```
Top MNB Emotion - Alpha: 0.5 - Emotion
                 precision    recall    f1-score    support

    admiration      0.46       0.53       0.49       2111
     amusement      0.51       0.44       0.47       1287
         anger      0.31       0.18       0.23       1055
     annoyance      0.19       0.11       0.14       1658
      approval      0.24       0.13       0.17       2272
        caring      0.24       0.15       0.19        680
     confusion      0.24       0.12       0.16        944
     curiosity      0.36       0.19       0.25       1194
        desire      0.37       0.12       0.18        414
disappointment      0.21       0.08       0.11        938
   disapproval      0.23       0.13       0.17       1521
       disgust      0.40       0.17       0.23        594
 embarrassment      0.34       0.05       0.09        264
    excitement      0.28       0.10       0.15        607
          fear      0.40       0.11       0.18        370
     gratitude      0.72       0.73       0.72       1425
         grief      0.00       0.00       0.00         68
           joy      0.34       0.19       0.25        877
          love      0.58       0.46       0.51       1003
   nervousness      0.10       0.01       0.01        181
       neutral      0.39       0.72       0.51      11069
      optimism      0.38       0.22       0.28        928
         pride      0.30       0.02       0.04        127
   realization      0.18       0.07       0.10        937
        relief      0.20       0.01       0.01        161
       remorse      0.41       0.13       0.20        264
       sadness      0.36       0.19       0.24        751
      surprise      0.33       0.19       0.24        664

      accuracy                            0.39      34364
     macro avg      0.32       0.20       0.23      34364
  weighted avg      0.36       0.39       0.35      34364




Top MNB Emotion - Alpha: 0.5 - Sentiments

            precision    recall    f1-score    support

     ambiguous      0.39       0.27       0.32       3739
      negative      0.53       0.53       0.53       7664
       neutral      0.49       0.48       0.48      11069
      positive      0.63       0.71       0.66      11892

      accuracy                            0.55      34364
     macro avg      0.51       0.50       0.50      34364
  weighted avg      0.54       0.55       0.54      34364
```

```
TOP MNB without stopwords - Alpha: 0.5 - emotions
                precision    recall  f1-score   support

    admiration       0.47      0.49      0.48      2105
     amusement       0.55      0.38      0.45      1240
         anger       0.38      0.17      0.24      1058
     annoyance       0.20      0.10      0.13      1635
      approval       0.26      0.11      0.15      2306
        caring       0.28      0.07      0.11       698
     confusion       0.30      0.08      0.12       996
     curiosity       0.35      0.10      0.16      1156
        desire       0.45      0.07      0.12       429
disappointment       0.20      0.05      0.08       950
   disapproval       0.24      0.09      0.13      1569
       disgust       0.33      0.10      0.15       596
 embarrassment       0.32      0.04      0.08       271
    excitement       0.25      0.06      0.10       601
          fear       0.47      0.12      0.19       363
     gratitude       0.76      0.71      0.73      1475
         grief       0.00      0.00      0.00        62
           joy       0.35      0.19      0.24       798
          love       0.60      0.43      0.50      1012
    nervousness       0.43      0.02      0.03       171
       neutral       0.38      0.79      0.51     10956
      optimism       0.41      0.19      0.26       898
         pride       0.25      0.01      0.02       122
   realization       0.20      0.04      0.07       961
        relief       0.12      0.01      0.01       162
       remorse       0.54      0.13      0.21       309
       sadness       0.36      0.14      0.20       750
      surprise       0.33      0.14      0.20       715

      accuracy                           0.39     34364
     macro avg       0.35      0.17      0.20     34364
  weighted avg       0.37      0.39      0.33     34364

Top MNB without stopwords - Alpha: 0.5 -sentiments

                precision    recall  f1-score   support

     ambiguous       0.40      0.22      0.28      3828
      negative       0.54      0.53      0.54      7734
       neutral       0.48      0.48      0.48     10956
      positive       0.61      0.71      0.66     11846

      accuracy                           0.54     34364
     macro avg       0.51      0.48      0.49     34364
  weighted avg       0.53      0.54      0.53     34364
```

```
Base DT - emotions
                precision    recall   f1-score   support

    admiration       0.40      0.56      0.47      2105
     amusement       0.43      0.58      0.49      1240
         anger       0.25      0.35      0.29      1058
     annoyance       0.15      0.23      0.18      1635
      approval       0.21      0.27      0.24      2306
        caring       0.19      0.25      0.22       698
     confusion       0.22      0.28      0.25       996
     curiosity       0.33      0.35      0.34      1156
        desire       0.24      0.28      0.26       429
disappointment       0.15      0.17      0.16       950
   disapproval       0.25      0.24      0.24      1569
       disgust       0.23      0.19      0.21       596
 embarrassment       0.20      0.16      0.18       271
    excitement       0.23      0.22      0.22       601
          fear       0.43      0.37      0.40       363
     gratitude       0.76      0.72      0.74      1475
         grief       0.07      0.08      0.07        62
           joy       0.27      0.24      0.25       798
          love       0.56      0.52      0.54      1012
   nervousness       0.16      0.11      0.13       171
       neutral       0.50      0.43      0.46     10956
      optimism       0.39      0.21      0.28       898
         pride       0.13      0.05      0.07       122
   realization       0.22      0.08      0.12       961
        relief       0.16      0.06      0.08       162
       remorse       0.38      0.31      0.34       309
       sadness       0.36      0.18      0.24       750
      surprise       0.35      0.19      0.24       715

      accuracy                          0.36     34364
     macro avg       0.29      0.27      0.28     34364
  weighted avg       0.37      0.36      0.36     34364

Base-DT sentiments

                precision    recall   f1-score   support

     ambiguous       0.36      0.49      0.42      3828
      negative       0.51      0.59      0.55      7734
       neutral       0.50      0.48      0.49     10956
      positive       0.72      0.60      0.65     11846

      accuracy                          0.55     34364
     macro avg       0.52      0.54      0.53     34364
  weighted avg       0.56      0.55      0.55     34364
```

