```
In [1]:  1  import pandas as pd
```

Import NLTK-VADER to create training sets of tweets labeled with sentiment (-1 to 1)

```
In [2]:  1  from nltk.sentiment.vader import SentimentIntensityAnalyzer
```

Impossible Burger

Read in tweets, excluding 1/4 of them to save for test set

```
In [3]:  1  df = pd.read_csv('impossible_text_training_tweets.csv', nrows=30000)
```

```
In [4]:  1  df
```

Out[4]:

	url	date_and_time	tweet	tweet_id	reply_count	retweet_count	like_count	lang
0	https://twitter.com/Kkh291/status/140275690219...	2021-06-09 22:38:02	@me1stVegan2nd They have 2 make a smaller vers...	1402756902191210497	0	0	0	en
1	https://twitter.com/VictoriaH1962/status/14027...	2021-06-09 22:37:37	@brooklin0000 @DavidMazzieAE @catfishyak Impos...	14027567979582465	2	0	2	en
2	https://twitter.com/NliteNinc2/status/14027525...	2021-06-09 22:20:39	@aminorjourney 😊 \n\nMake a fake hen out of Imp...	14027552527892766724	1	0	0	en
3	https://twitter.com/SonidoMatinal/status/14027...	2021-06-09 22:19:59	🔔 Impossible Burger, la hamburguesa sin carne ...	14027552359986499584	0	0	0	ca
4	https://twitter.com/PanXchange/status/14027504...	2021-06-09 22:12:31	In case you missed our recent #blog post, chec...	1402750481257033731	0	1	0	en
...	...	...	...	...	...	...	...	...
29995	https://twitter.com/e4rthmover/status/13057646...	2020-09-15 07:05:27	Loml is officially the impossible burger https...	1305764650080968704	0	0	0	en
29996	https://twitter.com/edgesportnfit/status/13057...	2020-09-15 06:36:45	@michaelharriot Biggie Smalls doing remix vers...	1305757428101730304	0	0	0	en
29997	https://twitter.com/cennsith/status/1305736363...	2020-09-15 05:13:03	@t_white_no12 You're a good dude tom, I promis...	13057363633886604417	1	0	0	en
29998	https://twitter.com/fathueyfreeman/status/1305...	2020-09-15 05:12:02	i can get a impossible/turkey/chicken burger a...	13057361073473778176	0	0	0	en
29999	https://twitter.com/Oinkpoolooenga/status/1305...	2020-09-15 05:05:34	@saqib_z @nsfwlilpisces @cryst6l I never said ...	1305734480225730561	1	0	0	en

30000 rows × 8 columns

```
In [5]:  1  negative = []
         2  neutral = []
         3  positive = []
         4  compound = []
         5
         6  sid = SentimentIntensityAnalyzer()
```

```
In [6]:  1  for i in df.index:
         2      scores = sid.polarity_scores(df['tweet'].iloc[i])
         3      negative.append(scores['neg'])
         4      neutral.append(scores['neu'])
         5      positive.append(scores['pos'])
         6      compound.append(scores['compound'])
```

```
In [7]:  1  df['negative'] = negative
         2  df['neutral'] = neutral
         3  df['positive'] = positive
         4  df['compound'] = compound
```

```
In [8]:  1  df.index
```

Out[8]: RangeIndex(start=0, stop=30000, step=1)

Training set of tweets labeled with sentiment (-1 to 1)

```
In [9]:  1  df
```

Out[9]:

	url	date_and_time	tweet	tweet_id	reply_count	retweet_count	like_count	lang	negative	neutral	positive	compound
0	https://twitter.com/Kkh291/status/140275690219...	2021-06-09 22:38:02	@me1stVegan2nd They have 2 make a smaller vers...	1402756902191210497	0	0	0	en	0.079	0.726	0.195	0.6249
1	https://twitter.com/VictoriaH1962/status/14027...	2021-06-09 22:37:37	@brooklin0000 @DavidMazzieAE @catfishyak Impos...	1402756797979582465	2	0	2	en	0.000	1.000	0.000	0.0000
2	https://twitter.com/NliteNinc2/status/14027525...	2021-06-09 22:20:39	@aminorjourney 😊\n\nMake a fake hen out of Imp...	1402752527892766724	1	0	0	en	0.100	0.769	0.131	0.3612
3	https://twitter.com/SonidoMatinal/status/14027...	2021-06-09 22:19:59	🔔 Impossible Burger, la hamburguesa sin carne ...	1402752359986499584	0	0	0	ca	0.231	0.769	0.000	-0.5574
4	https://twitter.com/PanXchange/status/14027504...	2021-06-09 22:12:31	In case you missed our recent #blog post, chec...	1402750481257033731	0	1	0	en	0.099	0.901	0.000	-0.2960
...	...	...	...	...	...	...	...	...	...	...	...	...
29995	https://twitter.com/e4rthmover/status/13057646...	2020-09-15 07:05:27	Loml is officially the impossible burger https...	1305764650080968704	0	0	0	en	0.000	1.000	0.000	0.0000
29996	https://twitter.com/edgesportnfit/status/13057...	2020-09-15 06:36:45	@michaelharriot Biggie Smalls doing remix vers...	1305757428101730304	0	0	0	en	0.000	1.000	0.000	0.0000
29997	https://twitter.com/cennsith/status/1305736363...	2020-09-15 05:13:03	@t_white_no12 You're a good dude tom, I promis...	1305736363388604417	1	0	0	en	0.000	0.794	0.206	0.8100
29998	https://twitter.com/fathueyfreeman/status/1305...	2020-09-15 05:12:02	i can get a impossible/turkey/chicken burger a...	1305736107347378176	0	0	0	en	0.000	0.841	0.159	0.2235
29999	https://twitter.com/Oinkpoolooenga/status/1305...	2020-09-15 05:05:34	@saqib_z @nsfwlilpisces @cryst6l I never said ...	1305734480225730561	1	0	0	en	0.038	0.908	0.054	-0.0387

30000 rows × 12 columns

```
In [10]:  1  df.to_csv('final_impossible_text_training_tweets.csv', index=False)
```

Beyond Burger

```
In [11]:  1  df = pd.read_csv('beyond_text_training_tweets.csv', nrows=30000)
```

```
In [12]:  1  df
```

Out[12]:

	url	date_and_time	tweet	tweet_id	reply_count	retweet_count	like_count	lang
0	https://twitter.com/libraryjogirl/status/14357...	2021-09-08 23:57:23	@AWCanada Hi A&W! I'm seeing commercials f...	1435754169965613057	1	0	0	en
1	https://twitter.com/eliseelara/status/14357513...	2021-09-08 23:46:04	their supreme sauce?!? THEIR SEASONED FRIES?!?...	1435751320439361543	0	0	0	en
2	https://twitter.com/t_kelly15/status/143574800...	2021-09-08 23:32:53	Someone accidentally sent their A&W dinner...	1435748002925326336	1	0	5	en
3	https://twitter.com/marlenemdiaz08/status/1435...	2021-09-08 23:24:47	Like beyond nasty for a fast food joint. No ke...	1435745963189014532	0	0	0	en
4	https://twitter.com/divinaxo/status/1425869375...	2021-08-12 17:18:45	Beyond burger 😳 😳 😳 https://t.co/eiqlclnsnQ	1425869375941267463	0	1	1	en
...	...	...	...	...	...	...	...	...
29995	https://twitter.com/_HiZel_/status/13277190531...	2020-11-14 21:04:24	Tell me why I called a Beyond burger an Infini...	1327719053171933184	0	0	7	en
29996	https://twitter.com/400lez/status/132771789520...	2020-11-14 20:59:48	feel like absolute garbage. just want a beyond...	1327717895208460288	0	0	5	en
29997	https://twitter.com/njroute22/status/132771443...	2020-11-14 20:46:03	More Reasons to Avoid Beyond Meat Fake Food ht...	1327714432378695683	0	0	0	en
29998	https://twitter.com/aviosAdventurer/status/132...	2020-11-14 20:40:46	@GazRich88 I'm trying to get my hands on some ...	1327713105720336385	1	0	1	en
29999	https://twitter.com/ReginaBanali/status/132771...	2020-11-14 20:30:14	Beyond Meat Reveals It Is Behind the McDonald'...	1327710455666790401	0	0	0	en

