```
1 from google.colab import drive
2 drive.mount('/content/drive')
    Drive already mounted at /content/drive; to attempt to forcibly remount, call drive.mour
```

Imports & Setting Configuration

```
1 import re
2 import numpy as np
3 import pandas as pd
4 from textblob import TextBlob
1 import nltk
2 from nltk.corpus import stopwords
3 from nltk.stem import WordNetLemmatizer
4 nltk.download('stopwords')
    [nltk data] Downloading package stopwords to /root/nltk data...
   [nltk data] Package stopwords is already up-to-date!
   True
1 from IPython.display import display, clear output
2 pd.set option('display.max columns', 10000)
3 pd.set_option('display.max_rows', 10000)
1 lemmatizer = WordNetLemmatizer()
2 stop words = set(stopwords.words('english'))
1 # found on stackoverflow @ https://stackoverflow.com/questions/33404752/removi
2 def deEmojify(text):
     regrex pattern = re.compile(pattern = "["
3
         u"\U0001F600-\U0001F64F" # emoticons
5
         u"\U0001F300-\U0001F5FF" # symbols & pictographs
6
         u"\U0001F680-\U0001F6FF" # transport & map symbols
         u"\U0001F1E0-\U0001F1FF" # flags (iOS)
7
                             "]+", flags = re.UNICODE)
8
     return regrex_pattern.sub(r'',text)
```

Import data & check it out

```
1 #importing our youtube comments
2 yt = pd.read_csv('/content/drive/MyDrive/data/3.26.youtube')
```

```
3 yt = yt.append(pd.read_csv('/content/drive/MyDrive/data/3.29.youtube'))
4 yt = yt.append(pd.read_csv('/content/drive/MyDrive/data/4.6.youtube'))
5 yt = yt.append(pd.read_csv('/content/drive/MyDrive/data/4.7.youtube'))
6 yt = yt.append(pd.read_csv('/content/drive/MyDrive/data/youtube_march20'))
7 yt = yt.append(pd.read_csv('/content/drive/MyDrive/data/youtube_march21'))
8 yt = yt.append(pd.read_csv('/content/drive/MyDrive/data/youtube_march28'))
```

1 yt.head()

	Unnamed:	Unnamed: 0.1	video_id	text	likes	date	channel_id
0	0	0.0	t59Ge4O70iM	Travel in 2020!!! (4)	0.0	2020- 09-13 16:52:14	UCqUn0dTF2TW80kVyPzsESxc
1	1	1.0	t59Ge4O70iM	If we really went to the moon. They would have	1.0	2019- 12-31 16:24:03	UCEhvCzLOt9oWeWq5xarhUtw
2	2	2.0	t59Ge4O70iM	So will this finally shut the flat earthers up	1.0	2019- 12-31 14:42:40	UCnLxgJ9qvXkbT1iqAhmMB0G
3	3	3.0	AhF44UT2Alk	My school sent me here	0.0	2021- 03-09 09:54:23	UC8rZCL_bU2lfjNL_XwdwkkA
4	4	4.0	AhF44UT2Alk	Whos here from mr bowles	0.0	2021- 01-05 14:28:02	UC_48oH2diTx602x5T_dLOaw

```
Unnamed: 0 Unnamed: 0.1
                                                  likes Unnamed: 0.1.1
      count 482594.000000 226925.000000 482594.000000
                                                           146312.00000
             75431.468481
                            52394.775860
                                               6.217614
                                                            73155.50000
      mean
       std
              59111.294792
                           44345.684815
                                             132.582104
                                                            42236.78063
      min
                  0.000000
                                0.000000
                                               0.000000
                                                                 0.00000
      25%
             20108.000000
                            14182.000000
                                               0.000000
                                                            36577.75000