Base-dt without stopwords emotion

	precision	recall	f1-score	support
admiration	0.40	0.57	0.47	2105
amusement	0.44	0.60	0.50	1240
anger	0.25	0.37	0.30	1058
annoyance	0.15	0.22	0.18	1635
approval	0.21	0.26	0.24	2306
caring	0.19	0.25	0.22	698
confusion	0.23	0.28	0.25	996
curiosity	0.31	0.32	0.32	1156
desire	0.23	0.28	0.26	429
disappointment	0.16	0.17	0.16	950
disapproval	0.24	0.23	0.24	1569
disgust	0.24	0.19	0.21	596
embarrassment	0.21	0.17	0.19	271
excitement	0.22	0.20	0.21	601
fear	0.44	0.41	0.42	363
gratitude	0.77	0.73	0.75	1475
grief	0.07	0.08	0.07	62
joy	0.27	0.24	0.25	798
love	0.55	0.54	0.54	1012
nervousness	0.18	0.12	0.14	171
neutral	0.50	0.44	0.47	10956
optimism	0.37	0.21	0.27	898
pride	0.14	0.06	0.08	122
realization	0.21	0.08	0.12	961
relief	0.17	0.06	0.09	162
remorse	0.40	0.31	0.35	309
sadness	0.36	0.19	0.25	750
surprise	0.35	0.18	0.24	715
accuracy			0.36	34364
macro avg	0.30	0.28	0.28	34364
weighted avg	0.37	0.36	0.36	34364

