## Sentiment Analysis\_WordCloud

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### Import Relevant Libraries
In [1]:
        import os
        import pandas as pd
        import numpy as np
        import collections
        import datetime as dt
        import requests
        import json
        import re
        import time
        import matplotlib.pyplot as plt
        import matplotlib.cm as cm
        import seaborn as sns
        from scipy.stats import norm
        import string
        import re
        import nltk
        from nltk.util import ngrams
        from nltk import pos_tag,word_tokenize
        from nltk.corpus import stopwords
        from nltk.tokenize import WhitespaceTokenizer
        from nltk.stem import WordNetLemmatizer,PorterStemmer
        from wordcloud import WordCloud, STOPWORDS, ImageColorGenerator
        from sklearn.ensemble import RandomForestClassifier
        from sklearn.preprocessing import StandardScaler
        from sklearn import metrics
        from sklearn.metrics import accuracy score
        from sklearn.metrics import classification_report, confusion_matrix
        from sklearn.feature extraction.text import TfidfVectorizer, CountVectorizer
```

```
In [2]: ### Build a get_date function to convert date format
#### Build a data_creation function to read json data into pandas dataframe

def get_date(created):
    return dt.datetime.fromtimestamp(created)
```