

Overview

This application serves to help traders make educated decisions when choosing to buy or sell a stock. One of the biggest questions when investing money into the stock market is whether or not to buy more of a position, or sell out of a position. In this case, the application will look solely at press releases of a company to determine the best move. A company will regularly publish press releases to inform their investors about the latest news occurring in the company. For every press release, a movement in the stock price will take place. The goal is to take these press releases and create an analysis of the content to help understand the ideas and goals of the stock. This will allow for a probability that the stock price will move up or down.

Functional:

- Historical Data from Yahoo Finance API
- Ability to analyze press release data properly
- Ability to cluster (grouping) words
- Ability to find significant phrases
- Ability to determine whether or not a release is positive, negative, neutral

Non-Functional:

- Should be able to handle hundreds of press releases
- Analyzing the releases at a reasonable speed - 5-7 seconds at most
- Should work for every stock regardless of the exchange
- User Interface should be easy enough that someone at any level can use it

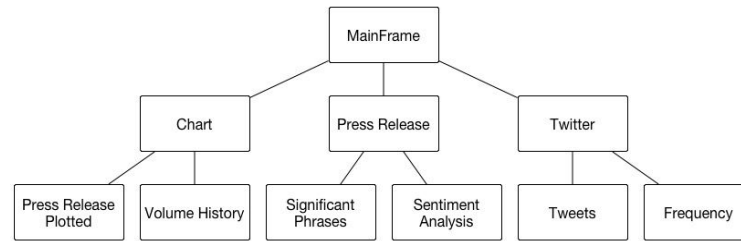
Users, uses, and cases

1. Stock Trader

Description:

A trader is anyone who invests in the stock market regularly. A stock trader is also someone whose goals include profitable returns, as interest, income, or appreciation in value (capital gains). In every case, stock traders speculate what the market will do. This program will help remove the guessing done by traders by using real press release data and past data to predict future movement.

Uses:



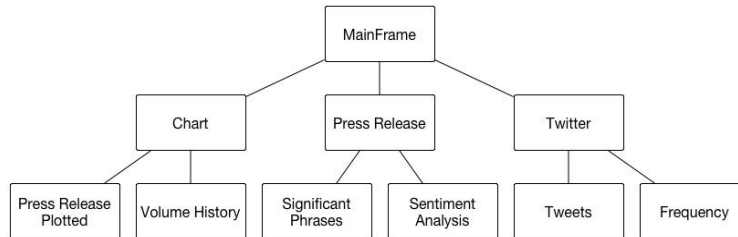
A stock trader would be using all 3 component of the application. This includes the chart, press releases, and the twitter functionality. The chart will allow for a clean visual representation of the stock price movement in the past year. The plot will also include arrows pointing to all of the press releases that the company has published. This will illustrate exactly the movement that occurred in the day following the press release. The next component is the press release itself. The reader can actually read the content from the release and then look at the analysis done by the application. This include significant phrases and a sentiment analysis. Lastly, the twitter component will allow the stock trader to look at the recent tweets for the stock. There will also be an analysis done on the tweets similar to the press releases. There will also be a frequency chart for the most frequent terms during the time of the press release. This holds insight to what other traders were thinking at the time of the release which may ultimately impact the movement of stock price.

2. New users interested in the market

Description:

The application aims to create an easy environment for a user to gain information on market trends. Most stock market applications are extremely hard to use with complicated charts and buttons. Only those who know the market well or have an educational background can use the programs efficiently. Anybody can use this because all it requires is you to enter a stock symbol.

Uses:



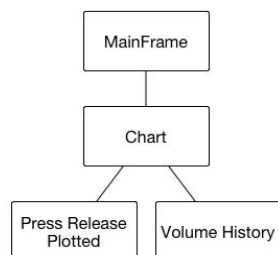
The uses for new users in the market will use all of the same components as mentioned previously. As a new user, the person will be exposed to all of the different components that are being analyzed. The different is that you don't have to be a stock trader to understand what is going on. One of the main goals of the user interface is to be simple yet still useful.

3. Stock Analysts

Description:

A stock analyst is someone who either analyzes a particular stock or the stock market as a whole. This application would be able to give a stock analyst an entirely new perspective on the market and what drives stock prices. They can use this data to obtain a more clear understanding as to how press releases can affect the movement of a stock price.

Uses:



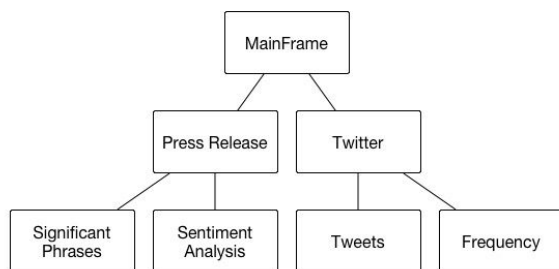
A stock analyst may only use one part of this application, the chart. The chart provides a useful and simple illustration of the movement of stock price and volume after a press release has been published. Although this application's main goal is to analyze a press release based on its content to help a user make reasonable decisions to buy or sell a stock, it also has other components not pertaining to press releases that are useful. The chart is an example of this. Plotted on the chart, are the headlines to all of the different press releases from all different news sources. Also available on the chart is a crosshair that will allow the analyst to easily view volume changes in the days following a release. Correlating the two with each other, the headline and the volume, can help an analyst collect important data and determine important trends.

4. Companies

Description:

This application provides very useful information as to how a company's press release can affect its stock price. It has already been shown that press release affects the stock price of a company's stock greatly. A company can use this data to better construct their press releases to have a positive effect on the movement.

Uses:



A company can use all of the data stated previously, however the most important pieces of information they can use is the analysis of the content of their press releases. The content and attitude of the press releases are really what drive the movement of their stock price. In viewing the most significant phrases and the movement of the stock's price, a company can tailor the content to be presented in their favor. Also, viewing twitter can help them understand more about the people that are actually investing into their company. Having an understanding of the

opinions and thoughts behind the content they are publishing can also help them create content for their press releases in the favor of those actually investing.