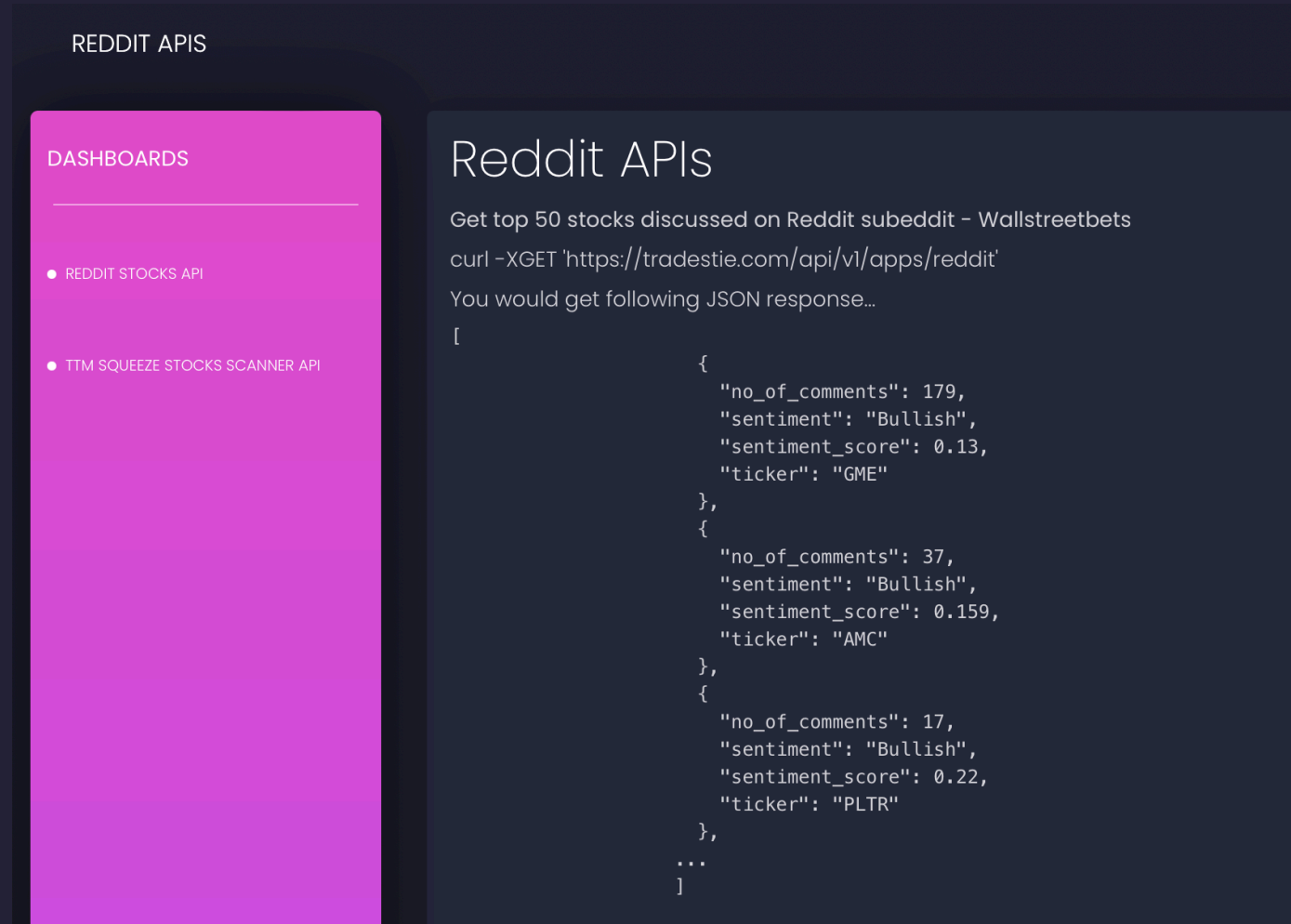


Assignment 3 Overview

Social Media Analytics

Tradestie API



The image shows a screenshot of the Tradestie API website. On the left, a pink sidebar contains a 'DASHBOARDS' section with two items: 'REDDIT STOCKS API' and 'TTM SQUEEZE STOCKS SCANNER API'. The main content area is dark blue and titled 'Reddit APIs'. It contains the text 'Get top 50 stocks discussed on Reddit subeddit - Wallstreetbets', a curl command, and a JSON response snippet.

