

```
In [0]: import warnings
warnings.filterwarnings("ignore")

import sqlite3
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import nltk
import string
import seaborn as sns
from sklearn.feature_extraction.text import TfidfTransformer
from sklearn.feature_extraction.text import TfidfVectorizer

from sklearn.feature_extraction.text import CountVectorizer
from sklearn.metrics import confusion_matrix
from sklearn import metrics
from sklearn.metrics import roc_curve, auc
from nltk.stem.porter import PorterStemmer
from sklearn.decomposition import TruncatedSVD

import re
from nltk.corpus import stopwords
from nltk.stem import PorterStemmer
from nltk.stem.wordnet import WordNetLemmatizer

from gensim.models import Word2Vec
from gensim.models import KeyedVectors
import pickle

from pandas_ml import ConfusionMatrix
from sklearn.preprocessing import StandardScaler
from sklearn.metrics import accuracy_score, precision_score, recall_score, make_scorer, f1_score, classification_report

from sklearn.model_selection import train_test_split
from sklearn.cross_validation import cross_val_score
from collections import Counter
from sklearn import cross_validation
from prettytable import PrettyTable
from sklearn.model_selection import GridSearchCV, TimeSeriesSplit
from sklearn.model_selection import RandomizedSearchCV
from sklearn.utils import resample
from sklearn.datasets import *
from sklearn.cluster import KMeans
from sklearn.cluster import AgglomerativeClustering
from sklearn.cluster import DBSCAN
from sklearn.metrics import silhouette_score
from wordcloud import WordCloud
from sklearn.neighbors import NearestNeighbors
```

## Utility Functions

In [0]: #We create a few utility functions whose use is described below

```
def plot_df_wordcloud(data,labels_list):
    #This function plots the wordcloud for Agglomerative Clustering. These will be called in the following functions.
    print('\n')
    print("Creating a dataframe with Reviews, Cleaned text and Clusters...")
    lst_reviews = list(data['Text'].values) #Saving all reviews into a list
    lst_cleanedtext = list(data['CleanedText'].values) #Saving all Cleaned text into a list
    amz = {'Reviews': lst_reviews, 'CleanedText':lst_cleanedtext , 'Clusters': labels_list} #Creating a dictionary with Reviews, Cleaned text and clusters
    df = pd.DataFrame(amz, index=labels_list, columns=['Reviews', 'CleanedText', 'Clusters']) #Creating a dataframe of the above dictionary
    print("Dataframe is created!")
    print('\n')

    print("The number of reviews in each cluster is:")
    print(df['Clusters'].value_counts()) #Outputs the number of reviews in each cluster
    print('\n')
    print('*'*70)

    for i in range(min(labels_list),max(labels_list)+1): #Iterates through K and prints wordcloud and reviews for all the clusters
        print('\n')
        print('\n')
        print("*"*40,'Cluster ',i,"*"*40)
        words=[] #Create an empty List to store words
        for sent in df['CleanedText'][df['Clusters']==i].values: #Splits sentences into words and stores it in a list
            words.append([a for a in sent.split()]) #Appends the split words to above created list

        word_list = [item for sublist in words for item in sublist] #Creates a new list of words by flattening the above list since it is a nested list
        print('\n')
        print('Plot of Word Cloud')
        wordcloud1 = WordCloud().generate(" ".join(word_list)) #Initiate wordcloud for the list of words
        plt.figure() #Plots the wordCloud
        plt.imshow(wordcloud1)
        plt.axis("off")
        plt.show()

        count = df['Reviews'][df['Clusters']==i].count()
        if count//2>=9:#Prints random 5 reviews if the number of reviews in that cluster is more than 100
            print('\n')
            print('\n')
            print('Printing 4 random reviews from cluster',i)
            pd.set_option('display.max_colwidth', -1) #Displays full reviews
            print(df['Reviews'][df['Clusters']==i][count//2:count//2+5])
            print('\n')
            print('\n')
        else: #Prints random reviews if the number of reviews in that cluster is between 10 and 100
            print('\n')
            print('\n')
            print('Printing random reviews from cluster',i)
            pd.set_option('display.max_colwidth', -1) #Displays reviews in full length
            print(df['Reviews'][df['Clusters']==i][count//2:])
            print('\n')
            print('\n')

    def aggro_cluster(data,std_data): #Function which implements Agglomerative clustering
        k=list(range(2,11)) #Considers K value between 2 and 10 (inclusive)
        labels_list=[] #Gets the list of Labels for each k and stores them into another list
        silhou_list=[] #Gets the list of silhouette values for each k to plot a bar graph later
        for i in k: #Iterates through the K values
            clf = AgglomerativeClustering(n_clusters=i) #Initialize agglomerative clustering
            clf_labels = clf.fit_predict(std_data) #Gets labels for each data point
            clf_labels_list = clf_labels.tolist() #Convert ndarray into a list
            avg_silhou = silhouette_score(std_data,clf_labels) #Initialize silhouette score
            silhou_list.append(avg_silhou) #Append all the silhouette scores into the list created above to plot later
            labels_list.append(clf_labels_list) #Append all the lists of labels for each K into another list for use later
            if i == 2 or i == 5 or i == 10: #To check what is happening to clusters at random values of K
                print('\n')
                print('\n')
                print('*'*10,'When number of clusters is',i,'*'*10)
                print('\n')
            plot_df_wordcloud(data,clf_labels_list) #Creates a dataframe with Reviews, CleanedText and Clusters and plots wordcloud and prints reviews

    plt.figure(1)
    plt.bar(k,silhou_list) #Plots the bar graph
    plt.title('K vs Average Silhouette Score')
    plt.xlabel('K')
    plt.ylabel('Average Silhouette Score')
    plt.show()

    for i in range(2,11):
        print("The average Silhouette value of K = {} is {}".format(i,silhou_list[i-2]))

    print('\n')
    print('\n')
    max_silhou = max(silhou_list) #Maximum value of silhouette score among all Ks
    k = silhou_list.index(max_silhou)+2 #K value of the corresponding maximum silhouette score
    print('We can observe that K = {} has the highest average silhouette score of {}'.format(k, max_silhou))
    print('\n')
    print('\n')

    if k==2 or k==5 or k==10: #Since these values of k are already plotted we don't plot them again
        print("The wordcloud and reviews for K = {} is already output above.".format(k))

    else:
        print('\n')
        print("The wordcloud and reviews for optimal K = {} is plotted as follows.".format(k))
        print('\n')
        plot_df_wordcloud(data,labels_list[k-2]) #Since we already stored the list of labels
```

## Bag of Words

In [0]:

```
import pandas as pd
final = pd.read_csv("grouped_data_200.csv")
p = final.groupby('Score')
pos = p.get_group('Positive') #Gets the groups with Positive score
neg = p.get_group('Negative') #Gets the groups with Negative score
pos_2000 = pos.sample(3000) #Gets 3000 reviews of positive and 2000 negative scores
neg_2000 = neg.sample(2000)
grouped_data = pd.concat([pos_2000, neg_2000], ignore_index = True) #This data now contains positive and negative data in order.
grouped_data.dropna(inplace = True) #Drops rows with Nan
grouped_data.reset_index(inplace=True) #Replaces missing indexes
grouped_data.drop(['Unnamed: 0', 'Unnamed: 0.1','Score'], axis=1, inplace=True)
grouped_data = grouped_data.sort_values('Time', axis=0, ascending=True, kind='quicksort')
print("The shape of grouped data is {}".format(grouped_data.shape))
```

The shape of grouped data is (4999, 11)

Observations: A csv file is imported which consists of 200000 data points. These data points are already sorted on the basis of time. We create a new dataframe with over 5000 data points.

```
In [0]: from sklearn.preprocessing import StandardScaler
count_vect = CountVectorizer()
vocab = count_vect.fit_transform(grouped_data['CleanedText'].values.astype('U'))
data = StandardScaler(with_mean=False).fit_transform(vocab)
```

Observations: Data is vectorized and standardized.

```
In [0]: svd = TruncatedSVD(n_components = 1000)
data = svd.fit_transform(data)
print("Percentage of variance retained is {}%".format(svd.explained_variance_ratio_.sum()*100))
```

Percentage of variance retained is 63.29796058575465%

Observations: Dimensionality reduction is performed and percentage of variance retained is shown.

```
In [0]: agglo_cluster(grouped_data,data)
```

===== When number of clusters is 2 =====

Creating a dataframe with Reviews, Cleaned text and Clusters...  
Dataframe is created!

```
The number of reviews in each cluster is:  
0      4999  
1       1  
Name: Clusters, dtype: int64
```

\*\*\*\*\*

## \*\*\*\*\* Cluster 0 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 0

0 This mix was given to me originally by someone from Cincinnati. But in the East Coast city where I live, can't find it anywhere. Good mixture of spices, keeps for years, a nice recipe you can make which is a little different but tasty and quick. Always a hit when I make it.

0 This is really quality olive oil for almost the same price if not better than what you'll find in the grocery store. It has a strong, nutty flavor, reminding us of the freshly pressed oils we've have in Tuscany, Italy.

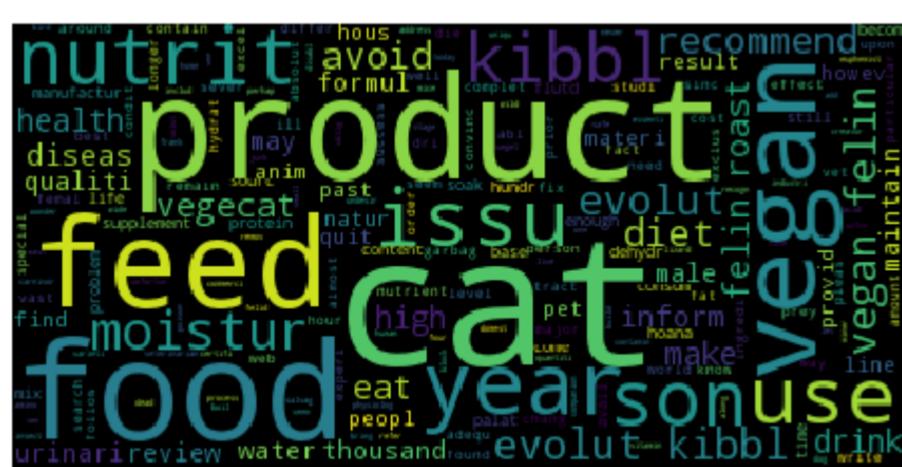
0 After having REAL Lichee tea in a California Chinese restaurant, I found that FooJoy Lichee tea is all but flavorless! I would not recommend it to anyone!

0 The crisps are simply delicious. I feel like I am eating something sinful but they are healthier than potato chips or cheese puff snacks. I was hooked on them and ordered two cases after tasting just one crisp. It was absolute genius to make snap peas into a tasteful snack. I recommend this product as a healthier alternative to Cheetos or potato chips. Enjoy!

Name: Reviews, dtype: object

## \*\*\*\*\* Cluster 1 \*\*\*\*\*

## Plot of Word Cloud



Printing all reviews from cluster 1

Unfortunately most people are ill informed about vegan cats, including most veterinarians.  
  
Wild cats are in fact obligate carnivores. However, in domesticating the house cat and bringing it into our homes we have effectively removed the cat from its natural prey of mice, insects, birds, lizards, and other small creatures. During the past 100 years or so, as the human food industry was searching for a way to salvage and use all the waste materials from its processing lines, it came upon a wonderful solution. Lets boil it all up and dry it out and add it to the food we make for cats and dogs. As a result, the vast majority of commercial pet foods contain what are euphemistically referred to as the four D's, dead, dying, disabled, and diseased animals, along with other quite undesirable materials. Quite frankly, if you are feeding this junk to your pets, you are effectively poisoning them. We are seeing diseases in pets today that we have never seen before because of the wide variety of contaminated ingredients that are finding their way into the food we feed our companion animals. You know "garbage in, garbage out!"  
  
Now the issue here is not meat; it is about providing all the essential and non-essential amino acids (the building blocks of proteins) and vitamins and minerals that are bio-available to the particularly unique physiology of felids (cats). The quality, quantity, and availability of these nutrients can come from any source, and for those of us who are vegan, the best source is vegetable based.  
  
Tens of thousands, perhaps hundreds of thousands, of cats around the world live quite well on one of the several available vegan cat foods that are recognized as nutritionally complete. I personally have had 3 1/2 years of experience in feeding the Evolution kibble product that this review is addressing. It is a high quality product that is AAFCO certified as nutritionally complete for all life stages in cats. Not only is this product safe to feed your cat, but if you follow the recommended feeding procedures, you will find many benefits to both your cat's health and your wallet.  
  
If you desire more detailed information, I invite you to do a google search on vegan cats. I would put my web page information about this issue on this review, but it is against the policy for writing reviews on Amazon.  
  
Just for everyone's edification, I have researched this issue for well over 500 hours, read hundreds of technical papers, visited hundreds of web sites, and have made a commitment to specialize in feline nutrition as part of my Veterinary Technician studies. I probably know more about feline nutrition than 95% of all the vets in the world.  
  
My feline son is a vegan and will remain so because I am absolutely certain that his quality of life will be enhanced by his diet and that this choice will not be a detriment to his health.  
-----  
  
Since writing this review in 2006 I have had a change in position about this particular product after 4 years of personal experience. The manufacturer of the Evolution foods was changing the formulation of the food on a regular basis and during that time I found that the Feline Kibble was not able to maintain the pH level in the urine of cats that was promised on the label and in their literature. At least that wasn't the case with my former feline son and my current feline son. As a result I can no longer recommend the use of Evolution Feline Kibble for male cats. Since urinary issues are different between male and female cats the Evolution Kibble MAY be satisfactory for feeding to female cats. Nutritionally the Evolution foods seem to be fine for nutrients but not necessarily adequate for maintaining the proper pH levels to avoid urinary issues for male cats.  
  
Consequently I am now recommending male cats use the Vegecat pH diet provided by Harbingers of a New Age. My son has been eating this food supplement in a specially prepared gluten formulation I created called a vegan feline roast. It is 62% protein, 33% fat, and 5% carbs and has a moisture content of about 60%. Almost a perfect combination of ingredients to mimic natural prey. My son finds this product to be very palatable and his urinary pH has been consistently at 6.4 for the three years that we have been producing and consuming this food. The drawback is that it takes about a half hour every 3 days to make the food and the cost is equivalent to a premium cat food. But on the other hand my son is trim, full of energy at 6 1/2 years, enjoys great health, no longer has urinary tract issues, and no other animal had to die in order to provide my son with life-giving nutrition.  
  
UPDATE: 4/17/11  
  
For those of you who are still considering feeding the Evolution kibble, please heed this warning. Kibble is only 10% moisture content. If you follow the directions given by the manufacturer to soak the kibble prior to feeding, y

Agglomerative Clustering for Amazon food reviews

ou will end up with a mushy material that your cats may or may not like. The danger in feeding the dry kibble is that your cat will eventually become so dehydrated that no amount of drinking will be sufficient to avoid hydration related illnesses. Cats do not naturally drink water, they almost exclusively obtain all of their hydration from the food that they consume. If they are eating something that only has 10% moisture, upon consumption the moisture that is contained within the digestive tract of the cat will be sucked into the food in order to give it enough fluidity to pass through the intestines. This will often lead to gastro-intestinal diseases. Your cat will be constantly drinking water to make up for that deficiency, but no amount of drinking is enough to avoid the dehydration problem. So please remember that the best source of moisture for your cat's health, comes from a wet food diet that is around 70% moisture.  
  
In October 2008 I wrote an article about vegan cats published in VegFamily magazine. This information and more will help those who are interested in a vegan diet for cats understand more of the issues.  
  
UPDATE: 8/27/12  
  
My vegan feline son is now 8 years old and still maintains an extremely healthy life with absolutely no issues of any kind. He has been using our Vegan Feline Roast product for the past 5 and 1/2 years and his lab tests indicate that his nutritional needs are being adequately met by his vegan diet.  
  
For those who are sceptical about a vegan diet for house cats, there is ample evidence that several vegan products are available to satisfy the nutritional needs of cats. I am still not convinced that Evolution is a good product to feed based on my past history. There are thousands of customers that seem to successfully feed the Evolution product; however, I believe that our Vegan Feline Roast Mix is a superior product that will yield far better results over the lifetime of feeding any house cat. Our product is based on the Vegecat phi supplement offered by HOANA, which I have found to be an excellent product for hitting all of the missing nutritional elements that would otherwise come from meat. The Vegecat product line has been successfully feeding thousands of cats over a 27 year period and we highly recommend the use of Vegecat for those people who wish to formulate their own vegan cat food. The only difference between our food product and the HOANA vegecat product is that our product is a ready-to-make mix that has been specifically formulated for a high protein/high fat food that is easy to make and highly palatable to the vast majority of cats.  
  
I would caution people feeding the Evolution kibble to reconsider doing so. The problem with kibble in general, not just the Evolution product, is the 10% moisture content of the food. Cats that eat kibble exclusively will invariably become dehydrated and will not be able to consume enough water by drinking to avoid the condition. Evolution kibble that is soaked with water prior to feeding, as recommended by the manufacturer, is an attempt to avoid this issue. However, by soaking the product you will reduce the palatability quality to most cats and will make it harder for them to continue to want to eat the product. This is a strategy to fix a problem that is inherent to the product itself.  
  
As time goes on, I become more convinced that using our Vegan Feline Roast product may in fact be a cure for diseases in cats like FLUTD and diabetes. At some point in time I would like to perform a long term double blind scientifically significant study to support my empirical observations. When my son started out 7 years ago eating Evolution kibble, he quickly developed a FLUTD condition, after 18 months of use, that cost \$1500 at the vet to fix. The last 5 1/2 years of eating nothing but our Vegan Feline Roast he has remained FLUTD free and maintains excellent health. Just the savings alone from avoiding annual teeth cleaning has more than paid for itself in the use of our product.  
  
So my bottom line is to recommend not using Evolution Kibble in favor of either the HOANA vegecat supplement or our Vegan Feline Roast Mix.

Name: Reviews, dtype: object

===== When number of clusters is 5 =====

Creating a dataframe with Reviews, Cleaned text and Clusters...  
Dataframe is created!

The number of reviews in each cluster is:

1	4995
0	2
3	1
2	1
4	1

Name: Clusters, dtype: int64

\*\*\*\*\*

## \*\*\*\*\* Cluster 0 \*\*\*\*\*

## Plot of Word Cloud



Printing all reviews from cluster 0

0 SADLY, I FOUND OUT THE HARD WAY THAT THESE MOO BULLY STICKS ARE NOT 100% DIGESTIBLE! MY DOG ALMOST DIED AFTER A PIECE DID NOT DISSOLVE IN HER STOMACH. My 3 dogs loved these Moo Bully sticks. I was buying them and giving them because I felt it might causes a chocking danger. I always had plenty of water close by. One day I noticed my dog, Lily, was having very loose stools and that were jelly like in consistency. This same day she stopped eating and began vomiting. I immediately rushed her to my veterinarian. Upon his physical exam he noted that her abdomen was hard and distended. He wanted me to leave her with him so he could do a x-ray. He did and found that she had a bloackge in her stomach! He then started a series of Barium x-rays to watch the blockage to see if it was going to pass. Over a 4 hour period of watching and repeating these barium x-rays it not only showed that the blockage was not passing, but the "item" causing the blockage was swelling in size, absorbing the stomach fluids. I was told he had to do emergency surgery to get this blockage out of her AS AP. What he found in her stomach was most definitely a piece of the Moo Bully stick! It had not digested as claimed by the manufature if swallowed. My veterinarian told me if he had not brought Lily in as promptly as I did, to remove this blockage, she most definitely would have died! He told me that this was not 100% digestible as the manufature had claimed it to be. If it had been, it would have dissolved in her stomach! Lily had major abdominal exploratory surgery that lasted over 3 hours, to remove this piece the piece of Moo Bully stick! She was hospitalized afterwards for 4 nights and 5 days. She almost did not make. Lily refused eat for 5 days. She therefore lost a lot of weight, became very frail and lethargic. Thank god, my veterinarian was fabulous. He was so concerned for Lily, that he actually stayed by her side at night, every night making sure he did everything he could to pull her through this. Once home she was weak and could barely walk. I tried to get her to eat and she refused. I was offering her cooked chicken liver and even this did not even entice her to eat. Finally, the next day, she did begin to nibble on some food. It was a very slow healing process and took Lily over a month until she was herself again. The thought of losing Lily tore me apart. Watching the pain and suffering she went though cannot be put into words. I felt so helpless. It was nothing but a pure hell that she and I went though for weeks on end. I was also feeling so guilty because I gave her the MOO Bully stick. You see, I only feed my dogs the very best, high quality organic dog foods. I never ever ever would give my dogs anything that was not the best and the safest. I never gave my dogs raw hide chewies or greenies( Any dog owner that cares about the welfare of their a dog knows how dangerous and deadly these products are) I started giving my dogs the Moo bully sticks because everything I had read and researched lead me to believe not only were they safe, 100% DIGESTIBLE, but that they came from Brazil cattle that only grazed on non chemically treated grass, were not feed any hormones and drank from fresh natural spring water. There was nothing harmful in this product. So I stared giving my dogs these MOO bully sticks. I am a very dedicated, caring, responsible animal lover and owner. I wrote letters to the companies I purchased the Moo Bully sticks form as well as the manufacturer. Only one retailer responded to my letter by referring me to the manufacturer. The manufacturer of these Moo Bully Sticks, " Free Range Dog Products " totally ignored both of my certified letters. So many owners have no clue that their dogs may have become sick or died due to a piece of a Bully stick that did not digest. What if their vet missed the symptoms? What if they never took their dog to a vet after becoming ill and the dog died? What if they never discovered what killed their dog? Not everyone can afford to pay for surgery on their dogs, x-rays, lab work, medicines, and a hospital stay. My vet bill was almost \$5,000.00 My vet even discounted most of what he did, as well not charge me for everything. In fact, he felt so bad, that he did not charge me for staying by her side for all through the night, on those 4 nights. What if a dog died or got very ill when ingesting a piece of these Bully sticks and never came forth to inform the public? Maybe mine is the very first case? But all it should take is one, to satisfy anyone not to ever buy this product and give it their beloved dogs. PLEASE, PLEASE, PLEASE, DO NOT EVER GIVE YOUR DOGS ANY TYPE OF A BULLY STICK PRODUCT! PASS THIS INFO ALONG TO ANYONE THAT YOU KNOW HAS A DOG. YOU MIGHT JUST SAVE A DOG'S LIFE. I HAD TO HIGHLIGHT ONE STAR TO GET THIS POST! :-(

0 I recently bought a 7-week-old collie puppy for my granddaughter. Joy, the puppy was taken from her mother at 2 weeks along with 9 siblings because the mother was not producing enough milk. It was the mother's first litter. The pups were hand fed a formula and were a bit small and frail for their ages though their price was not. At any rate the breeder had them on Pedigree puppy food when we purchased her and though there is nothing wrong with the brand I wanted something better for her due to her early weaning. Our 2-year-old Labradoodle is fed "Castor & Pollux" which really improved her coat and stamina etc. when we switched from another brand so I bought Puppy food in the same brand. However our Vet told us that she was unfamiliar with the brand, and that she wouldn't feed it to her. Instead she recommended "Purina One Smart Blend Puppy Formula". I of course ordered a bag and started mixing it with the Pedigree to switch Joy over slowly so as not to upset her digestive system. She has now had Diarrhea for 4 days, her stool sample shows no abnormalities and after taking her to the vet she is being treated with medicine. On reading the list of ingredients on the bag of Purina I saw it contained something called "ANIMAL DIGEST". I thought "what in the world could that be?" On searching the Internet low and behold I discovered this web site.  
[...]which the following came from  
"Since the pet food recalls I'd like to believe we've all grown a little more aware of what we're feeding our beloved pets. In this blog I'd like to call your attention to an ingredient that is so common in many lower quality foods and dog treats. Animal Digest is often included in many commercial treats and bottom of the barrel dog foods. Be prepared to be grossed out when I explain to you what this product really is! According to AAFCO (The term AAFCO stands for the Association of American Feed Control Officials; they provide regulatory guidelines for the manufacturing of pet foods) standards, Animal Digest is  
"Animal Digest - material which results from chemical and/or enzymatic hydrolysis of clean and un-decomposed animal tissue. The animal tissues used shall be exclusive of hair, horns, teeth, hooves and feathers, except in such trace amounts as might occur unavoidably in good factory practice and shall be suitable for animal feed."  
Yuck!  
Another expert has described Animal Digest as "a cooked-down broth which can be made from unspecified parts of unspecified animals." The animals can be collected from almost any source. There is no control set in place over quality or contamination. Any kind of animal can be included: "4-D animals" (dead, diseased, disabled, or dying before slaughter), goats, pigs, sheep, horses, rats, euthanized at animal shelters, restaurant and supermarket waste, road kill, etc.  
That is about as gross as it gets.  
Please read your bags carefully and choose treats with ingredients that you can pronounce and understand."  
After reading this I tossed the Purina in the trash and opened the bag of Castor & Pollux. Once again an intelligent, professional, trained person just accepted the word of an au

Authoritative institution i.e. the "AAFCO" as FACT and has no doubt along with untold numbers of others in her profession recommended it to her clients to put in their pets bodies.  
This is perhaps the microcosm to the macrocosm that is today's America. We-the-People have just taken the word of all our institutions and so called leaders unquestioningly. Look where it has gotten us! I may not be able to change that unfortunate fact of human nature but I can change Joy's nutritional intake and have despite the increased cost. So sometimes you do get what you pay for. I highly recommend Amazon.com but do your dogs a favor and buy the Castor & Pollux for them or some other quality brand instead of one containing "Animal Digest"

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 1 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 1

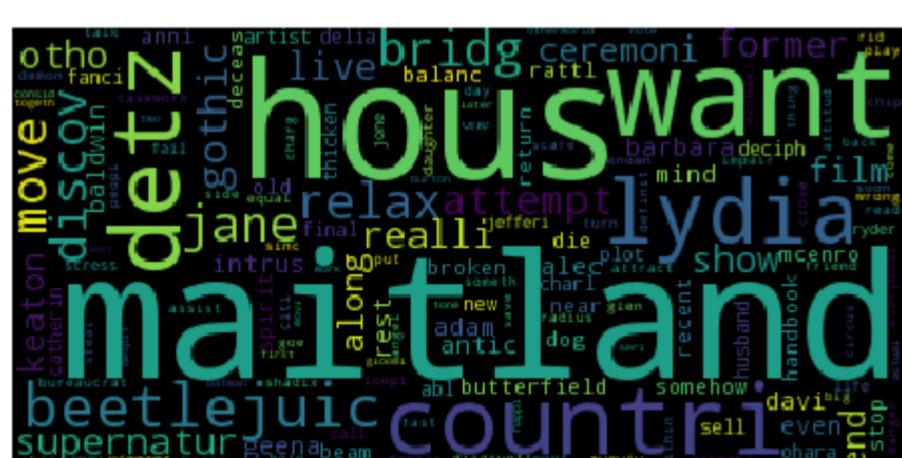
1 This is really quality olive oil for almost the same price if not better than what you'll find in the grocery store. It has a strong, nutty flavor, reminding us of the freshly pressed oils we've have in Tuscany, Italy.

1 After having REAL Lichee tea in a California Chinese restaurant, I found that FooJoy Lichee tea is all but flavorless! I would not recommend it to anyone!

The crisps are simply delicious. I feel like I am eating something sinful but they are healthier than potato chips or cheese puff snacks. I was hooked on them and ordered two cases after tasting just one crisp. It was absolute genius to make snap peas into a tasteful snack. I recommend this product as a healthier alternative to Cheetos or potato chips. Enjoy!

\*\*\*\*\* Cluster 2 \*\*\*\*\*

### Plot of Word Cloud



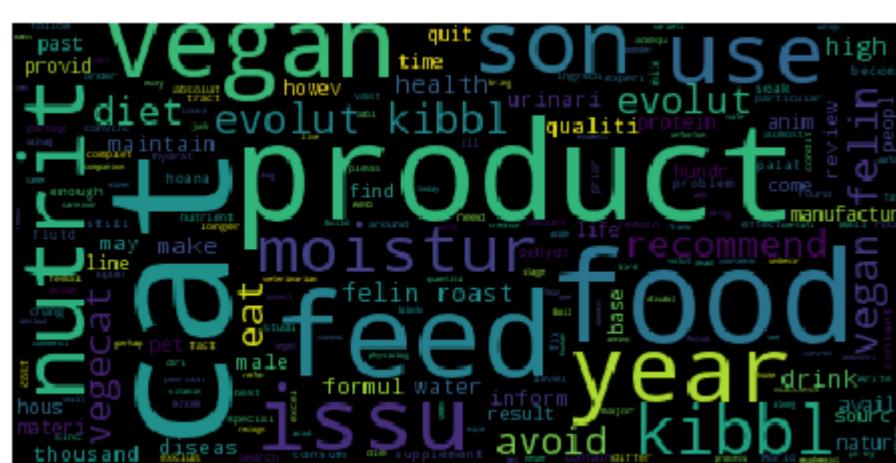
Printing all reviews from cluster 2

2 When Barbara (Geena Davis) and Adam(Alec Baldwin) Maitland move out into the country, they have rest and relaxation on their mind. Not even the well-meaning but intrusive anti-  
cs of uber-realator Jane Butterfield (Annie McEnroe) can rattle their spirits.  
...until they discover that they died on an old country bridge near their house after a dog stopped balancing a broken bridge beam. After 'somehow' returning to their house, the Maitlands discover the 'Handbook for the recently deceased' and attempt to decipher it.  
The plot thickens when the Detzes move in from New York; Jane finally was able to sell their house. Delia (Catherine O'Hara) fancies herself an artist, but husband Charles (Jeffery Jones) just wants to relax in the country after having survived stressful city life. Both he and gothic daughter Lydia (Winnona Ryder) are the most likeable ones in this family.  
After their own attempts at the supernatural fail, the Maitlands call up Beetlejuice, a disgruntled former bureaucrat for the living impaired. Because their caseworker will not help them get rid of the Detzes, the Maitlands soon turn to Beetlejuice for assistance. The Maitlands want their house back, and do not want to become circus attractions for Lydia's equally loopy friends.  
Otho (Glen Shadix) is in this play only to show that some people really only talk big. During the supernatural ceremony he puts on an attitude of being in charge 'until something goes wrong'. Since it's likely that he was reading this ceremony as he went along, Otho had not known what he was doing. In other films, this would be dangerous for everybody within a close radius, but Beetlejuice comes to save the day.  
Michael Keaton steals the show as a fast/smooth-talking demon. He's not an angel, but you definitely want him on your side when the chips are down. The only thing he is really scared of is sandworms (in the otherworld). Keaton would later continue to work with Burton on the first two Batman movies, as of now considered the best in that series.  
Despite the gothic/gloomy tone of this film, it does end on a happy note. The Maitlands and the Detzes end up living together in the same house and Lydia actually gets along with the former couple.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 3 \*\*\*\*\*

