
Simple Stock Predictor

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OVERVIEW

This project aims to predict the future price of a stock and make a simple report for investors. The project has 2 main parts. The first part is getting data using API and processing that data to get basic information used in part2. In this first part, the responsibility belongs to Lorenzo. In the second part, we take the data and basic info, try to predict the future possibility of the stock using GBM, and create a simple report.

GOALS

1. Write the project in a functional style.
2. Do GBM using Future in scala to improve speed.
3. Make it easy to use for non-CS people,
4. Impress “Business people”.

DISCUSSION

We successfully implement the project in a functional style and make use of Future. However, we don't see much improvement in interim speed compare to its Python version. Additionally, we think that this project is better done in Python due to the overwhelmingly large resources of finance-related libraries and API. In the beginning, we want to do this project in RUST, but we can't find a free and decent Stock API to use and RUST is quite difficult to code since we are not using it. Lastly, the prediction result is nowhere near accurate, due to many things. Firstly, GBM is quite random and only looks at past data to predict. Secondly, we only have 21 days worth of data to use. Thirdly, the real stock price is highly volatile and already very hard to predict.

CONCLUSION

The prediction of this project is not accurate due to many factors, but we (or at least Fifa) aim to improve this project and make it more and more accurate to the point that it can make a real-world profit without much human intervention. In term of achievement, we think we achieve most of our goals, although we change some aspects of the project, we are still satisfied with the final product.