**Issue Overview**

While working with the Stocktwits API to retrieve sentiment data for over 800+ tickers, we encountered significant challenges due to API rate limiting. The Stocktwits API imposes a rate limit of 400 requests per hour, which prevented us from capturing sentiment data for all tickers simultaneously. Our initial approach of retrieving sentiments every 30 minutes was ineffective due to this limitation.

**Initial Approach**

* **Objective:** Retrieve sentiment data for 800+ tickers.
* **Strategy:** Fetch sentiments every 30 minutes.
* **Problem:** Rate limit of 400 requests per hour on the Stocktwits API.
* **Impact:** Unable to capture sentiment data for all tickers within the desired timeframe.

**Solution: Migration to AWS Lambda**

To overcome the API rate limiting issue, we moved our data retrieval process to AWS Lambda.

**Benefits of Using AWS Lambda**

1. **Dynamic IP Allocation:** Each request to the Stocktwits API from AWS Lambda has a different IP address, effectively bypassing the rate limit.
2. **Increased Speed:** AWS Lambda allows us to plan for sentiment retrieval every 5 minutes instead of 30 minutes.

**Conclusion**

Migrating to AWS Lambda resolved the API rate limiting issues, allowing us to efficiently capture sentiment and price data for over 800+ tickers every 5 minutes. This approach leverages dynamic IP allocation and the rapid execution capabilities of AWS Lambda to enhance our data retrieval process.