## Plot of Word Cloud



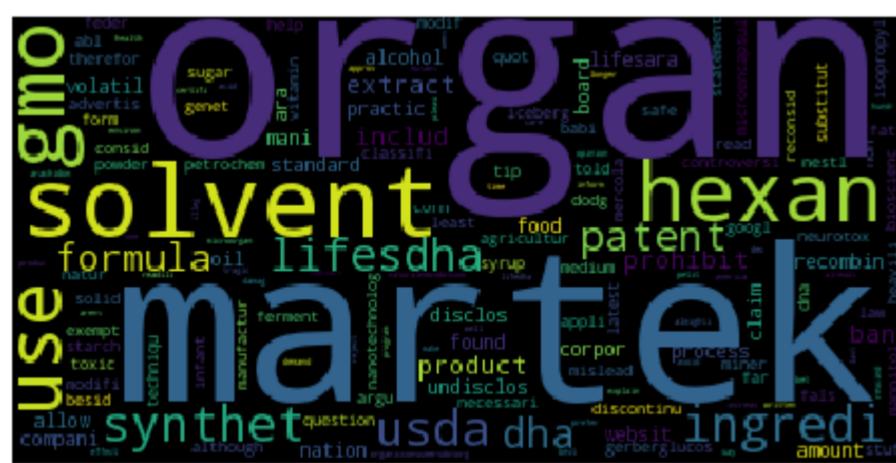
Printing all reviews from cluster 3

3 Unfortunately most people are ill informed about vegan cats, including most veterinarians.  
Wild cats are in fact obligate carnivores. However, in domesticating the house cat and bringing it into our homes we have effectively removed the cat from its natural prey of mice, insects, birds, lizards, and other small creatures. During the past 100 years or so, as the human food industry was searching for a way to salvage and use all the waste materials from its processing lines, it came upon a wonderful solution. Lets boil it all up and dry it out and add it to the food we make for cats and dogs. As a result, the vast majority of commercial pet foods contain what are euphemistically referred to as the four D's, dead, dying, disabled, and diseased animals, along with other quite undesirable materials. Quite frankly, if you are feeding this junk to your pets, you are effectively poisoning them. We are seeing diseases in pets today that we have never seen before because of the wide variety of contaminated ingredients that are finding their way into the food we feed our companion animals. You know "garbage in, garbage out!"  
Now the issue here is not meat; it is about providing all the essential and non-essential amino acids (the building blocks of proteins) and vitamins and minerals that are bio-available to the particularly unique physiology of felids (cats). The quality, quantity, and availability of these nutrients can come from any source, and for those of us who are vegan, the best source is vegetable based.  
Tens of thousands, perhaps hundreds of thousands, of cats around the world live quite well on one of the several available vegan cat foods that are recognized as nutritionally complete. I personally have had 3 1/2 years of experience in feeding the Evolution kibble product that this review is addressing. It is a high quality product that is AAFCO certified as nutritionally complete for all life stages in cats. Not only is this product safe to feed your cat, but if you follow the recommended feeding procedures, you will find many benefits to both your cat's health and your wallet.  
**If you desire more detailed information, I invite you to do a google search on vegan cats. I would put my web page information about this issue on this review, but it is against the policy for writing reviews on Amazon.**  
Just for everyone's edification, I have researched this issue for well over 500 hours, read hundreds of technical papers, visited hundreds of web sites, and have made a commitment to specialize in feline nutrition as part of my Veterinary Technician studies. I probably know more about feline nutrition than 95% of all the vets in the world.  
My feline son is a vegan and will remain so because I am absolutely certain that his quality of life will be enhanced by his diet and that this choice will not be a detriment to his health.  
-----  
Since writing this review in 2006 I have had a change in position about this particular product after 4 years of personal experience. The manufacturer of the Evolution foods was changing the formulation of the food on a regular basis and during that time I found that the Feline Kibble was not able to maintain the pH level in the urine of cats that was promised on the label and in their literature. At least that wasn't the case with my former feline son and my current feline son. As a result I can no longer recommend the use of Evolution Feline Kibble for male cats. Since urinary issues are different between male and female cats the Evolution Kibble MAY be satisfactory for feeding to female cats. Nutritionally the Evolution foods seem to be fine for nutrients but not necessarily adequate for maintaining the proper pH levels to avoid urinary issues for male cats.  
Consequently I am now recommending male cats use the Vegecat pH diet provided by Harbingers of a New Age. My son has been eating this food supplement in a specially prepared gluten formulation I created called a vegan feline roast. It is 62% protein, 33% fat, and 5% carbs and has a moisture content of about 60%. Almost a perfect combination of ingredients to mimic natural prey. My son finds this product to be very palatable and his urinary pH has been consistently at 6.4 for the three years that we have been producing and consuming this food. The drawback is that it takes about a half hour every 3 days to make the food and the cost is equivalent to a premium cat food. But on the other hand my son is trim, full of energy at 6 1/2 years, enjoys great health, no longer has urinary tract issues, and no other animal had to die in order to provide my son with life-giving nutrition.  
**UPDATE: 4/17/11**  
For those of you who are still considering feeding the Evolution kibble, please heed this warning. Kibble is only 10% moisture content. If you follow the directions given by the manufacturer to soak the kibble prior to feeding, you will end up with a mushy material that your cats may or may not like. The danger in feeding the dry kibble is that your cat will eventually become so dehydrated that no amount of drinking will be sufficient to avoid hydration related illnesses. Cats do not naturally drink water, they almost exclusively obtain all of their hydration from the food that they consume. If they are eating something that only has 10% moisture, upon consumption the moisture that is contained within the digestive tract of the cat will be sucked into the food in order to give it enough fluidity to pass through the intestines. This will often lead to gastro-intestinal diseases. Your cat will be constantly drinking water to make up for that deficiency, but no amount of drinking is enough to avoid the dehydration problem. So please remember that the best source of moisture for your cat's health, comes from a wet food diet that is around 70% moisture.  
**In October 2008 I wrote an article about vegan cats published in VegFamily magazine. This information and more will help those who are interested in a vegan diet for cats understand more of the issues.**  
**UPDATE: 8/27/12**  
My vegan feline son is now 8 years old and still maintains an extremely healthy life with absolutely no issues of any kind. He has been using our Vegan Feline Roast product for the past 5 and 1/2 years and his lab tests indicate that his nutritional needs are being adequately met by his vegan diet.  
For those who are sceptical about a vegan diet for house cats, there is ample evidence that several vegan products are available to satisfy the nutritional needs of cats. I am still not convinced that Evolution is a good product to feed based on my past history. There are thousands of customers that seem to successfully feed the Evolution product; however, I believe that our Vegan Feline Roast Mix is a superior product that will yield far better results over the lifetime of feeding any house cat. Our product is based on the Vegecat phi supplement offered by HOANA, which I have found to be an excellent product for hitting all of the missing nutritional elements that would otherwise come from meat. The Vegecat product line has been successfully feeding thousands of cats over a 27 year period and we highly recommend the use of Vegecat for those people who wish to formulate their own vegan cat food. The only difference between our food product and the HOANA vegecat product is that our product is a ready-to-make mix that has been specifically formulated for a high protein/high fat food that is easy to make and highly palatable to the vast majority of cats.  
I would caution people feeding the Evolution kibble to reconsider doing so. The problem with kibble in general, not just the Evolution product, is the 10% moisture content of the food. Cats that eat kibble exclusively will invariably become dehydrated and will not be able to consume enough water by drinking to avoid the condition. Evolution kibble that is soaked with water prior to feeding, as recommended by the manufacturer, is an attempt to avoid this issue. However, by soaking the product you will reduce the palatability quality to most cats and will make it harder for them to continue to want to eat the product. This is a strategy to fix a problem that is inherent to the product itself.  
As time goes on, I become more convinced that using our Vegan Feline Roast product may in fact be a cure for diseases in cats like FLUTD and diabetes. At some point in time I would like to perform a long term double blind scientifically significant study to support my empirical observations. When my son started out 7 years ago eating Evolution kibble, he quickly developed a FLUTD condition, after 18 months of use, that cost \$1500 at the vet to fix. The last 5 1/2 years of eating nothing but our Vegan Feline Roast he has remained FLUTD free and maintains excellent health. Just the savings alone from avoiding annual teeth cleaning has more than paid for itself in the use of our product.  
So my bottom line is to recommend not using Evolution Kibble in favor of either the HOANA vegecat supplement or our Vegan Feline Roast Mix.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 4 \*\*\*\*\*

## Plot of Word Cloud



Printing all reviews from cluster 4

4 RECONSIDER THIS FORMULA!!<br /><br />Martek advertises this formula on their website! Nestle owns Gerber now<br /><br />"Although Martek told the board that they would discontinue the use of the controversial neurotoxic solvent n-hexane for DHA/ARA processing, they did not disclose what other synthetic solvents would be substituted. Federal organic standards prohibit the use of all synthetic/petrochemical solvents".<br /><br />Martek Biosciences was able to dodge the ban on hexane-extraction by claiming USDA does not consider omega-3 and omega-6 fats to be "agricultural ingredients." Therefore, they argue, the ban against hexane extraction does not apply. The USDA helped them out by classifying those oils as "necessary vitamins and minerals," which are exempt from the hexane ban. But hexane-extraction is just the tip of the iceberg. Other questionable manufacturing practices and misleading statements by Martek included:<br /><br />Undisclosed synthetic ingredients, prohibited for use in organics (including the sugar alcohol mannitol, modified starch, glucose syrup solids, and "other" undisclosed ingredients)<br />Microencapsulation of the powder and nanotechnology, which are prohibited under organic laws<br />Use of volatile synthetic solvents, besides hexane (such as isopropyl alcohol)<br />Recombinant DNA techniques and other forms of genetic modification of organisms; mutagenesis; use of GMO corn as a fermentation medium<br />Heavily processed ingredients that are far from "natural"<br /><br />quote from: Why is this Organic Food Stuffed With Toxic Solvents? by Dr. Mercola - GOOGLE GMOs found in Martek.<br /><br />This is the latest I have found on DHA in organic and non organic baby food/ formula:<br />AT LEAST READ THIS ONE\*\*\* GOOGLE- False Claims That DHA in Organic and Non-Organic Infant Formula Is Safe. AND OrganicconsumersDOTorg<br /><br />Martek's patents for Life'sDHA states: "includes mutant organisms" and "recombinant organisms", (a.k.a. GMOs!) The patents explain that the oil is "extracted readily with an effective amount of solvent ... a preferred solvent is hexane."<br /><br />The patent for Life'sARA states: "genetically-engineering microorganisms to produce increased amounts of arachidonic acid" and "extraction with solvents such as ... hexane." Martek has many other patents for DHA and ARA. All of them include GMOs. GMOs and volatile synthetic solvents like hexane aren't allowed in USDA Organic products and ingredients.<br /><br />Tragically, Martek's Life'sDHA is already in hundreds of products, many of them certified USDA Organic. Please demand that the National Organic Standards Board reject Martek's petition, and that the USDA National Organic Program inform the company that the illegal 2006 approval is rescinded and that their GMO, hexane-extracted Life'sDHA and Life'sARA are no longer allowed in organic products.<br /><br />BUT I went to the lifesdha website and THEY DO NOT DISCLOSE HOW THEY MAKE THEIR LifesDHA!!! I have contacted the company to see what they say.<br /><br />Also these are the corporate practices of Martek which are damaging to the environment as well written just last Dec 2011 at NaturalnewsDOTcom<br /><br />The best bet is to just avoid the lifeDHA at this time in my opinion b/c corporate america cares more about the almighty \$ than your health.

Name: Reviews, dtype: object

===== When number of clusters is 10 =====

Creating a dataframe with Reviews, Cleaned text and Clusters...  
Dataframe is created!

The number of reviews in each cluster is:

2	4990
0	2
7	1
3	1
6	1
9	1
5	1
1	1
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4	1

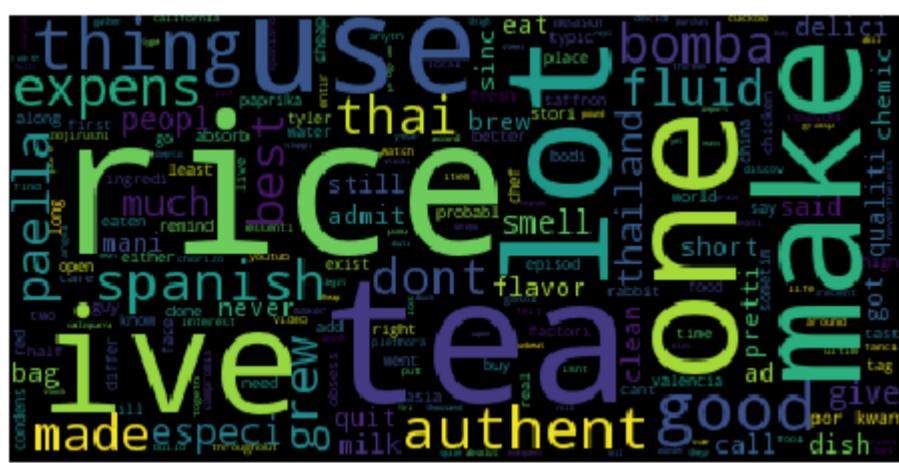
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Name: Clusters, dtype: int64

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\*\*\*\*\* Cluster 0 \*\*\*\*\*

## Plot of Word Cloud



Printing all reviews from cluster 0

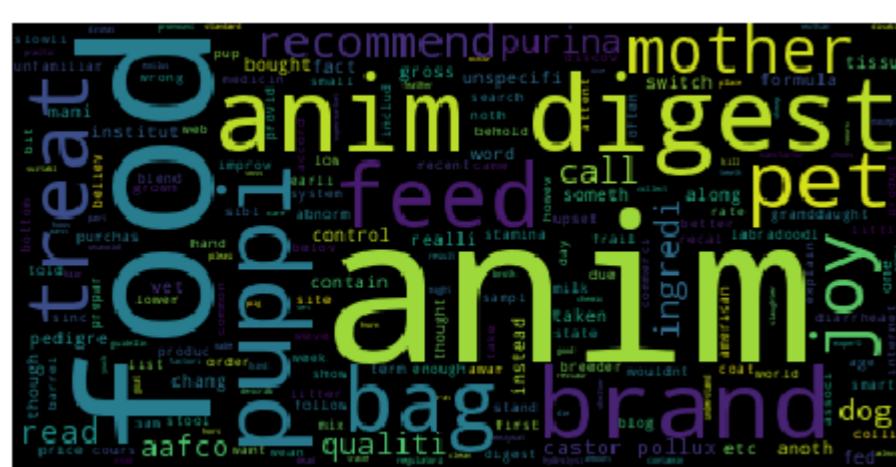
I've been making and eating rice throughout my entire life of 43 years now. I've done quite a few fancy ad-hock rice dishes, putting together anything I like in my Zojirushi and Cuckoo rice makers. Recently, I got interested in making authentic Spanish Paellas.  
  
The first thing I discovered was that the ingredients are expensive. Real Spanish saffron, Spanish Chorizo, and Spanish Paprika are rare and expensive items even in Los Angeles California. Rabbit isn't easy to find either. Nevertheless, I went through with the program and decided to build an authentic Paella. After watching a plethora of YouTube videos, Pau Gasol on local TV, two episodes of Tyler's Ultimate, and one episode of Good Eats, I felt I had a grasp on the essentials.  
  
One thing the Spaniards stress: You can fool around with a lot of ingredients, but there are three things you cannot compromise on (1) authentic and pure Saffron, (2) Calisparra Bomba from Valencia, (3) real smoky-hot Paprika from Spain, (4) Good extra-virgin olive oil. You also need to use an authentic high-carbon steel Paella. These are quite inexpensive. I got a fully legit one from Valencia (import duty tag and everything) for just \$20 bucks. I also gathered that I should use chicken thighs, rabbit meat, and chicken stock for fluid.  
  
To make a long story short I purchased a 5 pack of this very expensive rice wondering if it was going to live up to the praises heaped up to the heavens upon it. Chefs called this the rock-n-roll star of the rice world. They called it the Rolls Royce of Rice. They said it was unbearable. I was more than skeptical. I have eaten a lot of rice in my life--a thousand pounds or more by now--and I've tried a lot of different types. They're all different in one way or another but they are all good.  
  
According to the poop-sheets, Bomba is absolutely unique because of its ability to absorb 3x its mass in fluid, yet it never gets sticky or sloppy. It's hard to overcook. I've made a lot of rice with a lot of varieties of rice. All of them call for 2:1 ratio of fluid to rice, never 3:1. All sources said 3:1 when you use Bomba. Bomba is more delicious because it absorbs 50% more fluids, and 50% more flavors (measure for measure) than any other form of rice  
  
To make a long story short, I made my first authentic Spanish Paella 2 days ago. It blew my brains out, and I don't say that lightly. I've had a bunch of delicious rice dishes in my time, but this beat them all. This was like a revelation from God. I can see why many serious-minded gourmet chefs like Alton Brown, Tyler Florence, Guy Fieri, Paula Dean et al, obsess about getting this dish done right. It's pretty frickin' stunning; a flavor explosion.  
  
Bomba is delicious rice. I've eaten a lot of rice, but this one is making me forget about the rest.

0 So I grew up in a townhouse complex with my two best friends being Thai and Indian 1st gen immigrants... I grew up with about a fourth of my food being from their homes--we went to whoever was making the best food. Thai tea was a bit of a guilty obsession for us, especially in the summer. As I got older, the addiction grew, and I've brewed hundreds of gallons of it. That said, I bought this along with the Por Kwan when I couldn't get to my Asian market. The Por Kwan was much better, but neither was especially great; this one is GREEN tea, which Thai tea is NEVER supposed to be. The leaf quality is pretty awful--really dusty, the stems are ground in with the leaves (big no no, clearly cheaply made), and it's DEFINITELY been treated beyond the red dye--which our tea FROM Thailand and Sri Lanka actually didn't need, though admittedly, they weren't garfield orange, more like a pinkish peach, when the milk was added (when it's brewed correctly, GOOD "black" teas will be a lovely red shade; this would likely be a gross putrid yellow-brown without the dye)...<br /><br />Some people probably add enough sugar to compensate for the chemicals in this, but I can't get over it. I could steep it for 1 minute, 3, or 5 or 10 and it would still have a scent and flavor I (admittedly my sense of taste and smell are keen) am repulsed by--just opening the bag, the smell of a cheap plasticware factory's toxic chemicals gently waved in my face like fresh paint. The bag has gone unused as a result... I'm about to toss it, since frankly, I can't trust something I know has had things added to it that make that distinct "not from nature" smell and taste so apparent to me, someone who admittedly mostly buys things like Silk Road prize teas (Drunken Concubine for example) from Angelina's--the only guy I've personally met who knows quite a lot more about tea than me is there, and he used to evaluate them all over China/Asia and gets the very best... Those chemicals, if you care, are probably a mix of intended additives and byproduct. They intentionally tend to add things likely mold/mildew inhibitors since transporting in Asia equals humidity (most of this is from China, shipped to Thailand sometimes or tagged product of Thailand if the company is in Bangkok, regardless of where the tea came from or how many factories were involved in its creation), along with the obvious pesticides in these cheaper teas. Then you have the reason this stuff is so cheap when good tea will typically be--even loose--\$1-4 an OUNCE: the manufacturing process. I'm pretty sure this wasn't made in an especially clean plant, and that smell in opening the bag reminded me of places that just don't exist in America, places that remind me of why I DO buy USA goods 99% of the time. The water used to clean, the grinders... none are going to be especially clean by our standards, and much gets recycled, as water is costly in other parts of the world. The short reason I won't finish this or give it to anyone else is that all of that non-tea gets brewed right into the tea and goes into your body. I like my body AND tea too much to settle for less than great. The por kwan brand is much better, but... it's still not the bee's knees. Still, if I had to pick one, it is NOT this one. The other I can say at least most people should be okay with... I'd give IT a 3.5. I give this a 2 for MOST people to be fair since face it, most don't care about the nitpicking I am hyperaware of. Most don't teach medical sciences and work directly with ill patients, either, for a living, so most aren't constantly immersed in healthcare.<br /><br />Whatever you get, I'll at least give this recommendation: we grew up using sweetened condensed milk--it's how they typically do it in Thailand, where fresh cow milk is expensive, very expensive--or sometimes evaporated in a pinch; the condensed really makes the texture best for adding ice; otherwise, it becomes extremely thin, which is a sad reality of many restaurants, which I'm presuming a lot of people base their reviews on; high quality Thai restaurants--and they DO exist(expensive doesn't mean high quality)--the ones Thai folks eat at--won't skimp on this detail, let alone use regular milk. Half and half \*can\* be a feasible option, but it's just not the same.

Name: reviews, dtype: object

## \*\*\*\*\* Cluster 1 \*\*\*\*\*

## Plot of Word Cloud



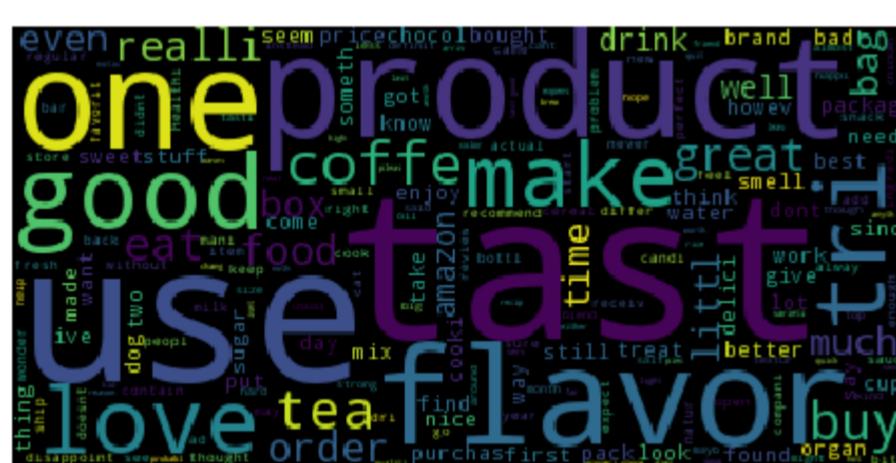
Printing all reviews from cluster 1

1 I recently bought a 7-week-old collie puppy for my granddaughter. Joy, the puppy was taken from her mother at 2 weeks along with 9 siblings because the mother was not producing enough milk. It was the mother's first litter. The pups were hand fed a formula and were a bit small and frail for their ages though their price was not. At any rate the breeder had them on Pedigree puppy food when we purchased her and though there is nothing wrong with the brand I wanted something better for her due to her early weaning. Our 2-year-old La bradoodle is fed "Castor & Pollux" which really improved her coat and stamina etc. when we switched from another brand so I bought Puppy food in the same brand. However our Vet told us that she was unfamiliar with the brand, and that she wouldn't feed it to her. Instead she recommended "Purina One Smart Blend Puppy Formula". I of course ordered a bag and started mixing it with the Pedigree to switch Joy over slowly so as not to upset her digestive system. She has now had Diarrhea for 4 days, her stool sample shows no abnormalities and after taking her to the vet she is being treated with medicine. On reading the list of ingredients on the bag of Purina I saw it contained something called "ANIMAL DIGEST". I thought "what in the world could that be?" On searching the Internet low and behold I discovered this web site.  
[...] which the following came from  
"Since the pet food recalls I'd like to believe we've all grown a little more aware of what we're feeding our beloved pets. In this blog I'd like to call your attention to an ingredient that is so common in many lower quality foods and dog treats. Animal Digest is often included in many commercial treats and bottom of the barrel dog foods. Be prepared to be grossed out when I explain to you what this product really is! According to AAFCO (The term AAFCO stands for the Association of American Feed Control Officials; they provide regulatory guidelines for the manufacturing of pet foods) standards, Animal Digest is material which results from chemical and/or enzymatic hydrolysis of clean and un-decomposed animal tissue. The animal tissues used shall be exclusive of hair, horns, teeth, hooves and feathers, except in such trace amounts as might occur unavoidably in good factory practice and shall be suitable for animal feed."  
Yuck!  
Another expert has described Animal Digest as "a cooked-down broth which can be made from unspecified parts of unspecified animals." The animals can be collected from almost any source. There is no control set in place over quality or contamination. Any kind of animal can be included: "4-D animals" (dead, diseased, disabled, or dying before slaughter), goats, pigs, sheep, horses, rats, euthanized at animal shelters, restaurant and supermarket waste, road kill, etc.  
That is about as gross as it gets.  
Please read your bags carefully and choose treats with ingredients that you can pronounce and understand.  
After reading this I tossed the Purina in the trash and opened the bag of Castor & Pollux. Once again an intelligent, Professional, trained person just accepted the word of an authoritative institution i.e. the "AAFCO" as FACT and has no doubt along with untold numbers of others in her profession recommended it to her clients to put in their pets bodies.  
This is perhaps the microcosm to the macrocosm that is today's America. We-the-People have just taken the word of all our institutions and so called leaders unquestioningly. Look where it has gotten us! I may not be able to change that unfortunate fact of human nature but I can change Joy's nutritional intake and have despite the increased cost. So sometimes you do get what you pay for. I highly recommend Amazon.com but do your dogs a favor and buy the Castor & Pollux for them or some other quality brand instead of one containing "Animal Digest"

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 2 \*\*\*\*\*

Plot of Word Cloud



Printing 4 random reviews from cluster 2

2 This is really quality olive oil for almost the same price if not better than what you'll find in the grocery store. It has a strong, nutty flavor, reminding us of the freshly pressed oils we've have in Tuscany, Italy.

2 After having REAL Lichee tea in a California Chinese restaurant, I found that FooJoy Lichee tea is all but flavorless! I would not recommend it to anyone!

2 The crisps are simply delicious. I feel like I am eating something sinful but they are healthier than potato chips or cheese puff snacks. I was hooked on them and ordered two cases after tasting just one crisp. It was absolute genius to make snap peas into a tasteful snack. I recommend this product as a healthier alternative to Cheetos or potato chips. Enjoy!

2 Excellent in your coffee, great flavor, not too strong and sugar free...you can't ask for more!!! I highly recommend to anyone using artificial sweeteners.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 3 \*\*\*\*\*

Plot of Word Cloud



Agglomerative Clustering for Amazon food reviews

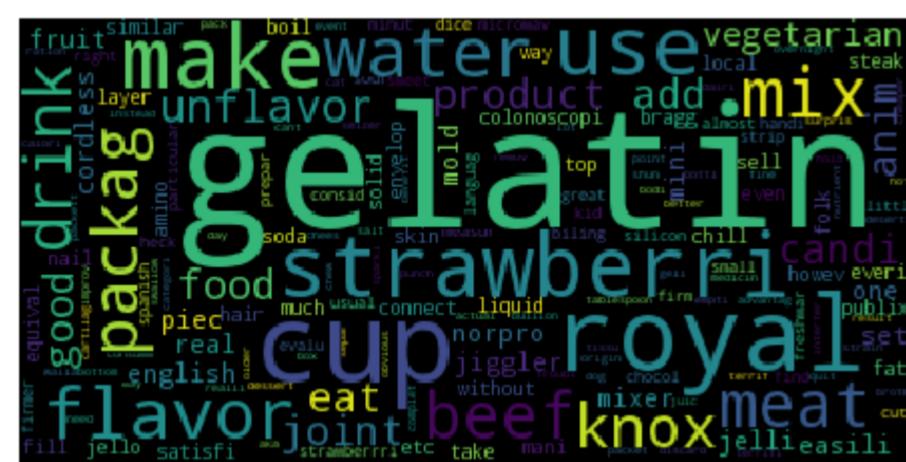
Printing all reviews from cluster 3

3 I've come back to tea after drinking coffee almost exclusively since before adulthood. A huge part of the migration was, initially, due to that malady of modern life, acid reflux. Caffeine makes me gullet go gaga. In fact, I'm even reduced to drinking a blend of decaf and regular tea in order to keep the oesophagus happy.  
A really cool thing about tea is that, unlike coffee, in its varieties there is a complexity of subtle (and not so subtle) flavors that one can easily apprehend.  
Sure, there are people who will argue there is a whole range of flavor notes that can be found amongst the various coffee beans and while this is, strictly speaking, true, it is also pretty much true that one cup of good coffee smells and tastes pretty much the same as any other cup of good coffee. Coffee is not the sort of thing one sips to enjoy as one would a glass of wine. Drinking tea, on the other hand, can very much become a sipping game possibly because a tea leaf is more like an herb or flower than a coffee bean is.  
  
This is not to say that one can't find plenty of industrial strength tea with minimal flavor notes (e.g. many of the English/Scottish Breakfast tea blends, but see also Taylors robust yet flavorful S. A. Kwazulu that manages to deliver a mule's kick) and I love that kind of stuff and wish I could drink it because the decaffeinated stuff I've been reduced to is insipid in comparison.  
  
If you are just getting into drinking it, you're soon going to be touring the world of tea for different taste sensations, and likely flit from leaf to leaf before you find what makes for you the perfect brew.  
This is DEFINITELY one of those teas you want to try on that journey for this Special Rare Assam Leaf Tea, Doomur Dulling, Loose Leaf tea is actually pretty special.  
When you open the sealed bag it comes packed in you will likely first be surprised by the large size of the tips that comprise this tea. They are so large the contents have the look of a pouch of tobacco (indeed, the stuff is nearly as fragrant as a pouch of newly opened pipe tobacco). The next thing you'll do is smell them, no doubt, and note the fragrant, not quite heady aroma it exudes.  
This fragrance and consequent flavor is what makes this tea singular. After you have brewed it, stir in some sugar and milk, then taste it. You'll immediately identify this as the so-called 'milk tea' drinks that the Japanese are so fond of and drink as a soft drink in much the same way that Americans in the South drink iced tea.  
Its flavor is distinctive floral notes and may take you by surprise. Doubtless, these floral notes and the delicacy of the liquor are what make this tea so desirable And may put off those who prefer the more common industrial strength blends.  
  
I find that I quite like this tea, and could possibly make it a daily drinker because it doesn't seem to cause that acid reflux reaction the broth-like teas I enjoy so much do. Having said that, the pronounced fruit or floral flavor of the brew tells me that it may be something I drink for a can or two before reverting to the hearty (however feeble the decaffeinated version of the hearty is) brews I generally enjoy.  
Actually, the English Breakfast Tea produced by 'Ahmad Tea' is one I highly recommend as a most delicious, full-floral-note flavored tea that brews up a hearty liquor. It's the closest thing yet I've found that balances well industrial strength and high fashion flavor.  
As for this tea, it is all high fashion flavor and, while I can't say that I love it, tastes real good.

Name: Reviews, dtype: object

## \*\*\*\*\* Cluster 4 \*\*\*\*\*

## Plot of Word Cloud



Printing all reviews from cluster 4

Printing all reviews from cluster 4

4 Royal "Bilingal" Strawberry Gelatin is the same product as Royal ("English Language") Strawberry Gelatin, but in English/Spanish packaging.  
**EVALUATION**  
Good strawberry flavor. Mixes easily, makes 4 cups. I like gelatin a little firmer, so I use only 3 cups of water, which I microwave for 5 minutes in a 4-cup measuring cup and then mix-in the Royal Gelatin. I find a mini-mixer very handy for mixing the gelatin <a href="http://www.amazon.com/gp/product/B000E39LY0">Norpro Cordless Mini Mixer, 5 Piece Set</a>  
**ADD FRUIT**  
The strawberry gelatin is particularly great with real (diced) strawberries which are usually too sour. The gelatin adds just the right sweetness.  
**JIGGLERS**  
You can make very firm "jigglers" for kids by using only 2 cups of water, or almost "Gummi-Bear" candies by using only 1 one cup of water. Consider using candy molds <a href="http://www.amazon.com/gp/product/B003VPW0V8">Freshware 30-Cavity Silicone Chocolate, Jelly and Candy Mold</a>  
**Norpro Cordless Mini Mixer, 5 Piece Set.**  
**PREPARING FOR A COLONOSCOPY**  
Take a steak, cut into small strips, and then boil it to heck in 2-3 cups of water. Add a tablespoon or so of Braggs Aminos instead of salt. <a href="http://www.amazon.com/gp/product/B001U2SGWQ">Bragg's Liquid Aminos, 32 Oz.</a>. Strain. Discard the boiled meat (or use it for cat/dog food). Chill the liquid. Remove the solid layer of fat from the top. Walla!! "beef jello" (aka jellied consumme). Really! Gelatin is animal connective tissue---and there is lots of in a steak. Beef gelatin is surprisingly satisfying and filling, and will easily hold you overnight until the terrifying "event" is over. Obviously, beef gelatin is a terrific food for older folks who can't chew or have trouble swallowing. You can also drink it hot as a broth, however chilling and gelling has the advantage of separating out the fat (on the top) and the fine solids (as a layer on the bottom) which could interfere with your colonoscopy.  
**What does this have to do with Royal Strawberry Gelatin?** It makes the point that both are the same thing--animal connective tissue, and that gelatin is a good food for the day-before-the-colonoscopy. Many folks eat a packet of Knox unflavored gelatin every day to improve their joints, skin, hair, and nails. <a href="http://www.amazon.com/gp/product/B001EPQTD2">Knox Original Gelatin (32-Count Envelopes), Unflavored, 8-Ounce Boxes (Pack of 2)</a>. And you can use the Knox to make your own gelatin desserts with real fruit juice, etc., or even mixed with bullion to make beef gelatin. However, Royal flavored gelatin mixes are much cheaper than unflavored gelatin--so why not have a cup of flavored gelatin every evening for desert? (and rationalize it as "medicine" for your joints, nails, hair, and skin.)  
**DRINKS**  
You can use Royal Gelatin to make fruit-flavored punch or drinks. The results are similar to "Kool-Aide", but with more "body". You can mix flavored gelatin with bottled seltzer water for a sparkling "strawberry soda"--which is more satisfying ("fills you up") much better than the completely empty calories of "strawberry soda". A 2.8 oz packette of Royal Gelatin will make about 8 cups of "strawberry drink" or "soda".  
**VEGETARIANS**  
Vegetarians may shun gelatin as an animal product, but many vegetarians will eat dairy products as a way to get needed nutrients without actually eating meat, and will take glucosamine-chondroitin (animal cartilage, similar to gelatin) for their joints. Gelatin is not quite in the same category as "cheese", but it is a good way to get some of the benefits of meat without the cholesterol, etc. of meat.  
**VALUE**  
1 oz packages (of 4 envelopes) of Knox unflavored gelatin (which makes 4 cups of gelatin), sells for \$1.49 each at my local Publix. That's equivalent to one 2.8 oz package of Royal Gelatin (the extra 1.8 oz is sugar and flavoring) which sells for \$0.89 at my local Publix or \$0.98 from Amazon (\$11.82 / 12) at this time. The equivalent 4-cup Jello brand package consisting of 3.0oz, but is considerably more expensive.

Name: Reviews, dtype: object

\*\*\*\*\* G1 \*\*\*\*\*

Plot of Word Cloud



Printing all reviews from cluster 5

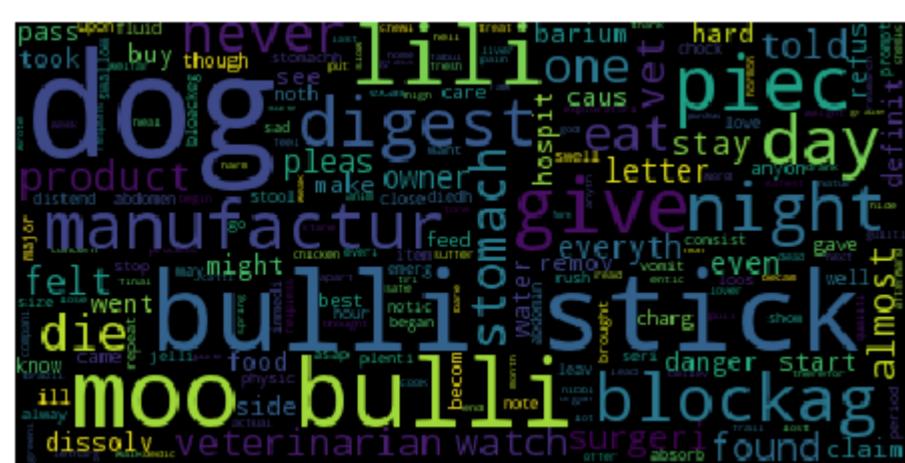
Printing all reviews from cluster 5

5 When Barbara (Geena Davis) and Adam(Alec Baldwin) Maitland move out into the country, they have rest and relaxation on their mind. Not even the well-meaning but intrusive antics of uber-realator Jane Butterfield (Annie McEnroe) can rattle their spirits.  
  
