

Project Name: Outsider Trading

High level description of business solution:

Currently 97% of the world's wealth is controlled by the top 30% of individuals, and wealth distribution is an issue that is highly debated by all. While a large portion of the problem ties into the labor market and wages, Wall Street and their monopoly on investment strategies and ideas also ties into the issue. According to Freakonomics, 70% of the country is currently financially illiterate. My application will target these individuals, and provide them with strategies that are being used by other common investors, allowing them to make more informed decisions. Without having to read through a highly technical analysis done by a CFA or someone with a masters degree in finance from Harvard, users will be able to see stock price entry points, target prices both high and low, and aggregated feedback on why other users are invested in a particular stock. While investing you can currently pull up analysts target prices from multiple resources, but they widely range, and are commonly used as a tool of Wall Street to manipulate stock valuations in their favor. Outsider Trading will bring value by aggregating other users target prices to present an average along with a median target price that combines (ideally) thousands of other users plan for that individual stock. Users will be able to come to the site to research stocks that they may be interested in to see where the public thinks the best investment opportunities are. Open sourcing this information ideally will alleviate some of the mystery that Wall Street is shrouded in, and grant the public access to some of the ideas that only insiders have access to.

Description of use cases to be implemented to meet business idea:

Upon visiting the site, users will be able to login with Facebook. Users will be able to view up to ten stocks of their choosing. Recommended popular stocks will appear on the initial page, but users will be able to search by any stock symbol. The company they look at will display the historical stock price in chart form, with your top price targets to the right. Within the chart you will see the median and mode target price that is aggregated from other users profiles. Below the price chart, you will see the average target price for short term investors, and the average target price for long term investors. You will also see a percentage indicating who is long vs. short. On the bottom will be an ongoing comment section, allowing users to leave short comments engaging with other users.

Once a user has looked at ten stocks or visited the site five times, they will be required to fill out a profile with their own price target information. They will choose the timeframe they think their target price will be hit within. They will select a general belief from a drop down of why they believe the stock will be the price they indicated. This information will also be on each company's page, showing selections based on users that think the stock price will go up or down. Users will be emailed on a monthly basis asking them to update their information. They

will be able to verify nothing has changed, make changes, or add a new projection for a separate stock. This will be required upon login, every 30 days to ensure that the data is up to date and growing. As long as their profile is up to date, they are allowed to view an unlimited amount of stocks.

Description and Identification of technologies to be investigated for use in each of the tiers of your system:

I plan to start my project by using Jhipster to build the basic shell.

User Interface: I plan to use Angular for my front end. I haven't worked with it much but I'm interested in learning it. I will also be using the graphing technology provided in the Spring framework for the stock charts. I will be using websockets in the Spring framework to power sockets for real time stock quotes.

Server Technologies: I will build my API using spring and boot. I will also have Facebook integration so users can leave comments on each stock and share my page to Facebook. Sockets will be used on the server to provide the real time stock information. I will also be using Onesignal to send email push notifications to users about updating their stock targets.

Database: I plan to use PostgreSQL hosted on AWS for my user profile information.

Service Integration: Users will login with their Facebook account and I plan to store basic demographic information provided.

Deployment: I will be using AWS for my deployment since they will be hosting my database.

Testing: I will be testing the API piece of my application. The API will provide the aggregated data from users for each stock. I plan to use Spring to generate a lot of the testing for this piece.

Stretch Goal: Use real time stock data from sockets to send push notification when their target price has been reached.

Outline:

Week 1: Build basic shell of project

Week 2: Build Facebook login

Week 3: Build basic API pull for stock price

Week 4: Work on front end graph from stock data

Week 5: Begin working on profile info/backend - Lock out unless providing new content

Week 6: Continue working backend for profile - Store in local database

Week 7: Work on front end for profile info / individual stock pages

Week 8: Build comment section / facebook share

Week 9: Begin API for sharing user data

Week 10: Finish API

Week 11: Switch to sockets for real time quotes

Week 12: Add in email push notifications

Week 13: Presentation