0.00000000e+00 -1.16048098e-02 0.00000000e+00

1.04720474e-01 -3.44836069e-01 0.00000000e+00 0.00000000e+00

4.83626152e-03 3.00801182e-03 0.00000000e+00 -5.35002973e-02

4.83626152e-03 0.00000000e+00 0.00000000e+00 1.28898030e-01

0.00000000e+00 0.00000000e+00 -2.44231734e-02 4.83626152e-03

-2.44231734e-02 0.00000000e+00 -1.98548482e-01 0.00000000e+00

0.00000000e+00 -6.60584511e-01 -4.81592307e-01 0.00000000e+00

0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00

-1.11897681e-01 3.77517653e-02 9.53809084e-02 -4.54006453e-02

0.00000000e+00 0.00000000e+00 -4.28090325e-01 1.88037918e-01

0.00000000e+00 2.21441491e-02 0.00000000e+00 9.93674890e-02

2.48079048e-01 -1.28800877e-01 0.00000000e+00 -9.51310590e-03

-7.87049889e-02 -2.90017769e-01 6.86119683e-01 -9.51310590e-03

0.00000000e+00 2.26135859e-01 0.00000000e+00 0.00000000e+00

0.00000000e+00 0.00000000e+00 0.00000000e+00 2.54804693e-02

-4.54006453e-02 0.00000000e+00 -9.51310590e-03 7.15601449e-02

3.00801182e-03 1.23315228e-01 0.00000000e+00 1.04720474e-01

0.00000000e+00 0.00000000e+00 0.00000000e+00 -1.06787073e+00

0.00000000e+00 2.21441491e-02 0.00000000e+00 0.00000000e+00

-1.36825095e-01 3.98006244e-02 -1.21257847e-01 4.83626152e-03

-2.99601148e-02 4.69151038e-03 0.00000000e+00 -5.35002973e-02

-6.39025798e-02 3.49831609e-02 8.21470864e-02 0.00000000e+00

0.00000000e+00 0.00000000e+00 2.21441491e-02 0.00000000e+00

-4.06036532e-01 0.00000000e+00 0.00000000e+00 -4.54006453e-02

1.36091553e-01 0.00000000e+00 3.87787265e-02 -4.71137353e-01

4.66841644e-01 -3.81613359e-01 -3.71445748e-01 0.00000000e+00

0.00000000e+00 4.79468625e-01 0.00000000e+00 -1.54616220e+00

9.17312447e-01 0.00000000e+00 -6.03133047e-01 4.78979706e-01

3.00801182e-03 7.37618874e-02 0.00000000e+00 -5.35002973e-02

0.00000000e+00 0.00000000e+00 3.00450459e-01 6.05887625e-02

0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00

0.00000000e+00 0.00000000e+00 -5.39002092e-01 -2.95884453e-01

0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00

0.00000000e+00 0.00000000e+00 -4.54006453e-02 0.00000000e+00

-1.28800877e-01 2.51787244e-04 0.00000000e+00 2.51198228e-01

1.81480360e-01 0.00000000e+00 5.57609886e-02 0.00000000e+00