 1 # getting rid of duplicate rows
 2 yt = yt.drop duplicates()
 3 yt.reset index(drop=True, inplace=True)
 4 # starting a column to assign reposts to, so we have an equivalent
 5 # to retweets
 6 yt['repost count'] = 0
 7 # checking how many times each comment occurs
 8 columns = {'index':'text', 'text':'count'}
 9 txt count = yt['text'].value counts()
10 txt_count = txt_count.to_frame().reset_index().rename(columns=columns)
11 # editing our dataframe to add our repost column
12 for i in yt.index:
13 text = yt.at[i, 'text']
14   cnt = txt_count.loc[txt_count['text'] == text]
    if len(cnt) > 0:
15
     cnt = cnt.reset index(drop=True)['count'][0]
16
17
      yt.at[i, 'repost_count'] = cnt - 1
 1 # importing our twitter data
 2 twt = pd.read_csv('/content/drive/MyDrive/data/3.26.twitter', low_memory=False
 3 twt = twt.append(pd.read csv('/content/drive/MyDrive/data/tweets matt.csv',low
 1 twt.head()
 1 twt.describe()
 1 # renaming our columns so we can add our dataframes together
 2 yt = yt.rename(columns={'comment_id':'post_id',
                           'likes': 'favorite count',
                           'channel_id':'user_id'})
 5 twt = twt.rename(columns={'retweet count':'repost count'})
 6 for i in [yt, twt]:
 7  i = i[['text', 'favorite_count', 'user_id',
            'mentions', 'repost count', 'post id']]
 1 # starting a count and an empty list for gathering new hashtags
 2 count = 0
```

3 empty list = []

```
1 # look at the hashtags, see if there are any outliers to get rid of
 2 for item in twt.hashtag.value counts().to frame().reset index()['index']:
      if count < 250:
 4
          hashtags = str(item).split()
 5
          for item in hashtags:
               empty_list.append(item)
 6
 7
               count = count + 1
9 # we don't want to count our original hashtags, so they're defined here
10 items = ['jaxa', 'esa', 'curiosityrover', 'areospace',
            'internationalspacestation', 'JAXA', 'astronomy',
11
12
            'oppertunityrover', 'virgingalactic', 'universe',
            'sls', 'Starship', 'climate', 'starship', 'virginorbit',
13
            'nasa', 'cosmos', 'mars', 'falconheavy', 'NASA',
14
            'futurism', 'starliner', 'iss', 'spacex', 'falcon9',
15
            'nasa_app', 'roscosmos', 'Roscosmos', 'blueorigin',
16
            'ESA', 'spacetravel', 'artemis', 'marswebcam', 'starlink']
17
18
19 fresh hashtags = []
20
21 for item in empty list:
      if item not in items:
22
23
          fresh hashtags.append(item)
24
25 print(set(fresh hashtags))
    {'Mars2020', 'JUNMYEON', 'Venera3', 'StanWorld', 'FalconHeavy', 'archaeology', 'persever
 1 # since we don't have the ends of some tweets due to the api cutoff
 2 # and hashtags usually fall1 at the end, to make sure we have them all
 3 # we're going to check if they're in our sentences and if not add them
 4 for i in range(len(twt)):
      if type(twt.at[i, 'hashtag']) == float:
 5
          continue
 6
 7
      else:
 8
        split_ = twt.at[i, 'hashtag']
 9
        for item in split :
           if type(twt.at[i, 'text']) == str:
10
11
              twt.at[i, 'text'] + ' ' + item
 1 # merging our dataframes
 2 df = twt.append(yt)
 3 df = df.drop duplicates(subset='post id')
 1 # unsure how a handlful of strings ended up in our favorites but dropping
 2 df.reset index(drop=True, inplace=True)
 3 for i in range(len(df)):
                                   . . . . .