Base DT without stopwords sentiments

	precision	recall	f1-score	support
ambiguous	0.35	0.46	0.40	3828
negative	0.51	0.60	0.55	7734
neutral	0.50	0.48	0.49	10956
positive	0.71	0.60	0.65	11846
accuracy			0.54	34364
macro avg	0.52	0.53	0.52	34364
weighted avg	0.56	0.54	0.55	34364

```
Base MLP embedding emotions
                precision    recall   f1-score    support

    admiration       0.49      0.47       0.48        2149
     amusement       0.49      0.46       0.47        1258
         anger       0.42      0.19       0.26        1021
     annoyance       0.26      0.03       0.05        1664
      approval       0.44      0.03       0.05        2298
        caring       0.41      0.13       0.19         705
     confusion       0.49      0.04       0.08        1034
     curiosity       0.39      0.16       0.22        1189
        desire       0.42      0.16       0.23         432
disappointment       0.30      0.02       0.04         925
   disapproval       0.29      0.05       0.08        1528
       disgust       0.46      0.12       0.19         604
 embarrassment       0.37      0.08       0.13         290
    excitement       0.37      0.10       0.15         562
          fear       0.52      0.32       0.39         349
     gratitude       0.76      0.76       0.76        1422
         grief       0.10      0.01       0.02          72
           joy       0.42      0.19       0.26         873
          love       0.58      0.56       0.57         961
   nervousness       0.56      0.05       0.10         164
       neutral       0.39      0.87       0.54       10979
      optimism       0.45      0.18       0.26         948
         pride       0.57      0.03       0.05         141
   realization       0.12      0.00       0.01         909
        relief       0.00      0.00       0.00         149
       remorse       0.46      0.35       0.40         322
       sadness       0.41      0.19       0.26         731
      surprise       0.35      0.17       0.23         685

      accuracy                           0.42       34364
     macro avg       0.40      0.20       0.23       34364
  weighted avg       0.41      0.42       0.34       34364

Base MLP embedding sentiments
                precision    recall   f1-score    support

     ambiguous       0.43      0.30       0.36        3817
      negative       0.49      0.59       0.54        7670
       neutral       0.51      0.41       0.45       10979
      positive       0.62      0.72       0.66       11898

      accuracy                           0.54       34364
     macro avg       0.51      0.50       0.50       34364
  weighted avg       0.54      0.54       0.53       34364
```

Base MLP for emotions classification
Default parameters
----
                 precision   recall f1-score   support

     admiration   0.06   0.04   0.05   2095
      amusement   0.03   0.02   0.02   1197
          anger   0.03   0.02   0.02   1071
      annoyance   0.05   0.03   0.04   1669
       approval   0.06   0.04   0.05   2186
         caring   0.01   0.01   0.01   742
      confusion   0.02   0.02   0.02   975
      curiosity   0.05   0.03   0.04   1233
         desire   0.01   0.01   0.01   408
 disappointment   0.03   0.02   0.02   945
    disapproval   0.04   0.04   0.04   1555
        disgust   0.03   0.02   0.02   619
  embarrassment   0.00   0.00   0.00   293
     excitement   0.03   0.02   0.02   607
           fear   0.01   0.01   0.01   345
      gratitude   0.04   0.03   0.03   1400
          grief   0.00   0.00   0.00   61
            joy   0.02   0.01   0.02   852
           love   0.03   0.02   0.03   1040
     nervousness   0.02   0.01   0.02   150
        neutral   0.32   0.50   0.39   11096
        optimism   0.02   0.01   0.01   881
          pride   0.00   0.00   0.00   138
    realization   0.02   0.02   0.02   911
         relief   0.00   0.00   0.00   143
        remorse   0.00   0.00   0.00   296
        sadness   0.02   0.02   0.02   743
       surprise   0.04   0.03   0.03   713

       accuracy   0.18   34364
      macro avg   0.03   0.03   0.03   34364
   weighted avg   0.13   0.18   0.15   34364
==