...until they discover that they died on an old country bridge near their house after a dog stopped balancing a broken bridge beam. After 'somehow' returning to their house, the Maitlands discover the 'Handbook for the recently deceased' and attempt to decipher it.  
  
The plot thickens when the Detzes move in from New York; Jane finally was able to sell their house. Delia (Catherine O'Hara) fancies herself an artist, but husband Charles (Jeffery Jones) just wants to relax in the country after having survived stressful city life. Both he and gothic daughter Lydia (Winnona Ryder) are the most likeable ones in this family.  
  
After their own attempts at the supernatural fail, the Maitlands call up Beetlejuice, a disgruntled former bureaucrat for the living impaired. Because their caseworker will not help them get rid of the Detzes, the Maitlands soon turn to Beetlejuice for assistance. The Maitlands want their house back, and do not want to become circus attractions for Lydia's equally loopy friends.  
  
Otho (Glen Shadix) is in this play only to show that some people really only talk big. During the supernatural ceremony he puts on an attitude of being in charge 'until something goes wrong'. Since it's likely that he was reading this ceremony as he went along, Otho had not known what he was doing. In other films, this would be dangerous for everybody within a close radius, but Beetlejuice comes to save the day.  
  
Michael Keaton steals the show as a fast/smooth-talking demon. He's not an angel, but you definitely want him on your side when the chips are down. The only thing he is really scared of is sandworms (in the otherworld). Keaton would later continue to work with Burton on the first two Batman movies. as of now considered the best in that series.  
  
Despite the gothic/gloomy tone of this fil

m, it does end on a happy note. The Maitlands and the Detzes end up living together in the same house and Lydia actually gets along with the former couple.  
Name: Reviews, dtype: object

\*\*\*\*\* Cluster 6 \*\*\*\*\*

Plot of Word Cloud



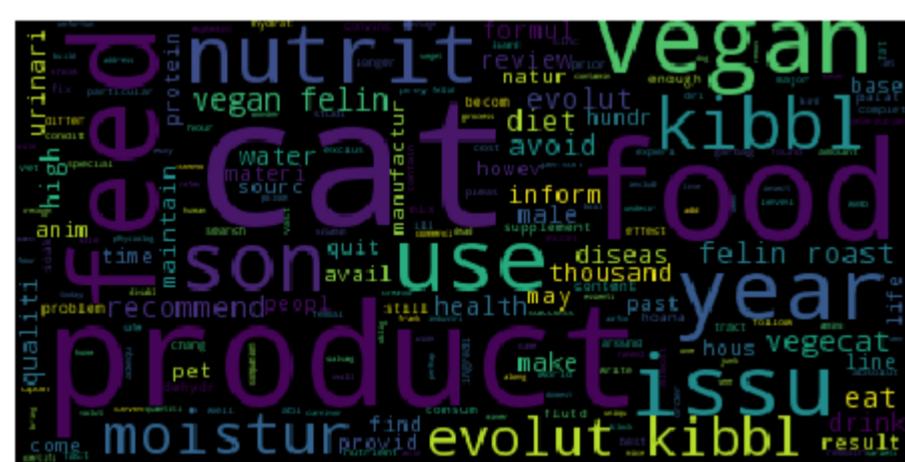
Printing all reviews from cluster 6

6 SADLY, I FOUND OUT THE HARD WAY THAT THESE MOO BULLY STICKS ARE NOT 100% DIGESTIBLE! MY DOG ALMOST DIED AFTER A PIECE DID NOT DISSOLVE IN HER STOMACH. My 3 dogs loved these Moo Bully sticks. I was buying them and giving them because I felt it might causes a chocking danger. I always had plenty of water close by. One day I noticed my dog,Lily, was having very loose stools and that were jelly like in consistency.This same day she stopped eating and began vomiting.I immediately rushed her to my veterinarian.Upon his physical exam he noted that her abdomen was hard and distended.He wanted me to leave her with him so he could do a x-ray. He did and found that she had a bloackge in her stomach!He then started a series of Barium x-rays to watch the blockage to see if it was going to pass. Over a 4 hour period of watching and repeating these barium x-rays it not only showed that the blockage was not passing, but the "item" causing the blockage was swelling in size, absorbing the stomach fluids.I was told he had to do emergency surgery to get this blockage out of her AS AP. What he found in her stomach was most definitely a piece of the Moo Bully stick! It had not digested as claimed by the manufacture if swallowed.My veterinarian told me if he had not brought Lily in as promptly as I did,to remove this blockage, she most definitely would have died!He told me that this was not 100% digestible as the manufacture had claimed it to be . If it had been, it would have dissolved in her stomach! lily had major abdominal exploratory surgery that lasted over 3hours, to remove this piece the piece of Moo Bully stick ! She was hospitalized afterwards for 4 nights and 5 days. She almost did not make. Lily refused eat for 5 days. She therefore lost a lot of weight,became very frail and let hargic. Thank god, my veterinarian was fabulous.He was so concerned for Lily, that he actually stayed by her side at night,every night making sure he did everything he could to pull her through this.Once home she was weak and could barely walk. I tried to get her to eat and she refused. I was offering her cooked chicken liver and even this did not even entice her to eat. Finally, the next day, she did begin to nibble on some food. It was a very slow healing process and took Lily over a month until she was herself again.The thought of losing Lily tore me apart. Watching the pain and suffering she went though cannot be put into words.I felt so helpless. It was nothing but a pure hell that she and I went though for weeks on end.I was also feeling so guilty because I gave her the MOO Bully stick.You see, I only feed my dogs the very best, high quality organic dog foods. I never ever ever would give my dogs anything that was not the best and the safest. I never gave my dogs raw hide chewies or greenies( Any dog owner that cares about the welfare of their a dog knows how dangerous and deadly these products are) I started giving my dogs the Moo bully sticks because everything I had read and researched lead me to believe not only were they safe, 1 00% DIGESTIBLE, but that they came from Brazil cattle that only grazed on non chemically treated grass, were not feed any hormones and drank from fresh natural spring water.There was nothing harmful in this product. So I stared giving my dogs these MOO bully sticks.I am a very dedicated,caring, responsible animal lover and owner. I wrote letters to the companies I purchased the Moo Bully sticks form as well as the manufacturer. Only one retailer responded to my letter by referring me to the manufacturer.The manufacturer of these Moo Bully Sticks, " Free Range Dog Products " totally ignored both of my certified letters. So many owners have no clue that their dogs may have become sick or died due to a piece of a Bully stick that did not digest. What if their vet missed the symptoms? What if they never took their dog to a vet after becoming ill and the dog died? What if they never discovered what killed their dog? Not everyone can afford to pay for surgery on their dogs, x-rays,lab work,medicines, and a hospital stay. My vet bill was almost \$5,000.00 My vet even discounted most of what he did, as well not charge me for everything.In fact, he he felt so bad, that he did not charge me for staying by her side for all through the night, on those 4 nights. What if a dog died or got very ill when ingesting a piece of these Bully sticks and never came forth to inform the public ? Maybe mine is the very first case? But all it should take is one, to satisfy anyone not to ever buy this product and give it their beloved dogs. PLEASE, PLEASE, PLEASE, DO NOT EVER GIVE YOUR DOGS ANY TYPE OF A BULLY STICK PRODUCT!PASS THIS INFO ALONG TO ANYONE THAT YOU KNOW HAS A DOG. YOU MIGHT JUST SAVE A DOGS LIFE.I HAD TO HIGHLIGHT ONE STAR TO GET THIS POST! :-(

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 7 \*\*\*\*\*

Plot of Word Cloud



Printing all reviews from cluster 7

7 Unfortunately most people are ill informed about vegan cats, including most veterinarians.<br /><br />Wild cats are in fact obligate carnivores. However, in domesticating the house cat and bringing it into our homes we have effectively removed the cat from its natural prey of mice, insects, birds, lizards, and other small creatures. During the past 100 years or so, as the human food industry was searching for a way to salvage and use all the waste materials from its processing lines, it came upon a wonderful solution. Lets boil it all up and dry it out and add it to the food we make for cats and dogs. As a result, the vast majority of commercial pet foods contain what are euphemistically referred to as the four D's, dead, dying, disabled, and diseased animals, along with other quite undesirable materials. Quite frankly, if you are feeding this junk to your pets, you are effectively poisoning them. We are seeing diseases in pets today that we have never seen before because of the wide variety of contaminated ingredients that are finding their way into the food we feed our companion animals. You know "garbage in, garbage out!"<br /><br />Now the issue here is not meat; it is about providing all the essential and non-essential amino acids (the building blocks of proteins) and vitamins and minerals that are bio-available to the particularly unique physiology of felids (cats). The quality, quantity, and availability of these nutrients can come from any source, and for those of us who are vegan, the best source is vegetable based.<br /><br />Tens of thousands, perhaps hundreds of thousands, of cats around the world live quite well on one of the several available vegan cat foods that are recognized as nutritionally complete. I personally have had 3 1/2 years of experience in feeding the Evolution kibble product that this review is addressing. It is a high quality product that is AAFCO certified as nutritionally complete for all life stages in cats. Not only is this product safe to feed your cat, but if you follow the recommended feeding procedures, you will find many benefits to both your cat's health and your wallet.<br /><br />If you desire more detailed information, I invite you to do a google search on vegan cats. I would put my web page information about this issue on this review, but it is against the policy for writing reviews on Amazon.<br /><br />Just for everyone's edification, I have researched this issue for well over 500 hours, read hundreds of technical papers, visited hundreds of web sites, and have made a commitment to specialize in feline nutrition as part of my Veterinary Technician studies. I probably know more about feline nutrition than 95% of all the vets in the world.<br /><br />My feline son is a vegan and will remain so because I am absolutely certain that his quality of life will be enhanced by his diet and that this choice will not be a detriment to his health.<br /><br />-----<br /><br />Since writing this review in 2006 I have had a change in position about this particular product after 4 years of personal experience. The manufacturer of the Evolution foods was changing the formulation of the food on a regular basis and during that time I found that the Feline Kibble was not able to maintain the pH level in the urine of cats that was promised on the label and in their literature. At least that wasn't the case with my former feline son and my current feline son. As a result I can no longer recommend the use of Evolution Feline Kibble for male cats. Since urinary issues are different between male and female cats the Evolution Kibble MAY be satisfactory for feeding to female cats. Nutritionally the Evolution foods seem to be fine for nutrients but not necessarily adequate for maintaining the proper pH levels to avoid urinary issues for male cats.<br /><br />Consequently I am now recommending male cats use the Vegecat pH diet provided by Harbingers of a New Age. My son has been eating this food supplement in a specially prepared gluten formulation I created called a vegan feline roast. It is 62% protein, 33% fat, and 5% carbs and has a moisture content of about 60%. Almost a perfect combination of ingredients to mimic natural prey. My son finds this product to be very palatable and his urinary pH has been consistently at 6.4 for the three years that we have been producing and consuming this food. The drawback is that it takes about a half hour every 3 days to make the food and the cost is equivalent to a premium cat food. But on the other hand my son is trim, full of energy at 6 1/2 years, enjoys great health, no longer has urinary tract issues, and no other animal had to die in order to provide my son with life-giving nutrition.<br /><br />UPDATE: 4/17/11<br /><br />For those of you who are still considering feeding the Evolution kibble, please heed this warning. Kibble is only 10% moisture content. If you follow the directions given by the manufacturer to soak the kibble prior to feeding, you will end up with a mushy material that your cats may or may not like. The danger in feeding the dry kibble is that your cat will eventually become so dehydrated that no amount of drinking will be sufficient to avoid hydration related illnesses. Cats do not naturally drink water, they almost exclusively obtain all of their hydration from the food that th

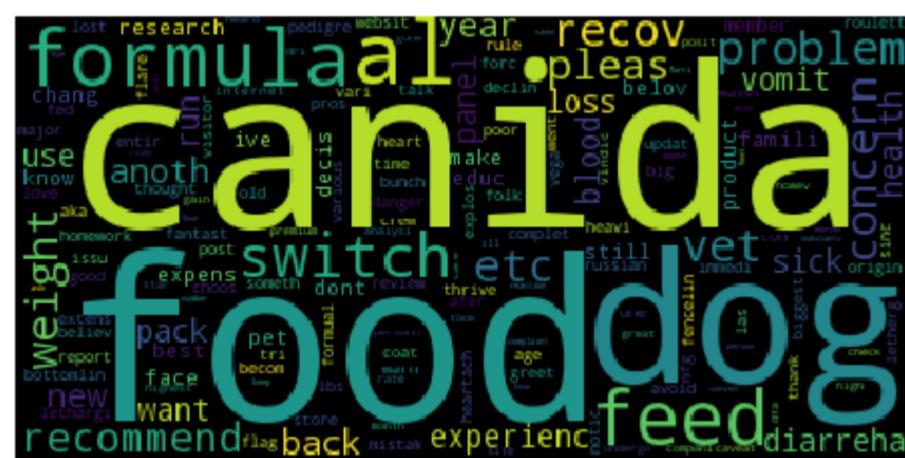
Agglomerative Clustering for Amazon food reviews

ey consume. If they are eating something that only has 10% moisture, upon consumption the moisture that is contained within the digestive tract of the cat will be sucked into the food in order to give it enough fluidity to pass through the intestines. This will often lead to gastro-intestinal diseases. Your cat will be constantly drinking water to make up for that deficiency, but no amount of drinking is enough to avoid the dehydration problem. So please remember that the best source of moisture for your cat's health, comes from a wet food diet that is around 70% moisture.  
  
In October 2008 I wrote an article about vegan cats published in VegFamily magazine. This information and more will help those who are interested in a vegan diet for cats understand more of the issues.  
  
UPDATE: 8/27/12  
  
My vegan feline son is now 8 years old and still maintains an extremely healthy life with absolutely no issues of any kind. He has been using our Vegan Feline Roast product for the past 5 and 1/2 years and his lab tests indicate that his nutritional needs are being adequately met by his vegan diet.  
  
For those who are sceptical about a vegan diet for house cats, there is ample evidence that several vegan products are available to satisfy the nutritional needs of cats. I am still not convinced that Evolution is a good product to feed based on my past history. There are thousands of customers that seem to successfully feed the Evolution product; however, I believe that our Vegan Feline Roast Mix is a superior product that will yield far better results over the lifetime of feeding any house cat. Our product is based on the Vegecat phi supplement offered by HOANA, which I have found to be an excellent product for hitting all of the missing nutritional elements that would otherwise come from meat. The Vegecat product line has been successfully feeding thousands of cats over a 27 year period and we highly recommend the use of Vegecat for those people who wish to formulate their own vegan cat food. The only difference between our food product and the HOANA vegecat product is that our product is a ready-to-make mix that has been specifically formulated for a high protein/high fat food that is easy to make and highly palatable to the vast majority of cats.  
  
I would caution people feeding the Evolution kibble to reconsider doing so. The problem with kibble in general, not just the Evolution product, is the 10% moisture content of the food. Cats that eat kibble exclusively will invariably become dehydrated and will not be able to consume enough water by drinking to avoid the condition. Evolution kibble that is soaked with water prior to feeding, as recommended by the manufacturer, is an attempt to avoid this issue. However, by soaking the product you will reduce the palatability quality to most cats and will make it harder for them to continue to want to eat the product. This is a strategy to fix a problem that is inherent to the product itself.  
  
As time goes on, I become more convinced that using our Vegan Feline Roast product may in fact be a cure for diseases in cats like FLUTD and diabetes. At some point in time I would like to perform a long term double blind scientifically significant study to support my empirical observations. When my son started out 7 years ago eating Evolution kibble, he quickly developed a FLUTD condition, after 18 months of use, that cost \$1500 at the vet to fix. The last 5 1/2 years of eating nothing but our Vegan Feline Roast he has remained FLUTD free and maintains excellent health. Just the savings alone from avoiding annual teeth cleaning has more than paid for itself in the use of our product.  
  
So my bottom line is to recommend not using Evolution Kibble in favor of either the HOANA vegecat supplement or our Vegan Feline Roast Mix.

Name: Reviews, dtype: object

## \*\*\*\*\* Cluster 8 \*\*\*\*\*

## Plot of Word Cloud



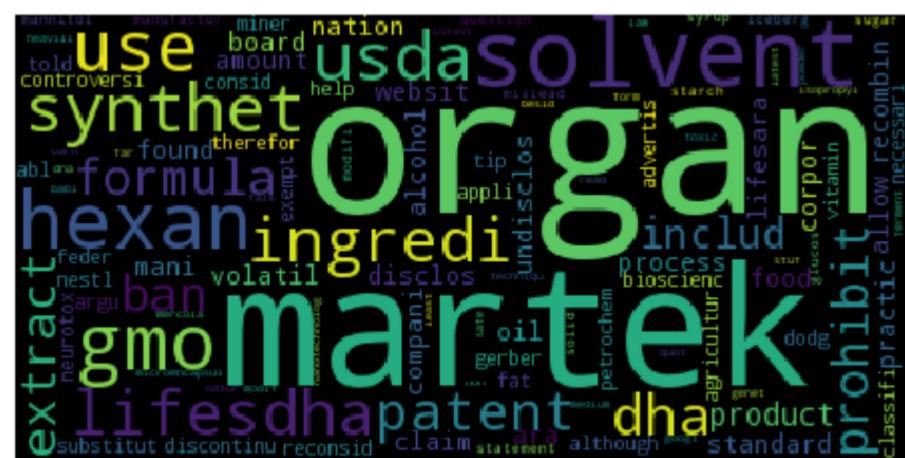
Printing all reviews from cluster 8

I fed Canidae ALS (old formula) for 7+ years and my dogs thrived. Canidae switched their formula (and mfg) and I immediately switched to another food after the reported problems. My feed store talked me into trying their 'new' formula, and I went back to ALS - BIG mistake. I have experienced 15-20% weight loss, explosive diarrhoea, vomiting, lethargy, etc. I have 5 dogs - 60-100+ lbs, varying pedigrees, ages 1 to 12+ - all sick (15-20% weight loss, poor coats, vomiting, etc.). I have had to run complete extensive blood panels to rule out other health problems on all the dogs - bottomline - blood panels were OK, food (Canidae) was the issue. What used to be a fantastic food is now a very dangerous food to feed. An entire pack of dogs' health declined on the 'new' formula. I switched foods (something other than Canidae) and my dogs are now recovering. If you love Las Vegas and Russian Roulette feed Canidae - if want to avoid major Vet expenses and heartache choose another food. Do your homework - research the Canidae ALS problems - then make the best 'educated' decision for you and your pets.  
----  
It's been over a year since I originally posted review of this product, and I thought it was time for an update.  
  
I still warn folks from feeding Canidae ALS...other Canidae formulas I don't know. My dogs have recovered (thank goodness). They are back to running the fenceline, greeting visitors, etc. - and not as sickly as they had become - aka the lethargic, diarrhoea, lost weight crew I was faced with.  
  
I know there are a bunch of pros and cons out there on various websites concerning Canidae - and I used to be one of the biggest 'flag wavers' for Canidae....until the formula change and the Vet expenses I was forced to face. Believe me - with a very heavy heart I cannot recommend Canidae any more. I do not do this with a flare of being noticed on the Internet, any vindications against the company, or any personal gain...just a great concern for the illnesses I've experienced with my 'pack' (5+ dogs). It took several months (under Vet care & dry dog food changes) for my dogs to recover, and I don't want to see any other 'beloved family members' undergo what I've/we've gone through. Please, please, PLEASE check out [...] (a highly recommended (non-bias)dog food analysis site). They are still recommending Canidae ALS as a 5-Star (6 star being the highest rating) premium food to feed - with the caveat 'However, from a position of being a product about which DFA heard very few complaints, the number of animals we hear of that do not do well on this food appears to have risen substantially.'  
  
All I ask is do your own personal research concerning this food, keep an eye on your pet's food reactions, and make the best 'educated' decision for your beloved 'four footed/furry' family members.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 9 \*\*\*\*\*

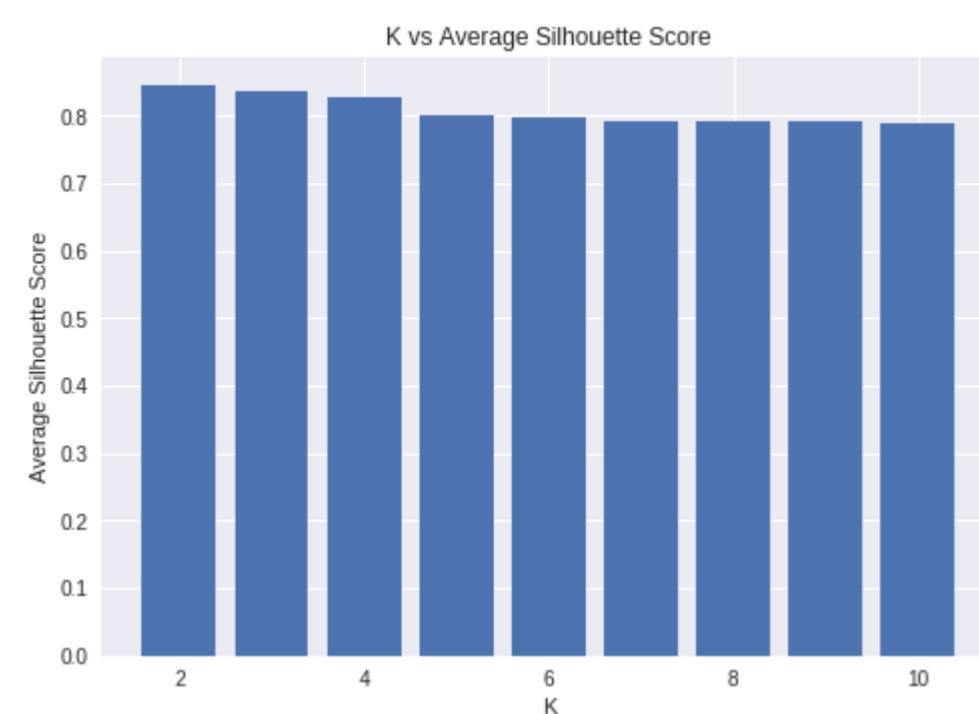
## Plot of Word Cloud



Printing all reviews from cluster 9

RECONSIDER THIS FORMULA!!  
Martek advertises this formula on their website! Nestle owns Gerber now  
"Although Martek told the board that they would discontinue the use of the controversial neurotoxic solvent n-hexane for DHA/ARA processing, they did not disclose what other synthetic solvents would be substituted. Federal organic standards prohibit the use of all synthetic/petrochemical solvents".  
Martek Biosciences was able to dodge the ban on hexane-extraction by claiming USDA does not consider omega-3 and omega-6 fats to be "agricultural ingredients." Therefore, they argue, the ban against hexane extraction does not apply. The USDA helped them out by classifying those oils as "necessary vitamins and minerals," which are exempt from the hexane ban. But hexane-extraction is just the tip of the iceberg. Other questionable manufacturing practices and misleading statements by Martek included:  
Undisclosed synthetic ingredients, prohibited for use in organics (including the sugar alcohol mannitol, modified starch, glucose syrup solids, and "other" undisclosed ingredients)  
Microencapsulation of the powder and nanotechnology, which are prohibited under organic laws  
Use of volatile synthetic solvents, besides hexane (such as isopropyl alcohol)  
Recombinant DNA techniques and other forms of genetic modification of organisms; mutagenesis; use of GMO corn as a fermentation medium  
Heavily processed ingredients that are far from "natural"  
  
quote from: Why is this Organic Food Stuffed With Toxic Solvents? by Dr. Mercola - GOOGLE GMOs found in Martek.  
This is the latest I have found on DHA in organic and non organic baby food/ formula:  
AT LEAST READ THIS ONE\*\*\* GOOGLE- False Claims That DHA in Organic and Non-Organic Infant Formula Is Safe. AND OrganicconsumersDOTorg  
Martek's patents for Life'sDHA states: "includes mutant organisms" and "recombinant organisms", (a.k.a. GMOs!) The patents explain that the oil is "extracted readily with an effective amount of solvent ... a preferred solvent is hexane."  
The patent for Life'sSARA states: "genetically-engineering microorganisms to produce increased amounts of arachidonic acid" and "extraction with solvents such as ... hexane." Martek has many other patents for DHA and ARA. All of them include GMOs. GMOs and volatile synthetic solvents like hexane aren't allowed in USDA Organic products and ingredients.  
Tragically, Martek's Life'sDHA is already in hundreds of products, many of them certified USDA Organic. Please demand that the National Organic Standards Board reject Martek's petition, and that the USDA National Organic Program inform the company that the illegal 2006 approval is rescinded and that their GMO, hexane-extracted Life'sDHA and Life'sSARA are no longer allowed in organic products.  
  
BUT I went to the lifesdha website and THEY DO NOT DISCLOSE HOW THEY MAKE THEIR LifesDHA!!! I have contacted the company to see what they say.  
Also these are the corporate practices of Martek which are damaging to the environment as well written just last Dec 2011 at NaturalnewsDOTcom  
The best bet is to just avoid the lifeDHA at this time in my opinion b/c corporate america cares more about the almighty \$ than your health

Name: Reviews, dtype: object



```
The average Silhouette value of K = 2 is 0.8451231662497245
The average Silhouette value of K = 3 is 0.8374437248886673
The average Silhouette value of K = 4 is 0.827708141243027
The average Silhouette value of K = 5 is 0.8001011969020327
The average Silhouette value of K = 6 is 0.7984935466454305
The average Silhouette value of K = 7 is 0.7923175440028498
The average Silhouette value of K = 8 is 0.7917119022680652
The average Silhouette value of K = 9 is 0.7908962934132582
The average Silhouette value of K = 10 is 0.7903202540892388
```

We can observe that K = 2 has the highest average silhouette score of 0.8451231662497245.

The wordcloud and reviews for K = 2 is already output above.

#### Observations:

1. Wordcloud and reviews are printed for k values of 2, 5, 10 to get a sense of what's going on with the data.
2. Silhouette scores are plotted for each values of k ranging from 2 to 10. It is observed that k=2 has the highest average silhouette score, hence we declare that k=2 is the best suited number of clusters.
3. When k=2, cluster 0 has 4999 elements compared to 1 in cluster 1.
4. Cluster 0 reviews mostly revolve the word 'tast', 'use', 'one', 'product'.
5. Cluster 1 reviews mostly revolve around the word 'product' and 'cat' which gives us the sense that it is about cat food.
6. This featurization produced almost similar results to that of Bag of Words.

## TFIDF

```
In [0]: import pandas as pd
final = pd.read_csv("grouped_data_200.csv")
p = final.groupby('Score')
pos = p.get_group('Positive') #Gets the groups with Positive score
neg = p.get_group('Negative') #Gets the groups with Negative score
pos_2000 = pos.sample(3000) #Gets 3000 reviews of positive and 2000 negative scores
neg_2000 = neg.sample(2000)
grouped_data = pd.concat([pos_2000, neg_2000], ignore_index = True) #This data now contains positive and negative data in order.
grouped_data.dropna(inplace = True) #Drops rows with Nan
grouped_data.reset_index(inplace=True) #Replaces missing indexes
grouped_data.drop(['Unnamed: 0', 'Unnamed: 0.1', 'Score'], axis=1, inplace=True)
grouped_data = grouped_data.sort_values('Time', axis=0, ascending=True, kind='quicksort')
print("The shape of grouped data is {}".format(grouped_data.shape))
```

The shape of grouped data is (5000, 11)

Observations: A csv file is imported which consists of 200000 data points. These data points are already sorted on the basis of time. We create a new dataframe with over 5000 data points.

```
In [0]: tf_idf_vect = TfidfVectorizer(ngram_range=(1,2))
vocab_tf_idf = tf_idf_vect.fit_transform(grouped_data['CleanedText'].values.astype('U')) #Converts to a sparse matrix of TF-IDF vectors.
```

Observations: TFIDF vectorizations of the data is obtained.

```
In [0]: data = StandardScaler(with_mean=False).fit_transform(vocab_tf_idf)
```

Observations: Data is standardized.

```
In [0]: svd = TruncatedSVD(n_components = 1000)
data = svd.fit_transform(data)
print(svd.explained_variance_ratio_.sum())
```

0.47832529882040753

Observations: Dimensionality reduction is performed and percentage of variance retained is shown.

```
In [0]: aggro cluster(grouped_data,data)
```

===== When number of clusters is 2 =====

Creating a dataframe with Reviews, Cleaned text and Clusters...  
Dataframe is created!

```
The number of reviews in each cluster is:  
0      4999  
1       1  
Name: Clusters, dtype: int64
```

\*\*\*\*\*

## \*\*\*\*\* Cluster 0 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 0

0 This mix was given to me originally by someone from Cincinnati. But in the East Coast city where I live, can't find it anywhere. Good mixture of spices, keeps for years, a nice recipe you can make which is a little different but tasty and quick. Always a hit when I make it.

0 This is really quality olive oil for almost the same price if not better than what you'll find in the grocery store. It has a strong, nutty flavor, reminding us of the freshly pressed oils we've have in Tuscany, Italy.

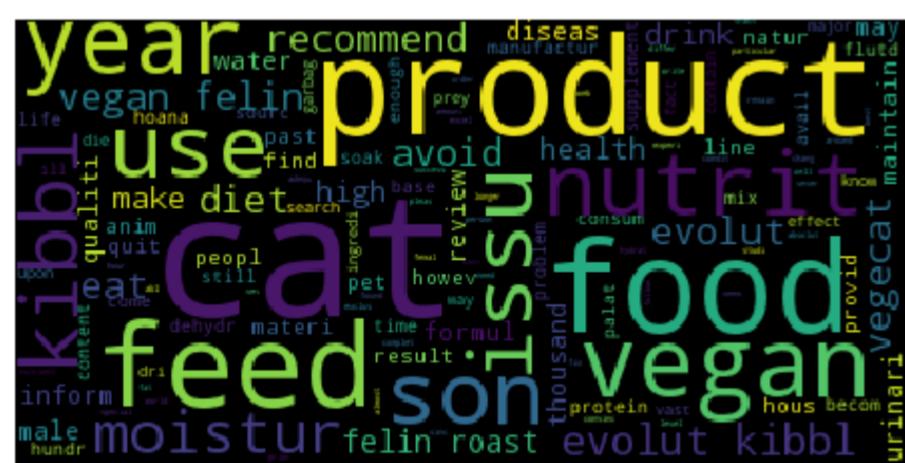
0 After having REAL Lichee tea in a California Chinese restaurant, I found that FooJoy Lichee tea is all but flavorless! I would not recommend it to anyone!

0 The crisps are simply delicious. I feel like I am eating something sinful but they are healthier than potato chips or cheese puff snacks. I was hooked on them and ordered two cases after tasting just one crisp. It was absolute genius to make snap peas into a tasteful snack. I recommend this product as a healthier alternative to Cheetos or potato chips. Enjoy!

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 1 \*\*\*\*\*

## Plot of Word Cloud



Printing all reviews from cluster 1

Unfortunately most people are ill informed about vegan cats, including most veterinarians.  
  
Wild cats are in fact obligate carnivores. However, in domesticating the house cat and bringing it into our homes we have effectively removed the cat from its natural prey of mice, insects, birds, lizards, and other small creatures. During the past 100 years or so, as the human food industry was searching for a way to salvage and use all the waste materials from its processing lines, it came upon a wonderful solution. Lets boil it all up and dry it out and add it to the food we make for cats and dogs. As a result, the vast majority of commercial pet foods contain what are euphemistically referred to as the four D's, dead, dying, disabled, and diseased animals, along with other quite undesirable materials. Quite frankly, if you are feeding this junk to your pets, you are effectively poisoning them. We are seeing diseases in pets today that we have never seen before because of the wide variety of contaminated ingredients that are finding their way into the food we feed our companion animals. You know "garbage in, garbage out!"  
  
Now the issue here is not meat; it is about providing all the essential and non-essential amino acids (the building blocks of proteins) and vitamins and minerals that are bio-available to the particularly unique physiology of felids (cats). The quality, quantity, and availability of these nutrients can come from any source, and for those of us who are vegan, the best source is vegetable based.  
  
Tens of thousands, perhaps hundreds of thousands, of cats around the world live quite well on one of the several available vegan cat foods that are recognized as nutritionally complete. I personally have had 3 1/2 years of experience in feeding the Evolution kibble product that this review is addressing. It is a high quality product that is AAFCO certified as nutritionally complete for all life stages in cats. Not only is this product safe to feed your cat, but if you follow the recommended feeding procedures, you will find many benefits to both your cat's health and your wallet.  
  
If you desire more detailed information, I invite you to do a google search on vegan cats. I would put my web page information about this issue on this review, but it is against the policy for writing reviews on Amazon.  
  
Just for everyone's edification, I have researched this issue for well over 500 hours, read hundreds of technical papers, visited hundreds of web sites, and have made a commitment to specialize in feline nutrition as part of my Veterinary Technician studies. I probably know more about feline nutrition than 95% of all the vets in the world.  
  
My feline son is a vegan and will remain so because I am absolutely certain that his quality of life will be enhanced by his diet and that this choice will not be a detriment to his health.  
-----  
  
Since writing this review in 2006 I have had a change in position about this particular product after 4 years of personal experience. The manufacturer of the Evolution foods was changing the formulation of the food on a regular basis and during that time I found that the Feline Kibble was not able to maintain the pH level in the urine of cats that was promised on the label and in their literature. At least that wasn't the case with my former feline son and my current feline son. As a result I can no longer recommend the use of Evolution Feline Kibble for male cats. Since urinary issues are different between male and female cats the Evolution Kibble MAY be satisfactory for feeding to female cats. Nutritionally the Evolution foods seem to be fine for nutrients but not necessarily adequate for maintaining the proper pH levels to avoid urinary issues for male cats.  
  
