## RETAIL INVESTOR SENTIMENT TRACKER - EQUITY ANALYSIS TOOL

**Description:** This Shiny app analyzes Retail Investor sentiment for Equities based on discussions in the (infamous) r/wallstreetbets subreddit. The app features real-time stock prices and sentiment analysis, daily sentiment scores, and trending equities. The tool is not limited to stock market analysis; it can be adapted for sentiment analysis on various topics such as elections, social issues, and more, making it a versatile tool for understanding public sentiment.

## Features:

- Real-time Stock Prices: Utilizes the quantmod package from Yahoo Finance to
  provide up-to-date market data, ensuring users have the latest information on stock
  prices.
- Sentiment Analysis: Employs the RedditExtractoR and syuzhet packages to analyze sentiment from discussions on the r/wallstreetbets subreddit. This provides a comprehensive understanding of investor sentiment and its impact on stock performance.
- NRC Emotion Lexicon Classification: Sentiment is derived via the NRC Emotion Lexicon, offering a nuanced analysis of emotional responses. This classification helps in understanding the emotional tone of discussions, whether positive, negative, or neutral.
- Visualization of Stock Prices and Sentiment Trends: The app features visualizations that track stock prices and sentiment trends over time. This allows users to observe how market sentiment correlates with stock performance.
- Top Trending Stocks: The app can update the top trending stocks on r/wallstreetbets daily, keeping users informed about the latest market trends and hot topics among retail investors.
- Multipurpose Sentiment Analysis: The tool's sentiment analysis capabilities can be extended to other domains. For example, it can be used to analyze sentiment during election periods, gauge public opinion on social issues, or monitor trends in various industries.
- Data Extraction Limitations: Currently, the app uses a free API, which has data extraction limitations (daily or weekly). However, this can be adjusted with a paid version for further data pull, allowing for more frequent updates and a broader scope of analysis.

Live Demo: Access the Shiny App (currently down due to shiny resource limits)

Source Code: GitHub Repo

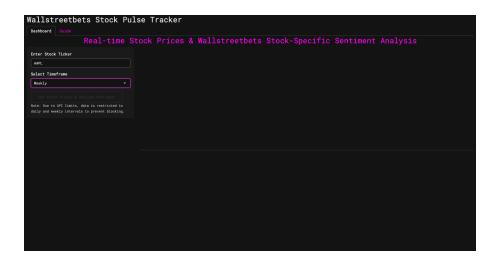


Figure 1: Interface Demo

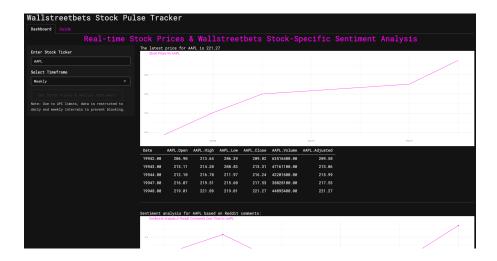


Figure 2: Loaded Interface Demo