-1.80697576e-01 -5.35002973e-02 0.00000000e+00 0.00000000e+00

0.00000000e+00 1.02639955e-01 8.86529304e-02 3.00801182e-03

0.00000000e+00 0.00000000e+00 -1.42169871e-01 4.83626152e-03

0.00000000e+00 -8.32132401e-02 0.00000000e+00 0.00000000e+00

0.00000000e+00 -1.80697576e-01 0.00000000e+00 0.00000000e+00

0.00000000e+00 0.00000000e+00 -4.54006453e-02 -4.99366629e-02

4.94587885e-02 3.00801182e-03 0.00000000e+00 5.11959436e-02

0.00000000e+00 0.00000000e+00 0.00000000e+00 -4.03028521e-01

-2.44231734e-02 -9.46682930e-02 -4.15357967e-01 -7.45757503e-02

0.00000000e+00 5.25459561e-01 0.00000000e+00 5.11959436e-02

0.00000000e+00 0.00000000e+00 0.00000000e+00 -7.95995070e-05

0.00000000e+00 -6.66609440e-01 0.00000000e+00 1.02391887e-01

1.23315228e-01 0.00000000e+00 0.00000000e+00 0.00000000e+00

1.58003000e-02 0.00000000e+00 3.00024158e-02 3.08100268e-01

0.00000000e+00 -1.98905674e-01 0.00000000e+00 4.83626152e-03

1.98599783e-01 -4.66935090e-01 3.00801182e-03 -4.46581232e-01

-5.35002973e-02 1.58003000e-02 1.23315228e-01 -2.48130521e-01

-1.11897681e-01 6.05887625e-02 0.00000000e+00 -6.66609440e-01

-4.99366629e-02 0.00000000e+00 0.00000000e+00 0.00000000e+00

3.00801182e-03 5.62817488e-01 0.00000000e+00 0.00000000e+00

0.00000000e+00 -4.29901845e-01 0.00000000e+00 -6.87388413e-02

-9.51310590e-03 1.76433108e-01 0.00000000e+00 0.00000000e+00

-9.90618647e-01 -5.35002973e-02 0.00000000e+00 0.00000000e+00

0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00

0.00000000e+00 3.98006244e-02 0.00000000e+00 1.69266632e-01

-1.16048098e-02 -3.55494072e-01 0.00000000e+00 0.00000000e+00

-9.51310590e-03 -2.44231734e-02 6.78173199e-02 0.00000000e+00

-3.96204197e-01 0.00000000e+00 1.23315228e-01 4.80940187e-01

-4.79294047e-01 0.00000000e+00 0.00000000e+00 0.00000000e+00

8.09019011e-01 0.00000000e+00 0.00000000e+00 -1.98816002e-01

1.43252258e-01 -8.81971312e-01 0.00000000e+00 0.00000000e+00

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-4.99366629e-02 0.00000000e+00 0.00000000e+00 -6.66609440e-01

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-2.67365083e-01 0.00000000e+00 0.00000000e+00 -6.31808343e-02

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0.00000000e+00 0.00000000e+00 3.00024158e-02 -2.26098222e-01

