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Investor workspace bot.

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SUMMARY

Many people are thinking about accumulating and increasing their capital. The most obvious and, at first glance, the easiest way is to invest in securities.

INTRODUCTION

Investing money in various assets is a fairly common way of accumulating and multiplying capital. This is beneficial both for potential investors and for companies whose assets will be purchased. However, in order to properly manage money, you need to be a sufficiently savvy specialist in the field of finance and the economic system as a whole.

In order for a frequent owner of some capital not to understand the stock market on his own, you can consider the option of transferring funds under the management of investment funds (including hedge funds) or private traders who specialize in this, for a certain percentage of the profit. In this case, it is proposed to implement an intelligent system that automates the process of interaction between investors and traders/funds.

APPROACH

The most preferred way for users to interact with the system is through popular messengers. In this case, users will be able to communicate with the system through a convenient messenger for them. At the first stage, communication is assumed due to a set of predefined commands, and in the future it is possible to add some language model similar to Chat GPT, so that communication is already more convenient and comfortable for users.

METHODS

The server part is proposed to be implemented in Java. Among the main advantages of this language over others are the following: cross-platform; high level of language proficiency; a large number of web development frameworks have been written for this language, which significantly speed up and simplify the development process.

The PostgreSQL DBMS will be used as the database. It is one of the fastest open source databases.

In addition, for the convenience of launching and managing and the security of both the intelligent system itself and the ecosystem, containerization using the Docker tool will be used.

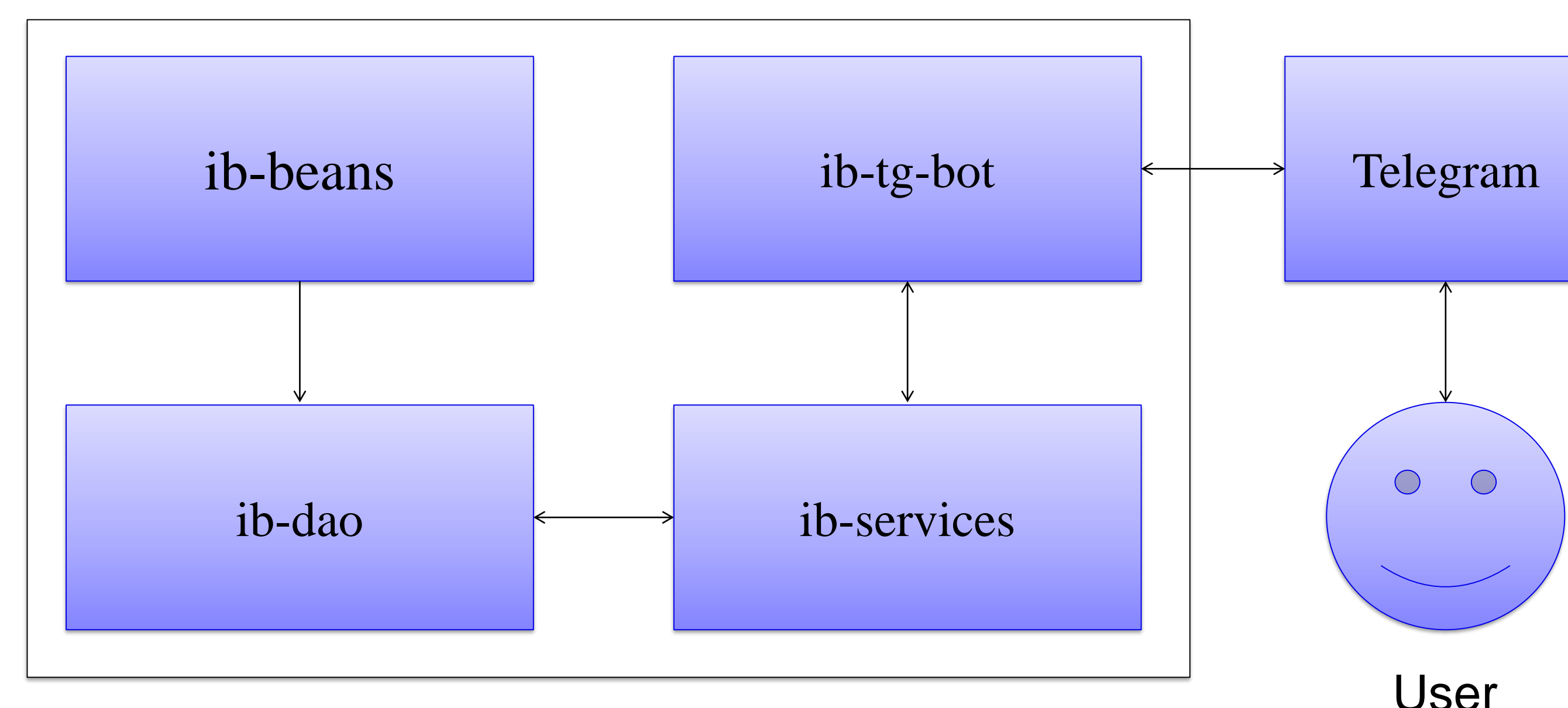
RESULTS

Business process MVP. At the first stage, the minimum functionality necessary for the operation of the system is implemented. This is necessary in order to assess the demand for a particular functionality, determine the next steps in the development of the system, and also get feedback from users. For the current stage, the development of a bot based on one of the most popular Telegram messenger in the CIS countries has been started. In addition, this messenger provides a convenient API for creating bots for it.

To identify users, it is proposed to use their unique ID in the telegram system. Each user can have several roles from the list: Admin, Investor, Manager.

Each investor can create only one chat with a bot and manage through the command menu. To do this, the following functionality is being developed: depositing funds to your account in the system; withdrawal of money; view the account status; unloading of contracts and statistics on the account. Each trader must provide daily information on the status of all capital under his management at the time of closing trading on the stock market. Profit is calculated from the difference in the state of capital, the percentage is deducted to the investor's account. The rest of the funds are distributed to the accounts of investors linked to this manager in proportion to their capital.

Fig 1. System architecture



DISCUSSION

After the implementation of the MVP, first of all, the described process of depositing investors' funds to their accounts in an automated system will be fully automated. After that, the web user interface will be implemented. In addition to the described functionality, the UI is supposed to add online charts for viewing the dynamics of investors' accounts, the ability to choose the most suitable investment strategies, as well as the ability to collect investment portfolios if desired.

CONCLUSIONS

Investing money in various assets seems to be a fairly common and simple way of accumulating and multiplying capital. This is beneficial both for potential investors and for companies whose assets will be purchased. However, not everyone is willing to spend a lot of time studying the stock market in order to get a really significant income from it. The system described in this article will help to automate the process of interaction between investors and traders.

ACKNOWLEDGMENTS

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