```

```
it str(dt.at[1, 'tavorite_count']).isnumeric() != True:
 5
      df.drop(index=i, inplace=True)
 1 # get rid of duplicate comments & retweets
 2 df = df.sort_values(by='favorite_count', ascending=False)
 3 df = df.drop duplicates(subset='text', keep='first')
 1 # much better
 2 df.head(10)
 1 df.describe()
 1 # making a dictionary containing every contraction and acronym to replace
 2 replacements = {
 3
                   "ain't": "have not",
                   "aren't": "are not",
 4
 5
                   "can't": "cannot",
                   "can't've": "cannot have",
 6
 7
                   "'cause": "because",
 8
                   "could've": "could have",
                   "couldn't": "could not",
 9
10
                   "couldn't've": "could not have",
                   "didn't": "did not",
11
12
                   "doesn't": "does not",
13
                   "don't": "do not",
                   "hadn't": "had not",
14
15
                   "hadn't've": "had not have",
                   "hasn't": "has not",
16
                   "haven't": "have not",
17
18
                   "he'd": "he had",
19
                   "he'd've": "he would have",
                   "he'll": "he shall / he will",
20
21
                   "he'll've": "he shall have",
                   "he's": "he is",
22
23
                   "how'd": "how did",
                   "how'd'y": "how do you",
24
                   "how'll": "how will",
25
                   "how's": "how is",
26
                   "I'd": "I had",
27
28
                   "I'd've": "I would have",
                   "I'll": "I will",
29
30
                   "I'll've": "I will have",
                   "I'm": "I am",
31
                   "I've": "I have",
32
33
                   "isn't": "is not",
                   "it'd": "it had",
34
35
                   "it'd've": "it would have",
                   "it'll": "it will",
36
                   "it'll've": " it will have",
37
```

```
38
                   "it's": "it is",
                   "let's": "let us",
39
40
                   "ma'am": "madam",
                   "mayn't": "may not",
41
                   "might've": "might have",
42
43
                   "mightn't": "might not",
44
                   "mightn't've": "might not have",
45
                   "must've": "must have",
                   "mustn't": "must not",
46
                   "mustn't've": "must not have",
47
48
                   "needn't": "need not",
49
                   "needn't've": "need not have",
                   "o'clock": "of the clock",
50
51
                   "oughtn't": "ought not",
52
                   "oughtn't've": "ought not have",
                   "shan't": "shall not",
53
54
                   "sha'n't": "shall not",
55
                   "shan't've": "shall not have",
                   "she'd": "she had ",
56
                   "she'd've": "she would have",
57
                   "she'll": "she will",
58
59
                   "she'll've": "she will have",
                   "she's": "she has ",
60
61
                   "should've": "should have",
                   "shouldn't": "should not",
62
63
                   "shouldn't've": "should not have",
64
                   "so've": "so have",
                   "so's": "so as ",
65
                   "that'd": "that would",
66
                   "that'd've": "that would have",
67
68
                   "that's": "that is",
69
                   "there'd": "there had",
                   "there'd've": "there would have",
70
71
                   "there's": "there has",
                   "they'd": "they had ",
72
73
                   "they'd've": "they would have",
74
                   "they'll": "they shall",
75
                   "they'll've": "they shall have ",
76
                   "they're": "they are",
                   "they've": "they have",
77
                   "to've": "to have",
78
                   "wasn't": "was not",
79
                   "we'd": "we had",
80
                   "we'd've": "we would have",
81
                   "we'll": "we will",
82
83
                   "we'll've": "we will have",
84
                   "we're": "we are",
85
                   "we've": "we have",
                   "weren't": "were not",
86
                   "what'll": "what shall",
87
                   "what'll've": "what shall have",
88
                   "what're": "what are".