Consequently I am now recommending male cats use the Vegecat pH diet provided by Harbingers of a New Age. My son has been eating this food supplement in a specially prepared gluten formulation I created called a vegan feline roast. It is 62% protein, 33% fat, and 5% carbs and has a moisture content of about 60%. Almost a perfect combination of ingredients to mimic natural prey. My son finds this product to be very palatable and his urinary pH has been consistently at 6.4 for the three years that we have been producing and consuming this food. The drawback is that it takes about a half hour every 3 days to make the food and the cost is equivalent to a premium cat food. But on the other hand my son is trim, full of energy at 6 1/2 years, enjoys great health, no longer has urinary tract issues, and no other animal had to die in order to provide my son with life-giving nutrition.  
  
UPDATE: 4/17/11  
  
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ou will end up with a mushy material that your cats may or may not like. The danger in feeding the dry kibble is that your cat will eventually become so dehydrated that no amount of drinking will be sufficient to avoid hydration related illnesses. Cats do not naturally drink water, they almost exclusively obtain all of their hydration from the food that they consume. If they are eating something that only has 10% moisture, upon consumption the moisture that is contained within the digestive tract of the cat will be sucked into the food in order to give it enough fluidity to pass through the intestines. This will often lead to gastro-intestinal diseases. Your cat will be constantly drinking water to make up for that deficiency, but no amount of drinking is enough to avoid the dehydration problem. So please remember that the best source of moisture for your cat's health, comes from a wet food diet that is around 70% moisture.  
 In October 2008 I wrote an article about vegan cats published in VegFamily magazine. This information and more will help those who are interested in a vegan diet for cats understand more of the issues.  
 UPDATE: 8/27/12  
 My vegan feline son is now 8 years old and still maintains an extremely healthy life with absolutely no issues of any kind. He has been using our Vegan Feline Roast product for the past 5 and 1/2 years and his lab tests indicate that his nutritional needs are being adequately met by his vegan diet.  
 For those who are sceptical about a vegan diet for house cats, there is ample evidence that several vegan products are available to satisfy the nutritional needs of cats. I am still not convinced that Evolution is a good product to feed based on my past history. There are thousands of customers that seem to successfully feed the Evolution product; however, I believe that our Vegan Feline Roast Mix is a superior product that will yield far better results over the lifetime of feeding any house cat. Our product is based on the Vegecat phi supplement offered by HOANA, which I have found to be an excellent product for hitting all of the missing nutritional elements that would otherwise come from meat. The Vegecat product line has been successfully feeding thousands of cats over a 27 year period and we highly recommend the use of Vegecat for those people who wish to formulate their own vegan cat food. The only difference between our food product and the HOANA vegecat product is that our product is a ready-to-make mix that has been specifically formulated for a high protein/high fat food that is easy to make and highly palatable to the vast majority of cats.  
 I would caution people feeding the Evolution kibble to reconsider doing so. The problem with kibble in general, not just the Evolution product, is the 10% moisture content of the food. Cats that eat kibble exclusively will invariably become dehydrated and will not be able to consume enough water by drinking to avoid the condition. Evolution kibble that is soaked with water prior to feeding, as recommended by the manufacturer, is an attempt to avoid this issue. However, by soaking the product you will reduce the palatability quality to most cats and will make it harder for them to continue to want to eat the product. This is a strategy to fix a problem that is inherent to the product itself.  
 As time goes on, I become more convinced that using our Vegan Feline Roast product may in fact be a cure for diseases in cats like FLUTD and diabetes. At some point in time I would like to perform a long term double blind scientifically significant study to support my empirical observations. When my son started out 7 years ago eating Evolution kibble, he quickly developed a FLUTD condition, after 18 months of use, that cost \$1500 at the vet to fix. The last 5 1/2 years of eating nothing but our Vegan Feline Roast he has remained FLUTD free and maintains excellent health. Just the savings alone from avoiding annual teeth cleaning has more than paid for itself in the use of our product.  
 So my bottom line is to recommend not using Evolution Kibble in favor of either the HOANA vegecat supplement or our Vegan Feline Roast Mix.

Name: Reviews, dtype: object

===== When number of clusters is 5 =====

Creating a dataframe with Reviews, Cleaned text and Clusters...  
 Dataframe is created!

The number of reviews in each cluster is:

0	4996
3	1
2	1
1	1
4	1

Name: Clusters, dtype: int64

\*\*\*\*\*

\*\*\*\*\* Cluster 0 \*\*\*\*\*

Plot of Word Cloud



Printing 4 random reviews from cluster 0

0 This mix was given to me originally by someone from Cincinnati. But in the East Coast city where I live, can't find it anywhere. Good mixture of spices, keeps for years, a nice recipe you can make which is a little different but tasty and quick. Always a hit when I make it.

0 This is really quality olive oil for almost the same price if not better than what you'll find in the grocery store. It has a strong, nutty flavor, reminding us of the freshly pressed oils we've have in Tuscany, Italy.

0 After having REAL Lichee tea in a California Chinese restaurant, I found that FooJoy Lichee tea is all but flavorless! I would not recommend it to anyone!

0 The crisps are simply delicious. I feel like I am eating something sinful but they are healthier than potato chips or cheese puff snacks. I was hooked on them and ordered two cases after tasting just one crisp. It was absolute genius to make snap peas into a tasteful snack. I recommend this product as a healthier alternative to Cheetos or potato chips. Enjoy!

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 1 \*\*\*\*\*

Plot of Word Cloud



Printing all reviews from cluster 1

Printing all reviews from cluster 1

1 I recently bought a 7-week-old collie puppy for my granddaughter. Joy, the puppy was taken from her mother at 2 weeks along with 9 siblings because the mother was not producing enough milk. It was the mother's first litter. The pups were hand fed a formula and were a bit small and frail for their ages though their price was not. At any rate the breeder had them on Pedigree puppy food when we purchased her and though their is nothing wrong with the brand I wanted something better for her due to her early weaning. Our 2-year-old Labradoodle is fed "Castor & Pollux" which really improved her coat and stamina etc. when we switched from another brand so I bought Puppy food in the same brand. However our Vet told us that she was unfamiliar with the brand, and that she wouldn't feed it to her. Instead she recommended "Purina One Smart Blend Puppy Formula". I of course ordered a bag and stated mixing it with the Pedigree to switch Joy over slowly so as not to upset her digestive system. She has now had Diarrhea for 4 days, her stool sample shows no abnormalities and after taking her to the vet she is being treated with medicine. On reading the list of ingredients on the bag of Purina I saw it contained something called "ANIMAL DIGEST". I thought "what in the world could that be?" On searching the Internet low and behold I discovered this web site.  
[...]  
which the following came from  
  
"Since the pet food recalls I'd like to believe we've all grown a little more aware of what we're feeding our beloved pets. In this blog I'd like to call your attention to an ingredient that is so common in many lower quality foods and dog treats. Animal Digest is often included in many commercial treats and bottom of the barrel dog foods. Be prepared to be grossed out when I explain to you what this product really is! According to AAFCO (The term AAFCO stands for the Association of American Feed Control Officials; they provide regulatory guidelines for the manufacturing of pet foods) standards, Animal Digest is  
"Animal Digest - material which results from chemical and/or enzymatic hydrolysis of clean and un-decomposed animal tissue. The animal tissues used shall be exclusive of hair, horns, teeth, hooves and feathers, except in such trace amounts as might occur unavoidably in good factory practice and shall be suitable for animal feed."  
Yuck!  
Another expert has described Animal Digest as "a cooked-down broth which can be made from unspecified parts of unspecified animals." The animals can be collected from almost any source. There is no control set in place over quality or contamination. Any kind of animal can be included: "4-D animals" (dead, diseased, disabled, or dying before slaughter), goats, pigs, sheep, horses, rats, euthanized at animal shelters, restaurant and supermarket waste, road kill, etc.  
That is about as gross as it gets.  
Please read your bags carefully and choose treats with ingredients that you can pronounce and understand.  
After reading this I tossed the Purina in the trash and opened the bag of Castor & Pollux. Once again an intelligent, Professional, trained person just accepted the word of an authoritative institution i.e. the "AAFCO" as FACT and has no doubt along with untold numbers of others in her profession recommended it to her clients to put in their pets bodies.  
This is perhaps the microcosm to the macrocosm that is today's America. We-the-People have just taken the word of all our institutions and so called leaders unquestioningly. Look where it has gotten us! I may not be able to change that unfortunate fact of human nature but I can change Joy's nutritional intake and have despite the increased cost. Sometimes you do get what you pay for. I highly recommend Amazon.com but do your dogs a favor and buy the Castor & Pollux for them or some other quality brand instead of one containing "Animal Digest"

Name: Reviews, dtype: object

## \*\*\*\*\* Cluster 2 \*\*\*\*\*

## Plot of Word Cloud



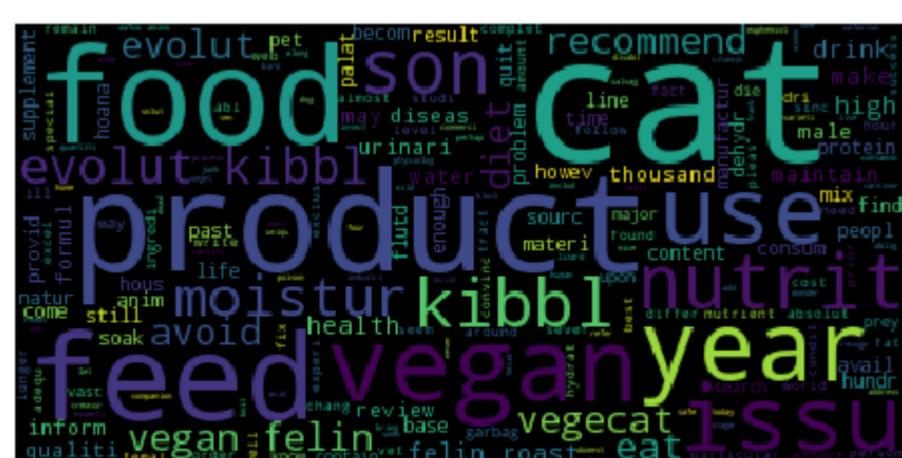
Printing all reviews from cluster 2

2 SADLY, I FOUND OUT THE HARD WAY THAT THESE MOO BULLY STICKS ARE NOT 100% DIGESTIBLE! MY DOG ALMOST DIED AFTER A PIECE DID NOT DISSOLVE IN HER STOMACH. My 3 dogs loved these Moo Bully sticks. I was buying them and giving them because I felt it might causes a chocking danger. I always had plenty of water close by. One day I noticed my dog, Lily, was having very loose stools and that were jelly like in consistency. This same day she stopped eating and began vomiting. I immediately rushed her to my veterinarian. Upon his physical exam he noted that her abdomen was hard and distended. He wanted me to leave her with him so he could do a x-ray. He did and found that she had a bloackege in her stomach! He then started a series of Barium x-rays to watch the blockage to see if it was going to pass. Over a 4 hour period of watching and repeating these barium x-rays it not only showed that the blockage was not passing, but the "item" causing the blockage was swelling in size, absorbing the stomach fluids. I was told he had to do emergency surgery to get this blockage out of her AS AP. What he found in her stomach was most definitely a piece of the Moo Bully stick! It had not digested as claimed by the manufacture if swallowed. My veterinarian told me if he had not brought Lily in as promptly as I did, to remove this blockage, she most definitely would have died! He told me that this was not 100% digestible as the manufacture had claimed it to be. If it had been, it would have dissolved in her stomach! Lily had major abdominal exploratory surgery that lasted over 3 hours, to remove this piece the piece of Moo Bully stick! She was hospitalized afterwards for 4 nights and 5 days. She almost did not make. Lily refused eat for 5 days. She therefore lost a lot of weight, became very frail and lethargic. Thank god, my veterinarian was fabulous. He was so concerned for Lily, that he actually stayed by her side at night, every night making sure he did everything he could to pull her through this. Once home she was weak and could barely walk. I tried to get her to eat and she refused. I was offering her cooked chicken liver and even this did not even entice her to eat. Finally, the next day, she did begin to nibble on some food. It was a very slow healing process and took Lily over a month until she was herself again. The thought of losing Lily tore me apart. Watching the pain and suffering she went though cannot be put into words. I felt so helpless. It was nothing but a pure hell that she and I went though for weeks on end. I was also feeling so guilty because I gave her the MOO Bully stick. You see, I only feed my dogs the very best, high quality organic dog foods. I never ever ever would give my dogs anything that was not the best and the safest. I never gave my dogs raw hide chewies or greenies( Any dog owner that cares about the welfare of their a dog knows how dangerous and deadly these products are) I started giving my dogs the Moo bully sticks because everything I had read and researched lead me to believe not only were they safe, 100% DIGESTIBLE, but that they came from Brazil cattle that only grazed on non chemically treated grass, were not feed any hormones and drank from fresh natural spring water. There was nothing harmful in this product. So I stared giving my dogs these MOO bully sticks. I am a very dedicated, caring, responsible animal lover and owner. I wrote letters to the companies I purchased the Moo Bully sticks form as well as the manufacturer. Only one retailer responded to my letter by referring me to the manufacturer. The manufacturer of these Moo Bully Sticks, " Free Range Dog Products " totally ignored both of my certified letters. So many owners have no clue that their dogs may have become sick or died due to a piece of a Bully stick that did not digest. What if their vet missed the symptoms? What if they never took their dog to a vet after becoming ill and the dog died? What if they never discovered what killed their dog? Not everyone can afford to pay for surgery on their dogs, x-rays, lab work, medicines, and a hospital stay. My vet bill was almost \$5,000.00 My vet even discounted most of what he did, as well not charge me for everything. In fact, he felt so bad, that he did not charge me for staying by her side for all through the night, on those 4 nights. What if a dog died or got very ill when ingesting a piece of these Bully sticks and never came forth to inform the public? Maybe mine is the very first case? But all it should take is one, to satisfy anyone not to ever buy this product and give it their beloved dogs. PLEASE, PLEASE, PLEASE, DO NOT EVER GIVE YOUR DOGS ANY TYPE OF A BULLY STICK PRODUCT! PASS THIS INFO ALONG TO ANYONE THAT YOU KNOW HAS A DOG. YOU MIGHT JUST SAVE A DOGS LIFE. I HAD TO HIGHLIGHT ONE STAR TO GET THIS POST! :-(

Name: Reviews, dtype: object

## \*\*\*\*\* Cluster 3 \*\*\*\*\*

## Plot of Word Cloud



Printing all reviews from cluster 3

3 Unfortunately most people are ill informed about vegan cats, including most veterinarians.  
  
Wild cats are in fact obligate carnivores. However, in domesticating the house cat and bringing it into our homes we have effectively removed the cat from its natural prey of mice, insects, birds, lizards, and other small creatures. During the past 100 years or so, as the human food industry was searching for a way to salvage and use all the waste materials from its processing lines, it came upon a wonderful solution. Lets boil it all up and dry it out and add it to the food we make for cats and dogs. As a result, the vast majority of commercial pet foods contain what are euphemistically referred to as the four D's, dead, dying, disabled, and diseased animals, along with other quite undesirable materials. Quite frankly, if you are feeding this junk to your pets, you are effectively poisoning them. We are seeing diseases in pets today that we have never seen before because of the wide variety of contaminated ingredients that are finding their way into the food we feed our companion animals. You know "garbage in, garbage out!"  
  
Now the issue here is not meat; it is about providing all the essential and non-essential amino acids

(the building blocks of proteins) and vitamins and minerals that are bio-available to the particularly unique physiology of felids (cats). The quality, quantity, and availability of these nutrients can come from any source, and for those of us who are vegan, the best source is vegetable based.  
 ><br />Tens of thousands, perhaps hundreds of thousands, of cats around the world live quite well on one of the several available vegan cat foods that are recognized as nutritionally complete. I personally have had 3 1/2 years of experience in feeding the Evolution kibble product that this review is addressing. It is a high quality product that is AAFCO certified as nutritionally complete for all life stages in cats. Not only is this product safe to feed your cat, but if you follow the recommended feeding procedures, you will find many benefits to both your cat's health and your wallet.  
 ><br />If you desire more detailed information, I invite you to do a google search on vegan cats. I would put my web page information about this issue on this review, but it is against the policy for writing reviews on Amazon.  
 ><br />Just for everyone's edification, I have researched this issue for well over 500 hours, read hundreds of technical papers, visited hundreds of web sites, and have made a commitment to specialize in feline nutrition as part of my Veterinary Technician studies. I probably know more about feline nutrition than 95% of all the vets in the world.  
 ><br /><br />My feline son is a vegan and will remain so because I am absolutely certain that his quality of life will be enhanced by his diet and that this choice will not be a detriment to his health.  
 -----  
 ><br /><br />Since writing this review in 2006 I have had a change in position about this particular product after 4 years of personal experience. The manufacturer of the Evolution foods was changing the formulation of the food on a regular basis and during that time I found that the Feline Kibble was not able to maintain the pH level in the urine of cats that was promised on the label and in their literature. At least that wasn't the case with my former feline son and my current feline son. As a result I can no longer recommend the use of Evolution Feline Kibble for male cats. Since urinary issues are different between male and female cats the Evolution Kibble MAY be satisfactory for feeding to female cats. Nutritionally the Evolution foods seem to be fine for nutrients but not necessarily adequate for maintaining the proper pH levels to avoid urinary issues for male cats.  
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 ><br />UPDATE: 4/17/11  
 ><br />For those of you who are still considering feeding the Evolution kibble, please heed this warning. Kibble is only 10% moisture content. If you follow the directions given by the manufacturer to soak the kibble prior to feeding, you will end up with a mushy material that your cats may or may not like. The danger in feeding the dry kibble is that your cat will eventually become so dehydrated that no amount of drinking will be sufficient to avoid hydration related illnesses. Cats do not naturally drink water, they almost exclusively obtain all of their hydration from the food that they consume. If they are eating something that only has 10% moisture, upon consumption the moisture that is contained within the digestive tract of the cat will be sucked into the food in order to give it enough fluidity to pass through the intestines. This will often lead to gastro-intestinal diseases. Your cat will be constantly drinking water to make up for that deficiency, but no amount of drinking is enough to avoid the dehydration problem. So please remember that the best source of moisture for your cat's health, comes from a wet food diet that is around 70% moisture.  
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 ><br />UPDATE: 8/27/12  
 ><br />My vegan feline son is now 8 years old and still maintains an extremely healthy life with absolutely no issues of any kind. He has been using our Vegan Feline Roast product for the past 5 and 1/2 years and his lab tests indicate that his nutritional needs are being adequately met by his vegan diet.  
 ><br />For those who are sceptical about a vegan diet for house cats, there is ample evidence that several vegan products are available to satisfy the nutritional needs of cats. I am still not convinced that Evolution is a good product to feed based on my past history. There are thousands of customers that seem to successfully feed the Evolution product; however, I believe that our Vegan Feline Roast Mix is a superior product that will yield far better results over the lifetime of feeding any house cat. Our product is based on the Vegecat phi supplement offered by HOANA, which I have found to be an excellent product for hitting all of the missing nutritional elements that would otherwise come from meat. The Vegecat product line has been successfully feeding thousands of cats over a 27 year period and we highly recommend the use of Vegecat for those people who wish to formulate their own vegan cat food. The only difference between our food product and the HOANA vegecat product is that our product is a ready-to-make mix that has been specifically formulated for a high protein/high fat food that is easy to make and highly palatable to the vast majority of cats.  
 ><br />I would caution people feeding the Evolution kibble to reconsider doing so. The problem with kibble in general, not just the Evolution product, is the 10% moisture content of the food. Cats that eat kibble exclusively will invariably become dehydrated and will not be able to consume enough water by drinking to avoid the condition. Evolution kibble that is soaked with water prior to feeding, as recommended by the manufacturer, is an attempt to avoid this issue. However, by soaking the product you will reduce the palatability quality to most cats and will make it harder for them to continue to want to eat the product. This is a strategy to fix a problem that is inherent to the product itself.  
 ><br />As time goes on, I become more convinced that using our Vegan Feline Roast product may in fact be a cure for diseases in cats like FLUTD and diabetes. At some point in time I would like to perform a long term double blind scientifically significant study to support my empirical observations. When my son started out 7 years ago eating Evolution kibble, he quickly developed a FLUTD condition, after 18 months of use, that cost \$1500 at the vet to fix. The last 5 1/2 years of eating nothing but our Vegan Feline Roast he has remained FLUTD free and maintains excellent health. Just the savings alone from avoiding annual teeth cleaning has more than paid for itself in the use of our product.  
 ><br />So my bottom line is to recommend not using Evolution Kibble in favor of either the HOANA vegecat supplement or our Vegan Feline Roast Mix.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 4 \*\*\*\*\*

Plot of Word Cloud



Printing all reviews from cluster 4

4 So I grew up in a townhouse complex with my two best friends being Thai and Indian 1st gen immigrants... I grew up with about a fourth of my food being from their homes--we went to whoever was making the best food. Thai tea was a bit of a guilty obsession for us, especially in the summer. As I got older, the addiction grew, and I've brewed hundreds of gallons of it. That said, I bought this along with the Por Kwan when I couldn't get to my Asian market. The Por Kwan was much better, but neither was especially great; this one is GREEN tea, which Thai tea is NEVER supposed to be. The leaf quality is pretty awful--really dusty, the stems are ground in with the leaves (big no no, clearly cheaply made), and it's DEFINITELY been treated beyond the red dye--which our tea FROM Thailand and Sri Lanka actually didn't need, though admittedly, they weren't garfield orange, more like a pinkish peach, when the milk was added (when it's brewed correctly, GOOD "black" teas will be a lovely red shade; this would likely be a gross putrid yellow-brown without the dye)...  
 ><br />Some people probably add enough sugar to compensate for the chemicals in this, but I can't get over it. I could steep it for 1 minute, 3, or 5 or 10 and it would still have a scent and flavor I (admittedly my sense of taste and smell are keen) am repulsed by--just opening the bag, the smell of a cheap plastic factory's toxic chemicals gently waved in my face like fresh paint. The bag has gone unused as a result... I'm about to toss it, since frankly, I can't trust something I know has had things added to it that make that distinct "not from nature" smell and taste so apparent to me, someone who admittedly mostly buys things like Silk Road prize teas (Drunken Concubine for example) from Angelina's--the only guy I've personally met who knows quite a lot more about tea than me is there, and he used to evaluate them all over China/Asia and gets the very best... Those chemicals, if you care, are probably a mix of intended additives and byproduct. They intentionally tend to add things likely mold/mildew inhibitors since transporting in Asia equals humidity (most of this is from China, shipped to Thailand sometimes or tagged product of Thailand if the company is in Bangkok, regardless of where the tea came from or how many factories were involved in its creation), along with the obvious pesticides in these cheaper teas. Then you have the reason this stuff is so cheap when good tea will typically be--even loose--\$1-4 an OUNCE: the manufacturing process. I'm pretty sure this wasn't made in an especially clean plant, and that smell in opening the bag reminded me of places that just don't exist in America, places that remind me of why I DO buy USA goods 99% of the time. The water used to clean, the grinders... none are going to be especially clean by our standards, and much gets recycled, as water is costly in other parts of the world. The short reason I won't finish this or give it to anyone else is that all of that non-tea gets brewed right into the tea and goes into your body. I like my body AND tea too much to settle for less than great. The por kwan brand is much better, but... it's still not the bee's knees. Still, if I had to pick one, it is NOT this one. The other I can say at least most people should be okay with... I'd give IT a 3.5. I give this a 2 for MOST people to be fair since face it, most don't care about the nitpicking I am hyperaware of. Most don't teach medical sciences and work directly with ill patients, either, for a living, so most aren't constantly immersed in healthcare.  
 ><br />Whatever you get, I'll at least give this recommendation: we grew up using sweetened condensed milk--it's how they typically do it in Thailand, where fresh cow milk is expensive, very expensive--or sometimes evaporated in a pinch; the condensed really makes the texture best for adding ice; otherwise, it becomes extremely thin, which is a sad reality of many restaurants, which I'm presuming a lot of people base their reviews on; high quality Thai restaurants--and they DO exist(expensive doesn't mean high quality)--the ones Thai folks eat at--won't skimp on this detail, let alone use regular milk. Half and half \*can\* be a feasible option, but it's just not the same.

Name: Reviews, dtype: object

===== When number of clusters is 10 =====

Creating a dataframe with Reviews, Cleaned text and Clusters...  
 Dataframe is created!

The number of reviews in each cluster is:

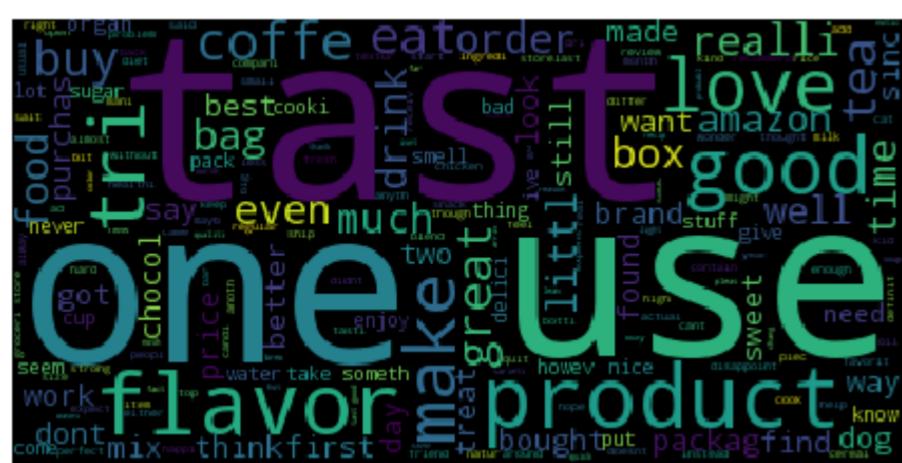
0	4991
7	1
3	1
6	1

```
2    1  
9    1  
5    1  
1    1  
8    1  
4    1  
Name: Clusters, dtype: int64
```

\*\*\*\*\*

\*\*\*\*\* Cluster 9 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 0

0 This mix was given to me originally by someone from Cincinnati. But in the East Coast city where I live, can't find it anywhere. Good mixture of spices, keeps for years, a nice recipe you can make which is a little different but tasty and quick. Always a hit when I make it.

0 This is really quality olive oil for almost the same price if not better than what you'll find in the grocery store. It has a strong, nutty flavor, reminding us of the freshly pressed oils we've have in Tuscany, Italy.

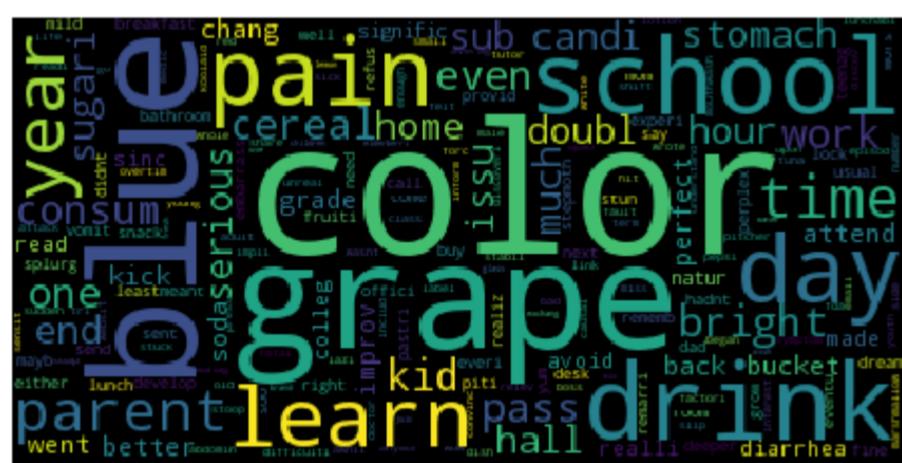
0 After having REAL Lichee tea in a California Chinese restaurant, I found that FooJoy Lichee tea is all but flavorless! I would not recommend it to anyone!

0 The crisps are simply delicious. I feel like I am eating something sinful but they are healthier than potato chips or cheese puff snacks. I was hooked on them and ordered two cases after tasting just one crisp. It was absolute genius to make snap peas into a tasteful snack. I recommend this product as a healthier alternative to Cheetos or potato chips. Enjoy!

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 1 \*\*\*\*\*

## Plot of Word Cloud



Printing all reviews from cluster 1

1 Over the years my parents would send me to school and I was just fine until usually either lunch or a snack time with the school or a well-meaning room parent providing grape or fruity colored sugary drinks... or bright colorful candies.. or maybe mom splurged on those bright colorful cereals for breakfast. YUM! Every kids dream, right?  
  
Well each time I consumed some of these brightly colored cereals or pastries or drinks or candies, over the next few hours I would develop at least mild stomach pain. The deeper the color or the more I consumed, the worse the experience. Eventually it ended with me locked in the bathroom, doubled over in pain, for hours on end, as perplexed school officials called my parents to come get me, as I was AGAIN being sent home from school. I was so embarrassed. Pity the few subs who refused me a hall pass - I remember vomiting at my desk more than a few times to the stunned sub who hadn't realized how seriously I had GI issues. If I say I need a hall pass, I meant I \*needed\* a pass.  
  
Growing up as a teenager, dad remarried and my stepmother didn't buy much colorful "kids" drinks n such anymore. Wow, what a change, I even managed a year of perfect attendance! Me?! The kid who averaged 20 + days out sick from school had perfect attendance! My grades improved! I felt better....  
  
Then as a young adult, I was trying to kick the soda bucket and went back to the colorful sugary drinks of my youth. The abdominal pain and diarrhea was unreal. I began missing some college classes and my grades slipped. I was having some difficulty at work with a male boss who did not understand, he even implied I was lazy. Really? I was going to college full-time while working in a factory with forced overtime and tutoring on the side. It wasn't my fault I had a sensitive stomach....  
  
...until one day I was at home with one of the really bad episodes, doubled over in pain with diarrhea again and it suddenly hit upon me. GRAPE KOOL-AID. I had consumed a whole pitcher of GRAPE KOOL-AID that day before getting ready for work (2nd shift). I read through the label... RED 40 and BLUE 1 stuck out... so I stooped drinking grape Kool-Aid and went back to Pepsi for awhile. Symptoms stabilized... until one day when I had a tuna lunchable. A small attack convinced me to read labels- there was BLUE 1 again.  
  
I was 25 years old when I made the "BLUE 1 DISCOVERY". I am now in my 40s. I have since learned to avoid lotions, mouthwash, dish soap, GRAPE KOOLAID and even "white marshmallows". Since learning to avoid BLUE 1 including GRAPE KOOL-AID my life has significantly improved.  
  
I discovered very serious and relevant information about BLUE 1 from the FDA website... the term "BLUE 1" and "causally linked to fatalities" was significant enough for me that I wrote to the medical doctor who issued the press release; we shared a number of interesting email exchanges.  
  
I have learned some "natural" brands of "children's cereals" are made with elderberry juice for coloring. I wish KOOL-AID would change to natural colors! (If using colors at all...) Oh and I kicked the soda bucket, too. I learned what fresh squeezed lemons mixed in a glass of water with d-ribose could do for both taste AND for energy. I feel so much better!

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 2 \*\*\*\*\*

Plot of Word Cloud



Printing all reviews from cluster 2

I started with the 1/2 tspn serving on the label for Just Like Sugar, and went up to about 10 times for sweet coffee.  
I drink coffee black most of the time, but when I use sweetener I expect it to be sweet with a reasonable amount in accordance with the serving size on the label. This was not the case with Just Like Sugar (JLS).  
Based on my experience, which seems to be in accordance with some other reviewers here, instead of "330 servings" as listed on the 5.82 oz container, if you drink only one 6 oz cup of coffee a day, this product will last you anywhere from two weeks to a month and you will get 15-33 servings, if that is all you use it for. I drink a small pot of coffee (5 cups) a day, so if I sweetened every cup, it would last me 3 - 6 days. Fortunately I don't drink sweet coffee that often so I won't have to pay an extra \$30 a month just for sweetener.  
  
Cost: By Amazon's pricing, [N'JOY Pure Cane Sugar - 8/22 oz. Canisters](http://www.amazon.com/gp/product/B002714IUI) is .12 cents per ounce, [Pure Stevia Extract Powder by Kal - 3.5 oz](http://www.amazon.com/gp/product/B000VRSR84) is \$5.37 per ounce, and JLS is \$1.80 per ounce (note that the \$1.40 per ounce listed at this time by Amazon is also inaccurate) for the 5.82 oz container listed here at \$10.49, however, the Stevia differs in strength. Pure stevia extract is up to 300 times sweeter than sugar, and a 3.5 oz container contains 2381 servings. JLS claims it is just as sweet as sugar, so by this statement you are paying more than ten times the amount of money you would for plain sugar. Going by a .5 gram serving (as listed on the JLS label) and dividing each ounce by 56 (for .5 grams in each ounce), sugar is .002 cents per .5 g serving while JLS is .03 cents, and Pure Stevia Extract (PSE) is .008 cents per serving (\$18.81 for 3.5 oz divided by 2381 servings). Not only is this product almost 4 times more expensive than PSE, but the stevia extract is more potent per serving, and actually does sweeten an entire cup of coffee with just one serving. Judging by the sweetness, you could probably go with just a half serving of stevia vice 10 times or more the recommended serving of JLS. By this measure, JLS could be up to 80 times more expensive than stevia.  
  
I was introduced to this product in reading Dr. Blaylock's Wellness report, which I find helpful most of the time. He says it is his favorite, so he may be simply enamored with a product that has no real proven adverse side effects and can be used as an alternative to sugar, which has many. For those who happen to be Jewish, the product is apparently kosher, as the label also has the stamp of approval from the Chief Rabbinate of Israel.  
  