0.00000000e+00 -5.02824171e-02 0.00000000e+00 0.00000000e+00

2.00221506e-01 0.00000000e+00 0.00000000e+00 -4.99366629e-02

7.15601449e-02 0.00000000e+00 4.83626152e-03 0.00000000e+00

1.28898030e-01 0.00000000e+00 -6.38497470e-02 0.00000000e+00

1.54050023e-01 -1.90577999e-01 0.00000000e+00 3.77517653e-02

3.00801182e-03 0.00000000e+00 0.00000000e+00 -9.51310590e-03

8.45409156e-03 1.56573372e-01 5.57609886e-02 -1.16048098e-02

-7.30821211e-01 0.00000000e+00 1.28898030e-01 1.23315228e-01

0.00000000e+00 3.77517653e-02 0.00000000e+00 5.60716802e-01

0.00000000e+00 0.00000000e+00 0.00000000e+00 1.56001367e-01

0.00000000e+00 -2.44231734e-02 4.94587885e-02 0.00000000e+00

0.00000000e+00 0.00000000e+00 2.22347198e-01 -1.30325958e-02

5.84026236e-02 0.00000000e+00 0.00000000e+00 0.00000000e+00

4.83626152e-03 3.77517653e-02 0.00000000e+00 0.00000000e+00

-1.30325958e-02 -1.61813514e-01 0.00000000e+00 -2.30634239e-01

0.00000000e+00 0.00000000e+00 8.54131493e-02 3.77517653e-02

0.00000000e+00 -2.14672406e-01 -1.16048098e-02 0.00000000e+00

0.00000000e+00 5.11959436e-02 3.00801182e-03 1.18450364e-02

-2.47909475e+00 -4.99366629e-02 -5.35002973e-02 -1.11821316e+00

0.00000000e+00 0.00000000e+00 -2.95941336e-01 0.00000000e+00

-4.99366629e-02 -9.31779178e-01 -7.97980127e-02 0.00000000e+00

0.00000000e+00 0.00000000e+00 3.77517653e-02 8.72105538e-02

0.00000000e+00 0.00000000e+00 -2.25797978e-01 0.00000000e+00

0.00000000e+00 4.52666814e-01 7.32367593e-02 1.58003000e-02

0.00000000e+00 6.05887625e-02 0.00000000e+00 -2.69999939e-01

0.00000000e+00 5.07069335e-02 0.00000000e+00 0.00000000e+00

0.00000000e+00 0.00000000e+00 0.00000000e+00 4.94587885e-02

0.00000000e+00 0.00000000e+00 0.00000000e+00 -4.54006453e-02

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0.00000000e+00 -1.44159976e-02 0.00000000e+00 0.00000000e+00

1.58003000e-02 0.00000000e+00 0.00000000e+00 0.00000000e+00

-4.54006453e-02 -1.76653566e-01 1.23315228e-01 0.00000000e+00

8.05926178e-02 -1.80104930e+00 0.00000000e+00 -1.29715490e-01

0.00000000e+00 -4.79977926e-01 -1.99964488e+00 0.00000000e+00

4.40335530e-02 4.08884028e-01 0.00000000e+00 8.36760359e-02

0.00000000e+00 -1.16048098e-02 0.00000000e+00 0.00000000e+00

0.00000000e+00 0.00000000e+00 -1.55273563e-03 -3.01566524e-01

-1.65684227e-01 0.00000000e+00 3.45098463e-01 -5.33150996e-01

0.00000000e+00 0.00000000e+00 1.57216342e-01 0.00000000e+00

0.00000000e+00 0.00000000e+00 0.00000000e+00 4.52666814e-01

0.00000000e+00 0.00000000e+00 -1.16048098e-02 -2.88414382e-02

0.00000000e+00 -4.44163693e-02 0.00000000e+00 0.00000000e+00

6.05887625e-02 0.00000000e+00 0.00000000e+00 7.32367593e-02

0.00000000e+00 0.00000000e+00 1.32807004e-01 0.00000000e+00

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0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00

0.00000000e+00 0.00000000e+00 0.00000000e+00 -9.51310590e-03

-1.01083157e-01 0.00000000e+00 -4.77874469e-04 0.00000000e+00

2.17206782e-01 0.00000000e+00 -4.99366629e-02 -6.27786434e-03

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0.00000000e+00 0.00000000e+00 0.00000000e+00 3.77517653e-02

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0.00000000e+00 -1.55273563e-03 6.86119683e-01 0.00000000e+00

0.00000000e+00 0.00000000e+00 6.05887625e-02 7.15601449e-02

0.00000000e+00 0.00000000e+00 1.28898030e-01 0.00000000e+00

0.00000000e+00 0.00000000e+00 1.23315228e-01 2.26510089e-01

0.00000000e+00 0.00000000e+00 4.83626152e-03 -1.00228953e-01

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6.05887625e-02 0.00000000e+00 1.23315228e-01 1.81342957e-01