REDDIT APIS

DASHBOARDS

- REDDIT STOCKS API
- TTM SQUEEZE STOCKS SCANNER API

Reddit APIs

Get top 50 stocks discussed on Reddit subeddit - Wallstreetbets

```
curl -XGET 'https://tradestie.com/api/v1/apps/reddit'
```

You would get following JSON response..

```
[  
  {  
    "no_of_comments": 179,  
    "sentiment": "Bullish",  
    "sentiment_score": 0.13,  
    "ticker": "GME"  
  },  
  {  
    "no_of_comments": 37,  
    "sentiment": "Bullish",  
    "sentiment_score": 0.159,  
    "ticker": "AMC"  
  },  
  {  
    "no_of_comments": 17,  
    "sentiment": "Bullish",  
    "sentiment_score": 0.22,  
    "ticker": "PLTR"  
  },  
  ...  
]
```



- Online community for sharing content
- Links, text, and images
- Subreddits: communities for specific topics
 - r/Politics
 - r/rbc
 - r/wallstreetbets
 - r/btc

Posted by u/CaseFrequent8551 2 days ago

Speculation Btc will drop back to 20s?

was waiting for BTC t go lower to buy but it only seems to be going up.

Anytime BTC or stocks go up really fast, it usually comes back down hard.

When can we expect the drop? I'm hoping blackrocks ETF gets rejected and reapplies so BTC will tank hard.

Or am I cometly wrong and the bull run has started?

31 Comments Share Save ...

Posted by u/Fabs_- 3 days ago

Research An overview of a Bitcoin block (Personal summary by Fabs)

It's a too long to post here, nor fancy to read after the butchered formatting... Therefore I'll supply the link to the document.

<https://acrobat.adobe.com/id/urn:aaid:sc:EU:bf9f1598-db20-4fd9-a757-e02b326c756c>

I've (started) writing yet another (personal) summary about one of Bitcoin's many parts, and am pretty content about the summary so-far. A little bit of peer-reviewing and / or nitpicking can't hurt though.

I hope it manages to teach something new to someone!

*I'm new to this sub and hope to find more like-minded and tech-interested people here, [r/bitcoin](#) starts to become a circle-jerk...

2 Comments Share Save ...

Posted by u/IllusiveWebDesign 2 days ago

BlackRock's Foray into Bitcoin Spot ETF - Potential Game-Changer for Crypto Miners and the Broader Market Dynamics - BTC Mox

btcmox.com/all-ey...

1 Comment Share Save ...

ASMT3 - Social Speculation: Harnessing Reddit to Forecast Bitcoin Fluctuations

1. Get Reddit posts from crypto-related subreddits
2. Use sentiment analysis to determine the polarity and subjectivity of the posts
3. Use them to predict the price of Bitcoin
4. Create your own sentiment index using information from the posts

Grading criteria

- **ETL functions (80%)**

Functions must pass the testcases

- **Your sentiment index (20%)**

Points for how well your sentiment index is correlated with the price of Bitcoin. Your rationale for why your sentiment index is better along with evidence (e.g., data, chart) must be included in the notebook.

Data Source

- Reddit API (<https://www.reddit.com/dev/api/>)
- Alpha Vantage API (<https://www.alphavantage.co/documentation/>)

Sentiment Analysis Package

- `TextBlob` for sentiment analysis (<https://textblob.readthedocs.io/en/dev/>)

Setting Up Reddit API Authentication

1. Go to <https://old.reddit.com/prefs/apps>

- Sign up for a Reddit account if you don't have one (Copy `username` and `password`)

2. Click on "are you a developer? create an app..."

3. Fill in the form with random information

- name: random app name
- type: select "script"
- description: random description
- about url, redirect url: random url (e.g., <https://pyprogramming.net>)

4. Click on "create app"

5. Copy `client ID` and `client secret`

Reddit API Authentication

Four pieces of information are needed to generate authentication headers: `username`, `password`, `client ID`, `client secret`.

```
headers = get_authheaders(username, password, client_id, client_secret)
```

The authentication `headers` must be passed to the `requests.get()` when making a request to the Reddit API.

```
# headers from get_authheaders()  
response = requests.get(url, headers=headers, params=params)
```