Taking the recommended 1/4 teaspoon serving straight, JLS is light and fluffy, with a very slight crunchiness until it dissolves into a sticky texture. There is little aftertaste, and it is relatively close enough to sugar to serve as an alternative, if you just ate sugar and didn't care about texture. I have not found a sweetener yet that actually tastes the same as sugar, and even if it did, it probably would not have the same effects as scientific studies have shown sugar to have (opiate like).  
  
Conclusion: While Just Like Sugar is probably better for your health than sugar, I believe Pure Stevia Extract is even better and may cost up to 80 times less per serving than JLS. Of course, the healthiest option would be not using any sweetener whatsoever, but since you are here on a sweetener page, I recommend the [Pure Stevia Extract Powder by Kal - 3.5 oz](http://www.amazon.com/gp/product/B000VRSR84) (PSEP) from Kal instead of this product. Just remember, it is 300 times sweeter than sugar, so you don't have to use nearly as much. There can be an aftertaste with stevia, but using the correct amount helps tremendously, and the aftertaste is sweet, not acrid. The Kal PSEP product comes with a very tiny scoop, which I found more than enough (I could probably go with half that) to sweeten a full 9 oz mug of coffee. Also, be sure to get "pure" stevia extract and verify that is the only ingredient on the nutrition label, as many other "stevia" products have fillers and chemically derived components of stevia. Sweetleaf seems okay (I haven't tried it yet), as its only other ingredient is inulin soluble fiber, which may be conducive to health, but it is much more expensive and much less potent. Watch out for products like Truvia, which contains Erythritol (a sugar alcohol) as the main ingredient, rebiana (synthetically derived with chemical processes from stevia), and other "natural flavors" which can be just as bad, or even worse than some artificial flavoring (same chemicals, but can be unnaturally processed from natural sources).

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 3 \*\*\*\*\*

### Plot of Word Cloud



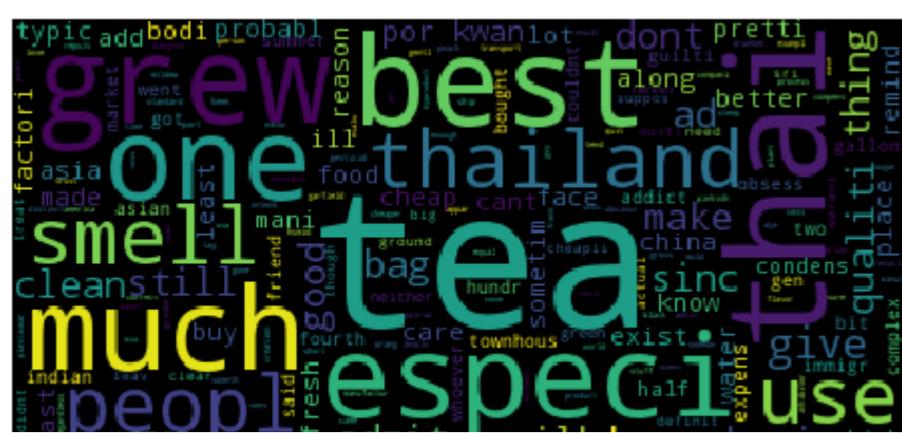
Printing all reviews from cluster 3

I recently bought a 7-week-old collie puppy for my granddaughter. Joy, the puppy was taken from her mother at 2 weeks along with 9 siblings because the mother was not producing enough milk. It was the mother's first litter. The pups were hand fed a formula and were a bit small and frail for their ages though their price was not. At any rate the breeder had them on Pedigree puppy food when we purchased her and though there is nothing wrong with the brand I wanted something better for her due to her early weaning. Our 2-year-old Labradoodle is fed "Castor & Pollux" which really improved her coat and stamina etc. when we switched from another brand so I bought Puppy food in the same brand. However our Vet told us that she was unfamiliar with the brand, and that she wouldn't feed it to her. Instead she recommended "Purina One Smart Blend Puppy Formula". I of course ordered a bag and started mixing it with the Pedigree to switch Joy over slowly so as not to upset her digestive system. She has now had Diarrhea for 4 days, her stool sample shows no abnormalities and after taking her to the vet she is being treated with medicine. On reading the list of ingredients on the bag of Purina I saw it contained something called "ANIMAL DIGEST". I thought "what in the world could that be?" On searching the Internet low and behold I discovered this web site.  
which the following came from  
Since the pet food recalls I'd like to believe we've all grown a little more aware of what we're feeding our beloved pets. In this blog I'd like to call your attention to an ingredient that is so common in many lower quality foods and dog treats. Animal Digest is often included in many commercial treats and bottom of the barrel dog foods. Be prepared to be grossed out when I explain to you what this product really is! According to AAFCO (The term AAFCO stands for the Association of American Feed Control Officials; they provide regulatory guidelines for the manufacturing of pet foods) standards, Animal Digest is  
"Animal Digest - material which results from chemical and/or enzymatic hydrolysis of clean and un-decomposed animal tissue. The animal tissues used shall be exclusive of hair, horns, teeth, hooves and feathers, except in such trace amounts as might occur unavoidably in good factory practice and shall be suitable for animal feed."  
Yuck!  
Another expert has described Animal Digest as "a cooked-down broth which can be made from unspecified parts of unspecified animals." The animals can be collected from almost any source. There is no control set in place over quality or contamination. Any kind of animal can be included: "4-D animals" (dead, diseased, disabled, or dying before slaughter), goats, pigs, sheep, horses, rats, euthanized at animal shelters, restaurant and supermarket waste, road kill, etc.  
That is about as gross as it gets.  
Please read your bags carefully and choose treats with ingredients that you can pronounce and understand.  
After reading this I tossed the Purina in the trash and opened the bag of Castor & Pollux. Once again an intelligent, Professional, trained person just accepted the word of an authoritative institution i.e. the "AAFCO" as FACT and has no doubt along with untold numbers of others in her profession recommended it to her clients to put in their pets bodies.  
This is perhaps the microcosm to the macrocosm that is today's America. We-the-People have just taken the word of all our institutions and so called leaders unquestioningly. Look where it has gotten us! I may not be able to change that unfortunate fact of human nature but I can change Joy's nutritional intake and have despite the increased cost. Sometimes you do get what you pay for. I highly recommend Amazon.com but do your dogs a favor and buy the Castor & Pollux for them or some other quality brand instead of one containing "Animal Digest"

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 4 \*\*\*\*\*

### Plot of Word Cloud



Printing all reviews from cluster 4

4 So I grew up in a townhouse complex with my two best friends being Thai and Indian 1st gen immigrants... I grew up with about a fourth of my food being from their homes--we went to whoever was making the best food. Thai tea was a bit of a guilty obsession for us, especially in the summer. As I got older, the addiction grew, and I've brewed hundreds of gallons of it. That said, I bought this along with the Por Kwan when I couldn't get to my Asian market. The Por Kwan was much better, but neither was especially great; this one is GREEN tea, which Thai tea is NEVER supposed to be. The leaf quality is pretty awful--really dusty, the stems are ground in with the leaves (big no no, clearly cheaply made), and it's DEFINITELY been treated beyond the red dye--which our tea FROM Thailand and Sri Lanka actually didn't need, though admittedly, they weren't garfield orange, more like a pinkish peach, when the milk was added (when it's brewed correctly, GOOD "black" teas will be a lovely red shade; this would likely be a gross putrid yellow-brown without the dye)...<br /><br />Some people probably add enough sugar to compensate for the chemicals in this, but I can't get over it. I could steep it for 1 minute, 3, or 5 or 10 and it would still have a scent and flavor I (admittedly my sense of taste and smell are keen) am repulsed by--just opening the bag, the smell of a cheap plasticware factory's toxic chemicals gently waved in my face like fresh paint. The bag has gone unused as a result... I'm about to toss it, since frankly, I can't trust something I know has had things added to it that make that distinct "not from nature" smell and taste so apparent to me, someone who admittedly mostly buys things like Silk Road prize teas (Drunken Concubine for example) from Angelina's--the only guy I've personally met who knows quite a lot more about tea than me is there, and he used to evaluate them all over China/Asia and gets the very best... Those chemicals, if you care, are probably a mix of intended additives and byproduct. They intentionally tend to add things likely mold/mildew inhibitors since transporting in Asia equals humidity (most of this is from China, shipped to Thailand sometimes or tagged product of Thailand if the company is in Bangkok, regardless of where the tea came from or how many factories were involved in its creation), along with the obvious pesticides in these cheaper teas. Then you have the reason this stuff is so cheap when good tea will typically be--even loose--\$1-4 an OUNCE: the manufacturing process. I'm pretty sure this wasn't made in an especially clean plant, and that smell in opening the bag reminded me of places that just don't exist in America, places that remind me of why I DO buy USA goods 99% of the time. The water used to clean, the grinders... none are going to be especially clean by our standards, and much gets recycled, as water is costly in other parts of the world. The short reason I won't finish this or give it to anyone else is that all of that non-tea gets brewed right into the tea and goes into your body. I like my body AND tea too much to settle for less than great. The por kwan brand is much better, but... it's still not the bee's knees. Still, if I had to pick one, it is NOT this one. The other I can say at least most people should be okay with... I'd give IT a 3.5. I give this a 2 for MOST people to be fair since face it, most don't care about the nitpicking I am hyperaware of. Most don't teach medical sciences and work directly with ill patients, either, for a living, so most aren't constantly immersed in healthcare.<br /><br />Whatever you get, I'll at least give this recommendation: we grew up using sweetened condensed milk--it's how they typically do it in Thailand, where fresh cow milk is expensive, very expensive--or sometimes evaporated in a pinch; the condensed really makes the texture best for adding ice; otherwise, it becomes extremely thin, which is a sad reality of many restaurants, which I'm presuming a lot of people base their reviews on; high quality Thai restaurants--and they DO exist(expensive doesn't mean high quality)--the ones Thai folks eat at--won't skimp on this detail, let alone use regular milk. Half and half \*can\* be a feasible option, but it's just not the same.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 5 \*\*\*\*\*

Plot of Word Cloud



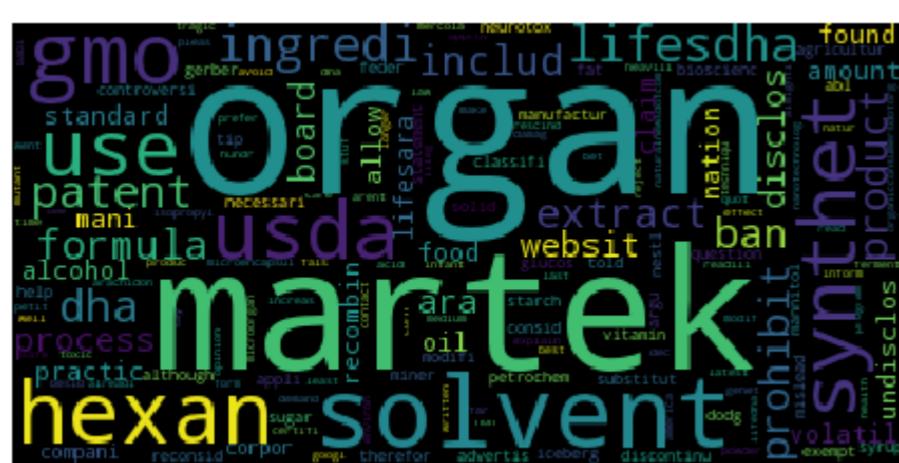
Printing all reviews from cluster 5

5 SADLY, I FOUND OUT THE HARD WAY THAT THESE MOO BULLY STICKS ARE NOT 100% DIGESTIBLE! MY DOG ALMOST DIED AFTER A PIECE DID NOT DISSOLVE IN HER STOMACH. My 3 dogs loved these Moo Bully sticks. I was buying them and giving them because I felt it might causes a chocking danger. I always had plenty of water close by. One day I noticed my dog,Lily, was having very loose stools and that were jelly like in consistency.This same day she stopped eating and began vomiting.I immediately rushed her to my veterinarian.Upon his physical exam he noted that her abdomen was hard and distended.He wanted me to leave her with him so he could do a x-ray. He did and found that she had a bloackge in her stomach!He then started a series of Barium x-rays to watch the blockage to see if it was going to pass. Over a 4 hour period of watching and repeating these barium x-rays it not only showed that the blockage was not passing, but the "item" causing the blockage was swelling in size, absorbing the stomach fluids.I was told he had to do emergency surgery to get this blockage out of her ASAP. What he found in her stomach was most definitely a piece of the Moo Bully stick! It had not digested as claimed by the manufacture if swallowed.My veterinarian told me if he had not brought Lily in as promptly as I did,to remove this blockage, she most definitely would have died!He told me that this was not 100% digestible as the manufacture had claimed it to be . If it had been, it would have dissolved in her stomach! lily had major abdominal exploratory surgery that lasted over 3hours, to remove this piece the piece of Moo Bull y stick !She was hospitalized afterwards for 4 nights and 5 days. She almost did not make. Lily refused eat for 5 days. She therefore lost a lot of weight,became very frail and let hargic. Thank god, my veterinarian was fabulous.He was so concerned for Lily, that he actually stayed by her side at night,every night making sure he did everything he could to pull her through this.Once home she was weak and could barely walk. I tried to get her to eat and she refused. I was offering her cooked chicken liver and even this did not even entice her to eat. Finally, the next day, she did begin to nibble on some food. It was a very slow healing process and took Lily over a month until she was herself again.The thought of losing Lily tore me apart. Watching the pain and suffering she went though cannot be put into words.I felt so helpless. It was nothing but a pure hell that she and I went though for weeks on end.I was also feeling so guilty because I gave her the MOO Bully stick.You see, I only feed my dogs the very best, high quality organic dog foods. I never ever ever would give my dogs anything that was not the best and the safest. I never gave my dogs raw hide chewies or greenies( Any dog owner that cares about the welfare of their a dog knows how dangerous and deadly these products are) I started giving my dogs the Moo bully sticks because everything I had read and researched lead me to believe not only were they safe, 100% DIGESTIBLE, but that they came from Brazil cattle that only grazed on non chemically treated grass, were not feed any hormones and drank from fresh natural spring water.There was nothing harmful in this product. So I stared giving my dogs these MOO bully sticks.I am a very dedicated,caring, responsible animal lover and owner. I wrote letters to the companies I purchased the Moo Bully sticks form as well as the manufacturer. Only one retailer responded to my letter by referring me to the manufacturer.The manufacturer of these Moo Bully Sticks, " Free Range Dog Products " totally ignored both of my certified letters. So many owners have no clue that their dogs may have become sick or died due to a piece of a Bully stick that did not digest. What if their vet missed the symptoms? What if they never took their dog to a vet after becoming ill and the dog died? What if they never discovered what killed their dog? Not everyone can afford to pay for surgery on their dogs, x-rays,lab work,medicines, and a hospital stay. My vet bill was almost \$5,000.00 My vet even discontinued most of what he did, as well not charge me for everything.In fact, he he felt so bad, that he did not charge me for staying by her side for all through the night, on those 4 nights. What if a dog died or got very ill when ingesting a piece of these Bully sticks and never came forth to inform the public ? Maybe mine is the very first case? But all it should take is one, to satisfy anyone not to ever buy this product and give it their beloved dogs. PLEASE, PLEASE, PLEASE, DO NOT EVER GIVE YOUR DOGS ANY TYPE OF A BULLY STICK PRODUCT!PASS THIS INFO ALONG TO ANYONE THAT YOU KNOW HAS A DOG. YOU MIGHT JUST SAVE A DOGS LIFE.I HAD TO HIGHLIGHT ONE STAR TO GET THIS POST! :-(

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 6 \*\*\*\*\*

Plot of Word Cloud



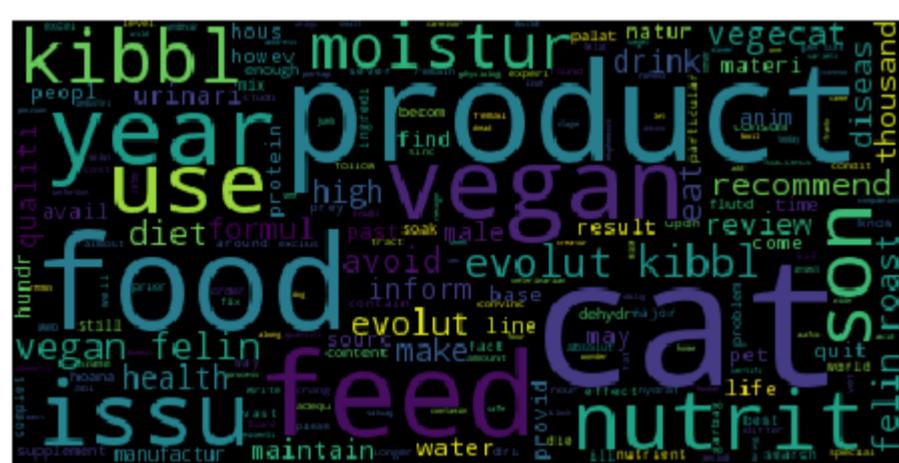
Printing all reviews from cluster 6

6 RECONSIDER THIS FORMULA!!<br /><br />Martek advertises this formula on their website! Nestle owns Gerber now<br /><br />"Although Martek told the board that they would discontinue the use of the controversial neurotoxic solvent n-hexane for DHA/ARA processing, they did not disclose what other synthetic solvents would be substituted. Federal organic standards prohibit the use of all synthetic/petrochemical solvents".<br /><br />Martek Biosciences was able to dodge the ban on hexane-extraction by claiming USDA does not consider omega-3 and omega-6 fats to be "agricultural ingredients." Therefore, they argue, the ban against hexane extraction does not apply. The USDA helped them out by classifying those oils as "necessary vitamins and minerals," which are exempt from the hexane ban. But hexane-extraction is just the tip of the iceberg. Other questionable manufacturing practices and misleading statements by Martek included:<br /><br />Undisclosed synthetic ingredients, prohibited for use in organics (including the sugar alcohol mannitol, modified starch, glucose syrup solids, and "other" undisclosed ingredients)<br />Microencapsulation of the powder and nanotechnology, which are prohibited under organic laws<br />Use of volatile synthetic solvents, besides hexane (such as isopropyl alcohol)<br />Recombinant DNA techniques and other forms of genetic modification of organisms; mutagenesis; use of GMO corn as a fermentation medium<br />Heavily processed ingredients that are far from "natural"<br /><br />quote from: Why is this Organic Food Stuffed With Toxic Solvents? by Dr. Mercola - GOOGLE GMOs found in Martek.<br /><br />This is the latest I have found on DHA in organic and non organic baby food/ formula:<br />AT LEAST READ THIS ONE\*\*\* GOOGLE- False Claims That DHA in Organic and Non-Organic Infant Formula Is Safe. AND OrganicconsumersDOTorg<br /><br />Martek's patents for Life'sDHA states: "includes mutant organisms" and "recombinant organisms", (a.k.a. GMOs!) The patents explain that the oil is "extracted readily with an effective amount of solvent ... a preferred solvent is hexane."<br /><br />The patent for Life'sARA states: "genetically-engineering microorganisms to produce increased amounts of arachidonic acid" and "extraction with solvents such as ... hexane." Martek has many other patents for DHA and ARA. All of them include GMOs. GMOs and volatile synthetic solvents like hexane aren't allowed in USDA Organic products and ingredients.<br /><br />Tragically, Martek's Life'sDHA is already in hundreds of products, many of them certified USDA Organic. Please demand that the National Organic Standards Board reject Martek's petition, and that the USDA National Organic Program inform the company that the illegal 2006 approval is rescinded and that their GMO, hexane-extracted Life'sDHA and Life'sARA are no longer allowed in organic products.<br /><br />BUT I went to the lifesdha website and THEY DO NOT DISCLOSE HOW THEY MAKE THEIR LifesDHA!!! I have contacted the company to see what they say.<br /><br />Also these are the corporate practices of Martek which are damaging to the environment as well written just last Dec 2011 at NaturalnewsDOTcom<br /><br />The best bet is to just avoid the lifeDHA at this time in my opinion b/c corporate america cares more about the almighty \$ than your health.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 7 \*\*\*\*\*

## Plot of Word Cloud



Printing all reviews from cluster 7

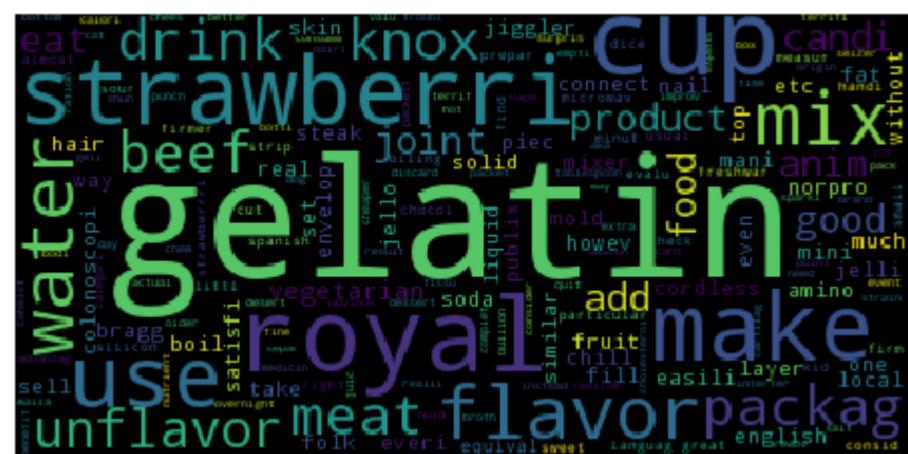
Unfortunately most people are ill informed about vegan cats, including most veterinarians.  
Wild cats are in fact obligate carnivores. However, in domesticating the house cat and bringing it into our homes we have effectively removed the cat from its natural prey of mice, insects, birds, lizards, and other small creatures. During the past 100 years or so, as the human food industry was searching for a way to salvage and use all the waste materials from its processing lines, it came upon a wonderful solution. Lets boil it all up and dry it out and add it to the food we make for cats and dogs. As a result, the vast majority of commercial pet foods contain what are euphemistically referred to as the four D's, dead, dying, disabled, and diseased animals, along with other quite undesirable materials. Quite frankly, if you are feeding this junk to your pets, you are effectively poisoning them. We are seeing diseases in pets today that we have never seen before because of the wide variety of contaminated ingredients that are finding their way into the food we feed our companion animals. You know "garbage in, garbage out!"  
Now the issue here is not meat; it is about providing all the essential and non-essential amino acids (the building blocks of proteins) and vitamins and minerals that are bio-available to the particularly unique physiology of felids (cats). The quality, quantity, and availability of these nutrients can come from any source, and for those of us who are vegan, the best source is vegetable based.  
Tens of thousands, perhaps hundreds of thousands, of cats around the world live quite well on one of the several available vegan cat foods that are recognized as nutritionally complete. I personally have had 3 1/2 years of experience in feeding the Evolution kibble product that this review is addressing. It is a high quality product that is AAFCO certified as nutritionally complete for all life stages in cats. Not only is this product safe to feed your cat, but if you follow the recommended feeding procedures, you will find many benefits to both your cat's health and your wallet.  
  
If you desire more detailed information, I invite you to do a google search on vegan cats. I would put my web page information about this issue on this review, but it is against the policy for writing reviews on Amazon.  
Just for everyone's edification, I have researched this issue for well over 500 hours, read hundreds of technical papers, visited hundreds of web sites, and have made a commitment to specialize in feline nutrition as part of my Veterinary Technician studies. I probably know more about feline nutrition than 95% of all the vets in the world.  
My feline son is a vegan and will remain so because I am absolutely certain that his quality of life will be enhanced by his diet and that this choice will not be a detriment to his health.  
-----  
Since writing this review in 2006 I have had a change in position about this particular product after 4 years of personal experience. The manufacturer of the Evolution foods was changing the formulation of the food on a regular basis and during that time I found that the Feline Kibble was not able to maintain the pH level in the urine of cats that was promised on the label and in their literature. At least that wasn't the case with my former feline son and my current feline son. As a result I can no longer recommend the use of Evolution Feline Kibble for male cats. Since urinary issues are different between male and female cats the Evolution Kibble MAY be satisfactory for feeding to female cats. Nutritionally the Evolution foods seem to be fine for nutrients but not necessarily adequate for maintaining the proper pH levels to avoid urinary issues for male cats.  
Consequently I am now recommending male cats use the Vegecat pH diet provided by Harbingers of a New Age. My son has been eating this food supplement in a specially prepared gluten formulation I created called a vegan feline roast. It is 62% protein, 33% fat, and 5% carbs and has a moisture content of about 60%. Almost a perfect combination of ingredients to mimic natural prey. My son finds this product to be very palatable and his urinary pH has been consistently at 6.4 for the three years that we have been producing and consuming this food. The drawback is that it takes about a half hour every 3 days to make the food and the cost is equivalent to a premium cat food. But on the other hand my son is trim, full of energy at 6 1/2 years, enjoys great health, no longer has urinary tract issues, and no other animal had to die in order to provide my son with life-giving nutrition.  
  
UPDATE: 4/17/11  
For those of you who are still considering feeding the Evolution kibble, please heed this warning. Kibble is only 10% moisture content. If you follow the directions given by the manufacturer to soak the kibble prior to feeding, you will end up with a mushy material that your cats may or may not like. The danger in feeding the dry kibble is that your cat will eventually become so dehydrated that no amount of drinking will be sufficient to avoid hydration related illnesses. Cats do not naturally drink water, they almost exclusively obtain all of their hydration from the food that they consume. If they are eating something that only has 10% moisture, upon consumption the moisture that is contained within the digestive tract of the cat will be sucked into the food in order to give it enough fluidity to pass through the intestines. This will often lead to gastro-intestinal diseases. Your cat will be constantly drinking water to make up for that deficiency, but no amount of drinking is enough to avoid the dehydration problem. So please remember that the best source of moisture for your cat's health, comes from a wet food diet that is around 70% moisture.  
In October 2008 I wrote an article about vegan cats published in VegFamily magazine. This information and more will help those who are interested in a vegan diet for cats understand more of the issues.  
UPDATE: 8/27/12  
My vegan feline son is now 8 years old and still maintains an extremely healthy life with absolutely no issues of any kind. He has been using our Vegan Feline Roast product for the past 5 and 1/2 years and his lab tests indicate that his nutritional needs are being adequately met by his vegan diet.  
For those who are sceptical about a vegan diet for house cats, there is ample evidence that several vegan products are available to satisfy the nutritional needs of cats. I am still not convinced that Evolution is a good product to feed based on my past history. There are thousands of customers that seem to successfully feed the Evolution product; however, I believe that our Vegan Feline Roast Mix is a superior product that will yield far better results over the lifetime of feeding any house cat. Our product is based on the Vegecat phi supplement offered by HOANA, which I have found to be an excellent product for hitting all of the missing nutritional elements that would otherwise come from meat. The Vegecat product line has been successfully feeding thousands of cats over a 27 year period and we highly recommend the use of Vegecat for those people who wish to formulate their own vegan cat food. The only difference between our food product and the HOANA vegecat product is that our product is a ready-to-make mix that has been specifically formulated for a high protein/high fat food that is easy to make and highly palatable to the vast majority of cats.  
I would caution people feeding the Evolution kibble to reconsider doing so. The problem with kibble in general, not just the Evolution product, is the 10% moisture content of the food. Cats that eat kibble exclusively will invariably become dehydrated and will not be able to consume enough water by drinking to avoid the condition. Evolution kibble that is soaked with water prior to feeding, as recommended by the manufacturer, is an attempt to avoid this issue. However, by soaking the product you will reduce the palatability quality to most cats and will make it harder for them to continue to want to eat the product. This is a strategy to fix a problem that is inherent to the product itself.  
As time goes on, I become more convinced that using our Vegan Feline Roast product may in fact be a cure for diseases in cats like FLUTD and diabetes. At some point in time I would like to per

form a long term double blind scientifically significant study to support my empirical observations. When my son started out 7 years ago eating Evolution kibble, he quickly developed a FLUTD condition, after 18 months of use, that cost \$1500 at the vet to fix. The last 5 1/2 years of eating nothing but our Vegan Feline Roast he has remained FLUTD free and maintains excellent health. Just the savings alone from avoiding annual teeth cleaning has more than paid for itself in the use of our product.  
  
So my bottom line is to recommend not using Evolution Kibble in favor of either the HOANA vegecat supplement or our Vegan Feline Roast Mix.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 8 \*\*\*\*\*

### Plot of Wind Speed



Printing all reviews from cluster 8

8 Royal "Bilingual" Strawberry Gelatin is the same product as Royal ("English Language") Strawberry Gelatin, but in English/Spanish packaging.  
**EVALUATION**  
Good strawberry flavor. Mixes easily, makes 4 cups. I like gelatin a little firmer, so I use only 3 cups of water, which I microwave for 5 minutes in a 4-cup measuring cup and then mix-in the Royal Gelatin. I find a mini-mixer very handy for mixing the gelatin <a href="http://www.amazon.com/gp/product/B000E39LY0">Norpro Cordless Mini Mixer, 5 Piece Set</a><br /><br />**ADD FRUIT**<br />The strawberrry gelatin is particularly great with real (diced) strawberries which are usually too sour. The gelatin adds just the right sweetness.<br /><br />**JIGGLERS**<br />You can make very firm "jigglers" for kids by using only 2 cups of water, or almost "Gummi-Bear" candies by using only 1 one cup of water. Consider using candy molds <a href="http://www.amazon.com/gp/product/B003VPW0V8">Freshware 30-Cavity Silicone Chocolate, Jelly and Candy Mold</a><br />Norpro Cordless Mini Mixer, 5 Piece Set.<br /><br />**PREPARING FOR A COLONOSCOPY**<br />Take a steak, cut into small strips, and then boil it to heck in 2-3 cups of water. Add a tablespoon or so of Braggs Aminos instead of salt. <a href="http://www.amazon.com/gp/product/B001U2SGWQ">Bragg's Liquid Aminos, 32 Oz.</a>. Strain. Discard the boiled meat (or use it for cat/dog food). Chill the liquid. Remove the solid layer of fat from the top. Walla!! "beef jello" (aka jellied consumme). Really! Gelatin is animal connective tissue---and there is lots of in a steak. Beef gelatin is surprisingly satisfying and filling, and will easily hold you overnight until the terrifying "event" is over. Obviously, beef gelatin is a terrific food for older folks who can't chew or have trouble swallowing. You can also drink it hot as a broth, however chilling and gelling has the advantage of separating out the fat (on the top) and the fine solids (as a layer on the bottom) which could interfere with your colonoscopy.<br /><br />What does this have to do with Royal Strawberry Gelatin? It makes the point that both are the same thing--animal connective tissue, and that gelatin is a good food for the day-before-the-colonoscopy. Many folks eat a packet of Knox unflavored gelatin every day to improve their joints, skin, hair, and nails. <a href="http://www.amazon.com/gp/product/B001EPQTD2">Knox Original Gelatin (32-Count Envelopes), Unflavored, 8-Ounce Boxes (Pack of 2)</a>. And you can use the Knox to make your own gelatin desserts with real fruit juice, etc., or even mixed with bullion to make beef gelatin. However, Royal flavored gelatin mixes are much cheaper than unflavored gelatin--so why not have a cup of flavored gelatin every evening for desert? (and rationalize it as "medicine" for your joints, nails, hair, and skin.)<br /><br />**DRINKS**<br />You can use Royal Gelatin to make fruit-flavored punch or drinks. The results are similar to "Kool-Aide", but with more "body". You can mix flavored gelatin with bottled seltzer water for a sparkling "strawberry soda"--which is more satisfying ("fills you up") much better than the completely empty calories of "strawberry soda". A 2.8 oz packette of Royal Gelatin will make about 8 cups of "strawberry drink" or "soda".<br /><br />**VEGETARIANS**<br />Vegetarians may shun gelatin as an animal product, but many vegetarians will eat dairy products as a way to get needed nutrients without actually eating meat, and will take glucosamine-chondroitin (animal cartilage, similar to gelatin) for their joints. Gelatin is not quite in the same category as "cheese", but it is a good way to get some of the benefits of meat without the cholesterol, etc. of meat.<br /><br />**VALUE**<br />1 oz packages (of 4 envelopes) of Knox unflavored gelatin (which makes 4 cups of gelatin), sells for \$1.49 each at my local Publix. That's equivalent to one 2.8 oz package of Royal Gelatin (the extra 1.8 oz is sugar and flavoring) which sells for \$0.89 at my local Publix or \$0.98 from Amazon (\$11.82 / 12) at this time. The equivalent 4-cup Jello brand package consisting of 3.0oz, but is considerably more expensive.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 9 \*\*\*\*\*

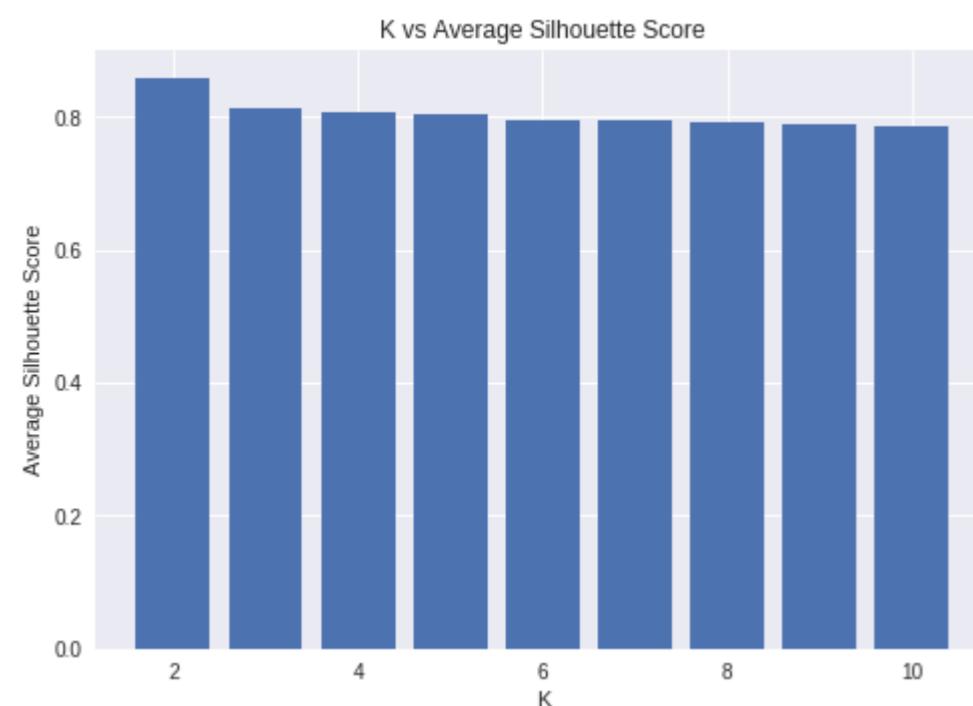
### Plot of Word Cloud



Printing all reviews from cluster 9

I've come back to tea after drinking coffee almost exclusively since before adulthood. A huge part of the migration was, initially, due to that malady of modern life, acid reflux. Caffeine makes me gullet go gaga. In fact, I'm even reduced to drinking a blend of decaf and regular tea in order to keep the oesophagus happy.  
A really cool thing about tea is that, unlike coffee, in its varieties there is a complexity of subtle (and not so subtle) flavors that one can easily apprehend.  
Sure, there are people who will argue there is a whole range of flavor notes that can be found amongst the various coffee beans and while this is, strictly speaking, true, it is also pretty much true that one cup of good coffee smells and tastes pretty much the same as any other cup of good coffee. Coffee is not the sort of thing one sips to enjoy as one would a glass of wine. Drinking tea, on the other hand, can very much become a sipping game possibly because a tea leaf is more like an herb or flower than a coffee bean is.  
  