89
```

```
"what's": "what has",
90
91
                    "what've": "what have",
                    "when's": "when has",
92
93
                    "when've": "when have",
94
                    "where'd": "where did",
95
                    "where's": "where has",
96
                    "where've": "where have",
                    "who'll": "who shall",
97
98
                    "who'll've": "who shall have",
                    "who's": "who has",
99
100
                    "who've": "who have",
                    "why's": "why has",
101
                    "why've": "why have",
102
103
                    "will've": "will have",
                    "won't": "will not",
104
                    "won't've": "will not have",
105
                    "would've": "would have",
106
                    "wouldn't": "would not",
107
108
                    "wouldn't've": "would not have",
                    "y'all": "you all",
109
                    "y'all'd": "you all would",
110
                    "y'all'd've": "you all would have",
111
                    "y'all're": "you all are",
112
113
                    "y'all've": "you all have",
                    "you'd": "you had",
114
                    "you'd've": "you would have",
115
116
                    "you'll": "you shall",
                    "you'll've": "you shall have",
117
118
                    "you're": "you are",
                    "you've": "you have",
119
                    " u " : " you ",
120
                    " w " : " with ",
121
                    " poc ": " person of color ",
122
123
                    " bpoc " : " black person of color ",
                    " bipoc ": " black indigenous people of color ",
124
                    " lgbt " : " lesbian gay bisexual transgender ",
125
                    " lgbtq ": " lesbian gay bisexual transgender queer ",
126
127
                    " lgbtqi ": " lesbian gay bisexual" +
128
                    " transgender queer intersex",
                    " lgbtqia ": " lesbian gay bisexual" +
129
130
                    " transgender queer intersex asexual ",
131
                    " omg": " oh my god ",
                    " lol ": " laughing out loud ",
132
                    " lmao ": " laughing my ass off ",
133
                    " lmk ":" let me know ",
134
135
                    " icymi ": " in case you missed it ",
                    " til ": " today i learned ",
136
                    " omfg ": " oh my fucking god ",
137
                    " iirc ": " if i remember correctly ",
138
                    " ppl ": " people ",
139
140
                    " ppls ": " peoples "
```

```
141
                    " yts ": " white people "
                    " yt ppl": " white people"
142
                    " yt people": " white people"
143
                    " yt girl": " white girl"
144
                    " yt boy": " white boy"
145
                    " yt men": " white men"
146
                    " yt fragility ": " white fragility "
147
148
                    " yt mf": " white motherfucker"
                    " please ": " please "
149
                    " rn ": " right now "
150
                    " twt ": " tweet "
151
                    " pov ": " point of view "
152
153
                    " btw ": " by the way "
                    " srsly ": " seriously "
154
                    " fr ": " for real "
155
                    " tho ": " though "
156
                    " rlly ": " really "
157
158
                    " rly ": " really "
                    " ur ": " your "
159
                    " ai ": " artificial intelligence "
160
                    " ure ": " youre "
161
                    " jfc ": " jesus fucking christ "
162
163
                    " smh ": " shaking my head "
                    " smfh ": " shaking my fucking head "
164
                    " idiic ": " infinite diversity in infinite combinations "
165
                    " llap ": " live long and propser "
166
                    " idk ": " i dont know "
167
                    " idc ": " I dont care "
168
                    " ftw ": " for the win "
169
170
                    " tbt ": " throw back tuesday "
                    " n ": " and "
171
                    " em ": " them "
172
                    " oh em gee ": " oh my god "
173
