In [1]:
```
import numpy as np
import pandas as pd
import requests
import os
import tweepy
import json
from PIL import Image
import re
from io import BytesIO
import re
import seaborn as sns
import datetime
import matplotlib.pyplot as plt
%matplotlib inline
```

In [2]:
```
tw_master_df =pd.read_csv('twitter_archive_master.csv')
img_df = pd.read_csv('image_predictions_new.csv')
```

In [3]:
```
tw_master_df.head()
```

Out[3]:

	tweet_id	timestamp	source	text	expanded_urls	rating_numerator	rating_denominator	name	classification	retweet_count	favorite_count
0	892402553491988849	2017-07-26 15:59:51+00:00	Twitter for iPhone	This is Cassie. She is a college pup. Studying...	https://twitter.com/dog_rates/status/890240255...	14.0	10	Cassie	doggo	7711	32467
1	884162670584377345	2017-07-09 21:29:42+00:00	Twitter for iPhone	Meet Yogi. He doesn't have any important dog m...	https://twitter.com/dog_rates/status/884162670...	12.0	10	Yogi	doggo	3128	20771
2	872967104147763200	2017-06-09 00:02:31+00:00	Twitter for iPhone	Here's a very large dog. He has a date later. ...	https://twitter.com/dog_rates/status/872967104...	12.0	10	NaN	doggo	5669	28031
3	871515927908634625	2017-06-04 23:56:03+00:00	Twitter for iPhone	This is Napolean. He's a Raggedy East Nicaragu...	https://twitter.com/dog_rates/status/871515927...	12.0	10	Napolean	doggo	3628	20730
4	871102520638267392	2017-06-03 20:33:19+00:00	Twitter for iPhone	Never doubt a doggo 14/10 https://t.co/AbBLh2FZCH	https://twitter.com/animalcog/status/871075758...	14.0	10	NaN	doggo	5764	21461

In [4]:
```
img_df.head()
```

Out[4]:

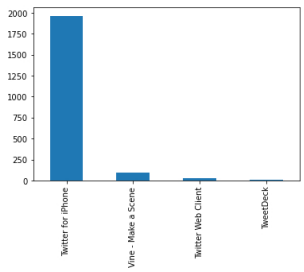
	tweet_id	jpg_url	img_num	p1	p1_conf	p1_dog	p2	p2_conf	p2_dog	p3	p3_conf	p3_dog
0	666020888022790149	https://pbs.twimg.com/media/CT4udn0WwAA0aMy.jpg	1	Welsh_springer_spaniel	0.465074	True	collie	0.156665	True	Shetland_sheepdog	0.061428	True
1	666029285002620928	https://pbs.twimg.com/media/CT42GRgUYAA5iDo.jpg	1	redbone	0.506826	True	miniature_pinscher	0.074192	True	Rhodesian_ridgeback	0.072010	True
2	666033412701032449	https://pbs.twimg.com/media/CT4521TWwAEvMyu.jpg	1	German_shepherd	0.596461	True	malinois	0.138584	True	bloodhound	0.116197	True
3	666044226329800704	https://pbs.twimg.com/media/CT5Dr8HUEAA-lEu.jpg	1	Rhodesian_ridgeback	0.408143	True	redbone	0.360687	True	miniature_pinscher	0.222752	True
4	666049248165822465	https://pbs.twimg.com/media/CT5IQmsXIAAKY4A.jpg	1	miniature_pinscher	0.560311	True	Rottweiler	0.243682	True	Doberman	0.154629	True

Sources where the fans post:

In [5]:
```
tw_master_df.source.value_counts()
```

Out[5]:
```
Twitter for iPhone     1962
Vine - Make a Scene      91
Twitter Web Client       30
TweetDeck                11
Name: source, dtype: int64
```

In [6]:
```
tw_master_df.source.value_counts().plot(kind = 'bar');
```

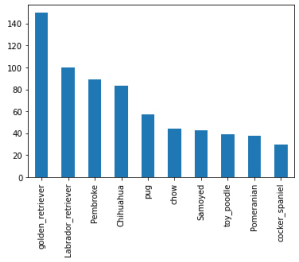


Most predicted breeds:

In [7]:
```
most_breed_1 = img_df.query('p1_dog == True')
most_breed_2 = img_df.query('p2_dog == True')
most_breed_3 = img_df.query('p3_dog == True')
```

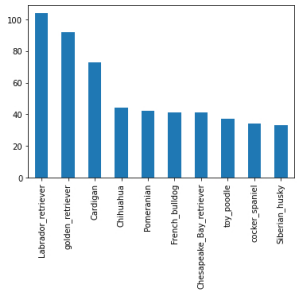
Most predicted breeds as first prediction

In [8]:
```
most_breed_1.p1.value_counts()[:10].plot(kind = 'bar');
```



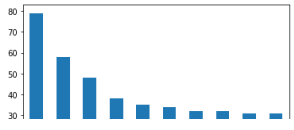
Most predicted breeds as second prediction

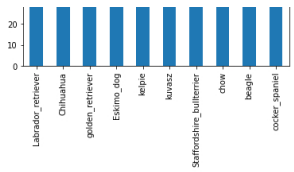
In [9]:
```
most_breed_2.p2.value_counts()[:10].plot(kind = 'bar');
```



Most predicted breeds as second prediction

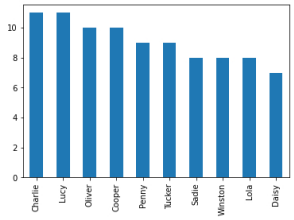
In [10]:
```
most_breed_3.p3.value_counts()[:10].plot(kind = 'bar');
```





Most frequent dog names:

In [11]:
```
tw_master_df.name.value_counts()[:10].plot(kind = 'bar');
```



Distribution of dog ratings:

In [13]:
```
tw_master_df.rating_numerator.plot(kind = 'hist');
```