This is not to say that one can't find plenty of industrial strength tea with minimal flavor notes (e.g. many of the English/Scottish Breakfast tea blends, but see also Taylors robust yet flavorful S.A. Kwazulu that manages to deliver a mule's kick) and I love that kind of stuff and wish I could drink it because the decaffeinated stuff I've been reduced to is insipid in comparison.  
  
If you are just getting into drinking it, you're soon going to be touring the world of tea for different taste sensations, and likely flit from leaf to leaf before you find what makes for you the perfect brew.  
This is DEFINITELY one of those teas you want to try on that journey for this Special Rare Assam Leaf Tea, Doomur Dulling, Loose Leaf tea is actually pretty special.  
When you open the sealed bag it comes packed in you will likely first be surprised by the large size of the tips that comprise this tea. They are so large the contents have the look of a pouch of tobacco (indeed, the stuff is nearly as fragrant as a pouch of newly opened pipe tobacco). The next thing you'll do is smell them, no doubt, and note the fragrant, not quite heady aroma it exudes.  
This fragrance and consequent flavor is what makes this tea singular. After you have brewed it, stir in some sugar and milk, then taste it. You'll immediately identify this as the so-called 'milk tea' drinks that the Japanese are so fond of and drink as a soft drink in much the same way that Americans in the South drink iced tea.  
Its flavor is distinctive floral notes and may take you by surprise. Doubtless, these floral notes and the delicacy of the liquor are what make this tea so desirable. And may put off those who prefer the more common industrial strength blends.  
  
I find that I quite like this tea, and could possibly make it a daily drinker because it doesn't seem to cause that acid reflux reaction the broth-like teas I enjoy so much do. Having said that, the pronounced fruit or floral flavor of the brew tells me that it may be something I drink for a can or two before reverting to the hearty (however feeble the decaffeinated version of the hearty is) brews I generally enjoy.  
Actually, the English Breakfast Tea produced by 'Ahmad Tea' is one I highly recommend as a most delicious, full-floral-note flavored tea that brews up a hearty liquor. It's the closest thing yet I've found that balances well industrial strength and high fashion flavor.  
As for this tea, it is all high fashion flavor and, while I can't say that I love it, tastes real good.

Name: Reviews, dtype: object



```
The average Silhouette value of K = 2 is 0.8575178730708878
The average Silhouette value of K = 3 is 0.8125441724821368
The average Silhouette value of K = 4 is 0.8066332736124401
The average Silhouette value of K = 5 is 0.8039834689442472
The average Silhouette value of K = 6 is 0.7944473275548031
The average Silhouette value of K = 7 is 0.794090586742986
The average Silhouette value of K = 8 is 0.7924267009474002
The average Silhouette value of K = 9 is 0.7898085616013221
The average Silhouette value of K = 10 is 0.7865395166877981
```

We can observe that K = 2 has the highest average silhouette score of 0.8575178730708878.

The wordcloud and reviews for K = 2 is already output above.

#### Observations:

1. Wordcloud and reviews are printed for k values of 2, 5, 10 to get a sense of what's going on with the data.
2. Silhouette scores are plotted for each values of k ranging from 2 to 10. It is observed that k=2 has the highest average silhouette score, hence we declare that k=2 is the best suited number of clusters.
3. When k=2, cluster 0 has 4999 elements compared to 1 in cluster 1.
4. Cluster 0 reviews mostly revolve the word 'tast', 'use', 'one', 'product'.
5. Cluster 1 reviews mostly revolve around the word 'product' and 'cat' which gives us the sense that it is about cat food.
6. This featurization produced almost similar results to that of Bag of Words.

## Avg Word2Vec

```
In [0]: import pandas as pd
final = pd.read_csv("grouped_data_200.csv")
p = final.groupby('Score')
pos = p.get_group('Positive') #Gets the groups with Positive score
neg = p.get_group('Negative') #Gets the groups with Negative score
pos_2000 = pos.sample(3000) #Gets 3000 reviews of positive and 2000 negative scores
neg_2000 = neg.sample(2000)
grouped_data = pd.concat([pos_2000, neg_2000], ignore_index = True) #This data now contains positive and negative data in order.
grouped_data.dropna(inplace = True) #Drops rows with Nan
grouped_data.reset_index(inplace=True) #Replaces missing indexes
grouped_data.drop(['Unnamed: 0', 'Unnamed: 0.1', 'Score'], axis=1, inplace=True)
grouped_data = grouped_data.sort_values('Time', axis=0, ascending=True, kind='quicksort')
print("The shape of grouped data is {}".format(grouped_data.shape))
```

The shape of grouped data is (4999, 11)

Observations: A csv file is imported which consists of 200000 data points. These data points are already sorted on the basis of time. We create a new dataframe with over 5000 data points.

```
In [0]: list_of_sent=[]
for sent in grouped_data['CleanedText'].values: #Splits sentences into words and stores it in a list
    list_of_sent.append(sent.split())
print(grouped_data['CleanedText'].values[9])
print("*****")
print(list_of_sent[9])
```

```
smoke bomb spring load spike trap gave mole invas call extermin use trap didnt miss caught six two day found trap order two month later saw anoth mole tunnel next day care set trap
power way extermin get mole
*****
['smoke', 'bomb', 'spring', 'load', 'spike', 'trap', 'gave', 'mole', 'invas', 'call', 'extermin', 'use', 'trap', 'didnt', 'miss', 'caught', 'six', 'two', 'day', 'found', 'trap', 'o
rder', 'two', 'month', 'later', 'saw', 'anoth', 'mole', 'tunnel', 'next', 'day', 'care', 'set', 'trap', 'power', 'way', 'extermin', 'get', 'mole']
```

Observations: It lists out all the words in the review.

```
In [0]: w2v_train=Word2Vec(list_of_sent,min_count=5,size=200, workers=4) #Initialises the Word2Vec model with words occurring more than 5 times.
w2v_train_words = list(w2v_train.wv.vocab) #This gives a dictionary of words which tells about the uniqueness of a word among other things.
print("number of words that occurred minimum 5 times ",len(w2v_train_words))
print("sample words ", w2v_train_words[298:315])
```

```
number of words that occurred minimum 5 times  3308
sample words  ['left', 'can', 'choic', 'local', 'greek', 'paid', 'took', 'five', 'arriv', 'fork', 'sign', 'ever', 'attach', 'seller', 'fail', 'cool', 'address']
```

Observations: Word2Vec model is initialized with a size 200.

```
In [0]: sent_vectors = []
sent_list = []
for sent in grouped_data['CleanedText'].values:
    sent_list.append(sent.split())
for sent in sent_list: # For a sentence in the previously created list of sentences
    sent_vec = np.zeros(200) # As word vectors are of zero length, returns an array of size 50 filled with zeros
    i = 0; # Number of words with a valid vector in the sentence/review
    for word in sent: # For each word in a review/sentence
        if word in w2v_train_words:
            vec = w2v_train.wv[word] #Gets the corresponding vector for the word
            sent_vec += vec
            i += 1
    if i != 0:
        sent_vec /= i
    sent_vectors.append(sent_vec)
print(len(sent_vectors))
print(len(sent_vectors[0]))
```

4999  
200

Observations: Vectorizations for the data is obtained of the size mentioned above.

```
In [0]: data = StandardScaler(with_mean=False).fit_transform(sent_vectors)
```

Observations: Data is standardized.

```
In [0]: aggro cluster(grouped_data,data)
```

===== When number of clusters is 2 =====

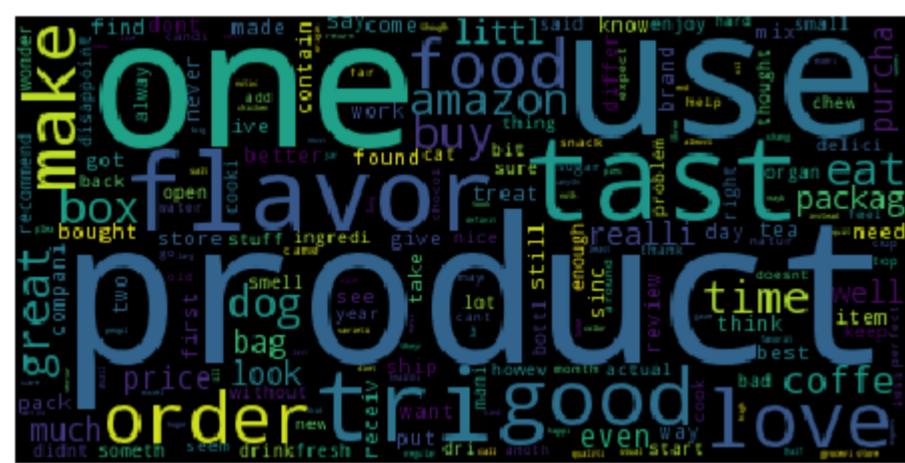
Creating a dataframe with Reviews, Cleaned text and Clusters...  
Dataframe is created!

```
The number of reviews in each cluster is:  
0    3480  
1    1519  
Name: Clusters, dtype: int64
```

\*\*\*\*\*

## \*\*\*\*\* Cluster 0 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 0

0 My baby was on this from 0-9 months as she was a premie. She did very well on it. It has 22 cals per ounce as opposed to 20 cals per ounce like the other formulae. It is a bit more expensive but was worth it.

0 \*\*\*\*<br />Numi's Collection Assortment Melange includes:<br />5 Herbal Teas (caffeine-free, also called "teasans"):<br />\* Dry Desert Lime: Lime Herbal Teasan<br />\* Fields of Gold: Lemongrass Herbal Teasan<br />\* Red Mellow Bush: Rooibos Herbal Teasan<br />\* Bushmen's Brew: Honeybush Herbal Teasan<br />\* Simply Mint: Moroccan Mint<br /><br />2 Green Teas (lower in caffeine):<br />\* Temple of Heaven: Gunpowder Green Tea<br />\* Monkey King: Jasmine Green Tea<br /><br />2 Black Teas (contain caffeine):<br />\* Chinese Breakfast: Yunnan Black Tea<br />\* Smoky Tarry: Lapsang Souchong Black Tea<br /><br />This is a total of nine different teas, two tea bags of each one in each box. Numi teas are known for their high-quality, organic and kosher ingredients, and in my opinion, are some of the tastiest and best teas I have ever tried. They do not include artificial ingredients or flavorings.<br /><br />On the box, the manufacturer writes: "From mist-covered mountains to sun-drenched deserts to fertile fields, we proudly bring you our tea palette. The flavors range from smooth earthiness, and light floral scents, to refreshingly sweet and sour notes. What they all share is the recollection of how some Ancient One tamed fire and water to coexist harmoniously, and steeped in them the gifts of Nature. Since that distant past, people have soothed, roused, healed, explored and celebrated with these wonderful infusions. We encourage you to do the same with Numi's finest."<br /><br />If you like Numi teas and want to sample a wonderful assortment, get it---you won't be sorry. There may be some you like and others you don't, but sampling them will be a delightful experience. If you are new to Numi this is an excellent way to sample their high-quality teas. I do not think you could find a better source of premium tea than Numi.<br /><br />Highly recommended.<br />\*\*\*\*\*

0 I've finished my first box of Ganocafe Mocha. It was delicious. Initially, since I had expected a different taste, I found it to be surprising. The blend of milk powders and sugars are just right. It's a smooth taste with the extra melding of the Reishi that enhances the flavor. I can't describe it. It was different enough to notice and pleasant enough to make me wish I had ordered another box before the first ran out. I've also purchased and experienced the taste of the Ganocafe Coffee, without the milk and sugar additives. You can make what you want of it. It has that specific flavor that makes it a special cup of coffee. About the benefits, Reishi is a known adaptogen herb that helps to bring balance to body functions. Reishi's balancing qualities offer support for both the body's immune and nervous systems. Herbalists use Reishi to support allergies, bronchitis, viral infections and hypertension. Its adaptogenic effect also extends to detoxification, mood and appetite, vigor, and mental alertness. There are no side effects-- it's all beneficial. I highly recommend the Ganocafe experience. Its one I think you'll enjoy and make a habit. BTW, there is no caffeine- something I thought I'd miss. I didn't. I guess the taste and results of the Reishi made up for it. Again, it's absolutely DELICIOUS, and given the costs of special coffees, it's one you can enjoy at home at an affordable price.

0 We were very well pleased with the Benecol Chews & the promptness of the delivery.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 1 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 1

1 I usually don't crave sweets but when I do I grab a stick or two and it satisfies my craving

1 Millstone has the best coffee in decaf. It is so full of flavor and has an aroma that is pleasing.

1 The summary: my daughter likes the taste, the small size minimizes waste and makes it easy to travel with, but it's relatively expensive compared with powders and larger bottles.  
The 2oz bottles are a perfect amount for a supplement. You can easily use more bottles, but the 2oz amount helps minimize waste. This is an expensive way to buy formula if you are feeding formula exclusively, but it's great if you just need it for traveling or to 'top up' your baby when he/she doesn't get enough from breastfeeding. In theory, you can add a nipple and ring and feed your baby directly from the bottle, but I tend to use baby bottles that help reduce the amount your baby swallows (I use Born Free, because it is also BPA-free).  
Also, the small bottles fit easily in the side of a diaper bag (most bags will hold 2 in a side pocket). My daughter seems to like the taste. She is primarily breastfed and has no problem getting breastmilk sometimes and this formula sometimes.  
I do notice that it tends to stain my daughters clothing, but I don't know if that's unique to this brand or common to all formulas.

Worth the extra money if you love good tea...since the extra money isn't too much extra like it is going from, say, a Chevy to a Cadillac. It's a solid consistent flavour...not harsh like other brands.

Name: Reviews, dtype: object

===== When number of clusters is 5 =====

Creating a dataframe with Reviews, Cleaned text and Clusters...  
Dataframe is created!

```
The number of reviews in each cluster is:  
1    1690  
0    1189  
3    1117  
2     601  
4     402  
Name: Clusters, dtype: int64
```

\*\*\*\*\*

\*\*\*\*\* Cluster 0 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 0

0 My family can recall enjoying these cheese treats for over 4 decades.  
We always had them in the summer on picnics and in the fall in  
our lunch boxes the first week of school.  
Tiger had stopped production for a while, so VERY happy they  
are available again, wish local stores would carry !  
Do not spend your money on The Laughing Cow brand, just try these !

0 <a href="http://www.amazon.com/gp/product/B000EDDS6Q">Bob's Red Mill Old Country Style Muesli, 40-Ounce Packages (Pack of 4)</a><br />I ordered this in bulk to split with a coworker. Great tasting breakfast cereal, or anytime snack. Keeps for weeks on end without opening, or in a tupperware type container. Might keep longer, but I've never found out because I finish off a bag within a few weeks.

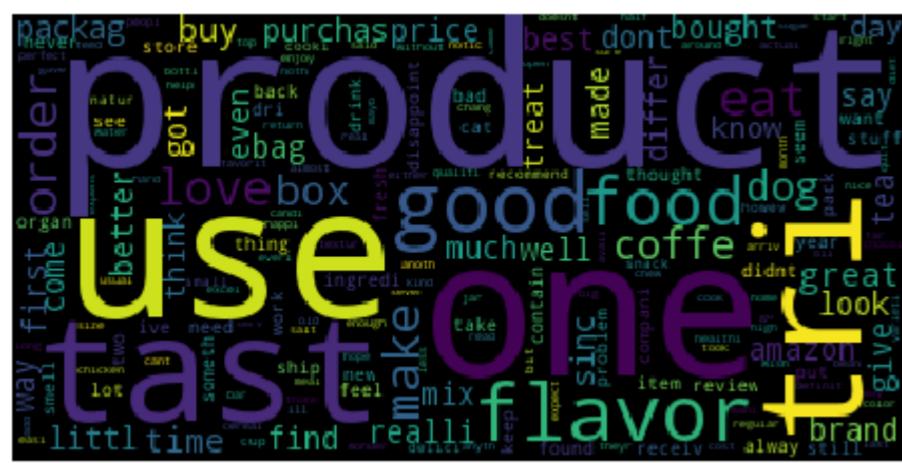
According to the manufacturer's website, this (and many of their other products) contains menadione sodium bisulfite complex. Menadione is a synthetic precursor for Vitamin K and has been reported to have toxic effects. The use of menadione over the natural alternatives (such as leafy greens and kelp) is only for cost-saving reasons, hence usually only found in cheaper and lower quality animal food. It's surprising that pet food at this high of a price actually contains this substance. Menadione is banned by the Food & Drug Administration in over-the-counter supplements due to its potential for organ toxicity. It's also banned in Europe for human consumption. A study in rats showed that exposure to menadione "produced lesions in the kidney, heart, liver and lung." Chiou et al. Toxicology 1997. Menadione's toxicity seems to be due to its ability to induce oxidative stress in cells. Do an online search for menadione and you'll find more info from a pet food watchdog trying to stop the inclusion of this substance. In light of recent episodes of toxic pet food and the questionable behaviors of manufacturers and our regulatory agencies, I would advise you to avoid feeding this to your cats.

0 This is my first venture into the "spice" teas, but it has become my favorite hot drink. I like it strong, so I place two of the double bags into my cup. I sweeten it with a new product called Truvia. Truvia is made from stevia, which is commonly referred to as nature's sweetleaf. Truvia can be bought online at [Truvia.com](http://Truvia.com) and supposedly will make its way into the supermarkets this coming summer. I rated it four stars because I have no other spice tea to compare it to, so I'll reserve my 5 stars should I encounter another spice tea that beats this one without having to pay an outrageous price for it.

Name: Reviews, dtype: object

## \*\*\*\*\* Cluster 1 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 1

1 I could not get the quick barley at Albertson's so turned to the internet.  
Although 12 boxes is a lot of barley, I was able to sell some of them to friends for cost at \$3.17 each, which includes the S & H. Also a local grocer dealing in organic foods took a couple of them.  
Putting barley in any soup home made or canned adds a flavor I really like, so in two weeks I have used up one 11 ounce box already. It only takes 10 minutes heating the soup with the barley to cook it, either in the microwave or on the stove.  
Just thinking about it makes my mouth water, mmmmmmmmmmm.  
R

I had Turtle Island tortilla soup before, it was very good but I can't find that in the local markets, that's why I checked into Amazon and looked for it. Instead I came across the *comida loca* soup mix reviews, people seem really like it, so I ordered some and tried it out myself. I really enjoy the soup, it is very tasty and easy to make. I won't say it tastes better than Turtle Island brand, but it's definitely a lot cheaper. It cost about half the price of the other brand, but it taste just as good as the other brand. I'll definitely buy it again. Thank you for the reviews.

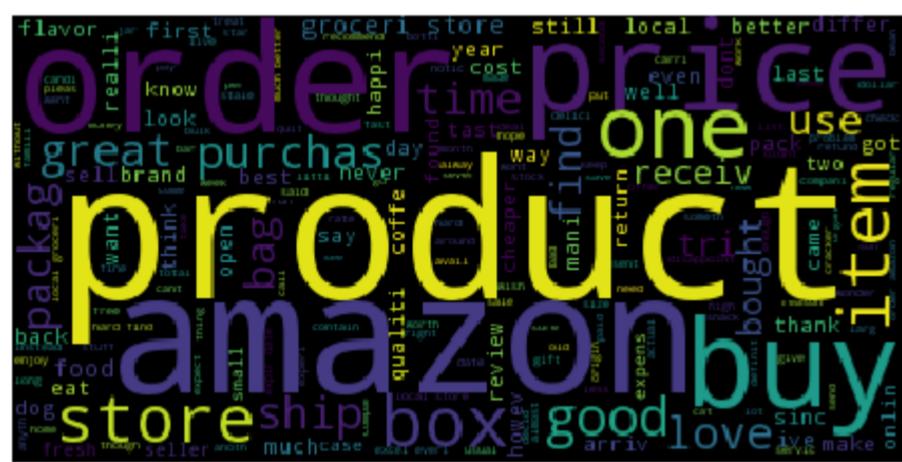
1 At first i did not think they would work, but i bought them after reading the scientific view of them and then decided to buy them just to see. After i got them i had to try something sour just to see, so i took a half tablet and put some lemon juice on my tung. Amazingly they worked!!! This is an awesome product for anyone who likes wired things or just has a liking of chemistry. :)

1 My 4 yr old and 7 yr old love this mac n cheese. I like the fact that it has added veggies - peas, sweet potato and butternut squash! My 4 yr old is so picky and never eats greens but somehow he loves this! I was so happy to see that its now sold on Amazon.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 2 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 2

2 Product came fast, product came as stated. No issues. Would work with seller again.

2 If you live in the continental US, you can buy most (all?) of Rockstar's 16oz cans, in 24-can packs, for \$48 WITH FREE SHIPPING.

2 I ordered this product because I love the "Cheez-It" brand. I tried this particular item after initial purchase at a grocery store. I received my item in a timely manner, however it was not what I ordered. I received the 100 Calorie Pack item instead of the requested order. This was however one of the few times I have ordered from Amazon.com and not received my correct order.

Having learned from one diabetic cat, I now have all three on high-protein, low-carb, water-based canned food. This brand is made of human-grade products, the cats love it and the price is unbeatable for the quality.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 3 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 3

3 This coffee tastes really good, and the pods are very convenient to use. Brewing is fast and cleanup is a snap. I highly recommend them.

3 this product is great. It taste just like coffee without the bad effects of coffee. Even my kidney test show a mark improvement after drinking this product for almost a year. I Just love.ITS Caffeine free too.

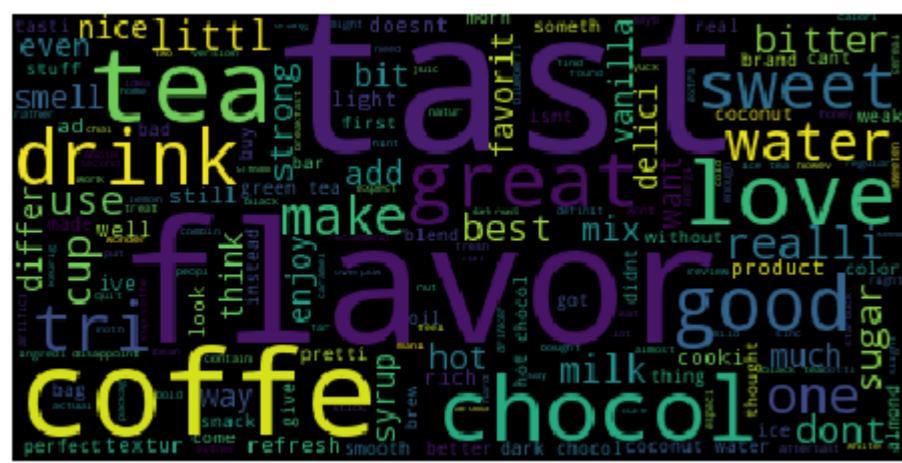
3 I didn't know too much about olive oil before getting introduced to olive oil from Olio Taibi about six years ago. Just bought the standard supermarket stuff. But once you have tasted a real olive oil from Sicily you can't go back to the supermarket stuff again! We just enjoyed some tonight on fresh ravioli. While the ravioli was great, it was even better with the Nocellara olive oil. If you care about high quality food, then you should try this olive oil.

3 UPDATE: April 3, 2009  
I "ordered" this drink through the Vine program based upon the description (see below). I was hoping that it would be what it claimed: "A HEALTHY ALTERNATIVE." Upon getting this drink I realized that it was actually a fruit juice product, which as such cannot be "healthy." Fruit juice consumption is one of the larger contributing/leading causes of weight gain. Therefore the following review is an exposition of why I, along with the dietitians and nurses that I work with at the Veterans Administration, have rated this a one star product.  
As an avid diet soda drinker who consumes at least 100 ounces per day, I am always looking for alternatives. Sadly, Switch is anything but that. Switch is little more than Shasta (TM) non-caffeinated sodas, but with a few more calories! The "diet" drink I was hoping it would be, turned out to be nothing short of "off the diet." As far as I am concerned, Switch is a "wolf in lamb's clothing" for those who consider themselves "health conscious."  
The description, which is rhetoric at its best, states:  
The Switch is a great tasting HEALTHY ALTERNATIVE [emphasis added] to soda. The Switch is 100% juice that is carbonated and contains 100% of DV [Daily Value--not Recommended Daily Amount--based on a 2000 calorie diet] of Vitamin C. It has no sugar added and contains nothing artificial. Its just juice, bubbles and Vitamin C. You'll love The Switch because it has the bold taste and nutritional value of a FORTIFIED [emphasis added] juice, with the carbonated refreshment of a soda. The Switch is 100% of what you want in a soda, and 0% of what you don't[.]  
Here is what the label actually provides--again, based upon what they call Daily Value (DV), similar to regular sodas:  
Serving Size: 8.3 fl oz (245 ml)  
Servings [per can]: 1  
Total Fat: 0g 0% DV  
Sodium: 15mg 1% DV  
Total Carb: 34g 11% DV  
SUGAR [emphasis added]: 33g  
Protein: 0g 0% DV  
Then separately listed:  
Vitamin C: 100%  
There is no direct indication of the amount of Vitamin C, nor is there any direct indication that the Vitamin C--contrary to their description--is not added; just as the sodium is added. Since it is listed separately, and other sodas indicate they are NOT a source of Vitamin C, I must conclude that the Vitamin C does not come from the juice, but is added.  
Relative to the regular soda that I am currently drinking (I grabbed the wrong bottle), Coca-Cola Cherry (TR), Switch Black Cherry has 6g more carbohydrates (listed as "Carb" above), but 10mg more sodium--although both amounts are listed as 1% of the Daily Value--than 8oz of the Coca-Cola Cherry (TR) soda pop.  
As for actual ingredients, here is a comparison of Switch Black Cherry and Coca-Cola Cherry (TR):  
Switch: 100% JUICE (FILTERED SPARKLING WATER SUFFICIENT TO RECONSTITUTE JUICE CONCENTRATES, APPLE, GRAPE, KIWI, ACEROLA, RASPBERRY AND STRAWBERRY JUICE CONCENTRATES), NATURAL FLAVORS, A SCORBIC ACID (VITAMIN C).  
Coca-Cola (TR): CARBONATED WATER, HIGH FRUCTOSE CORN SYRUP, CARMEL COLOR, PHOSPHORIC ACID, NATURAL FLAVORS, CAFFEINE [23 mg/8 fl oz].  
Given that acerola is high in Vitamin C, and used in baby foods, I am unsure why ascorbic acid is added to the Switch. Phosphoric acid is added to soda and other foods to acidify them; that is, to give them a tangy or sour taste--which is derived from the fruit in Switch--at a lower cost than extracting it from fruit. The carbohydrates in the Switch drink are primarily from the juice, while the corn syrup provides all the carbohydrates in the Coca-Cola (TR). So, in the end, the only real inexpedience difference in the source of carbohydrates; excluding the added caffeine to this particular soda.  
That leaves taste. And to be honest, I prefer sugar substituted soft drinks--and was hoping that Switch would be a way to avoid using sugar substitutes, since some poorly done research suggests that sugar substitutes lead to people consuming more calories (a whole different story, but one I was hoping that Switch would help with). That said, I must agree with other reviewers that I found the drink to be overly sweet, as did the four other people with whom I shared this drink. Indeed, I would compare Switch Black Cherry with Crystal Light or Sam's Choice with sugar substitute made with too little Club Soda.  
But drinking Switch MAY BE COOL!

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 4 \*\*\*\*\*

Plot of Word Cloud



Printing 4 random reviews from cluster 4

4 I use 1/4 cup of wheat gluten per loaf and the bread comes out lovingly spongy just like storebought, but with that homemade taste, mmmmmhh :)

4 If you're looking for a powdered version of young coconut water this isn't it. This tastes nothing like the tetra packed coconut water and it tastes nothing like fresh young coconut and also has a weird after taste (probably because of the dextrose). Absolutely disappointed.

4 Unlike other versions I have tried, this is actual goji berries covered in chocolate (as opposed to goji juice or a combination of juices covered in chocolate), so they could be considered a "healthier" treat option. The sweetness of the chocolate really compliments (and somewhat overrides) the bitter sweetness of the fruit. If you've tried goji berries before and found they were too bitter for your taste, I would suggest trying them again covered in dark chocolate. Yum! FYI: 180 calories (10g fat) in 40 grams (less than 1/4 cup)

4 Why the transfats, Betty Crocker, why? The partially-hyrdogenated oil is a pointless ingredient. I like how they taste, but will be making my own healthy version at home.

Name: Reviews, dtype: object

===== When number of clusters is 10 =====

Creating a dataframe with Reviews, Cleaned text and Clusters..  
Dataframe is created!

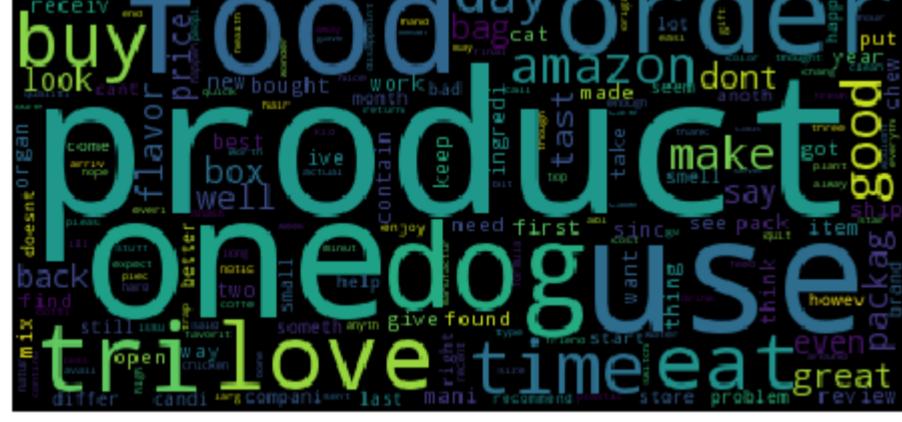
The number of reviews in each cluster is:

6	831
0	754
2	721
4	680
3	538
5	435
1	402
9	289
8	286
7	63

Name: Clusters, dtype: int64

\*\*\*\*\*

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Printing 4 random reviews from cluster 0

0 for carrying this item at a reasonable price. I really enjoy them, and cannot find them anywhere else. The scheduling feature for automatic shipments is nice, too.

0 As someone milk allergic it's insanely difficult to find ramen that has no milk-based ingredients and that is not made on equipment shared with dairy. Tradition's products are not made to cater to the allergic but being Kosher parve means they're suitable. Since they're parve they should also be fine for vegans although I haven't looked into it.  
They have a taste almost identical to your standard beef cup noodle. The vegetables rehydrate nicely and the noodles don't swell up hideously if you let it sit for longer than directed. I was quite pleased since these were the first ramen I've been able to eat in about three years.

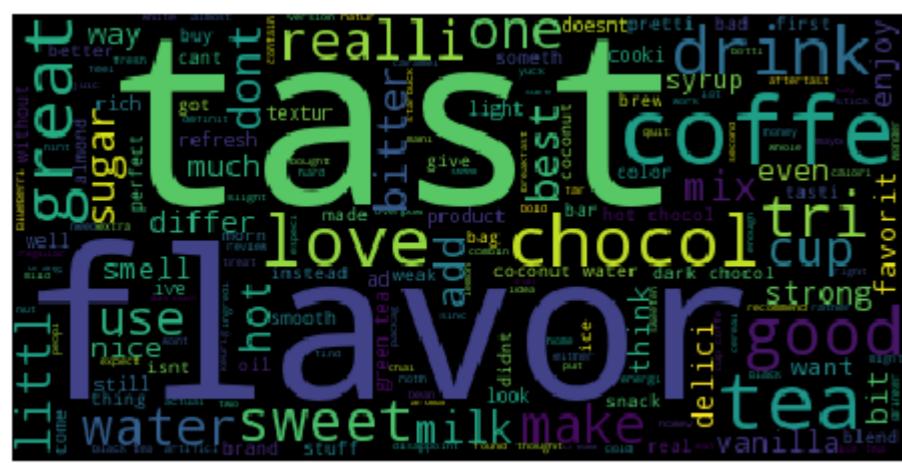
0 Zoom in on this image and you will see there are three (3) 12 ounce jars in this item - two asparagus and one green beans. That makes them over twelve dollars apiece! The info here on Amazon says 47 total ounces. Not true! and Gerties is better asparagus, anyway! Gertie's Finest ® Pickled Green Asparagus (1 case contains 6-34.5 oz jars with Free Shipping).

