M-P-Sullivan / **Google Trend.py** Secret   ···

Created now

<> **Code**   ⊶ Revisions   1

Quant Methods Lab 1 Bonus Problem

<> **Google Trend.py**

```python
1   import time
2   import pandas as pd
3   from pytrends.request import TrendReq
4   from pytrends.exceptions import TooManyRequestsError
5
6   pytrend = TrendReq()
7   print(1)
8
9   # Define Keywords (must be in chunks of 5 or fewer per Google API, had issues with larger)
10  keywords_chunk1 = ['bean-to-cup machine', 'coffee brewer', 'coffee extract', 'cold brew', 'espress
11  keywords_chunk2 = ['french press', 'instant coffee', 'keurig', 'pour over']
12  print(2)
13
14  # Function to fetch interest by region with retry and delay
15  def get_interest_by_region(keywords):
16      while True:
17          try:
18              pytrend.build_payload(
19                  kw_list=keywords,
20                  timeframe='today 12-m',  # Last 12 months
21                  geo='US',
22                  gprop=''
23              )
24              time.sleep(10)  # Add a delay of 10 seconds between requests to deal with 429 errors f
25              return pytrend.interest_by_region(resolution='REGION')
26          except TooManyRequestsError:
27              print("Too many requests. Retrying in 30 seconds...")
28              time.sleep(30)  # Wait 30 seconds before retrying to further deal with 429s
29          except Exception as e:
30              print(f"An unexpected error occurred: {e}")
31              break
32
33  print(3)
34
35  # Fetch data for each chunk
36  interest_by_region1 = get_interest_by_region(keywords_chunk1)
37  print(4)
```

```
38    interest_by_region2 = get_interest_by_region(keywords_chunk2)

39

40    print(5)
41    # Combine results
42    interest_by_region_combined = pd.concat([interest_by_region1, interest_by_region2], axis=1)

43

44    print("\nInterest By Region (Combined):")
45    print(interest_by_region_combined.head(10))
```