Base MLP for sentiments classification
Default parameters
```
--------------------------------------------------------
              precision    recall  f1-score   support

    ambiguous       0.11      0.08      0.09      3796
     negative       0.23      0.21      0.22      7796
      neutral       0.32      0.38      0.35     10946
     positive       0.34      0.34      0.34     11826

     accuracy                           0.29     34364
    macro avg       0.25      0.25      0.25     34364
 weighted avg       0.29      0.29      0.29     34364
========================================================
```
Top MLP for emotions classification
{'activation': 'logistic', 'hidden_layer_sizes': (30, 50), 'solver': 'sgd'}
```
--------------------------------------------------------
                precision    recall  f1-score   support

     admiration       0.00      0.00      0.00      2095
      amusement       0.00      0.00      0.00      1197
          anger       0.00      0.00      0.00      1071
      annoyance       0.00      0.00      0.00      1669
       approval       0.00      0.00      0.00      2186
         caring       0.00      0.00      0.00       742
      confusion       0.00      0.00      0.00       975
      curiosity       0.00      0.00      0.00      1233
         desire       0.00      0.00      0.00       408
 disappointment       0.00      0.00      0.00       945
    disapproval       0.00      0.00      0.00      1555
        disgust       0.00      0.00      0.00       619
  embarrassment       0.00      0.00      0.00       293
     excitement       0.00      0.00      0.00       607
           fear       0.00      0.00      0.00       345
      gratitude       0.00      0.00      0.00      1400
          grief       0.00      0.00      0.00        61
            joy       0.00      0.00      0.00       852
           love       0.00      0.00      0.00      1040
     nervousness       0.00      0.00      0.00       150
        neutral       0.32      1.00      0.49     11096
       optimism       0.00      0.00      0.00       881
          pride       0.00      0.00      0.00       138
    realization       0.00      0.00      0.00       911
         relief       0.00      0.00      0.00       143
        remorse       0.00      0.00      0.00       296
        sadness       0.00      0.00      0.00       743
       surprise       0.00      0.00      0.00       713

       accuracy                           0.32     34364
      macro avg       0.01      0.04      0.02     34364
```

```
   weighted avg      0.10      0.32      0.16      34364
=======================================================
```

```
{'activation': 'logistic', 'hidden_layer_sizes': (30, 50), 'solver':
'sgd'}
-------------------------------------------------------
                 precision    recall  f1-score   support

     ambiguous      0.00      0.00      0.00      3796
      negative      0.00      0.00      0.00      7796
       neutral      0.00      0.00      0.00     10946
      positive      0.34      1.00      0.51     11826

      accuracy                          0.34     34364
     macro avg      0.09      0.25      0.13     34364
  weighted avg      0.12      0.34      0.18     34364
=======================================================
```

Base MLP for emotions classification without stopwords
```
Default parameters
-------------------------------------------------------
                 precision    recall  f1-score   support

    admiration      0.06      0.04      0.05      2095
     amusement      0.04      0.03      0.03      1197
         anger      0.03      0.03      0.03      1071
     annoyance      0.05      0.04      0.04      1669
      approval      0.07      0.07      0.07      2186
        caring      0.02      0.01      0.02       742
     confusion      0.03      0.03      0.03       975
     curiosity      0.04      0.02      0.03      1233
        desire      0.01      0.01      0.01       408
disappointment      0.03      0.02      0.02       945
   disapproval      0.04      0.03      0.03      1555
       disgust      0.01      0.01      0.01       619
 embarrassment      0.00      0.00      0.00       293
    excitement      0.01      0.01      0.01       607
          fear      0.00      0.00      0.00       345
     gratitude      0.04      0.03      0.03      1400
         grief      0.00      0.00      0.00        61
           joy      0.02      0.01      0.02       852
          love      0.03      0.02      0.02      1040
    nervousness      0.00      0.00      0.00       150
       neutral      0.33      0.52      0.40     11096
      optimism      0.02      0.01      0.02       881
         pride      0.02      0.01      0.02       138
   realization      0.02      0.02      0.02       911
        relief      0.00      0.00      0.00       143
       remorse      0.01      0.01      0.01       296
       sadness      0.02      0.01      0.02       743
```

```
        surprise      0.02      0.02      0.02       713

        accuracy                          0.18     34364
       macro avg      0.03      0.04      0.03     34364
    weighted avg      0.13      0.18      0.15     34364
=====================================================
```

Base MLP for sentiments classification without stopwords
```
Default parameters
-------------------------------------------------------
                precision    recall  f1-score   support

       ambiguous      0.12      0.09      0.10      3796
        negative      0.23      0.19      0.21      7796
         neutral      0.32      0.32      0.32     10946
        positive      0.35      0.42      0.38     11826

        accuracy                          0.30     34364
       macro avg      0.25      0.25      0.25     34364
    weighted avg      0.29      0.30      0.29     34364
=====================================================
```