0 Very unhappy with texture. Also very sad to see the Ezekiel brand jump on the soy bandwagon, this makes me question the integrity of there products.  
If you believe soy is good for you then read " The Whole Soy truth" The Japanese eat mostly fermented soy which is ok in small amounts and Tofu is also eaten in small amounts. They also eat a much more healthy diet overall which can counter the negative effects of the small quantities of tofu they do eat.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 1 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 1

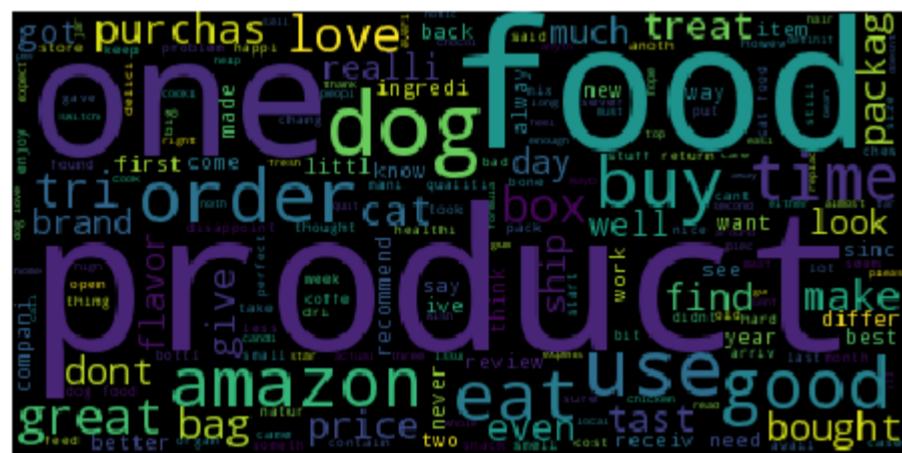
1 I use 1/4 cup of wheat gluten per loaf and the bread comes out lovingly spongy just like storebought, but with that homemade taste, mmmmmhh :)

If you're looking for a powdered version of young coconut water this isn't it. This tastes nothing like the tetra packed coconut water and it tastes nothing like fresh young coconut and also has a weird after taste (probably because of the dextrose). Absolutely disappointed.

1 Unlike other versions I have tried, this is actual goji berries covered in chocolate (as opposed to goji juice or a combination of juices covered in chocolate), so they could  
be considered a "healthier" treat option. The sweetness of the chocolate really compliments (and somewhat overrides) the bitter sweetness of the fruit. If you've tried goji berries  
before and found they were too bitter for your taste, I would suggest trying them again covered in dark chocolate. Yum! FYI: 180 calories (10g fat) in 40 grams (less than 1/4 cup)  
1 Why the transfats, Betty Crocker, why? The partially-hyrdogenated oil is a pointless ingredient. I like how they taste, but will be making my own healthy version at home.

\*\*\*\*\* Cluster 2 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 2

2 Took a chance, saw good reviews, bought one box of Angel Hair pasta. Got it today. Made regular ole spaghetti and had an awesome tasting meal. Being on a low carb diet - pasta is a no-no but thankfully Dreamfields has the solution. Shipping was a bit high for one box so I plan on stocking up on other noodles (lasagna!!) so shipping will be lower.

2 It has been up for 3 days now and the yellow jackets just fly past and don't even give it a nod!

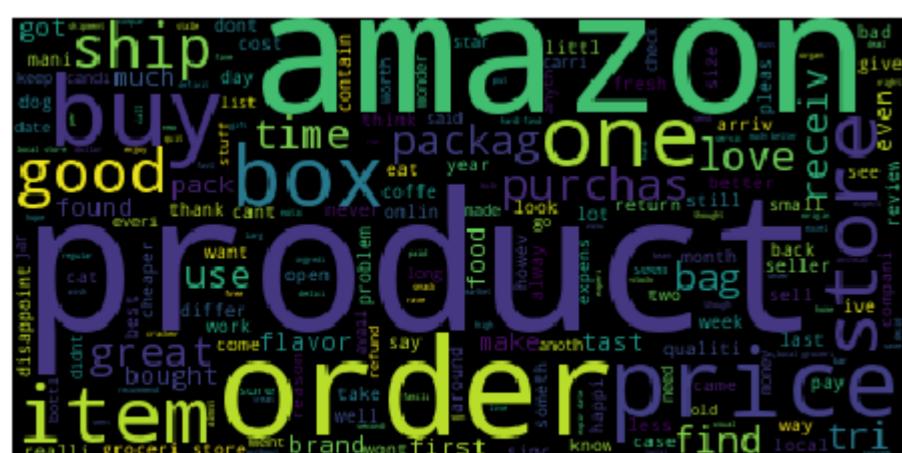
I wanted to try the products from 100% pure. The eye cream I ordered made my eyes swell up really bad. I contacted the company via e-mail to find out how to return it. I followed their directions and mailed it all back to them with a copy of the e-mail. I did not hear from them, and weekly e-mails were not returned for 3 months! Not only did they not honor the original promise to refund my money after returning the products, they said I could call in for a credit instead. So here I am with no products, and a "credit" for more of what made me miserable. There are better natural cosmetic companies out there. Stay away.

2 FedEx Ground is AWFUL. Please stop shipping goods that can be easily damaged via FedEx Ground. They're careless with the packages. The package itself only has padding on the top of the case of soda and not on the bottom. The last case I received had 8 cans bulged out (from being dropped) ... 4 of them were so bad that they had ruptured and were almost entirely empty when I opened the box.  
  
The soda itself is great. I get a case every month...but that will change for sure if I keep getting them damaged. Switch back to UPS. When I got them delivered UPS the boxes weren't dropped so hard the cans broke...

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 3 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 3

3 Like the previous reviewer, I purchased these at Costco. Their in store price is about half of the Amazon seller's price. But-Costco doesn't sell these online. So if Costco is not an alternative, this may be a good option.  
Package doesn't state country of origin. Distributed by a Missouri company. Seal of Veterinary approval on package. Good ingredients.

3 The pretzels are tasty and convenient, but I can't give them a higher rating due to the extreme jump in price (nearly double the price it was a couple of weeks ago when I made the purchase-around \$17). Due to this, I assume the previous great reviews are based on the former price. Now I can pick these up at my local Grocery for close to the same price per bag, which defeats the purpose of buying in bulk online.

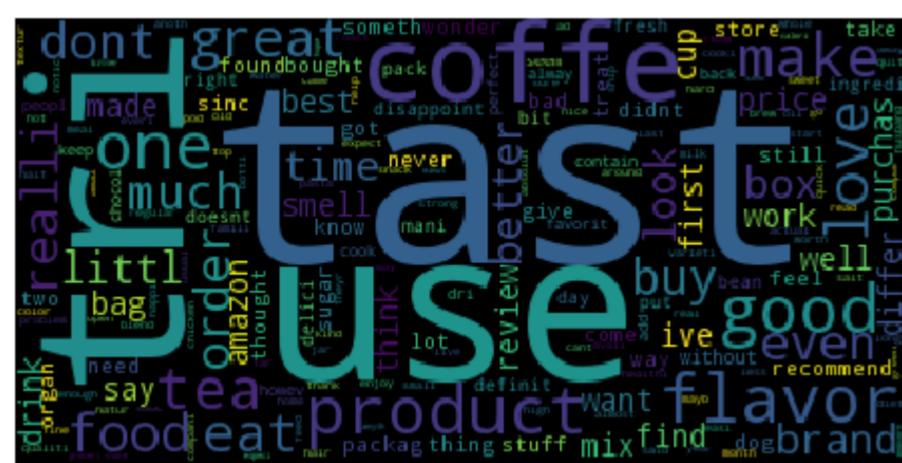
While I love the taste of Green Mountain Hot Cocoa, the prices for these k-cups on Amazon are outrageous. I have seen this product advertised on other sites for almost half the price. I would shop around for a better price. It seems like the vendors on Amazon are ripping consumers off. I rated this product 2 stars because of the price. If I was rating for flavor alone, it would be 4 stars.

3 We have been purchasing this product for several months and have enjoyed it in the past, but this order is inferior. Did the company change hands or outsource their production?

Name: Reviews, dtype: object

## \*\*\*\*\* Cluster 4 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 4

We used to eat this all the time when I was growing up, but sadly they have taken it off the market in my area. I love the tangy sauce it makes with its herbs and spices mixt ure. It is inexpensive, and makes enough to feed a family of 4. It is also low calorie..you get a cup of prepared spaghetti for only 240 calories! I am so glad I found this Kraft mix on Amazon.com. Delicious!!!

4 My review is for the product cookie itself, not what might happen if you buy food from Amazon. Oreo is a classic cookie, and while I can't say that I am a big fan of all their flavors, I really enjoy three flavors - original, Uh-Oh Oreos, and the top of the list, Mint Oreos. The flavor is strongly reminiscent of the Thin Mint cookies sold by the Girls Scouts. Unfortunately, they only sell their cookies once in a while, but I can head to my store any time I have a craving for the flavor of chocolate and mint in a cookie. I even like this better than original Oreo, and that's saying a lot. Nom nom.

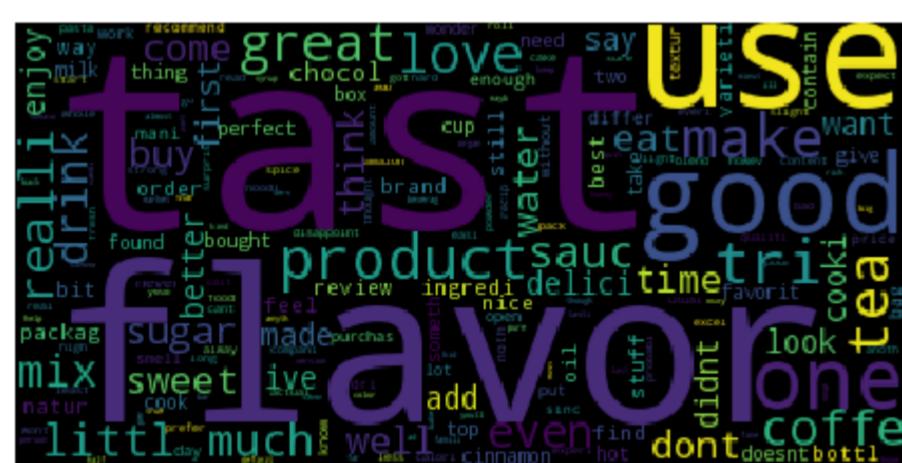
4 Berry berry kix were one of my spouse's and my favorite cereals as children, and this is definitely the cereal we remember! It tastes just the same as it did back then. The only difference is that, rather than having the berry-bunch shapes, the colored pieces are now single round balls.  
  
Other than that, same exact cereal. Yum! Now only if they still made graham chex...

4 When you pour wine through Vinturi, really it tests hit different and better. The product is very well designed and aesthetically very nice looking

Name: Reviews dtype: object

\*\*\*\*\* Cluster 5 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 5

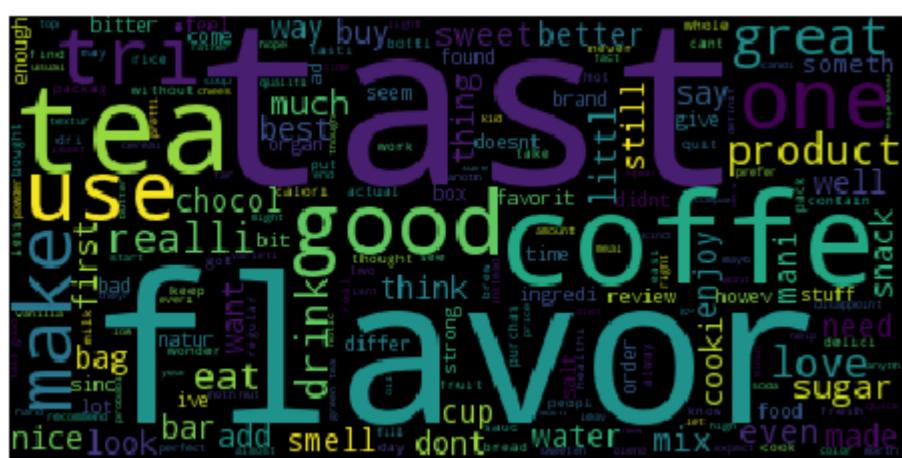
5 I'm a professionally trained pastry chef, and I have to say I was blown away at the high quality of the product. I'm usually averse to using mixes, but the Cherrybrook Kitchen products do a great job at balancing exceptional flavor with non-dairy ingredients.  
  
I've baked out the chocolate cake, yellow cake and brownie mixes several times and they always come out as expected. The frosting mixes are also exceptional and offer room for modulating the ingredients if you prefer to use butter/margarine blends for richness - not vegan, I know, but the flavor isn't lost either way.  
  
The sugar content is low, which helps to keep the calorie count down on these cakes - for those dieting, or watching their sugar intake. Overall, I highly recommend these cake and frosting mixes.  
  
A note about baking: home ovens vary in temperature for a variety of reasons. If you suspect that your oven temps are not what they should be, invest in an oven thermometer to make sure you are heating to the proper temps. These mixes absolutely perform as the written instructions provide, but you need to make sure you preheat and reach the correct temperatures, and then maintain them by not opening the oven door constantly.

I bought a Wolfgang Puck sampler and this was certainly one of my favorites, so I ordered a bigger box and have truly been enjoying it. This is a classic, medium-roast cup of coffee. It's very smooth, with no bitterness. I would say that if you enjoy Donut Shop, Tully's Kona, and Caribou, you will like this blend. The label is adorable and makes me smile when I pop it in the Keurig each morning.

5 These were terrible. The "chocolate" had turned white like it was old or waxy. The bar was gritty and had a terrible chemical aftertaste. With so many glowing reviews, i was VERY disappointed in this product.

## \*\*\*\*\* Cluster 6 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 6

6 Was really looking forward to trying this tea and expected to love it. I brewed it and was unsure as to the aroma and strong coloration. Sipped it once and never went back for more. My husband did the same thing. The taste is terrible. Threw the whole thing out. Yuck!

6 Much too salty, despite the claim otherwise. It says on the package, "When it is salty enough, it's seasoned to perfection." For me, if it's "seasoned to perfection", the salt is absolutely choking. If I sprinkle it with the right amount of salt, I can't taste the seasoning flavors.  
  
If this is supposed to be lower in salt, just imagine what the regular stuff will be!  
  
I won't be buying this again.

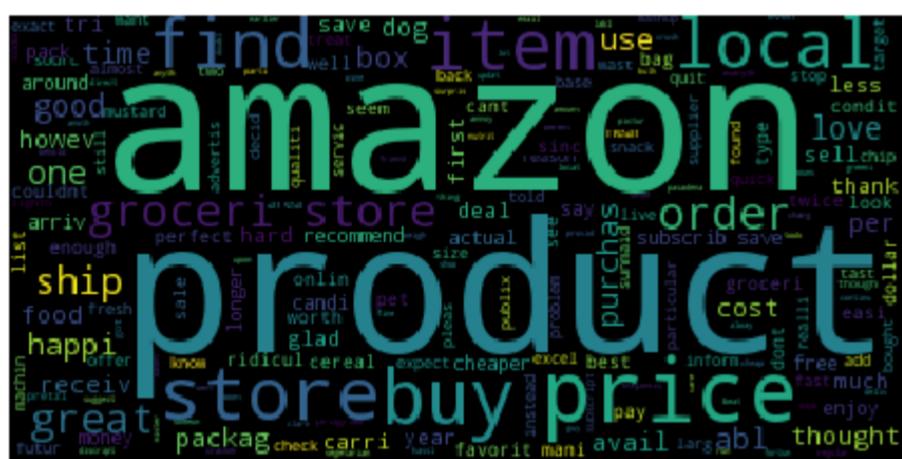
6 This is my favorite oat bran, and I've tried many many brands. I like that this is a slightly larger bran flake, so it doesn't get so mushy when you cook it. I've had some brands where the bran is practically powder, so when you cook it, it turns to wallpaper paste. This is not that kind! It really holds its own, and I eat it every day: in the morning, mixed with Scottish oats, and I also use it to make my own granola. Love it!

6. I always get visitors to bring tea from the UK, but this is the BEST Earl Grey tea ever and my third order. Look forward to my early morning cuppa in the hammock!

Name: Reviews dtype: object

\*\*\*\*\* Cluster 7 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 7

7 I don't believe they are selling these for so much, in Seattle we can get them  
for \$1.50 per 16oz. package at the local asian grocery store.

7 This item was ordered as a package deal (saved \$1!!!). One was sized for a 150 lb. Great Dane, one for a 5 lb. dog and this one is just right but impossible for me to get food into or a dog (or me) to get it out. Recommended by local SPCA!!!

7 I used to have a Subscribe and Save subscription to this item when it was ~9 a can, now it's ridiculously more expensive (~18 a can) than my local grocery store prices. Wait for a sale at Safeway and then buy 3 or 4.

7 The product arrived as told. The dogs enjoyed the chews. Fort the price, it was worth it. I would reccomend this product.

Name: Reviews, dtype: object

## \*\*\*\*\* Cluster 8 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 8

Please save your money. Didn't care for the color, which I could have over looked if the product was good, but this is just bad and nasty tasting. And not like real water at all. I'll stick with plain old tap water.

8 I got this sauce thinking it would be something good! Wrong!! This sauce has no flavor, to me it is like thinned out mayo! I cannot taste any spice in the sauce. I would n't even rate this as mild, it is just colored mayo! Did not like, did not taste good, and will not buy again!

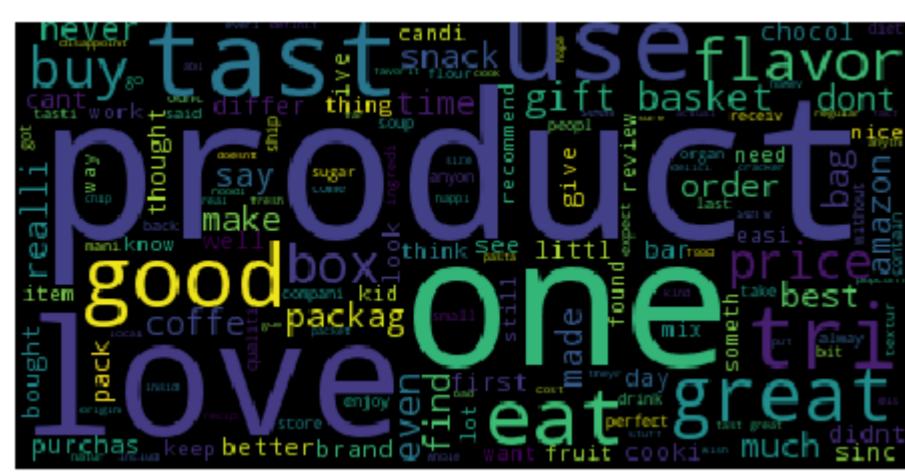
With some heated non-fat milk, it's one of the best ways to treat myself. I love the addition of the vanilla.

With some heated non-fat milk, it's one of the best ways to treat myself. I love the addition of the vanilla.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 9 \*\*\*\*\*

Plot of Word Cloud



Printing 4 random reviews from cluster 9

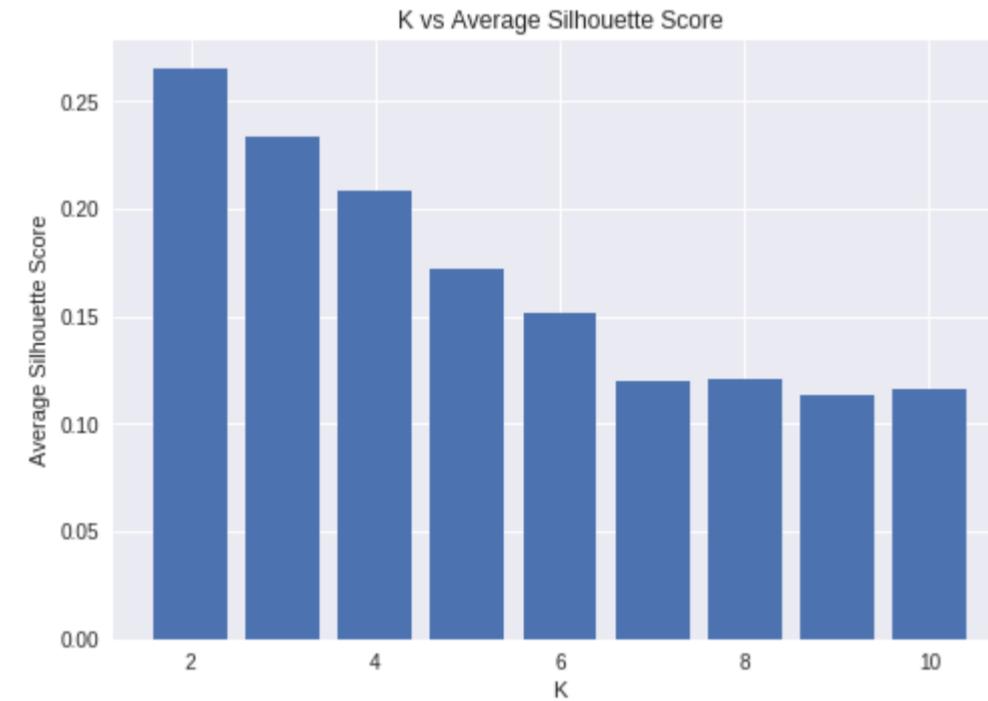
9 This is a great soup base, and I think it's a better used as a base than stand-alone as a finished product. Consider making a soup with shrimp, fish balls, vegetables, and the n serving it over noodles. A fair price would be \$3.00 per bottle, however.

9 I bought this kind of cereal from Wholefood. Since this was the first time I tried this brand, I picked 3 kinds: multi-grain, oatmeal and brown rice. Oatmeal was all right, bu t the other two smelled like they were already stale(the expiration day is May 2013), and they tasted bad too and sticked on my throat when I tried them. My baby cried and refused to eat them. The customer service of Wholefood was very nice and refunded me. I don't think I will buy this brand of cereal again.

9 Love this stuff!!! I only need a minuscule about to change color of any cake mix! Going to make my twins a rainbow cake for their first birthday-these are perfect :)

9 I loved the Sugar Free Nips, because they were soft, creamy and chewy. They did not taste like a diet candy. Now they have ruined them, they are semi-hard like the non-sugar free. The soft caramel was so good. If you get a package that is green on the top instead of brown, you received the new hard version. It won't compare to the soft ones. Even tho ugh the picture is of the brown package, I received the green. Why do companies ruin good products?

Name: Reviews, dtype: object



The average Silhouette value of K = 2 is 0.265083471412089  
The average Silhouette value of K = 3 is 0.2335033061836744  
The average Silhouette value of K = 4 is 0.2079240138105294  
The average Silhouette value of K = 5 is 0.17202005238657234  
The average Silhouette value of K = 6 is 0.15112498897480978  
The average Silhouette value of K = 7 is 0.11963347002040632  
The average Silhouette value of K = 8 is 0.12057144149604214  
The average Silhouette value of K = 9 is 0.11301937111529721  
The average Silhouette value of K = 10 is 0.11660902343156512

We can observe that K = 2 has the highest average silhouette score of 0.265083471412089.

The wordcloud and reviews for K = 2 is already output above.

#### Observations:

1. Wordcloud and reviews are printed for k values of 2, 5, 10 to get a sense of what's going on with the data.
2. Silhouette scores are plotted for each values of k ranging from 2 to 10. It is observed that k=2 has the highest average silhouette score, hence we declare that k=2 is the best suited number of clusters.
3. Since the average value of all the silhouette scores is around 0.16, k values of 3, 4, 5 can also perform reasonably well.
4. When k=2, cluster 0 has 3480 elements compared to 1519 in cluster 1.
5. Cluster 0 reviews mostly revolve around the words 'flavor', 'use', 'tast', 'product'. The customers usually talked about the flavour of the product, how did it taste and its uses. Majority of them seem to like it due to the occurrence of the words 'love' and 'good'.
6. Cluster 1 reviews mostly revolve around the words 'tast', 'flavor' and 'coffe' which gives us the sense that it is about products related to beverages like coffee and tea. It also says that the customers usually talked about the product and its flavour and majority of them liked it because of the words 'love' and 'good' appearing frequently.

## TFIDF Word2Vec

```
In [0]: import pandas as pd
final = pd.read_csv("drive/Colab Notebooks/grouped_data_200.csv")
p = final.groupby('Score')
pos = p.get_group('Positive') #Gets the groups with Positive score
neg = p.get_group('Negative') #Gets the groups with Negative score
pos_2000 = pos.sample(3000) #Gets 3000 reviews of positive and 2000 negative scores
neg_2000 = neg.sample(2000)
grouped_data = pd.concat([pos_2000, neg_2000], ignore_index = True) #This data now contains positive and negative data in order.
grouped_data.dropna(inplace = True) #Drops rows with Nan
grouped_data.reset_index(inplace=True) #Replaces missing indexes
grouped_data.drop(['Unnamed: 0', 'Unnamed: 0.1'], axis=1, inplace=True)
grouped_data = grouped_data.sort_values('Time', axis=0, ascending=True, kind='quicksort')
scores=grouped_data['Score']
print("The shape of grouped data is {}".format(grouped_data.shape))
```

The shape of grouped data is (4999, 12)

Observations: A csv file is imported which consists of 200000 data points. These data points are already sorted on the basis of time. We create a new dataframe with over 5000 data points.

```
In [0]: list_of_sent=[]
for sent in grouped_data['CleanedText'].values: #Splits sentences into words and stores it in a list
    list_of_sent.append(sent.split())
print(grouped_data['CleanedText'].values[9])
print("*****")
print(list_of_sent[9])
```

```
letter nice simpl gummi flavor come varieti fruit flavor like lemon fruit punch despit product descript say soft fact would character consist pretti tough requir consum jaw exercis
person like littl chew may pleas tough also let gummi hold alphabet shape well
*****
['letter', 'nice', 'simpl', 'gummi', 'flavor', 'come', 'varieti', 'fruit', 'flavor', 'like', 'lemon', 'fruit', 'punch', 'despit', 'product', 'descript', 'say', 'soft', 'fact', 'wou
ld', 'character', 'consist', 'pretti', 'tough', 'requir', 'consum', 'jaw', 'exercis', 'person', 'like', 'littl', 'chew', 'may', 'pleas', 'tough', 'also', 'let', 'gummi', 'hold', 'a
lphabet', 'shape', 'well']
```

Observations: It lists out all the words in the review.

```
In [0]: w2v_train=Word2Vec(list_of_sent,min_count=5,size=200, workers=4) #Initialises the Word2Vec model with words occuring more than 5 times.
```

```
w2v_train_words = list(w2v_train.wv.vocab) #This gives a dictionary of words which tells about the uniqueness of a word among other things.
print("number of words that occurred minimum 5 times ",len(w2v_train_words))
print("sample words ", w2v_train_words[298:315])
```

Observations: Word2Vec model is initialized with a size 200.

Observations: Word2Vec model is built. We can see the number of times a word occurred minimum 5 times.

```
In [0]: tf_idf_vect = TfidfVectorizer(ngram_range=(1,2))
vocab_tf_idf = tf_idf_vect.fit_transform(grouped_data['CleanedText'].values)
tfidf_feat = tf_idf_vect.get_feature_names()
dictionary = dict(zip(tfidf_feat, list(tf_idf_vect.idf_)))
```

Observations: We build the vocabulary of TF-IDF on the whole data and transform it.

```
In [0]: sent_vectors = [] # the tfidf-w2v for each sentence/review is stored in this list
row=0;
sent_list = []
for sent in grouped_data['CleanedText'].values:
    sent_list.append(sent.split())
for sent in sent_list: # for each review/sentence
    sent_vec = np.zeros(200) # as word vectors are of zero length
    weight_sum =0; # num of words with a valid vector in the sentence/review
    for word in sent: # for each word in a review/sentence
        if word in w2v_train_words:
            try:
                vec = w2v_train.wv[word] # obtain the tf_idfidf of a word in a sentence/review
                tf_idf = dictionary[word]*sent.count(word)
                sent_vec += (vec * tf_idf)
                weight_sum += tf_idf
            except:
                pass
        if weight_sum != 0:
            sent_vec /= weight_sum
    sent_vectors.append(sent_vec)
    row += 1
print(len(sent_vectors))
print(len(sent_vectors[0]))
```

4999  
200

Observations: Vectorization is performed on the whole data.

```
In [0]: data = StandardScaler(with_mean=False).fit_transform(sent_vectors)
```

Observations: Standardization is performed.

```
In [0]: agglo_cluster(grouped_data,data)
```

===== When number of clusters is 2 =====

Creating a dataframe with Reviews, Cleaned text and Clusters...  
Dataframe is created!

```
The number of reviews in each cluster is:  
0      3480  
1      1519  
Name: Clusters, dtype: int64
```

\*\*\*\*\*

## \*\*\*\*\* Cluster 0 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 0

These are absolutely my favorite brownies. I enjoy a rich chocolate taste, so if you prefer a watered down milk chocolate effect, keep on looking. It is important to not overbake them so that they are still fudgy in the middle. They taste better than any other mix I have ever tried.

0 I have no negative comments about this product. It far exceeded my expectations and there is no better price either at any other site. I became interested in the Cacao nibs after reading the rave reviews and the health benefits( full of minerals and antioxidants) of the raw, organic bean at various raw food lifestyle sites. Although I am not 100% raw, I am trying to exchange as many foods as I can. These nibs are crunchy--but not rock hard crunchy. Do not look to compare this to processed, cooked chocolate that is full of sugar. These nibs are not "candy" but a healthy food. Dipped in a little agave syrup( a honeylike , low glycemic index, organic sweetener that is delicious) or honey, one would have a candy like snack. Since they are not a processed food full of sugar, they are more bitter than chocolate but they are not by any means too terribly bitter to enjoy. I thought they were wonderful with a small amount of agave syrup. I will use them in cereal and smoothies next. More people will for sure enjoy these than not.

0 A W E S O M E! and guiltless to boot! I'm ordering more this season.

0 After trying this product for about one month, I can say that it definitely provides me with more energy in the morning. It also seems effective in fighting off the initial effects of a common cold (at least for me). I found that this product dissolves best with ice cold water/juice. Overall, this product seems to work as advertised.

Name: Reviews, dtype: object

## \*\*\*\*\* Cluster 1 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 1

1 awsome fun candy you wont regret buying it you will regret if you dont buy enough

I originaly was purchasing one bag of the Plato chicken treats from another web site until I found this great deal on the 4 pack! I decided to try the salmon this time and my beagle mix LOVES them!<br /><br />I actually preferred the chicken as the salmon flavor really does STINK! They have a strong fish smell thats stays on your hands. The chicken didn't have this problem. My Yogi loves both flavors but since the salmon has Omega and oils for a smooth coat AND it's cheaper, I've decided to live with the fish smell!<br /><br />I also wanted to add that the seller I purchased from, White Dog Company was EXCELLENT! I ordered these on Wed. afternoon and they arrived Friday morning! I honestly couldn't believe it. It was also packaged very well. Me and my pup were very pleased. Will certainly be making future orders through them! :)

1 Circus peanuts are delicious, they are quite possibly the best candy ever invented. As long as you get them when they're somewhat fresh and aren't so hard that they destroy your teeth when you try to bite into them, that makes it rather difficult to get all of the circus peanut goodness out of them.

1 Very tasty. I particularly enjoy the unique, spicy/flowery aroma of this honey with my yogurt.

Name: Reviews, dtype: object

===== When number of clusters is 5 =====

Creating a dataframe with Reviews, Cleaned text and Clusters...  
Dataframe is created!

The number of reviews in each cluster is:

1	1690
0	1189
3	1117
2	601
4	402

Name: Clusters, dtype: int64

\*\*\*\*\*

\*\*\*\*\* Cluster 0 \*\*\*\*\*

Plot of Word Cloud



Printing 4 random reviews from cluster 0

0 As with the other reviewer, this is the only formula our baby can handle also. This product, for us, is perfect for taking with us in the car. No need to use one of those lo usy car charger bottle warmers. However... unless your baby is eating a full 8 ounces, you'll have left-overs that you'll either need to store in a bottle and keep cool, or throw it out.  
This formula, in and of itself, has been wonderful. While it didn't eliminate our baby's colic, it did reduce it. In addition, other formulas caused him to have major difficulty with bowel movements. This formula had a significant impact on that as well. It does, however, cause him to be seriously gassy. LOL  
We have noticed th at our local Toys R' Us carries this product also. However, with Amazon Prime covering the shipping, it is just as cheap to get it through this site and save a trip to that parent al Hades of a store.