                    " ngl ": " not gonna lie "
174
                    " b ": " be "
175
                    " hmu ": " hit me up "
176
                    " yt millennials ": " white millennials "
177
178
                    " yt character ": " white character "
                    " yt ": " youtube "
179
                    " tf ": " the fuck "
180
                    " af ": " as fuck "
181
                    " asf ": " as fuck "
182
                    " sm ": " so much "
183
                    " irl ": " in real life "
184
                    " aka ": " also known as "
185
                    " jsyk ": " just so you know "
186
187
                    " doe ": " though "
188
                    " dey ": " they "
                    " iwd": " international womens day "
189
                    " pos ": " piece of shit "
190
                    " mf ": " mother fucker "
191
192
                    " boi": " boy "
```

```
" andamp " : " and "
195
                    " tfw ": " that feeling when "
196
                    " tl ": " timeline "
197
198
                    " 18r ": " later "
                    " im ": " i am "
199
                    " id ": " i had "
200
                    " youre ": " you are "
201
                    " theyre ": " they are "
202
203
                    " weve ": " we have "
                    " ikr ": " i know right "
204
                    " yall ": " you all "
205
                    " isnt ": " is not "
206
                    " dont ": " do not "
207
                    " fyi ": " for your information "
208
                    " cant ": " can not "
209
                    " wasnt ": " was not "
210
                    " tbh ": " to be honest "
211
                    " andamp ": " and "
212
                    " & " : " and "
213
                    " yt " : "youtube"
214
215
                    }
 1 # after thouroughly examining the data, we found a number of oddities that
 2 # certainly dont belong, like slurs, pornographic content, dog photos
 3 # we have them all defined so we can get rid of them here
 4 list_to_drop = [' supaspicyy ', ' snyder', ' avenger ', 'persona',
 5
             ' ghosting ', ' incel ', ' internetofblockchains ',
             ' ot8 ', 'jar jar', ' pineapple on pizza ', 'side chick',
 6
 7
             'democrat', 'prem', 'remix', 'fkn', 'suppoawards',
             ' livestream ', 'hanamiiart', 'isolatiempo',
 8
             ' my coffee this morning ', ' exo kai ', 'demoncrats',
 9
 10
             ' coivd 19 pandemic', 'spotify', 'sailormoon', 'chyna',
 11
             'check it out later dylan ', 'stonkmarket', 'oprah',
             ' c 19', ' love your video', ' domestic au', ' sfw ',
 12
             'shinee', 'reggae', 'undertale', 'transmental',
13
             'hogwarts', 'kakoadrawsstuff', 'ghhiphophubjoost',
 14
15
             'english only ', 'streamtwice', 'avengers ', 'miningbc',
16
             'lady gaga ', 'dnda ', 'dodgecoin', 'hello please ',
             'freestyle ', 'bollywood ', 'destiny tl ', 'earth sign',
 17
18
             'auschwitz', 'an aries', 'floof', 'byunbaekyoong',
             'getbtc', ' gif ', ' pythonbot ', 'star wars',
19
             'downloaderbot', 'astrology', ' 1d ', 'bigdaddyxxi',
 20
 21
             'st patricks day ', 'nipple ', 'dadbod ', 'junichiixo ',
             'dallasparkrec', 'minsung', ' jefferson starship ',
 22
             ' counterculture ', 'superjunior', 'page529',
 23
             'guardiansofthegala', 'acnh', 'my gf', 'learn code',
 24
 25
             'realtorlife', ' mnet ', 'justice league', ' caucasian',
             'donsbot', ' prince charles ', 'fakeyogurtfacts',
 26
```

'medicalcannabis', ' djs ', 'slytherin', ' brexit ',

" w e ": " whatever "

" wtf" : " what the fuck "

193

194

27

```
' buy 1 get 1 free', 'miteyuk', 'meekonmingmong',
28
            'pogg', 'tpc', 'amc', 'chu', 'the8films',
29
            ' retard ', ' my cat ', ' ford motor company', ' au update',
30
            ' i just remembered ', ' icc ', 'tenfictions',
31
            'idrawcharts', ' snyd ', 'space tv', 'kaliuchis',
32
            ' choco pie ', 'australianart', 'bytesofbooks', ' yeaji ',
33
            ^{\prime} hot wife ^{\prime}, ^{\prime} cancel culture ^{\prime}, ^{\prime} youtube show ^{\prime},
34
            ' cbdhage ', 'paragliding', ' i love you', ' funsized ',
