

Stock Trading App

Project Constraints Essay

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One of the constraints this project will have is security – a huge factor when working with any kind of financial data. Although the data we are utilizing (the data coming from the TD Ameritrade API) is available for public use, one of our primary intentions for the application is to allow users to create their own stock trading algorithms, and many of these users will want to keep their algorithms private. Furthermore, in order to be able to transfer money between a bank account and the stock trading application a user would need to input their personal banking information, which would then be stored in our database. This would act as a major security concern, which means we as developers would need to ensure all personal data is strongly encrypted or secured in such a way that nobody can steal it.

Another constraint that this project will have revolves around professionalism. Although this project won't necessarily have a direct impact on either of our reputations, it is still important to ensure the project is conducted in a professional manner and that the code is written in a clean and professional way. This will allow both of us to utilize this project as a great resume/portfolio piece and would even open up opportunities to continue expanding the project outside of school, something that could potentially make legal constraints a part of this project too in regards to intellectual property. On top of this, the project will also require at least some specialized expertise in both the stock trading industry and in working with trading algorithms. This is something that Ethan has a baseline familiarity with, but regardless we have both planned out time in this project to research stock trading and learn how basic algorithms for stock trading are written.

Our third constraint is with the legality of our system. We would have to answer the question of whether we would need to be licensed as a broker to continue our idea in a for-profit manner. Another issue comes with our use of TD Ameritrade's API. If we were to create a business out of our trading platform, we would need to be able to use this API commercially. If we aren't able to receive extra licensing for its use, though, then we would need to create a brokerage firm to

represent our trading platform, which comes with an immense amount of legal hurdles on its own. A third big issue of legality comes from storing user's financial data and the accountability that comes with it. We would have to ensure we have the best security measures since we are liable for any security breaches.

Our last big constraint is the social aspect of creating an open trading platform. It intends to make the barrier to entry in the automated trading space easier for individuals without a lot of capital. This will hopefully give everyone a more equal opportunity to participate in stock trading regardless of their financial stability or background.