

# User Guide

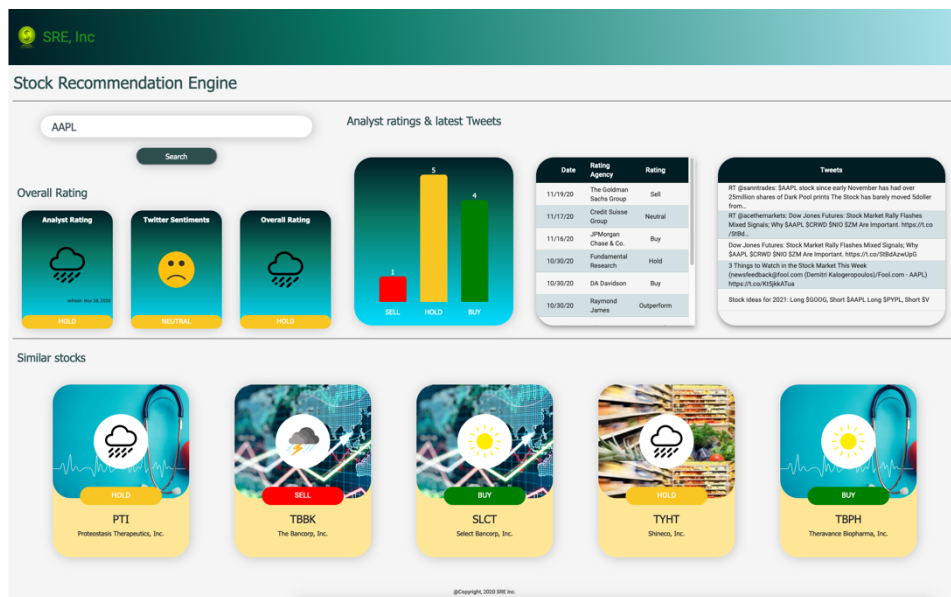
Welcome to the user guide of our Stock Recommender System.

Before you start, please ensure that following pre-requisites are fulfilled:

1. Stock recommender backend component is running either on a server or your local machine
2. Stock recommender frontend component is running either on a server or your local machine

## User Screen

When you go to the URL of Stock recommender system (e.g. <http://localhost:4200/home>), you will see a page such as below. Stock recommender system shows you overall rating and recommendation for Apple Inc (Stock symbol: AAPL) by default.

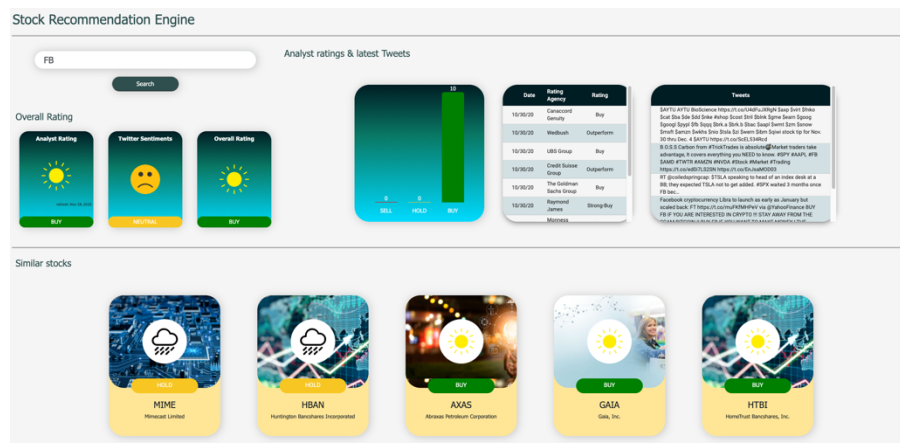


You may enter a stock of your choice in given search area and click on Search.

FB

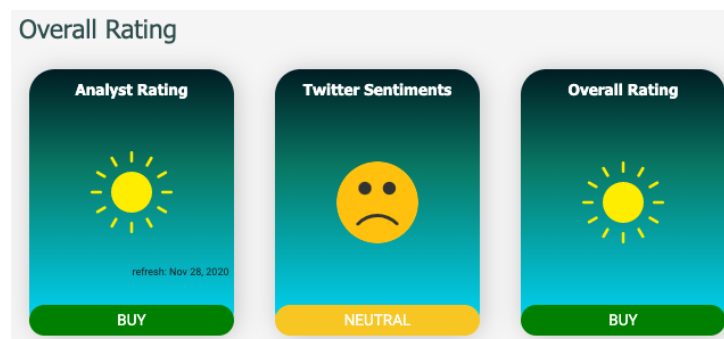
Search

Stock recommender system will provide you all necessary information about searched stock and also recommend stocks similar to the one you are interested in.



