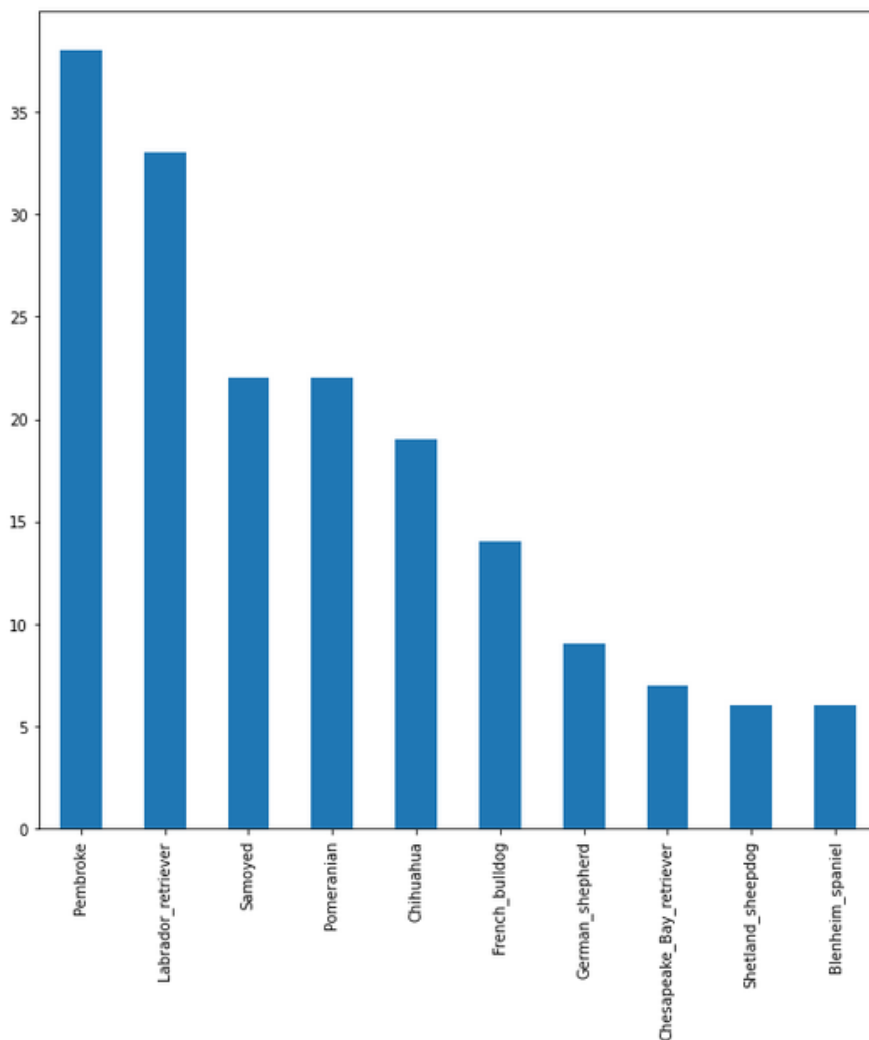After gathering, accessing, and cleaning the datasets, I did the final visualization and insights. For my visualization, I want to show which dog breeds were tweeted the most. In order to do this, I first had to filter the dataset with only pictures with 80% and higher of confidence that it is that breed of dog on the first prediction try. I feel that the first prediction trial would be the most accurate when compared to the second and third prediction trial. Also, I filtered out the values of "p1" column that did not have capitalized first letter, as I was informed by my Udacity mentor that this eliminates a lot of the values that were not of dog breeds.

Below is the visualization:

As you can see from the bar chart, the Pembroke was ranked 1st as the dog breed most tweeted about by a good-sized margin. Rank 2nd to 10th were Labrador Retriever, Samoyed, Pomeranian, Chihuahua, French Bull dog, German Shepherd, Chesapeake Bay Retriever, Shetland Shepherd and Blenheim Spaniel.

For my first insight, I wanted to see the top 10 dog breeds that had the most favorite counts on their tweets. Again, I filtered the dataset with only dogs with 80% or high confidence prediction on their pictures and had a capitalized first letter. However, the results this time seemed a bit messy and redundant as there were dog breeds that were repeats within rank 1 through 10 for most favorite counts as shown below.

	p1	favorite_count
775	Labrador_retriever	131075
108	French_bulldog	106827
265	Labrador_retriever	73397
65	Chesapeake_Bay_retriever	71144
22	Pembroke	69871
109	Samoyed	54720
96	Pembroke	43710
808	Labrador_retriever	43694
64	French_bulldog	42876
194	Labrador_retriever	42022

The Labrador Retriever is in 1st, 3rd, 8th and 9th place of most favorite count. While the Pembroke is in 5th and 7th place. French bull dog is in 2nd and 9th place. While the Chesapeake Bay Retriever is in 4th and the Samoyed is in 6th.

While I know what the high ranking Labrador looks like, the Pembroke was very highly ranked in both tweets and favorite count, so I had to research this breed, turns out it is a "Corgi"

Picture retrieved from: (https://www.nomnomnow.com/learn/article/pembroke-welsh-corgis-skin-allergies)

For my second insight, I wanted to see which hour of the day people were most tweeting about dogs. The results are as shown below, with the hours of the day on the left column and tweets made during that hour on the right column:

```
1 o'clock      278
0 o'clock      253
2 o'clock      210
16 o'clock     194
3 o'clock      170
17 o'clock     161
23 o'clock     109
18 o'clock     100
4 o'clock       96
15 o'clock      91
19 o'clock      81
20 o'clock      75
21 o'clock      71
22 o'clock      67
5 o'clock       26
14 o'clock       8
6 o'clock        3
13 o'clock       1
```

The top 5 were 1am, 12am, 2am, 4pm, and 3pm. It seems people are usually on their phones on Twitter during twilight hours.

For my third insight, I wanted to see the top 10 dog breeds with the highest average rating numerators. Again, I used only the tweets that had an above 80% confidence with "p1" column with only capitalized first letter. The rankings are as shown below.

p1	rating_numerator
West_Highland_white_terrier	35.666667
Labrador_retriever	14.848485
Gordon_setter	14.000000
Afghan_hound	13.000000
Leonberg	13.000000
Great_Pyrenees	12.250000
Tibetan_mastiff	12.000000
Pembroke	11.973684
Samoyed	11.909091
Chesapeake_Bay_retriever	11.714286

The West Highland White Terrier was overwhelming the 1st place with the highest rating, while 2nd through 10 were close in average rating. There I had to research what the West Highland White Terrier looks like, and it is undoubtedly very cute.

Picture retrieved from: (https://www.countrylife.co.uk/out-and-about/dogs/west-highland-terriers-218716)