Top MLP for emotions classification without stopwords
```
{'activation': 'logistic', 'hidden_layer_sizes': (30, 50), 'solver':
'sgd'}
-------------------------------------------------------
                precision    recall  f1-score   support

      admiration      0.00      0.00      0.00      2095
       amusement      0.00      0.00      0.00      1197
           anger      0.00      0.00      0.00      1071
       annoyance      0.00      0.00      0.00      1669
        approval      0.00      0.00      0.00      2186
          caring      0.00      0.00      0.00       742
       confusion      0.00      0.00      0.00       975
       curiosity      0.00      0.00      0.00      1233
          desire      0.00      0.00      0.00       408
  disappointment      0.00      0.00      0.00       945
     disapproval      0.00      0.00      0.00      1555
         disgust      0.00      0.00      0.00       619
   embarrassment      0.00      0.00      0.00       293
      excitement      0.00      0.00      0.00       607
            fear      0.00      0.00      0.00       345
       gratitude      0.00      0.00      0.00      1400
           grief      0.00      0.00      0.00        61
             joy      0.00      0.00      0.00       852
            love      0.00      0.00      0.00      1040
      nervousness      0.00      0.00      0.00       150
         neutral      0.32      1.00      0.49     11096
        optimism      0.00      0.00      0.00       881
           pride      0.00      0.00      0.00       138
```

```
   realization        0.00        0.00        0.00         911
        relief        0.00        0.00        0.00         143
       remorse        0.00        0.00        0.00         296
       sadness        0.00        0.00        0.00         743
      surprise        0.00        0.00        0.00         713

      accuracy                                0.32       34364
     macro avg        0.01        0.04        0.02       34364
  weighted avg        0.10        0.32        0.16       34364
====================================================
```

Top MLP for sentiments classification without stopwords
{'activation': 'relu', 'hidden_layer_sizes': (10, 10, 10), 'solver':
'sgd'}

```
----------------------------------------------------
               precision    recall  f1-score   support

     ambiguous        0.00        0.00        0.00        3796
      negative        0.00        0.00        0.00        7796
       neutral        0.00        0.00        0.00       10946
      positive        0.34        1.00        0.51       11826

      accuracy                                0.34       34364
     macro avg        0.09        0.25        0.13       34364
  weighted avg        0.12        0.34        0.18       34364
====================================================
```

Top MLP for emotions classification with word embeddings (20 iters)
{'hidden_layer_sizes': (10, 10, 10), 'activation': 'relu', 'solver':
'adam'}

```
----------------------------------------------------
               precision    recall  f1-score   support

    admiration        0.47        0.39        0.43        2107
     amusement        0.45        0.35        0.40        1229
         anger        0.26        0.09        0.14        1046
     annoyance        0.09        0.00        0.00        1575
      approval        0.20        0.00        0.00        2209
        caring        0.50        0.03        0.05         726
     confusion        0.23        0.01        0.03        1012
     curiosity        0.30        0.15        0.20        1151
        desire        0.50        0.05        0.10         446
disappointment        0.00        0.00        0.00         938
   disapproval        0.00        0.00        0.00        1547
       disgust        0.40        0.01        0.02         564
 embarrassment        0.00        0.00        0.00         332
    excitement        0.17        0.00        0.00         606
          fear        0.00        0.00        0.00         364
     gratitude        0.73        0.74        0.74        1464
         grief        0.00        0.00        0.00          67
           joy        0.30        0.08        0.12         846
```

```
             love     0.51     0.57     0.54      1021
      nervousness     0.00     0.00     0.00       153
          neutral     0.37     0.90     0.52     10927
         optimism     0.34     0.12     0.17       946
            pride     0.00     0.00     0.00       139
      realization     0.00     0.00     0.00       949
           relief     0.00     0.00     0.00       161
          remorse     0.34     0.16     0.22       314
          sadness     0.27     0.16     0.20       780
         surprise     0.00     0.00     0.00       745

         accuracy                       0.39     34364
        macro avg     0.23     0.14     0.14     34364
     weighted avg     0.30     0.39     0.28     34364
=====================================================
```