-9.51310590e-03 4.83626152e-03 4.83626152e-03 0.00000000e+00

0.00000000e+00 2.65732722e-01 0.00000000e+00 0.00000000e+00

3.77517653e-02 0.00000000e+00 -1.16048098e-02 -2.32096196e-02

-1.00356060e-01 -6.87388413e-02 0.00000000e+00 -4.91228722e-02

0.00000000e+00 -2.44231734e-02 0.00000000e+00 6.10303611e-02

0.00000000e+00 3.00801182e-03 5.57609886e-02 0.00000000e+00

-2.69148996e-01 0.00000000e+00 0.00000000e+00 0.00000000e+00

4.03099859e-01 -4.15357967e-01 0.00000000e+00 0.00000000e+00

-5.25632388e-02 -4.06036532e-01 0.00000000e+00 0.00000000e+00

0.00000000e+00 0.00000000e+00 1.23315228e-01 3.77517653e-02

1.09048419e-01 2.16192072e-01 2.54142626e-01 0.00000000e+00

-4.13529090e-01 2.53868546e-01 2.07304133e-01 0.00000000e+00

3.00801182e-03 -1.33906144e+00 0.00000000e+00 -8.33538171e-02

-6.35258266e-01 0.00000000e+00 0.00000000e+00 0.00000000e+00

0.00000000e+00 2.59683858e-01 -5.35002973e-02 1.36091553e-01

0.00000000e+00 0.00000000e+00 0.00000000e+00 6.05972501e-02

1.28898030e-01 0.00000000e+00 0.00000000e+00 0.00000000e+00

0.00000000e+00 0.00000000e+00 -2.11294728e-04 0.00000000e+00

0.00000000e+00 0.00000000e+00 0.00000000e+00 -9.51310590e-03

0.00000000e+00 5.10500226e-02 0.00000000e+00 -4.06036532e-01

0.00000000e+00 2.14111301e-01 -1.55273563e-03 0.00000000e+00

0.00000000e+00 0.00000000e+00 0.00000000e+00 2.05337608e-01

0.00000000e+00 5.65228890e-02 -5.09055050e-01 0.00000000e+00

0.00000000e+00 6.44358521e-01 0.00000000e+00 -4.53766556e-01

2.54804693e-02 0.00000000e+00 0.00000000e+00 0.00000000e+00

2.20466661e-01 0.00000000e+00 4.80940187e-01 0.00000000e+00

0.00000000e+00 0.00000000e+00 0.00000000e+00 -5.35002973e-02

0.00000000e+00 0.00000000e+00 0.00000000e+00 8.96365492e-01

4.83626152e-03 0.00000000e+00 5.74534540e-02 0.00000000e+00

4.71022774e-02 -4.15357967e-01 5.11887838e-02 0.00000000e+00

3.77517653e-02 1.94271537e-01 4.51516550e-01 0.00000000e+00

0.00000000e+00 0.00000000e+00 6.05887625e-02 -2.32096196e-02

0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00

0.00000000e+00 8.03062975e-01 -3.17031001e-02 3.77517653e-02

0.00000000e+00 -2.44231734e-02 0.00000000e+00 0.00000000e+00

1.23315228e-01 5.11959436e-02 0.00000000e+00 -2.65623943e-02

0.00000000e+00 0.00000000e+00 -5.32309597e-01 3.77517653e-02

-1.61834344e-01 1.23315228e-01 3.00801182e-03 -4.06036532e-01

-1.04181399e-01 -4.23907787e-01 1.88037918e-01 0.00000000e+00

1.67009023e-01 1.23315228e-01 0.00000000e+00 0.00000000e+00

0.00000000e+00 0.00000000e+00 0.00000000e+00 3.00801182e-03

0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00

8.03185476e-02 0.00000000e+00 0.00000000e+00 0.00000000e+00

1.28898030e-01 0.00000000e+00 0.00000000e+00 1.16107229e-01

0.00000000e+00 -1.30325958e-02 0.00000000e+00 -3.71445748e-01

0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00

0.00000000e+00 0.00000000e+00 -1.49535021e-02 -3.01566524e-01

0.00000000e+00 0.00000000e+00 0.00000000e+00 1.59387026e-02

0.00000000e+00 1.58003000e-02 -5.36810971e-01 0.00000000e+00]]

The estimated b:

[1.00000041]

The estimated C after the grid search for 10 fold cross validation:

{'C': 2}

The total number of testing tweets: 1459 (1320 are predicted as positives, 139 are predicted as negatives)

('Accuracy of the model: ', 0.6538725154215216)

