

1. Please list out changes in the directions of your project if the final project is different from your original proposal (based on your stage 1 proposal submission).
  - a. We were unable to implement tournaments or competitions between users/users and groups/groups. In addition, we were unable to implement the newsfeed feature.
2. Discuss what you think your application achieved or failed to achieve regarding its usefulness.
  - a. By not implementing tournaments and competitions for users, our web app failed to achieve a new mode for users to practice their trading skills without the risk of losing actual money. In addition, we lose on the realism factor by not having a newsfeed personalized for users, which may be helpful in informing them of future trading opportunities.
3. Discuss if you changed the schema or source of the data for your application
  - a. We did not change the schema; however, with the source of the data, it was difficult to extract daily trading data as relying on an external website meant that we could only have data around 100 days back, which limits our web app.
4. Discuss what you change to your ER diagram and/or your table implementations. What are some differences between the original design and the final design? Why? What do you think is a more suitable design?
  - a. Originally, we had a lot more tables, seeing as how we wished to implement a newsfeed.
5. Discuss what functionalities you added or removed. Why?
  - a. One removed functionality/shortcoming is the implementation of news and users having a personalized newsfeed in their dashboard. We chose to prioritize the core features of our paper trading web application, which is trading both individually and in a group.
6. Each team member should describe one technical challenge that the team encountered. This should be sufficiently detailed such that another future team could use this as helpful advice if they were to start a similar project or where to maintain your project.
  - a. We were unable to fetch real/historical data from websites like Yahoo Finance, as that would require us to pay for such data to be collected and later implemented into our back-end. We compensated by having synthetic data that tried to closely model historical data.
7. Are there other things that changed comparing the final application with the original proposal?
  - a. One minor change that isn't hugely relevant is the user interface, but that was mostly open for changes as we progressed through Stage 4.
8. Describe future work that you think, other than the interface, that the application can improve on
  - a. We could include different types of assets to be traded, like commodities and cryptocurrency, and have more of each type available for users and groups to trade.
9. Describe the final division of labor and how well you managed teamwork.

- a. For the original submissions of Stage 1 and 2, all four of us worked together in-person. When it came to revisions, David mostly worked on the revised submissions, especially for Stages 2 and 3. For Part 1 of Stage 4, Aaron did the bulk of it, setting up us nicely for Part 2 of Stage 4. He did the work locally, so we were able to start Part 2 off of his work for Part 1. For Part 2 of Stage 4, Ben and Aaron did the bulk of the coding, while David worked on this report and Nathan worked on the video.