Top MLP for sentiments classification with word embeddings (20 iters)
```
{'hidden_layer_sizes': (10, 10, 10), 'activation': 'relu', 'solver':
'adam'}
-----------------------------------------------------
              precision   recall  f1-score   support

    ambiguous     0.45     0.16     0.24      3857
     negative     0.55     0.38     0.45      7680
      neutral     0.47     0.52     0.49     10927
     positive     0.57     0.74     0.64     11900

     accuracy                       0.52     34364
    macro avg     0.51     0.45     0.46     34364
 weighted avg     0.52     0.52     0.51     34364
=====================================================
```

```
Base MNB, no params, Emotions Classification
                precision    recall   f1-score    support

    admiration      0.47      0.44       0.46        2111
     amusement      0.54      0.30       0.38        1215
         anger      0.39      0.14       0.21        1003
     annoyance      0.22      0.07       0.11        1704
      approval      0.23      0.09       0.12        2272
        caring      0.25      0.04       0.08         724
     confusion      0.32      0.06       0.10        1022
     curiosity      0.41      0.11       0.18        1200
        desire      0.59      0.05       0.09         433
disappointment      0.26      0.04       0.07         956
   disapproval      0.25      0.08       0.12        1505
       disgust      0.39      0.07       0.13         550
 embarrassment      0.62      0.02       0.03         288
    excitement      0.34      0.05       0.08         599
          fear      0.48      0.04       0.08         342
     gratitude      0.75      0.67       0.71        1430
         grief      0.00      0.00       0.00          76
           joy      0.37      0.13       0.19         910
          love      0.60      0.34       0.43         969
   nervousness      0.67      0.01       0.03         150
       neutral      0.37      0.85       0.51       11028
      optimism      0.50      0.14       0.22         899
         pride      0.00      0.00       0.00         161
   realization      0.27      0.04       0.07         926
        relief      0.00      0.00       0.00         153
       remorse      0.49      0.06       0.10         295
       sadness      0.38      0.09       0.14         751
      surprise      0.39      0.08       0.13         692

      accuracy                          0.39       34364
     macro avg      0.38      0.14       0.17       34364
  weighted avg      0.38      0.39       0.31       34364

Base MNB, no params, Sentiments Classification
                precision    recall   f1-score    support

     ambiguous      0.43      0.24       0.31        3871
      negative      0.53      0.51       0.52        7812
       neutral      0.48      0.50       0.49       11003
      positive      0.62      0.70       0.66       11678

      accuracy                          0.54       34364
     macro avg      0.51      0.49       0.49       34364
  weighted avg      0.53      0.54       0.53       34364
```

```
Top DT, {'criterion': 'gini', 'max_depth': 5, 'min_samples_split': 5},
Emotions Classification
                precision    recall  f1-score   support

     admiration     0.53      0.11      0.18      2053
      amusement     0.53      0.32      0.40      1183
          anger     0.00      0.00      0.00      1023
      annoyance     0.00      0.00      0.00      1691
       approval     0.00      0.00      0.00      2282
         caring     0.00      0.00      0.00       705
      confusion     0.00      0.00      0.00      1049
      curiosity     0.00      0.00      0.00      1199
         desire     0.00      0.00      0.00       423
 disappointment     0.00      0.00      0.00       942
    disapproval     0.00      0.00      0.00      1602
        disgust     0.00      0.00      0.00       564
  embarrassment     0.00      0.00      0.00       277
     excitement     0.00      0.00      0.00       586
           fear     0.00      0.00      0.00       345
      gratitude     0.86      0.74      0.79      1412
          grief     0.00      0.00      0.00        62
            joy     0.00      0.00      0.00       839
           love     0.56      0.61      0.59       939
     nervousness     0.00      0.00      0.00       137
        neutral     0.35      0.97      0.51     11064
       optimism     0.00      0.00      0.00       932
          pride     0.00      0.00      0.00       144
    realization     0.00      0.00      0.00      1000
         relief     0.20      0.01      0.02       158
        remorse     0.43      0.01      0.02       308
        sadness     0.00      0.00      0.00       745
       surprise     0.00      0.00      0.00       700

       accuracy                         0.38     34364
      macro avg     0.12      0.10      0.09     34364
   weighted avg     0.22      0.38      0.24     34364

Top DT, {'criterion': 'gini', 'max_depth': 5, 'min_samples_split': 4},
Sentiments Classification
                precision    recall  f1-score   support

      ambiguous     0.25      0.00      0.00      3948
       negative     0.00      0.00      0.00      7696
        neutral     0.35      0.95      0.51     11064