35
            'ladyboy', ' game', ' st patrick ', 'kirk', 'my mom',
36
            ' doctorwho ', ' good friday ', 'got7', 'challengertask ',
37
            ' shared on twitter ', ' out of character ',
38
            ' fucked me up yo ', ' gaga ', 'artrabbit', ' norse ',
39
40
            'definitelyfollow', ' the pandemic ', 'potterheadposts',
41
            'ellle em ', 'anarcho ', 'mcu ', 'universe is with me ',
            'shouldhaveknownitwasascam', '8d', 'basketball',
42
            ' on zoom ', 'illegal alien', ' top 10', ' piday ',
43
            'ffvlyricsbot', 'serena williams', 'chauvin ', 'sk8',
44
45
            'leovil', 'canon', 'lizard people', 'blender3d', 'selfie',
            'twink', 'prank', 'gundamartemis', 'get popcorn',
46
            ' cassie and artemis ', ' net developer ', ' eddieizzard ',
47
            'southern border', 'babyboy', 'canadanewswire', 'alchemy',
48
            ' offseason ', ' au sommet ', ' game of thrones ', ' 9 11 ',
49
50
            'lavigne', 'forsale', 'vanlife', ' blm ', ' webtoon ',
            'hey fellas', ' good morning ', ' mac app ', 'tusculumsports',
51
52
            'streetartsheff', 'italianostyle', 'suppoarea',
            'dogagency', 'crazyforjoonie', 'handsome ', 'jaemjen',
53
            ' new challenger appro', ' pound dumbbell ', ' ps4 ',
54
55
            'crossover', 'hobbyconnector', 'klingon',
56
            ' you dont know me ','africafactdaily',
57
            'international womens day ', 'euchre', ' au where ',
58
            'we kissed', 'geminis ',
            'sk', '911', 'discord servers', 'brb', 'minimalisthyuk',
59
            ' starship au ', ' ftp ', 'cravitystarship', 'wheephoric',
60
            ' new virtual fieldtrip ', ' antarctic survey ',
61
            'st first contact', 'plandemic', 'horse teams',
62
            'seminar', 'doggg', 'tony hawk', 'follows today',
63
            ' como ', ' tag 10 ', ' leo sun ', 'nintendoswitch',
64
65
            'spacecoin', 'lawlietslolita', 'onlinecasino', ' patreon ',
            ' senator ', ' baby momma ', 'bangtwicedaddyyungjoc',
66
67
            'ariana grande', 'actualidadspacex', 'fandom', 'artpal',
            'notamoviebuff', 'tony the tiger', ' pokemon', ' movie ',
68
69
            'sblv', 'elysium', 'monchpublishing', 'witchinnreadin',
70
            'trigger warning', ' otp ', 'happybirthday', 'hyeown',
            'domainnameforsale', 'podcast', '$btc', 'concert',
71
            ' moonbin ', 'no other grape', ' drink and a snack ',
72
            ' meghan markle ', 'north korea', ' albums ', 'sailorfemme',
73
74
            ' boba ', ' followed me ', ' toe suck', 'izone',
75
            'planetfitness', 'sailor saturn', 'waluigi', 'vlogger',
            'shaun vid', 'batman', '99memes', 'walmartemployees',
76
77
            'drag race', 'codenewbies', 'ps5s', 'kike', 'sex appeal',
78
            ' amazons bestselling ', 'ontariohealthc', 'yujin',
70
```

```
'tunnyanımaıpooκ', 'tsıa', ' pıot noie', ' pittorrent ',
 /9
            ' giveway ', 'giveways', ' bucs ', ' stock ', 'gamingwithlance',
 80
            'skywalker', 'jedi', 'endgame', 'wandavision',
 81
            'girlgamer', 'celeste', 'philzabot', 'includesartemismiss',
 82
            'taylor swift', ' my girlfriend ', ' gogh ', 'lyricbot',
83
            'stfu', 'coinswitchkuber', 'nfts', 'orbitalpodcast',
 84
85
            'gypsy', 'sherlock', 'linkedin', 'mythandfact',
            'love the video', ' time travel au ', 'xiumin', ' boob ',
86
            'suppostreamers', ' kid cudi ', 'mrbeast', 'yourdailytds',
 87
            ' papa ', 'realtorneworkng', ' pinche ', 'newsparodypk',
88
            'mafia4rtemis', 'i have a crush', ' a taurus ', ' king kong ',
89
90
            'submissivetraining', ' suga ', ' greek ', 'thelegendof',
91
            'yosemite', 'new song', 'paddy', 'bestie', 'vibe co',
            'mutualaidrequest', 'haikyuusalbot', 'grumpyexpolice',
92
93
            ' the winner of the competition ', ' bien ', 'join us tonight',
            'moonchild', 'ogleyuk', 'starship ent', 'busty', ' k pop ',
94
            ' 40k ', 'pockyoong', ' heckin ', 'nicki minaj',
95
            ' chat tomorrow ', ' junhui ', ' danc', ' got me fucked up ',
96
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             'degree 2017', 'new blog', ' kid suspended ', 'marco rubio'