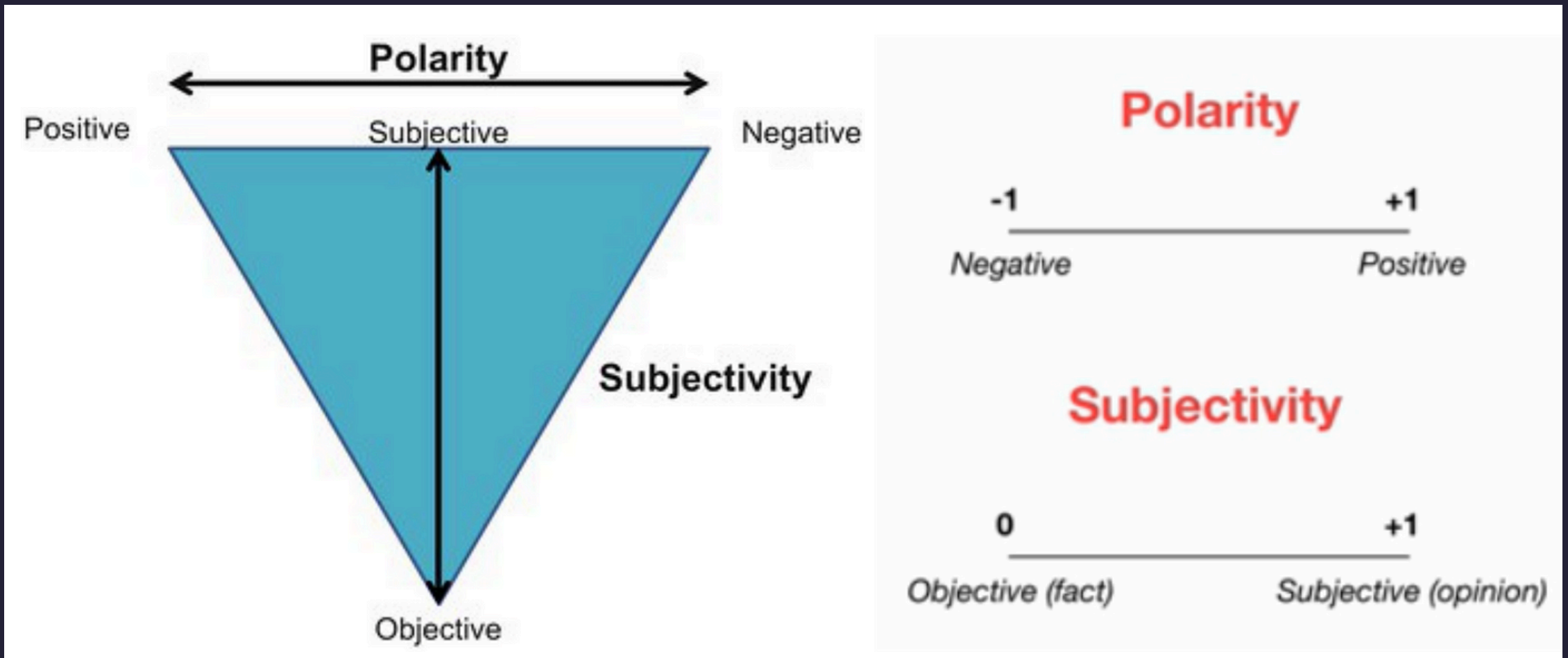

New post endpoint

- Endpoint: `https://oauth.reddit.com`
- Path: `/r/{subreddit}/new`
- Query parameters: See here (https://www.reddit.com/dev/api/#GET_new)

Hint 1: Extracting posts through pagination

- Reddit API `limit` is the number of posts returned to 25 (default) or 100 (max)
- **Pagination**
 - `after` parameter: fullname of the last post in the current page
 - `before` parameter: fullname of the last post in the previous page

Hint 2: Sentiment analysis using `TextBlob` package



Hint 3: Better sentiment index

Use the polarity and/or subjectivity scores from TextBlob along with other Reddit data to create a sentiment index that is better correlated with the price of Bitcoin.

- assigning different weights to different posts based on the characteristics of the posts
- pulling data from a different subreddit
- assigning different weights to posts from different subreddits
- ...