       positive     0.76      0.26      0.39     11656

       accuracy                         0.40     34364
      macro avg     0.34      0.30      0.23     34364
   weighted avg     0.40      0.40      0.30     34364
```

```
Base MNB without Stop Words, no params, Emotions Classification
               precision    recall  f1-score   support

    admiration       0.48      0.44      0.46      2129
     amusement       0.53      0.34      0.41      1222
         anger       0.31      0.12      0.18       999
     annoyance       0.20      0.07      0.11      1688
      approval       0.27      0.10      0.14      2204
        caring       0.24      0.04      0.07       727
     confusion       0.28      0.04      0.08      1000
     curiosity       0.39      0.10      0.16      1153
        desire       0.41      0.05      0.10       444
disappointment       0.28      0.05      0.08       927
   disapproval       0.23      0.06      0.10      1610
       disgust       0.38      0.11      0.17       562
 embarrassment       0.50      0.04      0.07       279
    excitement       0.32      0.05      0.09       590
          fear       0.44      0.07      0.12       351
     gratitude       0.78      0.69      0.73      1389
         grief       0.00      0.00      0.00        62
           joy       0.36      0.14      0.20       821
          love       0.58      0.37      0.45      1003
   nervousness       0.33      0.01      0.03       142
       neutral       0.37      0.84      0.52     11131
      optimism       0.44      0.14      0.22       929
         pride       0.00      0.00      0.00       138
   realization       0.24      0.05      0.08       949
        relief       0.00      0.00      0.00       154
       remorse       0.40      0.07      0.12       291
       sadness       0.34      0.09      0.14       772
      surprise       0.34      0.10      0.16       698

      accuracy                           0.39     34364
     macro avg       0.34      0.15      0.18     34364
  weighted avg       0.37      0.39      0.32     34364

Base MNB without Stop Words, no params, Sentiments Classification
               precision    recall  f1-score   support

     ambiguous       0.40      0.20      0.27      3800
      negative       0.54      0.52      0.53      7683
       neutral       0.48      0.48      0.48     11131
      positive       0.61      0.72      0.66     11750

      accuracy                           0.54     34364
     macro avg       0.51      0.48      0.48     34364
  weighted avg       0.53      0.54      0.53     34364
```

```
Top DT without Stop Words, {'criterion': 'gini', 'max_depth': 5,
'min_samples_split': 5}, Emotions Classification
      admiration        0.57       0.12       0.20       2129
       amusement        0.57       0.34       0.43       1222
           anger        0.00       0.00       0.00        999
       annoyance        1.00       0.00       0.00       1688
        approval        0.00       0.00       0.00       2204
          caring        0.00       0.00       0.00        727
       confusion        0.00       0.00       0.00       1000
       curiosity        0.00       0.00       0.00       1153
          desire        0.00       0.00       0.00        444
  disappointment        0.00       0.00       0.00        927
     disapproval        0.00       0.00       0.00       1610
         disgust        0.00       0.00       0.00        562
   embarrassment        0.00       0.00       0.00        279
      excitement        0.00       0.00       0.00        590
            fear        0.00       0.00       0.00        351
       gratitude        0.86       0.74       0.79       1389
           grief        0.00       0.00       0.00         62
             joy        0.00       0.00       0.00        821
            love        0.55       0.61       0.58       1003
     nervousness        0.00       0.00       0.00        142
         neutral        0.35       0.97       0.51      11131
        optimism        0.00       0.00       0.00        929
           pride        0.00       0.00       0.00        138
     realization        0.00       0.00       0.00        949
          relief        0.00       0.00       0.00        154
         remorse        0.50       0.01       0.02        291
         sadness        0.00       0.00       0.00        772
        surprise        0.00       0.00       0.00        698

        accuracy                              0.38      34364
       macro avg        0.16       0.10       0.09      34364
    weighted avg        0.27       0.38       0.24      34364

Top DT without Stop Words, {'criterion': 'entropy', 'max_depth': 5,
'min_samples_split': 4}, Sentiments Classification
                   precision     recall   f1-score     support

       ambiguous        0.33       0.00       0.00       3800
        negative        0.44       0.00       0.00       7683
         neutral        0.35       0.95       0.51      11131
        positive        0.77       0.27       0.40      11750

        accuracy                              0.40      34364
       macro avg        0.47       0.31       0.23      34364
    weighted avg        0.51       0.40       0.30      34364


===
```