Process finished with exit code 0

/anaconda3/envs/AI/bin/python "/School/Data Mining/DMProject/createClassifier.py"

('The number of keywords used for generating features (frequencies): ', 524)

('Words are: ', {'caused': 0, 'ever!': 1, 'obstruction': 2, '@the\_trump\_train': 3, 'hate': 4, '\xf0\x9f\x92\x97\xf0\x9f\x92\x97trump': 5, 'voter': 6, "'shall'": 7, 'charge': 8, 'they\xe2\x80\x99re': 9, 'pay': 363, 'veterans': 10, 'division': 11, 'putting': 12, 'look': 350, 'school': 157, 're-elect': 15, 'nonsense!': 16, 'did': 17, 'peeps': 19, 'democrat': 20, 'guy': 21, 'whirlwind': 22, 'talked': 23, 'rats': 24, '@atrickledown': 25, 'should,': 18, 'second': 27, 'others.': 28, 'blue': 29, 'richard': 30, 'associate': 31, 'awesome\xf0\x9f\x92\x97\xf0\x9f\x92\x97': 32, 'children': 33, 'schumer': 34, 'report.': 35, 'new': 36, 'charade': 37, 'ass-kisser': 38, 'supporting': 39, 'exchange': 40, 'men': 41, 'rubio.': 42, 'hours': 43, '#bestpresidentever45': 44, 'poverty': 46, 'sink': 47, '100': 48, 'gerry': 49, 'great': 50, 'amenment': 51, 'ahead': 52, 'dirt': 184, 'prior': 53, 'base': 186, 'here.': 55, 'pick': 56, 'military': 57, "i'm": 58, 'returns,': 59, 'changes': 60, '@tuffytrump': 61, 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The total number of training tweets: 5040 (2520 positives, 2520: negatives)

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The estimated b:

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The estimated C after the grid search for 10 fold cross validation:

{'C': 7}

The total number of testing tweets: 1459 (461 are predicted as positives, 998 are predicted as negatives)

(521, 109, 477, 352)

('Accuracy of the model: ', 0.5983550376970528)

Process finished with exit code 0

Experiment 6

/anaconda3/envs/AI/bin/python "/School/Data Mining/DMProject/createClassifier.py"

('The number of keywords used for generating features (frequencies): ', 1419)

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The total number of training tweets: 5040 (2520 positives, 2520: negatives)

('Vectors: ', array([[0, 0, 0, ..., 0, 0, 0],

[0, 0, 0, ..., 0, 0, 0],

[0, 0, 0, ..., 0, 0, 0],

...,

[0, 0, 0, ..., 0, 0, 0],

[0, 0, 0, ..., 0, 0, 0],

[0, 0, 0, ..., 0, 0, 0]]))

('Labels: ', array([0, 0, 0, ..., 1, 1, 1]))

The total number of testing tweets: 1459 (1257 are predicted as positives, 202 are predicted as negatives)

(181, 449, 21, 808)

('Accuracy of the model: ', 0.6778615490061686)

Process finished with exit code 0

Experiment 7 (Best Random Forest) –

/anaconda3/envs/AI/bin/python "/School/Data Mining/DMProject/createClassifier.py"

('The number of keywords used for generating features (frequencies): ', 824)

