

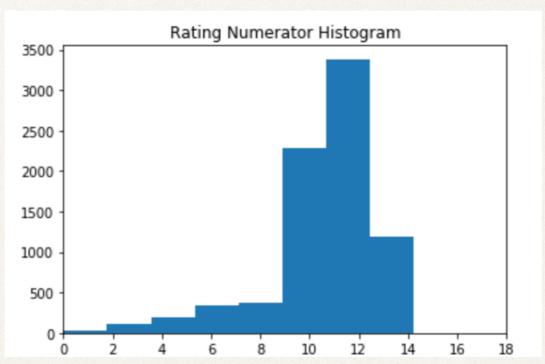
Analysis and Visualization

```
In [176]: df clean.info()
          <class 'pandas.core.frame.DataFrame'>
          Int64Index: 7968 entries, 0 to 7967
          Data columns (total 23 columns):
          tweet id
                                    7968 non-null object
          in_reply_to_status_id
                                    92 non-null float64
          in reply to user id
                                    92 non-null float64
          timestamp
                                    7968 non-null datetime64[ns, UTC]
          source
                                    7968 non-null object
                                    7968 non-null object
          text
                                    7968 non-null object
          expanded urls
          rating numerator
                                    7968 non-null int64
          rating denominator
                                    7968 non-null int64
          name
                                    7968 non-null object
          dog_type
                                    7968 non-null object
          favorite_count
                                    7968 non-null int64
                                    7968 non-null object
          jpg_url
          img_num
                                    7968 non-null int64
                                    7968 non-null object
          р1
                                    7968 non-null float64
          pl conf
                                    7968 non-null bool
          p1 dog
                                    7968 non-null object
          p2
          p2_conf
                                    7968 non-null float64
                                    7968 non-null bool
          p2 dog
          p3
                                    7968 non-null object
                                    7968 non-null float64
          p3 conf
                                    7968 non-null bool
          p3 dog
          dtypes: bool(3), datetime64[ns, UTC](1), float64(5), int64(4), object(10)
          memory usage: 1.3+ MB
```

df.info(): show our new table information after cleaning we can see that the three table now become one organized table and dog types melt together in one column named dog_type, Also timestamp type have been fixed to be datetime type and also tweet_id type fixed.

	in_reply_to_status_id	in_reply_to_user_id	rating_numerator	rating_denominator	favorite_count	img_num	p1_conf	p2_conf	p3_conf
count	9.200000e+01	9.200000e+01	7968.000000	7968.000000	7968.000000	7968.000000	7968.000000	7.968000e+03	7.968000e+03
mean	6.978112e+17	4.196984e+09	12.280622	10.538153	8901.605422	1.203313	0.593669	1.345043e-01	6.028316e-02
std	4.286923e+16	0.000000e+00	41.509137	7.320081	12215.271422	0.560916	0.271904	1.006757e-01	5.089485e-02
min	6.671522e+17	4.196984e+09	0.000000	10.000000	81.000000	1.000000	0.044333	1.011300e-08	1.740170e-10
25%	6.717299e+17	4.196984e+09	10.000000	10.000000	1984.000000	1.000000	0.362775	5.401683e-02	1.616933e-02
50%	6.757073e+17	4.196984e+09	11.000000	10.000000	4136.000000	1.000000	0.587440	1.175370e-01	4.952715e-02
75%	7.032559e+17	4.196984e+09	12.000000	10.000000	11315.500000	1.000000	0.844247	1.952647e-01	9.162278e-02
max	8.558181e+17	4.196984e+09	1776.000000	170.000000	132810.000000	4.000000	1.000000	4.880140e-01	2.734190e-01

The basic statistics of the dataset after cleaning are described using df_clean.discribe() method.



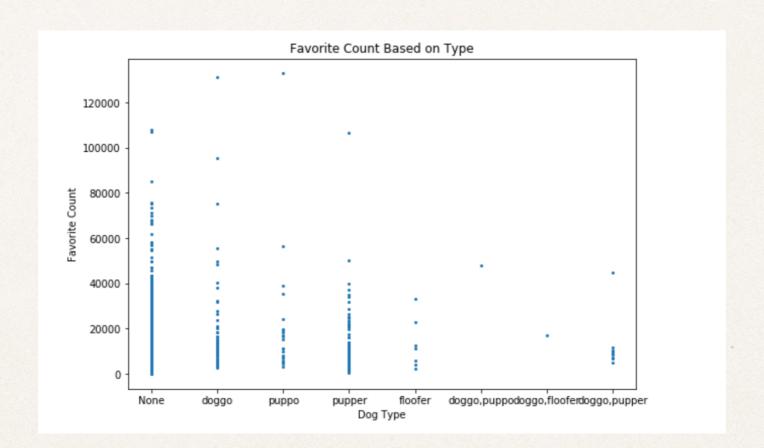
In this graph, we can see the frequency of the rating values, range of values as shown is between 0 -14 and the majority rating is 12.

```
print ('Rating Numerator Mean =' )
df_clean.rating_numerator.mean()

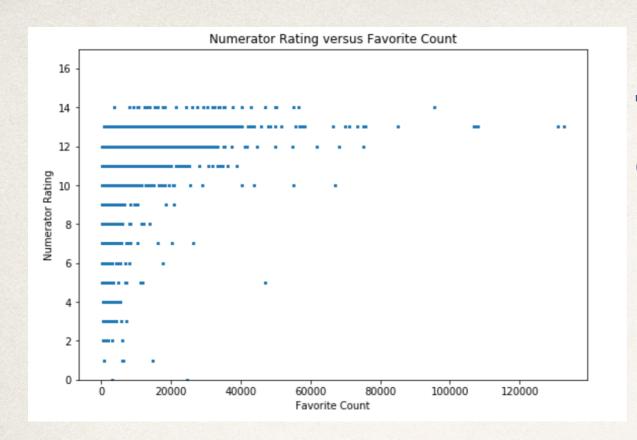
Rating Numerator Mean =

12.237101303911734
```

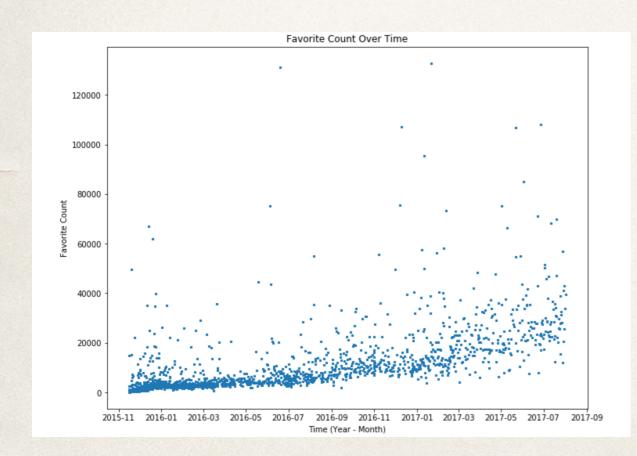
The mean value of the rating numerator is 12.



This distribution show us the favorite count based on dog type we can see that the pupper dog is the most favorite and the floofer is the less favorite, we ignore the none value .



This distribution show us the favorite count versus numerator rating and we can see that there is a direct relationship between them.



This distribution shows us the favorite count over time and we can see that the number favorite count decreasing over time which could mean people have become less interesting to the account or the account has become less tweet.