Base MLP embedding on Twitter-25 model(100 iters) - Sentiments

	precision	recall	f1-score	support
ambiguous	0.41	0.13	0.20	3857
negative	0.41	0.40	0.40	7680
neutral	0.41	0.49	0.45	10927
positive	0.55	0.57	0.56	11900
accuracy			0.46	34364
macro avg	0.44	0.40	0.40	34364
weighted avg	0.46	0.46	0.45	34364

====
Base MLP embedding on Twitter-25 model (100 iters) - Emotions

	precision	recall	f1-score	support
admiration	0.35	0.31	0.33	2107
amusement	0.36	0.10	0.15	1229
anger	0.37	0.04	0.07	1046
annoyance	0.18	0.00	0.01	1575
approval	0.75	0.00	0.00	2209
caring	0.24	0.01	0.03	726
confusion	0.29	0.01	0.02	1012
curiosity	0.29	0.09	0.14	1151
desire	0.37	0.02	0.04	446
disappointment	0.40	0.00	0.00	938
disapproval	0.33	0.01	0.01	1547
disgust	0.51	0.04	0.07	564
embarrassment	1.00	0.00	0.01	332
excitement	0.27	0.02	0.04	606
fear	0.50	0.07	0.12	364
gratitude	0.46	0.33	0.39	1464
grief	0.00	0.00	0.00	67
joy	0.25	0.03	0.05	846
love	0.37	0.31	0.33	1021
nervousness	0.00	0.00	0.00	153
neutral	0.34	0.91	0.50	10927
optimism	0.26	0.03	0.06	946
pride	0.00	0.00	0.00	139
realization	0.00	0.00	0.00	949
relief	0.00	0.00	0.00	161
remorse	0.47	0.03	0.05	314
sadness	0.43	0.04	0.07	780
surprise	0.12	0.00	0.00	745
accuracy			0.35	34364
macro avg	0.32	0.09	0.09	34364
weighted avg	0.35	0.35	0.23	34364

```
===
Base MLP embedding on Wiki-300 model(100 iters) - Sentiments
           precision    recall  f1-score   support

   ambiguous       0.48      0.21      0.29      3857
    negative       0.48      0.49      0.49      7680
     neutral       0.45      0.45      0.45     10927
    positive       0.58      0.68      0.63     11900

    accuracy                           0.51     34364
   macro avg       0.50      0.46      0.46     34364
weighted avg       0.51      0.51      0.50     34364


===
Base MLP embedding on Wiki-300 model(100 iters) - Emotions
              precision    recall  f1-score   support

    admiration       0.41      0.44      0.43      2107
     amusement       0.43      0.40      0.41      1229
         anger       0.34      0.14      0.20      1046
     annoyance       0.23      0.03      0.06      1575
      approval       0.34      0.03      0.06      2209
        caring       0.35      0.06      0.10       726
     confusion       0.31      0.08      0.12      1012
     curiosity       0.38      0.23      0.29      1151
        desire       0.45      0.11      0.18       446
disappointment       0.16      0.01      0.02       938
   disapproval       0.25      0.07      0.11      1547
       disgust       0.28      0.12      0.17       564
 embarrassment       0.45      0.06      0.10       332
    excitement       0.38      0.07      0.11       606
          fear       0.42      0.22      0.29       364
     gratitude       0.61      0.52      0.57      1464
         grief       0.08      0.01      0.02        67
           joy       0.28      0.19      0.22       846
          love       0.48      0.59      0.53      1021
   nervousness       0.19      0.03      0.06       153
       neutral       0.38      0.83      0.52     10927
      optimism       0.46      0.11      0.18       946
         pride       0.24      0.04      0.06       139
   realization       0.00      0.00      0.00       949
        relief       0.00      0.00      0.00       161
       remorse       0.37      0.25      0.30       314
       sadness       0.42      0.17      0.24       780
      surprise       0.40      0.07      0.12       745

      accuracy                           0.39     34364
     macro avg       0.32      0.17      0.20     34364
  weighted avg       0.36      0.39      0.31     34364
```