420
421
             'elmer', 'fudd', 'impediment', 'mawrs', 'retard',
             ' voiceover ', ' lisp ', ' studder ', ' accent ',
422
             'antichrist ', 'sjw ', 'dwopping ', 'arthursday ',
423
             ' junior high ', ' shout out', 'shoutout', 'acadamy',
424
425
             ' middle school ', ' high school ', ' secondary school ',
             'academy', 'ibc', 'esport', 'examcancelhoga',
426
             ' dcpublicschool', ' brewsters ', ' head coach ',
427
             'findyourthing', 'gangsters', 'rbandme', 'music',
428
429
             'homework',' ovni ','wandavision','dogecoin','bcu_ry',
430
             'termpaper', 'newmusic', 'nowplaying', 'fridaylivestream',
431
             'btspace', 'cravity', 'bitcoin', 'stanworld', 'izone',
             'colchester', 'nowplaying', 'onlineclass', 'worldbookday',
432
             'satyamevajayate', 'snydercut', 'mamamoo', 'eva71',
433
434
             'paralleluniversecontinues', 'dogecoin', 'showtimebet',
435
             'didyouknow', 'harrystyles', 'grammy', 'etsy',
             'myanmarmilitaryterrorists', 'poshmark', 'stpatricksday',
436
             'mindbreeze', ' ad ', 'artoftheblue', 'essaydue', 'bigdata',
437
             'aylesbury', 'piday', 'harpenden', 'soundcloud',
438
                                               'ifttt', 'shopee',
439
                      'zacksnyders', ' nft ',
```

```
ojpmoder, chanyeor, baeknyun, xiuweet, xiumin,
440
             'oprahmeghanharry', 'auspixius', 'suho', 'dollwith',
441
             'icanimagine', 'thewildsspace',' dyk ', 'artemis_twt',
442
             'esa_celebnews', 'superstraight', 'seekthetruth', 'izone',
443
             'tarotbybronx', 'cryptoart', 'meme king', 'minecraft',
444
445
             'artemis and luna', 'brasileiro', 'myanmar coup', 'baekhyun',
             'doyoung', 'kpop', 'cuddles', 'bruno mars',
446
447
             'space jam', 'bible says', 'templetonrel']
  1 regex = r"\*s(http[s]?:\S)|(\S.((com)|(org)|(gov)|(co)|(uk))\S*)\*s"
  2 # to update our display to see how long it's taking
  3 \text{ end point} = \text{len(df)}
  4 reset(df)
  5 # go through the dataframe and really clean up the text
  6 for i in range(len(df)):
  7
       num = len(df)
       to_lem = df.at[i, 'text']
  8
  9
       # first we remove emojis
 10
       to_lem = deEmojify(to_lem)
11
       # then urls
       to_lem = re.sub(regex, "", to_lem, flags=re.I)
12
13
       # then non-ascii characters
       to_lem = to_lem.encode("ascii", "ignore").decode()
14
15
       # turn into a list to replace contractions
16
       to lem = to lem.split()
17
       for j in range(len(to_lem)):
         if to_lem[j] in replacements:
18
19
           to lem[j] = replacements[to lem[j]]
 20
       lemmed = []
21
       for item in to lem:
22
            # remove punctuation
            item = re.sub(r'[^\w\s]', '', item)
23
 24
            # split it up again, since the contractions would be one item,
25
            # regardless of length
           item = item.strip()
26
           if item != ' ':
 27
28
              lemmed.append(lemmatizer.lemmatize(item))
 29
       # remove stop words
       filt_sen = [w for w in lemmed if not w in stop_words and len(w) >=2]
 30
       # addition I'd like to make for the future
31
       # filt_sen = [w for w in filt_sen if w.startswith('@') == False]
 32
 33
       # see if there is any innapropriate content
       check = any(item in filt_sen for item in list_to_drop)
 34
       # filter to minimum sentence length
35
36
       if len(filt sen) >= 6 and check == False:
         lemstr = ' '.join(filt_sen)
 37
38
         # check and correct spelling to the best we can
 39
         textBlb = TextBlob(lemstr)
40
         df.at[i, 'text'] = textBlb.correct()
41
       # if it isn't long enough, we can't draw meaningful conclusions
42
```

```
dt.drop(index=1, inplace=True)
43
44
      # this takes hours so good to print it so you know it's really
45
      # working and not stuck
      display(f"Checking text { i + 1 } of {end_point}: ",
46
              f"{(i + 1) * 10000 // (len(df)) / 100}% Processed",
47
              f"{num)} Remaining ")
48
 1 # check that it worked
 2 df.head(10)
 1 df.describe()
 1 # export the data
 2 df = df.to_csv('cleaned.csv')
```

• ×