30000 rows × 8 columns

```
In [13]:  1  negative = []
          2  neutral = []
          3  positive = []
          4  compound = []
          5
          6  sid = SentimentIntensityAnalyzer()
```

```
In [14]:  1  for i in df.index:
          2      scores = sid.polarity_scores(df['tweet'].iloc[i])
          3      negative.append(scores['neg'])
          4      neutral.append(scores['neu'])
          5      positive.append(scores['pos'])
          6      compound.append(scores['compound'])
```

```
In [15]:    1  df['negative'] = negative
            2  df['neutral'] = neutral
            3  df['positive'] = positive
            4  df['compound'] = compound
```

```
In [16]:    1  df.index
```

Out[16]: RangeIndex(start=0, stop=30000, step=1)

```
In [17]:    1  df
```

Out[17]:

	url	date_and_time	tweet	tweet_id	reply_count	retweet_count	like_count	lang	negative	neutral	positive	compound
0	https://twitter.com/libraryjogirl/status/14357...	2021-09-08 23:57:23	@AWCanada Hi A&W! I'm seeing commercials f...	1435754169965613057	1	0	0	en	0.000	0.912	0.088	0.4738
1	https://twitter.com/eliseelara/status/14357513...	2021-09-08 23:46:04	their supreme sauce?!? THEIR SEASONED FRIES?!?...	1435751320439361543	0	0	0	en	0.097	0.723	0.180	0.5615
2	https://twitter.com/t_kelly15/status/143574800...	2021-09-08 23:32:53	Someone accidentally sent their A&W dinner...	1435748002925326336	1	0	5	en	0.130	0.870	0.000	-0.5859
3	https://twitter.com/marlenemdiaz08/status/1435...	2021-09-08 23:24:47	Like beyond nasty for a fast food joint. No ke...	1435745963189014532	0	0	0	en	0.242	0.690	0.067	-0.9083
4	https://twitter.com/divinaxo/status/1425869375...	2021-08-12 17:18:45	Beyond burger 😊 😊 😊 https://t.co/eiqlclnsnQ	1425869375941267463	0	1	1	en	0.000	1.000	0.000	0.0000
...	...	...	...	...	...	...	...	...	...	...	...	...
29995	https://twitter.com/_HiZel_/status/13277190531...	2020-11-14 21:04:24	Tell me why I called a Beyond burger an Infini...	1327719053171933184	0	0	7	en	0.000	1.000	0.000	0.0000
29996	https://twitter.com/400lez/status/132771789520...	2020-11-14 20:59:48	feel like absolute garbage. just want a beyond...	1327717895208460288	0	0	5	en	0.000	0.648	0.352	0.4215
29997	https://twitter.com/njroute22/status/132771443...	2020-11-14 20:46:03	More Reasons to Avoid Beyond Meat Fake Food ht...	1327714432378695683	0	0	0	en	0.218	0.782	0.000	-0.8865
29998	https://twitter.com/aviosAdventurer/status/132...	2020-11-14 20:40:46	@GazRich88 I'm trying to get my hands on some ...	1327713105720336385	1	0	1	en	0.000	0.870	0.130	0.6369
29999	https://twitter.com/ReginaBanali/status/132771...	2020-11-14 20:30:14	Beyond Meat Reveals It Is Behind the McDonald'...	1327710455666790401	0	0	0	en	0.000	1.000	0.000	0.0000

30000 rows × 12 columns

```
In [18]:    1  df.to_csv('final_beyond_text_training_tweets.csv', index=False)
```