('Words are: ', {'evidence': 778, 'caused': 1, 'ever!': 2, 'rules,': 3, 'obstruction': 4, '@the\_trump\_train': 48, 'follow': 7, 'hate': 8, '\xf0\x9f\x92\x97\xf0\x9f\x92\x97trump': 9, 'issues': 10, 'votes': 11, 'voter': 12, 'buddy': 13, "'shall'": 14, 'send': 15, 'charge': 16, 'praised': 17, 'https://t.co/13ncoufpwe': 19, 'sent': 20, '"almost': 21, 'division': 23, 'woman': 24, 'worse': 25, 'balls': 26, 'facebook': 27, 'exact': 28, '@nypostsports': 29, 'look': 551, 'treating': 31, 'school': 240, 're-elect': 33, 'nonsense!': 34, 'did': 35, 'peeps': 36, 'democrat': 37, '#jacobmarley': 38, 'large': 274, 'democrats\xe2\x80\x99': 40, 'guy': 41, 'deplorable': 42, 'whirlwind': 43, '@booboorx': 753, 'talked': 44, 'says': 45, 'come.': 482, 'fence': 46, '@atrickledown': 47, 'hanging': 6, 'has!': 49, 'sign': 50, 'past': 51, '@nickreisman': 622, 'second': 52, 'run': 696, 'others.': 54, 'blue': 55, 'she\xe2\x80\x99s': 781, 'records.': 56, 'constitution': 57, 'richard': 58, 'associate': 293, 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The total number of training tweets: 5040 (2520 positives, 2520: negatives)

('Vectors: ', array([[0, 0, 0, ..., 0, 0, 0],

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[0, 0, 0, ..., 0, 0, 0],

...,

[0, 0, 0, ..., 0, 0, 0],

[0, 0, 0, ..., 0, 0, 0],

[0, 0, 0, ..., 0, 0, 0]]))

('Labels: ', array([0, 0, 0, ..., 1, 1, 1]))

The total number of testing tweets: 1459 (1280 are predicted as positives, 179 are predicted as negatives)

(178, 452, 1, 828)

('Accuracy of the model: ', 0.6895133653187114)

Process finished with exit code 0

Experiment 8 (Best Decision Tree)

('The number of keywords used for generating features (frequencies): ', 824)

('Words are: ', {'evidence': 778, 'caused': 1, 'ever!': 2, 'rules,': 3, 'obstruction': 4, '@the\_trump\_train': 48, 'follow': 7, 'hate': 8, '\xf0\x9f\x92\x97\xf0\x9f\x92\x97trump': 9, 'issues': 10, 'votes': 11, 'voter': 12, 'buddy': 13, "'shall'": 14, 'send': 15, 'charge': 16, 'praised': 17, 'https://t.co/13ncoufpwe': 19, 'sent': 20, '"almost': 21, 'division': 23, 'woman': 24, 'worse': 25, 'balls': 26, 'facebook': 27, 'exact': 28, '@nypostsports': 29, 'look': 551, 'treating': 31, 'school': 240, 're-elect': 33, 'nonsense!': 34, 'did': 35, 'peeps': 36, 'democrat': 37, '#jacobmarley': 38, 'large': 274, 'democrats\xe2\x80\x99': 40, 'guy': 41, 'deplorable': 42, 'whirlwind': 43, '@booboorx': 753, 'talked': 44, 'says': 45, 'come.': 482, 'fence': 46, '@atrickledown': 47, 'hanging': 6, 'has!': 49, 'sign': 50, 'past': 51, '@nickreisman': 622, 'second': 52, 'run': 696, 'others.': 54, 'blue': 55, 'she\xe2\x80\x99s': 781, 'records.': 56, 'constitution': 57, 'richard': 58, 'associate': 293, 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The total number of training tweets: 5040 (2520 positives, 2520: negatives)

('Vectors: ', array([[0, 0, 0, ..., 0, 0, 0],

[0, 0, 0, ..., 0, 0, 0],

[0, 0, 0, ..., 0, 0, 0],

...,

[0, 0, 0, ..., 0, 0, 0],

[0, 0, 0, ..., 0, 0, 0],

[0, 0, 0, ..., 0, 0, 0]]))

('Labels: ', array([0, 0, 0, ..., 1, 1, 1]))

The total number of testing tweets: 1459 (1259 are predicted as positives, 200 are predicted as negatives)

Traceback (most recent call last):

File "/School/Data Mining/DMProject/createClassifier.py", line 109, in <module>

tree.plot\_tree(clf.fit(X, y))

AttributeError: 'module' object has no attribute 'plot\_tree'

(199, 431, 1, 828)

('Accuracy of the model: ', 0.7039067854694997)