

Progress Report

- Increment 3 -

Group #5

1) Team Members

Aidan Ryan - afr17b - AidanFRyan

Darbi Bauer - dkb17 - darbibauer

Sarah Rosenfeld - smr17 - SarahRosenfeld

Jacob Dienger - jwd17 - dienger

Katie Skipper - kas18ff - KatherineSkipper

2) Project Title and Description

Heimdall - Financial Recommendations

3) Accomplishments and overall project status during this increment

The app was completely integrated into a cohesive project. The backend mathematics for recommendations was finished and the database now remains up to date on the recommended stocks. More information was added to the company info pages which are accessible to users when they click on the button for a specific company from their watchlist page. Twitter watchlist was also added to the company info page, and the user is now able to update the list. A graph was implemented showing the past 100 minutes of price changes of each particular stock. Additionally, the RSS feed was implemented to run with the sentiment analysis. Notifications were also added to the app. They inform the user when recommendation data updates. App design was updated to match on each page.

4) Challenges, changes in the plan and scope of the project and things that went wrong during this increment

Struggles occurred when implementing the graph for the company information page. Initially we were accessing the incorrect part of the database, so no correct information was being pulled. It took some time to realize that the problem was with the pathname in the database because we assumed we were using the graphing library incorrectly. The recommendations database also presented a challenge because it ended up containing symbols that were not in the stocks database. This was an issue because the recommendations database did not contain stock pricing history, only the performance score of the stock, so we had to find the symbol in the stocks database. Since these two databases differed in symbols, the app was not able to find stock pricing history for the recommendation stocks. This led to an inability to implement a Company Info page and Add to Watchlist functionality for the recommendations.

5) Team Member Contribution for this increment

Aidan:

- a) Contributed to sections 3 and 5
- b) Contributed to section 2, correcting and adding to the functional requirements
- c) Contributed to section 1 and 3, correcting programming languages used and adding to execution based tests run to ensure correct math.
- d) Added SMA and Options calculations to backend server, pushed recommendations to database. All in stocksearch repository. Added Darbi's twitter sentiment analysis to server code.
- e) Presented backend and overview of app

Darbi:

- a) Contributed to sections 3, 4, and 5
- b) Updated section 2 and 3
- c) Updated all testing sections (section 3, 4, and 5)
- d) Implemented RSS feed to run with sentiment analysis in Python, updated add twitter page on app to push and pull from database, helped implement the graphing page with Sarah on company information page, helped manage the Firebase User database
- e) Created presentation slide show and participated in presentation demo

Sarah:

- a) Contributed to sections 3, 4 and 5.
- b) Contributed to 1 and 7. 3, 4, and 5 were not changed and I contributed to them in past increments also.
- c) Contributed to sections 4, and 5. In past increments had contributed to unchanged parts of 1, 2, and 3 as well.
- d) Implemented graph functionality on Company Info page. Had help from Jacob to access the correct information using the firebase database API. Worked with Darbi to read in the information from the database and graph it in the correct format. I then adjusted the view on each graph to ensure that the line of previous prices was visible by setting the maximum and minimum y axis values of the graph to be close a couple dollars more and less than the minimum and maximum market prices, respectively, in the past 100 minutes.
- e) Presented to the class the accomplishments of this increment for the entire group.

Jacob:

- a) Contributed to sections 3, 4, and 5
- b) Contributed to sections 2 and 3
- c) Contributed to sections 3, 4, and 5
- d) Created functions to allow for all database interactions - Stock watchlist, Recommendations, and Twitter watchlist. Helped to implement a notification system that triggers when the recommendations are updated. Cleaned up code and added documentation once everything was working.
- e) Helped demo the functionality of the app in group presentation.

Katie:

- a) Contributed to part 3, 4, and 5 of the Progress Report.
- b) Contributed in the discussion of what needed to be changed and added to the document.
- c) Contributed to sections 4 and 5 in the IT document.
- d) I helped write the code for the notification implementation, contributed to the code that pulled data from the database, made minor changes throughout each page of the app, and chose and implemented a cohesive color scheme for the app.
- e) I demoed the app in the presentation.