Various sections of the screen are described below:

## Overall Rating



Overall Rating consists of three parts.

- Analyst Rating

Analyst rating is calculated based on the ratings of various market analysts, who publishes such ratings e.g. buy, sell, hold etc. for various listed companies. The recommender system aggregates last 10 ratings from various analysts to calculate weighted analyst rating.

- **Twitter Sentiments**

Current market sentiment is determined based on the Twitter trends. Recommender system fetches recent tweets from Twitter and performs sentiment analysis to provide current market sentiment for the given stock.

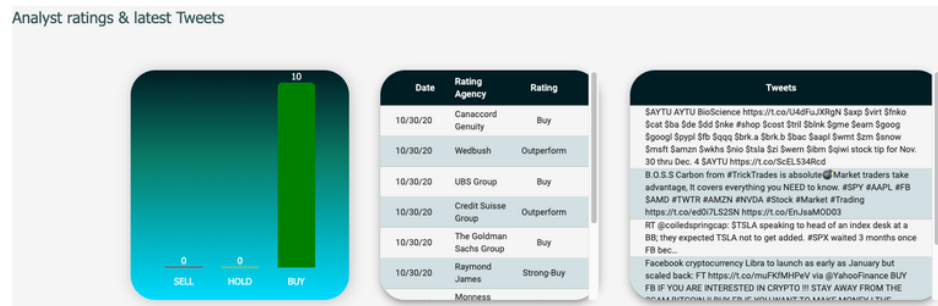
- **Overall Rating**

Recommender system combines analyst rating and twitter sentiment to provide you with an overall rating of the stock you are interested in. Based on the recent market trend, both the parameters have been given equal weightage for calculation of overall ratings.

Please refer to below table to understand the calculation of overall ratings.

Aggregate rating based on various market analysts	Market Sentiment	Overall rating
<b>Buy</b>	Neutral	Buy
<b>Buy</b>	Negative	Hold
<b>Buy</b>	Positive	Buy
<b>Hold</b>	Neutral	Hold
<b>Hold</b>	Negative	Sell
<b>Hold</b>	Positive	Buy
<b>Sell</b>	Neutral	Sell
<b>Sell</b>	Negative	Sell
<b>Sell</b>	Positive	Hold

## Analyst ratings & latest Tweets



Analyst ratings & latest Tweets consists of following three section.

- Rating chart

Rating chart shows the distribution of ratings (buy, sell, hold) among the market analysts based on recently published ratings

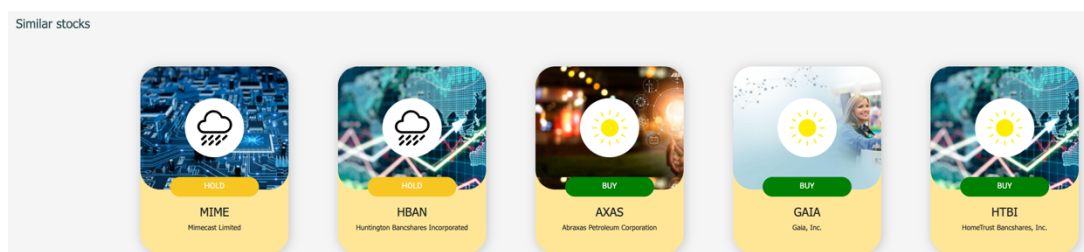
- Analysts rating

Analysts rating shows the details - ratings (buy, sell, hold), rating agency (market analyst) and date of publication of the rating

- Tweets

List of latest 5 tweets (indicative only). Market sentiment is calculated on many more tweets.

## Similar stocks



Similar stocks show list of 5 stocks which are similar to the one you are interested in. Similar stocks are identified using a similarity function based on following parameters.

1. company is in S&P 500
2. company profitability over last three years
3. revenue growth for last three years
4. current market analyst ratings
5. sector
6. gross profit per market cap