

wrangle_act

November 9, 2022

1 Project: Wrangling and Analyze Data

1.1 Data Gathering

In the cell below, gather **all** three pieces of data for this project and load them in the notebook. **Note:** the methods required to gather each data are different. 1. Directly download the WeRate-Dogs Twitter archive data (twitter_archive_enhanced.csv)

```
In [88]: import pandas as pd
import numpy as np
import requests
import os
import tweepy
from tweepy import OAuthHandler
import json
from timeit import default_timer as timer
import warnings
warnings.filterwarnings('ignore')
import seaborn as sb
import matplotlib.pyplot as plt
%matplotlib inline

In [89]: #Read the csv file into the dataframe
df_tweet= pd.read_csv('twitter-archive-enhanced.csv')

In [90]: list(df_tweet)

Out[90]: ['tweet_id',
'in_reply_to_status_id',
'in_reply_to_user_id',
'timestamp',
'source',
'text',
'retweeted_status_id',
'retweeted_status_user_id',
'retweeted_status_timestamp',
'expanded_urls',
'rating_numerator',
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'rating_denominator',
'name',
'doggo',
'floofer',
'pupper',
'puppo']

```

2. Use the Requests library to download the tweet image prediction (image_predictions.tsv)

```

In [91]: #this is the folder where the file for image_predictions.tsv will be downloaded
url = 'https://d17h27t6h515a5.cloudfront.net/topher/2017/August/599fd2ad_image-predicti
response = requests.get(url)
response

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Out[91]: <Response [200]>

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In [92]: with open('image-prediction.tsv', 'wb') as file:
file.write(response.content)

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In [93]: #To read the image predictions table into a dataframe
image = pd.read_csv('image-predictions.tsv', sep='\t')

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In [94]: os.listdir()

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Out[94]: ['image-prediction.tsv',
'twitter-archive-enhanced.csv',
'image',
'act_report.ipynb',
'tweet_json.txt',
'image-predictions.tsv',
'.ipynb_checkpoints',
'wrangle_report.ipynb',
'wrangle_act.ipynb']

```

3. Use the Tweepy library to query additional data via the Twitter API (tweet_json.txt)

```

In [9]: # Query Twitter API for each tweet in the Twitter archive and save JSON in a text file
# These are hidden to comply with Twitter's API terms and conditions
consumer_key = 'HIDDEN'
consumer_secret = 'HIDDEN'
access_token = 'HIDDEN'
access_secret = 'HIDDEN'
auth = OAuthHandler(consumer_key, consumer_secret)
auth.set_access_token(access_token, access_secret)

api = tweepy.API(auth, wait_on_rate_limit=True)

# Tweet IDs for which to gather additional data via Twitter's API
tweet_ids = df_tweet.tweet_id.values

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len(tweet_ids)

# Query Twitter's API for JSON data for each tweet ID in the Twitter archive
count = 0
fails_dict = {}
start = timer()
# Save each tweet's returned JSON as a new line in a .txt file
with open('tweet_json.txt', 'w') as outfile:
    # This loop will likely take 20-30 minutes to run because of Twitter's rate limit
    for tweet_id in tweet_ids:
        count += 1
        print(str(count) + ": " + str(tweet_id))
        try:
            tweet = api.get_status(tweet_id, tweet_mode='extended')
            print("Success")
            json.dump(tweet._json, outfile)
            outfile.write('\n')
        except tweepy.TweepError as e:
            print("Fail")
            fails_dict[tweet_id] = e
        pass
    end = timer()
print(end - start)
print(fails_dict)

```

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