

# Report

## 1. **\*\*Import Statements:\*\***

- ``import json`` : Imports the JSON module for working with JSON data.
- ``import time`` : Imports the Time module for time-related functions.
- ``import requests`` : Imports the Requests module for making HTTP requests.
- ``from ntscraper import Nitter`` : Imports the Nitter class from the ``ntscraper`` module. This class is used for scraping Twitter data.

## 2. **\*\*Function Definition:\*\***

- ``search_twitter(accounts, ticker, interval_minutes)`` : Defines a function named ``search_twitter`` that takes three parameters:
  - ``accounts`` : A list of Twitter usernames to search for.
  - ``ticker`` : The keyword to search for in the tweets.
  - ``interval_minutes`` : The time interval between each scraping session in minutes.

## 3. **\*\*Main Loop:\*\***

- ``while True`` : Initiates an infinite loop that will continuously scrape Twitter data.

## 4. **\*\*Variables Initialization:\*\***

- ``total_mentions = 0`` : Initializes a variable to count the total number of mentions of the specified keyword.
- ``current_time = time.strftime("%H:%M:%S", time.localtime())`` : Gets the current time in the format "hour:minute:second".
- ``all_tweets = []`` : Initializes an empty list to store all scraped tweets.

## 5. **\*\*Scraping Loop:\*\***

- ``for account in accounts:`` : Iterates over each Twitter account in the ``accounts`` list.
- ``attempts = 3`` : Initializes a variable to track the number of retry attempts for fetching tweets.
- ``while attempts > 0:`` : Initiates a loop to retry fetching tweets in case of errors.
- Inside the ``while`` loop:
  - Uses the ``Nitter().get_tweets()`` method to fetch tweets for the current account.
  - Extracts the tweets from the response and iterates over them.
  - Checks if each tweet contains the specified keyword (``ticker``) and updates the ``total_mentions`` count accordingly.
  - Appends each tweet to the ``all_tweets`` list.

#### 6. **\*\*Output and Saving to JSON:\*\***

- After scraping all accounts, it prints the total mentions of the keyword and the current time.
- Constructs the output file name based on the ticker symbol and the current date and time.
- Saves all scraped tweets to a JSON file with the constructed file name.
- If there is an error during saving, it prints an error message.

#### 7. **\*\*Sleeping Between Scraping Sessions:\*\***

- ``time.sleep(interval_minutes * 60)`` : Delays the execution of the script for the specified interval (in minutes) before starting the next scraping session.

#### 8. **\*\*Example Usage:\*\***

- Provides an example usage of the ``search_twitter`` function with predefined inputs for ``accounts``, ``ticker``, and ``interval_minutes``.
- Invokes the ``search_twitter`` function with the provided inputs.

This code essentially continuously scrapes Twitter data for the specified accounts, checks for mentions of a specific keyword, and saves the results to JSON files at regular intervals.

Output Example provided in code with interval time 15 min :

```
18-Apr-24 16:05:53 - No instance specified, using random instance https://nitter.esmailel1bob.xyz
18-Apr-24 16:06:02 - Current stats for ChartingProdigy: 21 tweets, 0 threads...
18-Apr-24 16:06:07 - Current stats for ChartingProdigy: 41 tweets, 0 threads...
18-Apr-24 16:06:12 - Current stats for ChartingProdigy: 61 tweets, 0 threads...
18-Apr-24 16:06:18 - Current stats for ChartingProdigy: 81 tweets, 0 threads...
18-Apr-24 16:06:22 - Current stats for ChartingProdigy: 100 tweets, 0 threads...
'$TSLA' was mentioned '5' times in the last '15' minutes at '15:55:50'.
All tweets have been saved to 'TSLA_tweets_20240418_160622.json'.
```

Another output I got with interval min 60 :

```
18-Apr-24 17:51:14 - Empty page on https://nicer.privacydev.net  
'$TSLA' was mentioned '7' times in the last '60' minutes at '16:56:22'.  
All tweets have been saved to 'TSLA_tweets_20240418_173116.json'.
```