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Final Report
Stock Market Simulator
Lessons Learned and Future Additions

Line Breakdown:

File	Size (Kb)	Number of Lines
adviser.h	6	160
asset.h	3	94
brokerage.h	2	52
game.h	18	583
main.cpp	27	737
story.h	29	578
Total	**85**	**2204**

Lessons Learned:

This project was certainly a learning experience for all involved. We went into the project with an idea of what we wanted to do, but no a clear division of work when it came to classes and methods. We each attempted to start working, but soon discovered that collaborating in such a large group can become quite difficult if we don't have a handle on the version control. The group did make a Git repository but we did not fully discuss how we would handle pushing or branching and we quickly began encountering issues when a member would pull something that was no longer the most updated code. We were able to resolve these issues rather quickly, as we established a better foundation for communication and coordinated pushing and pulling to minimize errors not stemming from the code itself.

Another lesson that we learned was working with the command-line interface. We encountered issues as a result of incomplete initial planning. This issue was also resolved quickly, a group

meeting and a whiteboard were all it took to plan out how we would go about working with the command-line and we were able to see immediate progress.

Future Additions:

As this is meant to be a learning experience for the user, the more content we can add, the more the user can practice with the simulator. The time constraints of the project inhibited us from including a myriad of assets, but with more time the team would certainly like to give the user a chance to further diversify their portfolio.

The same can be said for the users choice of brokerage as well as their choice of adviser. The team would like to implement more possibilities for brokerages, such as varying fees. The team would also utilize more time to come up with more unique advisers, each with a personality and a broad range of experience (pertaining to the accuracy of the advice each can give).

The team would also consider implementing entirely new features, such as the ability to invest in a hedge fund, after the user has increased their equity to a predetermined threshold. This feature would allow the user to create an even further diversified portfolio and would stress the importance of increasing their equity early on in the simulator to reach this milestone before the time runs out.

Additionally, the team has considered adding branching story paths and more non-playable characters (NPCs) to give the user a truly different playthrough each time they use the simulator. This can be coupled with trollbox to give the user further input on their assets in the cryptocurrency world.

Finally, the team has considered adding an option for the user to play through the simulator as the adviser, with the option to go to school, meet teachers, and learn to give better advice on the dynamic assets owned by an NPC character.

Overall, the team sees much potential for additional features, many of which may still be implemented after the project is turn in, as this was a great learning experience for all involved and provided valuable practice with many of the programming methodologies that we learned throughout this course.