```
import pandas as pd
df = pd.read_csv("twitter_archive_master.csv")
```

Analyzing, and Visualizing Data

```
graph=df.select_dtypes(["int64","float64"])
graph.hist(figsize=(16,14))
```

```
array([[<matplotlib.axes. subplots.AxesSubplot object at 0x7fe7357b5fd0>,
         <matplotlib.axes._subplots.AxesSubplot object at 0x7fe7357952e8>,
         <matplotlib.axes._subplots.AxesSubplot object at 0x7fe735748550>],
        (<matplotlib.axes. subplots.AxesSubplot object at 0x7fe7356f87b8>,
         <matplotlib.axes. subplots.AxesSubplot object at 0x7fe735729a20>,
         <matplotlib.axes._subplots.AxesSubplot object at 0x7fe7356dcc88>],
        (<matplotlib.axes. subplots.AxesSubplot object at 0x7fe735693ef0>,
         <matplotlib.axes._subplots.AxesSubplot object at 0x7fe735651160>,
         <matplotlib.axes._subplots.AxesSubplot object at 0x7fe7356511d0>]],
       dtype=object)
          Confidence of First Prediction
                                                           Confidence of Second Prediction
                                                                                                     350 -
 175
                                                   200
                                                                                                     300 -
                                                   175
 150
                                                                                                     250 -
                                                   150
 125
                                                   125
                                                                                                     200 -
 100
                                                   100
                                                                                                     150 -
  75
                                                    75
                                                                                                     100 -
  50
                                                    50
                                                                                                      50 -
  25
                                                    25
   0
                                                     0
                                                                                                       0 -
         0.2
                 0.4
                         0.6
                                 0.8
                                                               0.1
                                                                       0.2
                                                                              0.3
                                                                                     0.4
                                        1.0
                                                        0.0
                                                                Number_of_Retweets
                 Image Number
 800
                                                                                                     700 -
                                                   800
 700
                                                                                                     600 -
                                                   700
 600
                                                   600
                                                                                                     500 -
 500
                                                   500
                                                                                                     400 -
 400
                                                   400
                                                                                                     300 -
 300
                                                   300
                                                                                                     200 -
 200
                                                   200
                                                                                                     100 -
 100
                                                   100
                                                                                                       0 -
                       2.5
                                                                   20000 30000 40000 50000
           1.5
                 2.0
                             3.0
                                   3.5
                                         4.0
     1.0
                     Rating
                                                                      Tweet Id
 500
                                                                                                     140 -
                                                   250
                                                                                                     120 -
 400
                                                   200
                                                                                                     100 -
 300
                                                                                                      80 -
                                                   150
                                                                                                      60 -
 200
                                                   100
                                                                                                      40 -
 100
                                                    50
                                                                                                      20 -
                                                                                                       0 -
     10.0 12.5 15.0 17.5
                         20.0
                              22.5
                                                             7.0
                                                                    7.5
                                                                            8.0
                                   25.0
                                                                                    8.5
                                                                                            9.0
```

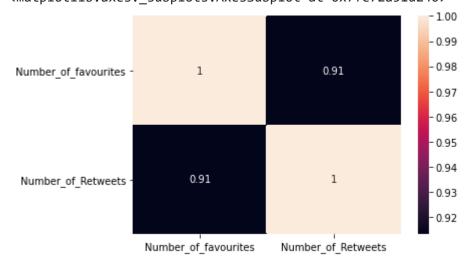
Inference:

- The confidence of First Prediction is the highest and has maximum number of values having a c
- Very few values in confidence of First Prediction have values which are on the lesser side, that is
- Values are alost equally distributed between 0.3 and 0.9 confidence in the confidence of First Pr
- Maximum number have a confidence of 0, that is 0% in the confidence of the second prediction
- In the confidence of the second prediction,, as the confidence keeps on increasing, the number of decreasing
- Least number of tweets have a maximum confidence of 0.45 that is 45% in the confidence of se
- The confidence of Third Prediction is the lowest as compared to the confidence of the first and
- The confidence of the Third prediction has maximum confidence of 0.22 i.e. 22% with most nurr
- Very few values having a confidence of 0.22 in the confidence of the third prediction
- Most number of tweets have retweets between 0-1000
- Very less number of tweets have tweets more than 1000
- Maximum retweets received are 5000 retweets
- A very high number of tweets are favourited upto 1500 times
- Number of tweets favourited above 1500 goes on decreasing
- Maximum number of times a tweet is favoutited is 12000.
- Most of the tweets have a rating of 10-12.5
- Very few tweets have a rating above 12.5
- The maximum rating received by a tweet on a scale of 10 is 27.5
- For most number of tweets, the image number that corresponded to the most confident predicti
- After image number 1, image number that corresponded to the most confident prediction is ima
- After image number 2, the image number that corresponded to the most confident prediction is
- The number of tweets for which image number 4 corresponds to the most confident predicition

```
import seaborn as sns
corr_new=df[['Number_of_favourites','Number_of_Retweets']].corr()
sns.heatmap(corr new,annot=True)
```

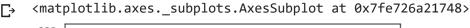
Гэ

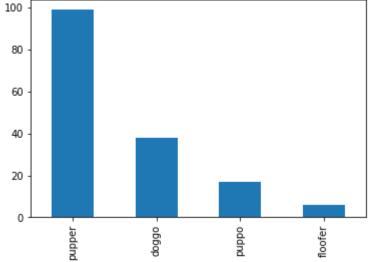
/usr/local/lib/python3.6/dist-packages/statsmodels/tools/_testing.py:19: FutureWarning:
 import pandas.util.testing as tm
<matplotlib.axes._subplots.AxesSubplot at 0x7fe72a51d240>



Inference:

- The number of retweets and the number of favourites have a high correlation
- · When number of retweets is high, the number of favourites is high
- · When number of retweets is less, number of favourites is less as well





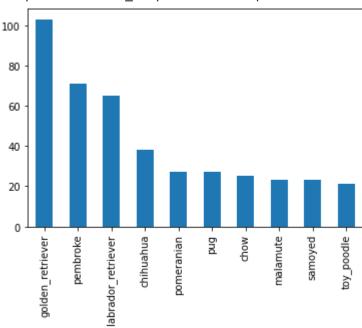
Inference:

· It shows the lifecycle of the dogs

- · Most of the dogs have a lifecycle stage of being a of pupper
- Few ddogs are in the lifecycle stage of being a of doggo
- Very few dogs are in the lifecycle stage of being a puppo
- · Lease number of dogs are in the lifecycle stage of being a floffer

df['First_Prediction'].value_counts().sort_values(ascending=False).head(10).plot(kind='bar'

<matplotlib.axes._subplots.AxesSubplot at 0x7fe726995c88>

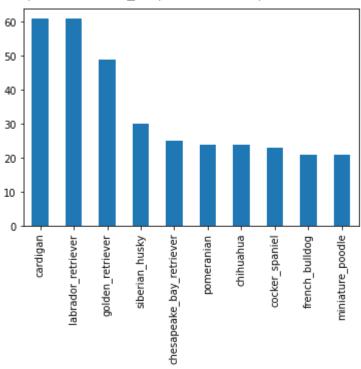


Inference:

• It shows the top 10 breeds that are most likely to be predicted in the First Prediction

С→

<matplotlib.axes._subplots.AxesSubplot at 0x7fe7268f0550>

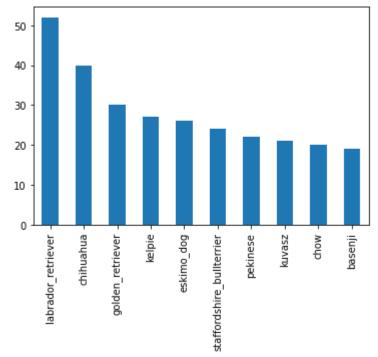


Inference:

• It shows the top 10 breeds that are most likely to be predicted in the Second Prediction

df['Third_Prediction'].value_counts().sort_values(ascending=False).head(10).plot(kind='bar'

<matplotlib.axes._subplots.AxesSubplot at 0x7fe7268d5748>



Inference:

• It shows the top 10 breeds that are most likely to be predicted in the Third Prediction