0 Hopefully they got a new shipment in. I purchased 02/04/09 and soup had an expiration date of 07/03/08

0 I am a vegetarian and this product is by far the best of all the mac and cheeses I have ever had.

0 My veterinarian recommended these because I was having a hard time getting my 17-year old beagle to take her pain medication. I had tried all the usual ways (sticking the pill into cheese or dog treats, putting it on the back of her tongue and holding her mouth shut, etc.), so I was willing to try anything.  
There's nothing unusual about these treats that makes a dog eat them any differently than anything else. So, I stick the pill in, my dog starts chewing the pill pocket, and soon she's foaming at the mouth because she bit into the pill.  
If your dog wolfs down food without chewing, this product will work, but is probably unnecessary. If your dog chews food, it just won't work.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 1 \*\*\*\*\*

Plot of Word Cloud



Printing 4 random reviews from cluster 1

1 I bought these for an after school snack for my kiddos, but after I tried them and realized they were so tasty, I kept stealing them for myself.

1 Coffees are ok, but 9 of the k-cups were tea. What a waste. I thought this was a coffee sampler pack. Won't buy again. Try Coffee People coffees instead...delicious!

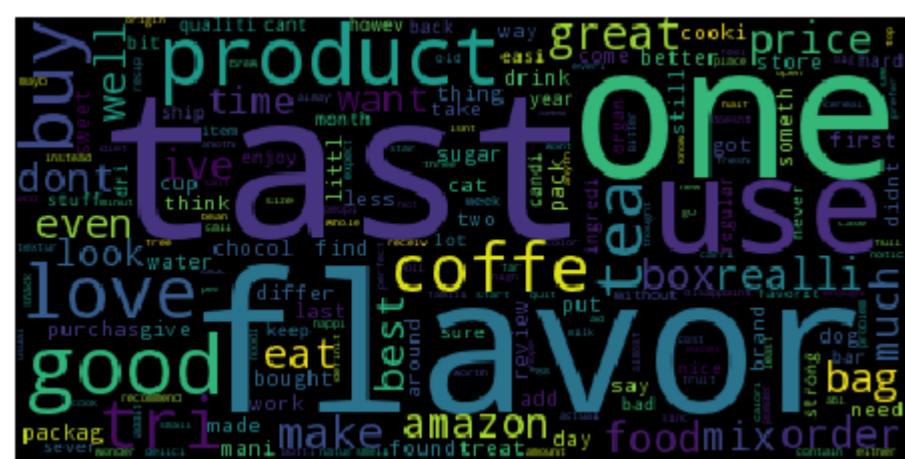
1 Of the vatious brands of Turkish Delight we've tried, this one is, by far, the worst one. Its texture is grainy, and the taste is medicinal, with the mint version being the most offensive. We have nearly the 4-box order left, and will end up throwing it all away. Buy another brand.

1 This coffee tastes really good, and the pods are very convenient to use. Brewing is fast and cleanup is a snap. I highly recommend them.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 2 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 2

2 The description says it contains "no stabilizers", yet the case I received on 2/24/10 contains guar gum and stabilizers. The ingredients list reads: "Coconut extract, guar gum, emulsifier, stabilizer".  
I am very unhappy about this - the ONLY reason I ordered it was because it was advertised as not having any stabilizers.

2 My dog will do just about anything for this treat. Also, each treat can be cut easily into for small pieces for training. Ingredients listed are good quality. I had no ill effects from giving to my dog. Beef was the flavor I purchased this time

2 This coffee is not good at all. When you first take a sip, it tastes like perfume. It gets a little better going down, but it's barely drinkable. I don't recommend this one!

I bought this stuff after Tasters Choice hazelnut coffee was taken off the market in the canister. This stuff is a can mostly of sugar ,three kinds, and coconut oils and a bunch of other unhappy things. At the end of a long list of ingredients coffee was last, just before natural and artifical flavor. But to add insult to insult the flavor is neither of hazelnut or coffee. I'd return it if the postage was not so high. I tried to contact the company from the phone number on the can and never recieved the promised call back so politely offered. It would have been helpfull to have had the ingredients posted with the offering.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 3 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 3

3 This is definitely the best ginger candy outside of eating crystallized ginger root. It is not too sweet or too hard and packed with ginger, which is yummy all the time but especially good for nausea. I am buying more for my pregnant friend to get her through her first trimester.

3 This didn't last more than a couple of days. My 30 lb. Brittany destroyed it. I got a Kong to replace it and it's MUCH sturdier!

3 I am very thankful that you carry Kellogg's Product 19 as I would not know where else to buy it as very few stores carry it now. My husband is a diabetic and this is a low carb cereal and there are only a few on the market.

3 This tea is advertised as premium tea and it possesses a modest price tag, however it is the absolute lowest quality tea you can purchase. These are not tea leaf fragments and I'd hesitate to even call them tea shavings...it's flavorless dust with a musty dirty odor. \$19.99 has resulted in 198 tea bags in the garbage can. Cheaper supermarket tea far surpasses the quality you will find here. Beware.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 4 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 4

4 Tried to purchase this item early in December. Was told it would ship in a few days. Two weeks later, still nothing. Tried contacting the vendor (by both email and telephone), and they never responded. This was meant to be a Christmas present for someone and I needed to scramble to buy something else. Clearly I don't recommend you buying from this vendor.

4 I was going out of town for X-Mas and thought these would keep my boys a bit entertained while I was gone. I have two smallish (15 pound) Boston Terriers and they each completely destroyed one of these in about five minutes.  
The ball works OK for a fetch toy, but aside from that, these really sucks.

4 Tried to give this a 0 star rating - but it wouldn't let me! The plastic is so flimsy, the machine is unable to poke a hole in the bottom of the cup. It took 3 different k-cups before I could get it to brew. When it finally did make a cup - a dark syrupy looking liquid came out first, then just water. It was undrinkable.  
Coffee from a vending machine was better than this. Thankfully, Amazon refunded the cost to me. I love Amazon - just hate this coffee!

4 Can't find these in individual size packages locally so this has answered my family's needs. Have tried most of the varieties, but we prefer the original flavor.

Name: Reviews, dtype: object

===== When number of clusters is 10 =====

Creating a dataframe with Reviews, Cleaned text and Clusters...

Dataframe is created!

The number of reviews in each cluster is:

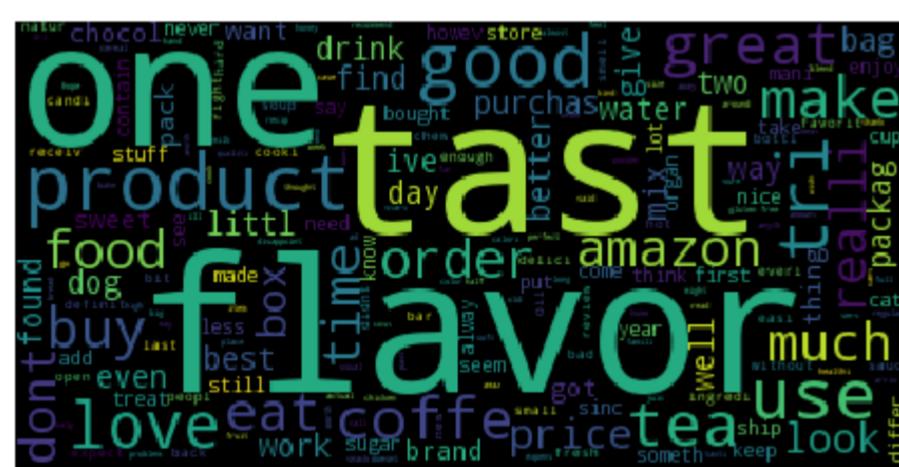
6	831
0	754
2	721
4	680
3	538
5	435
1	402
9	289
8	286
7	63

Name: Clusters, dtype: int64

\*\*\*\*\*

\*\*\*\*\* Cluster 0 \*\*\*\*\*

Plot of Word Cloud



Printing 4 random reviews from cluster 0

0 I bought the 1 lb. bag for something like a trial-pack, and I regret not buying more! This was the first time I had ever used oat bran, so I was not quite sure what to do with it, but I have found that it works EXTREMELY well when mixed with old-fashioned oats (for my typical breakfast of pumpkin maple oatmeal =]) The oat bran is finely ground, but it does a great job thickening up oats and giving it more texture as well as a little additional fiber. I highly recommend this product, and I look forward to purchasing more from Barry Farm

0 I had heard so many good things about Illy coffee, that I thought I would fork over the [...] and give it a shot. When opening the can, I expected to see beautiful whole beans with a rich oily glaze. But, instead I saw small broken beans that were very dry. So I brewed a pot in hopes that it would still be good. But the fact is, it is pretty bitter with a charcoal aftertaste. Don't get me wrong...it's not Grocery store coffee, but it is definitely not what I expected for [...]!

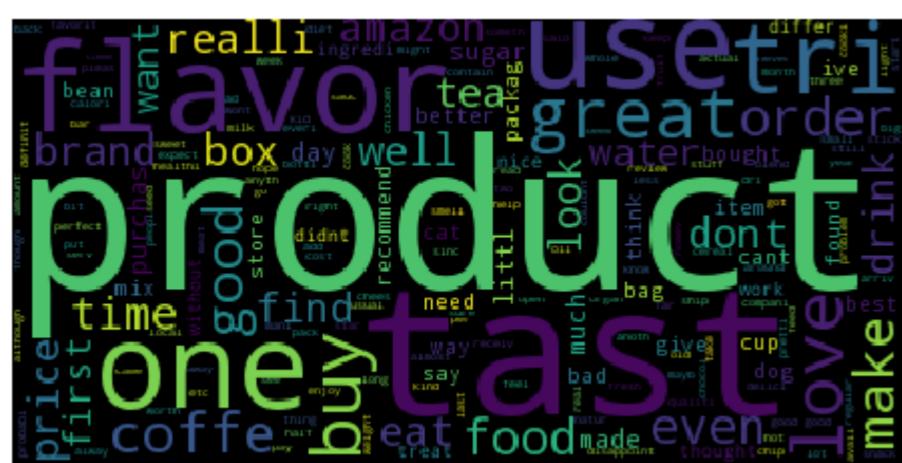
0 This is my first exposure to rose tea. I purchased it because of the previous review. I have to concur. This tea is delightful. The aroma is fantastic and makes you believe you are in the midst of a blooming rose garden. It is a perfect tea to sip in the winter months as it fills your senses with the scents of summer. I bet it would be refreshing as an iced tea with a sprig of fresh mint. Too cold to try that now, but once the snow melts, I will! Great product for the price!

0 We love nylabones around our home. Our two goldens must have the durable nylabone as they quickly destroy a flexible one. I thought that this Dinosaur Nylabone was the bigger size since it said Wolf but it was pretty small at 4 inches. I had to give it to my friend's cocker spaniel. It was just too small for a golden retriever.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 1 \*\*\*\*\*

Plot of Word Cloud



Printing 4 random reviews from cluster 1

1 Tried to purchase this item early in December. Was told it would ship in a few days. Two weeks later, still nothing. Tried contacting the vendor (by both email and telephone), and they never responded. This was meant to be a Christmas present for someone and I needed to scramble to buy something else. Clearly I don't recommend you buying from this vendor.

1 I was going out of town for X-Mas and thought these would keep my boys a bit entertained while I was gone. I have two smallish (15 pound) Boston Terriers and they each completely destroyed one of these in about five minutes.  
The ball works OK for a fetch toy, but aside from that, these really sucks.

1 Tried to give this a 0 star rating - but it wouldn't let me! The plastic is so flimsy, the machine is unable to poke a hole in the bottom of the cup. It took 3 different k-cups before I could get it to brew. When it finally did make a cup - a dark syrupy looking liquid came out first, then just water. It was undrinkable.  
Coffee from a vending machine was better than this. Thankfully, Amazon refunded the cost to me. I love Amazon - just hate this coffee!

1 Can't find these in individual size packages locally so this has answered my family's needs. Have tried most of the varieties, but we prefer the original flavor.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 2 \*\*\*\*\*

Plot of Word Cloud



Printing 4 random reviews from cluster 2

2 If you are a Celiac, or are gluten intolerant, you won't find a better pretzel than the Glutino brand. I have them on Auto-Delivery with Amazon.

2 Our middle school students were delighted when they received Zottz at school. Zottz are fun and tradeable.

2 If you like all flavors of jelly beans and then some, these are for you. Great by the handful!

2 Had this corn bread mix for the first time tonight with some grilled fresh green beans and new potatoes. I always like corn bread with this slice of heaven.... and this corn bread mix took me above the clouds in taste and texture.  
I've been making and eating corn bread for 60 years and this is as good as it gets, believe me.  
Just follow directions and have a slice of heaven on me !

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 3 \*\*\*\*\*

Plot of Word Cloud



Printing 4 random reviews from cluster 3

3 I mix it in smoothies and ice cream and have it every morning. In ice cream, I can't taste it at all. It does need some masking, not the best flavor, but grape juice and banana work well, berries too. Feel very regular since I started using it. The price was great and it will last a long time, since I've followed the freezing/refrigeration instructions. I figure I can't go wrong with this fiber and protein source. It encourages me to eat more fruit, and I'm starting to blend in a few veggies too and you can't get enough of those! I even found recipes online for baking with this stuff and made oatmeal cookies that actually turned out good! I recommend it to anyone who wants more fiber in their diet and likes experimenting with new recipes for baking and blending drinks.

3 I purchased this on the advice of a doula. I am told this is supposed to make your uterus stronger. I don't know how I could tell if my uterus is stronger or not until perhaps after I have my baby, so I guess you could call this an interim review.  
What I do like is that it is organic, a warm drink I can have, and the price on Amazon is way

better than the natural food store I originally found this in. I personally don't like the taste, but I'm not a tea drinker. I do drink it on average 0 - 3 times a day depending on if I remember to, and for the most part I am able to drink it with no bad effects (other than I don't like the taste), and its a good way for me to stay hydrated other than water.  
  
Amazon's shipping was pretty good. If you already know you want to drink this and are convinced it will help you, then I think its a good deal. I'm just going on blind faith that it will do what I'm told it will do, and hopefully my labor will be fast and easy.  
  
UPDATE: I had my baby, he was 4lb 8oz. While he was very small, once I was fully dilated, I pushed him out on 31 min. I now understand the benefits of a strong uterus!

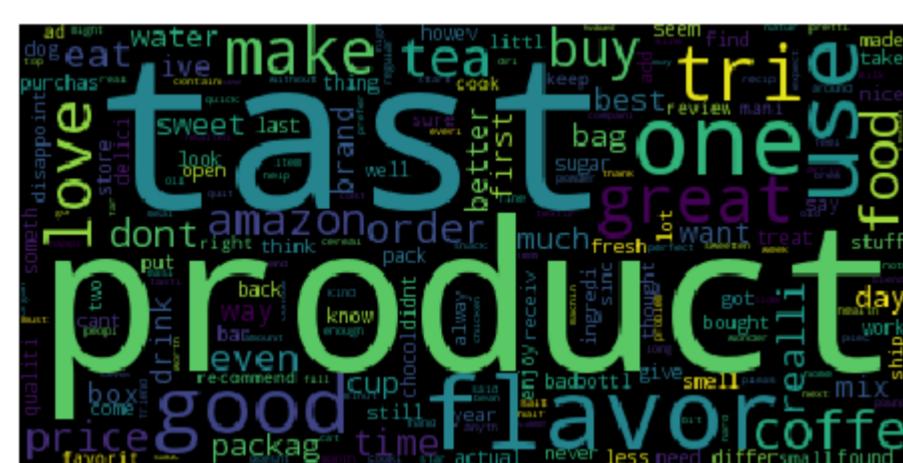
I try everything, and rarely dislike any food that is not processed crap, but these are gross! Very processed, not at all like dried fruit leather. Just cause it's made with Organic ingredients doesn't mean that it's good for you! And I'm sure this isn't.

I love this syrup; it is clean-tasting and minty in a natural way. The Monin flavored syrups are much like Torani syrups, only better. (Except they are harder to find locally.) I use a few tablespoons mixed with two cups of soda water (over ice) to make a homemade soda drink that doesn't have high fructose corn syrup. It is refreshing and delicious! Of course, you could also use this to make an excellent mojito if you wish.

Name: Reviews, dtype: object

## \*\*\*\*\* Cluster 4 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 4

4 Mixes well in a blender and no powdery taste noted. Nothing special but nothing bad either.

4 Tasty little bursts of energy. So much better than goo and other not so tasty products. Also, it's easy to eat one piece at a time throughout my run. Each package comes with a little adhesive strip so that you can reseal them.  
  
Can't be 100% on how effective they are yet, but so far so good. I think when it comes to this sort of thing, you really should go to a store like PET and purchase a variety of brands and types to find what works for you. If several work for you including this one, I'd go with this one.

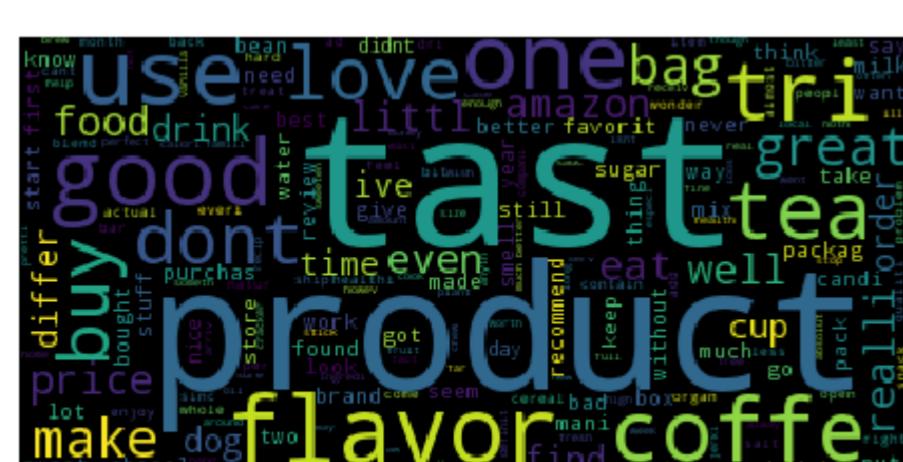
4 After the disaster that was the Rescue WHYTR-BB8 W-H-Y Trap for Wasps, Hornets and Yellow Jackets, I decided to try the Victor Poison-Free M370 Yellow Jacket Magnet Disposable Bag Trap. The swelling had receded from all of my newly acquired stings and I was ready for revenge. This had trap had to work - I mean, how could it not? There are pictures of yellow jackets trapped in the bag on the box!<br /><br />Oh how wrong I was. I filled the bag with apple juice and bait and hung it on a tree next to my garage. I sat in wait, watching the bag and waiting for the buzzing vermin circle the bag. One even landed on top of the plastic rim. It left, but not before it mocked me by doing a jig.<br /><br />I left the bag up for four weeks with no results. When I went out to get it I noticed a wasp nest FIVE FEET AWAY! Yup, this whole queen catcher line is complete garbage. The nest was approximately 1/3 of the way built and not one stupid worker bee was floating in the bag! Granted these were paper wasps and not a member of the subfamily Vespinae - yellow jackets, but the nest was already about the size of a softball!<br /><br />I was suddenly inspired and decided to use the bag to take care of the wasp problem. I ripped the yellow plastic off and dumped the fluid. I inverted the bag and wrapped it around my hand, like you do when you're picking up dog poop. I grabbed the nest and quickly folded the bag around the top. Perfect fit! I shook the bag up and held it to my face to taunt the now enraged wasps. How satisfying. Then I tossed it in my trashcan and wandered off.<br /><br />Unfortunately wasps can actually live for more than an hour in a closed trashcan, as I discovered much to my horror when I tossed out the remains of the Rescue WHYTR-BB8 W-H-Y Trap for Wasps, Hornets and Yellow Jackets. Oh boy were the wasps mad at me! Now I know that I have a high immunity to both yellow jacket AND paper wasp stings.

4 While my children enjoy the apple crisps from this company, the peach crisps were rejected. Odd taste to them.

Name: Reviews, dtype: object

\*\*\*\*\* Cluster E \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 5

5 I can't recommend this flavor for now because at least one out of five cups had a problem that resulted in grounds in my coffee. I've used this in two machines, one is less than a month old - same outcome. Maybe it's just a bad batch, I'd like to know if other reviewers are having similar problems. I've always bought Timothy's and hope that this is just an anomaly. Two out of five stars because the majority of brews made came out fine. Will update this review if I feel I can recommend this flavor again.

5 We discovered Borders Dark Chocolate Gingers on a trip to England and brought a box home with us that disappeared all too quickly. Why, oh why hadn't we brought more home? So I went online and googled and to my delight found I could order them through Amazon! They have that wonderful ginger "bite" enrobed in delicious dark chocolate and are positively addictive. Try them! If you like ginger, you'll love these.

I tried this popcorn hoping to find a replacement for [Orville Redenbacher's Gourmet Microwavable Popcorn, Pour Over Cheddar, 4-Count Boxes \(Pack of 6\)](http://www.amazon.com/gp/product/B000HD7N78). Well this is definitely not it. I could not taste any hint of cheese. It is a bit spicy and you can taste that but I was hoping for more of a cheese flavor.

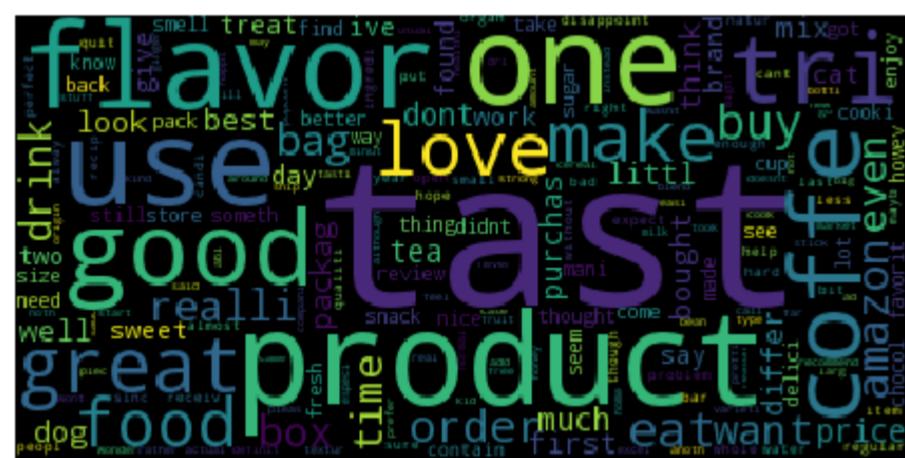
Unfortunately the Hershey bars arrived melted and i had to throw them out. The special "packing" was completely melted and, naturally, did not preserve the candy. It was a somewhat expensive lesson for me to learn. I did notify the seller but never heard back from anyone.

Name: Reviews, dtype: object

Name: Reviews, dtype: object

\*\*\*\*\* Cluster 6 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 6

6 The quality of the coffee was good (we like Starbucks and stronger coffee) - tasted fresh (which it should be in the fancy box packaging and vacuum sealed aluminum bag).  
That said, pay attention to your price per ounce. At Starbucks, you pay about \$10 for a 1 pound (16 ounce) bag. At the grocery store, you normally pay about \$7 for a 12 ounce bag.  
Here, you are only getting 8 ounce bags!! So, do your math to see if it is worth the money for you.

I wanted so much to like this product! I had heard wonderful things about the tea (as you can see by the glowing reviews) but I could not tolerate the smell. I opened the bag and thought it smelled exactly like pipe tobacco. In spite of this, I forced myself to brew some. It was horrible! Saying this has an "unusual flavor" is downplaying the nauseating taste. I was seriously ill afterwards. If anyone knows what I can do to redeem the flavor, I'm all ears! (or eyes). I really want to salvage what I have. Thanks!

I've often enjoyed these chocolate squares, however, my last purchase of them was completely inedible. The chocolate had bloomed terribly and had a chalky taste and texture.

I've often enjoyed these chocolate squares; however, my last purchase of them was completely inedible! The chocolate had bloomed terribly and had a chalky taste and texture.

6 I bought this on a whim at the store, intending to use it in risotto. I didn't think it smelled very chicken-y so I tasted it. It tasted nothing like chicken...it tasted like nothing I wanted to eat. Fortunately I had some "Better Than Bouillon" on hand and used that with water.  
  
I checked the Cooks Illustrated review of chicken broths - it was the lowest rated broth of 9 tested. One of the remarks: "like an entire vegetable drawer gone bad".  
  
I would agree with that. Stay away from this broth.

## \*\*\*\*\* Cluster 7 \*\*\*\*\*

## Plot of Word Cloud



Printing 4 random reviews from cluster 7

7 My family and I are relatively new to gluten free and we have been in search of a baking mix to replace our weekend breakfasts. We have tried several others and they all taste "gluten free", if you know what I mean. Pamela's however, is so good and you can't tell its gluten free. Try it, you won't regret it!

7 Just got my coffee, I will use it as an emergency supply, when my every day coffee (from local roaster) runs out.  
I tasted it this morning, very disappointed. I taste like cardboard/old/vented coffee... I expected much better from Lavazza.  
Maybe the lot I got is a old one... Who know, won't buy it again.

7 I am always careful to ensure that my dogs don't get treats from China, and since these didn't state the country of origin, I called the company. I was pleased to hear that they are not from China.  
I just ordered them, so I'll update once I get them. I like the fact that they are healthy for the dogs, not just chew toys.  
I like their toothbrush and poultry flavored toothpaste very much, and it was recommended by my vet, so these became an obvious choice for me.

7 This brand of rice noodles is the most like wheat pasta. It is delicious, the texture is perfect. it doesn't get mushy when it's cooked. I really enjoyed it!

/ This brand of rice noodles is the most like wheat pasta. It is delicious, the texture is perfect, it doesn't get mushy when it's cooked. I really enjoyed it!

Name: Reviews, dtype: object

## \*\*\*\*\* Cluster 8 \*\*\*\*\*

### Plot of Word Cloud



Printing 4 random reviews from cluster 8

8 Since I had been recuperating from a 24 hour flu bug that lasted a week, I knew I was low on electrolytes. I opted for this product, as some products tend to further aggravate my stomach and acid reflux. This worked out extremely well, and the taste is good. I WILL keep it on hand from now on!

8 I'm wondering whether they forgot to put the peppermint oil in this batch. It's just soft, sugar candy with the faintest hint of peppermint. I've used Bob's peppermint sticks for several years for my favorite peppermint pie and never been disappointed before.  
  
Well, I made the pie according to Paula Deen's recipe, but after mixing the "peppermint" balls with the other ingredients there is not a hint of peppermint. Wish I could exchange the balls for sticks just to see if there is a difference.  
  
I sure don't recommend these for peppermint lovers.

8 This pasta tastes similar to regular pasta but has nice fiber count, plus calcium and vitamin d. No one in my family ever says a word when I swap this in, and they are fussbudgets. The added fiber means that it satisfies for longer with less impact on blood sugars than traditional pastas. May need a little longer cook time than whatever you are used to. Looking for a Ronzoni angel hair, but have not yet found.

8 It's darker than it looks in the picture and when honey is dark, it tastes it too.  
There is no redeeming quality about it. I used to keep bees and i know what really good honey tastes like and this isn't it. I had a massive hedge of Ligustrum in a Dallas suburb that made better honey than this (that was amazing honey!!).  
Take a pass on this one i'd say. I bought this because another reviewer on some other honey mentioned it. Maybe their quality control isn't very good or we can blame the bees i guess.  
If anyone can recommend a very clean, bright tasting honey let me know.

Name: Reviews, dtype: object

### Plot of Hand Cloud



Printing 4 random reviews from cluster 9

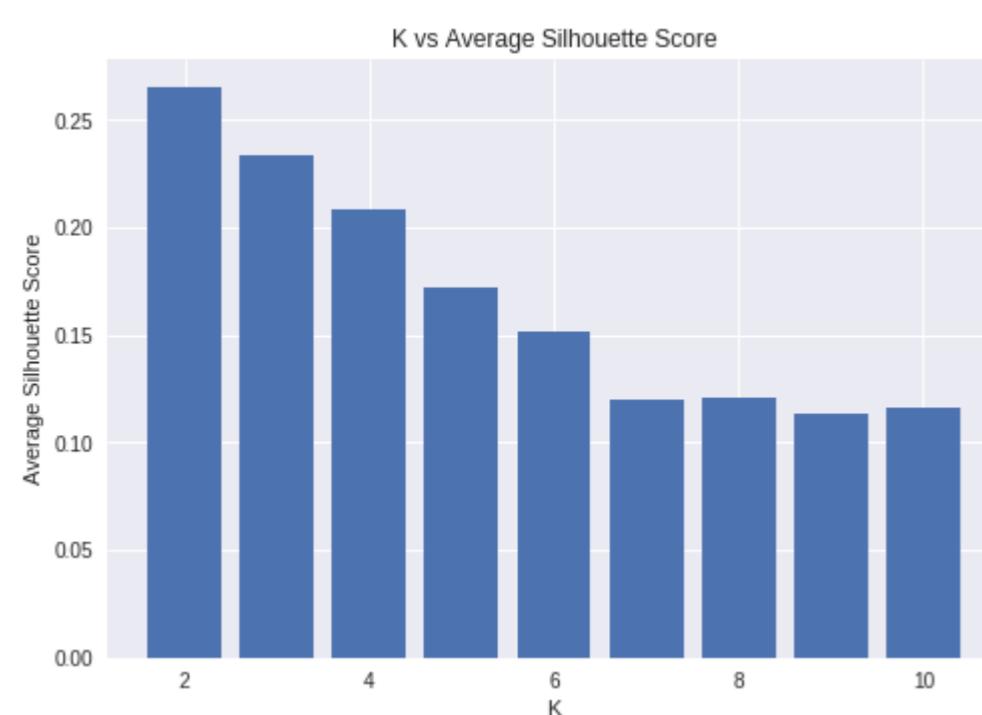
9 Purchased this in a small bag just to try and dogs loved it as they do all of the natural balance. Stools were firm. Definitely will buy again.

9 Well, I guess I should have read the description better, but I didn't see the warning about the color of these 'oozing eyes' being only on the plastic bag that each piece is in. The candy itself is a plain white marshmallow. They taste pretty disgusting, too. The combination of them not looking anything remotely like an eye (even in the plastic bag you have to know that they are meant to be eyes) and tasting bad makes this a pretty useless candy for halloween.

I ordered from this company a few months ago and was happy, but I just ordered again and the bully sticks were so stinky that we threw away the entire package. In fact I tried to give them away to a friend with a dog and she wouldn't take them. They smelled up my entire house during a party which was a bummer for me and my guests. Now I'm looking for an odor-free alternative.

I absolutely love peach tea. I was happy to try Mio Liquid Peach Tea and Mio Peach/Mango Tea to see if it would be better than real peach tea or other peach tea brands. The idea is simple, make a syrup to add to your glass for some delicious tea wherever you are. No messy packets to mess with; No clouds of powder to smell. However, getting it to the right flavor took a lot of shots. The directions say one shot per each 8oz of water. I filled two glasses with 8oz of water. This review deals only with the peach/mango.  
On the first shot, you couldn't taste anything other than water though the glass did have a tint to it. The second shot still gave no hint of a flavor. The third shot definitely had flavor, but not identifiable as peach or mango. The fourth shot was definitely better and the fifth finally had a nice taste to it. However, 5 shots into what ended up as a 6oz glass of water seemed a bit much. With each pack having 24 shots (one shot per 8oz serving as recommended on the directions), and one glass taking 5 shots to taste good - you are lucky to get 4 glasses of tea out of one Mio Liquid 1.62oz container. Granted tastes differ and you might get by with less shots. I also used tap water instead of bottled water to test it out to get an exact 8oz measurement of water.

Name: Reviews, dtype: object



The average Silhouette value of K = 2 is 0.265083471412089  
The average Silhouette value of K = 3 is 0.2335033061836744  
The average Silhouette value of K = 4 is 0.2079240138105294  
The average Silhouette value of K = 5 is 0.17202005238657234  
The average Silhouette value of K = 6 is 0.15112498897480978  
The average Silhouette value of K = 7 is 0.11963347002040632  
The average Silhouette value of K = 8 is 0.12057144149604214  
The average Silhouette value of K = 9 is 0.11301937111529721  
The average Silhouette value of K = 10 is 0.11660902343156512

We can observe that K = 2 has the highest average silhouette score of 0.265083471412089.

The wordcloud and reviews for K = 2 is already output above.

#### Observations:

1. Wordcloud and reviews are printed for k values of 2, 5, 10 to get a sense of what's going on with the data.
2. Silhouette scores are plotted for each values of k ranging from 2 to 10. It is observed that k=2 has the highest average silhouette score, hence we declare that k=2 is the best suited number of clusters.
3. Since the average value of all the silhouette scores is around 0.16, k values of 3, 4, 5 can also perform reasonably well.
4. When k=2, cluster 0 has 3480 elements compared to 1519 in cluster 1.
5. Cluster 0 reviews mostly revolve around the words 'flavor', 'use', 'tast', 'product'. The customers usually talked about the flavour of the product, how did it taste and its uses. Majority of them seem to like it due to the occurrence of the words 'love' and 'good'.
6. Cluster 1 reviews mostly revolve around the words 'tast', 'product' and 'use'. It also says that the customers usually talked about the product and its flavour and majority of them liked it because of the words 'love' and 'good' appearing frequently.

## Summary and Conclusions

- 1) Import the csv file containing pre processed data which is already arranged on the basis of time.
- 2) Two functions are created for plotting wordcloud and for performing agglomerative clustering.
- 3) The first function creates a dataframe with all the reviews, cleaned text and clusters. Then it prints the number of data points in each cluster. A wordcloud is then plotted along with a few random reviews from that cluster.
- 4) The second function performs agglomerative clustering and gets the best k value by plotting the silhouette scores and gets the labels for visualisation through wordcloud.
- 5) Since this is computationally expensive, we limit the number of data points to 5000.
- 5) These functions are applied on Bag of Words, TFIDF, avg Word2Vec and TFIDF Word2Vec.
- 6) It can be observed that almost all vectorizations have the highest average silhouette score for k = 2.