

CHARITY DONATION APPLICATION USING BLOCKCHAIN

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Abstract:

The article looks into the possibility of using blockchain technology for charitable purposes. To ensure data privacy, fund integrity, and donation control, new storage mechanisms and the flow of information between donors, foundations, contribution receivers, and other charitable players must be introduced. Potential donors at non-profit organisations would be interested in using blockchain to secure data security and the ability to track the movement of monies and transactions. The authors of this paper examine the conditions for and the emergence of blockchain-based charity networks in Russia and around the world. They demonstrate how distributed registry systems can be used to provide a forum for making and tracking charitable donations. The authors collaborated with local funds and non-profits during their research to validate the solution, learn more about ecological needs, and publish their findings in a paper. Donors are concerned about how their contributions are used. Blockchain technology is currently being used in a variety of industries. Blockchain technology will be used to make payments. The method of donating and transferring funds is transparent. It is necessary to create a single database for monitoring donations that will keep track of all gifts, transactions, and donors.

Keywords —Charity Blockchain, Smart-contracts, Ethereum, Transparency

INTRODUCTION

According to research conducted by the Higher School of Economics at National Research University, 57 percent of people give. The share of charitable gifts made by Russians in the GDP ratio is 0.34 percent. A donor has the right to obtain a report on funds spent; nevertheless, only 30% of contributors follow through on their donations' intentions. The majority of gifts, however, are made informally. The funds are distributed to the impoverished in person (via alms, family and friends, work/study, or a civil society initiative) and Fundraising isn't structured in the traditional sense, and it's also not done on a regular basis or with transparency. Even if they donated via a bank account, the Internet, or a mobile phone, donors rarely know how their money was spent (via SMS). Best practises for social intent architecture, platform design, and REST API implementation in blockchain applications are presented in this article. As a result of the increase of social consciousness in Korea, a giving tradition has developed. On the other hand, transparency within a donation scheme has long been a challenge; for example, contributors frequently want to know how their money is spent. Transparency, on the other hand, can make donors and recipients concerned about their privacy. As a result, a donation system that assures both transparency and privacy

should be developed. Donors will not want their donations to be made public, whether they are collected or given to the donation system. Users would be able to establish contracts and use the system with addresses that were not instantly recognised if they used a donation system with a blockchain that featured encryption. In a blockchain system like this, however, the log may be inspected to determine if the same sort of address performs the same activity over and over again. As a result of the ability to analyse the user's actions, a privacy issue may occur. All of the data.

MOTIVATION

Carry out the work of charitable foundations with more convenient reports for reporting. Increase the accountability of charitable foundations through the introduction of building a popular blockchain-based platform in technology

PROBLEM STATEMENT

Establishing an external database whose records are preserved on the blockchain can solve the problem of donor distrust and fund overload.

All reports are now generated by hand by foundation employees who are mandated to maintain public records (in particular, to publish reports on their websites).

1. Advantages

- Easy to handle.
- Less time consuming.
- Support real-time analytics tasks.

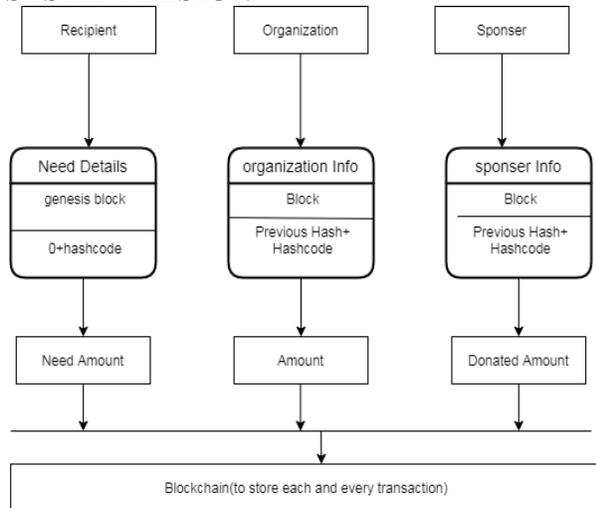
1. Limitations

- To execute the application, the user must have all of the essential software.
- The user must be familiar with web-based applications.
- The user must have access to cellular data.

Applications

- It enables social groups to run programmes in a transparent manner by utilising smart contract-based incentives to ensure that their impact is independently assessed and accessible to all.
- This makes it easier for funders (philanthropic organisations, impact investors, and small gifts) to keep track of their transactions and, as a result, restore their faith in social organisations.

SYSTEM DESIGN



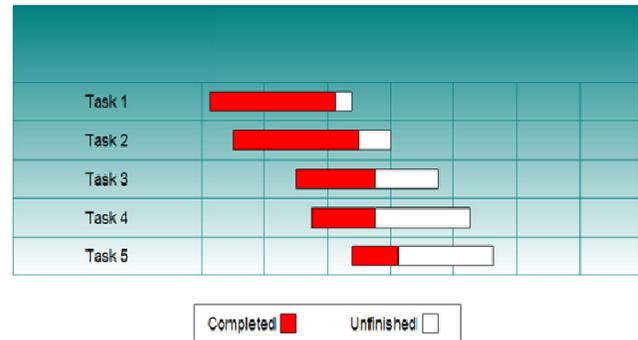
Project planning is part of project management, which relates to the use of schedules such as Gantt charts to plan and subsequently report progress within the project environment. A project management plan is the planning document, capturing the entire project end-to-end, covering all project phases, from initiation through

planning, execution and closure. Analysis or prototyping should increase in direct proportion with project size and complexity. 20 to 25 % of effort is normally applied to software design.

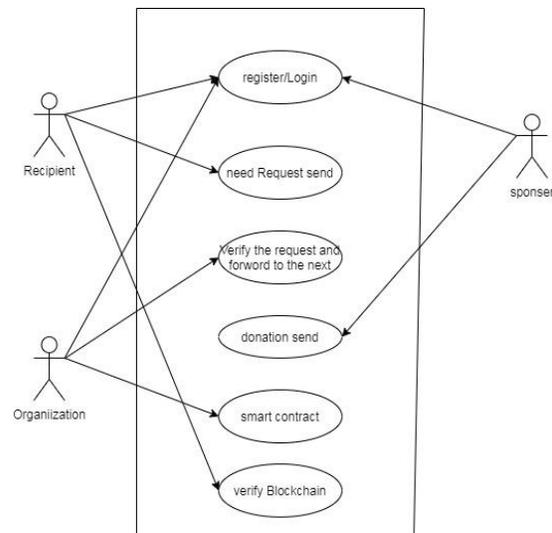
- Requirement gathering
- Literature Survey of existing systems
- Requirement Modeling and training
- Development of mock screens
- Actual Implementation

The Gantt chart for the project is drawn below. The Gantt chart shows the project planning right from the beginning when the topic was finalized. It depicts the software development life cycle (SDLC). The milestones in the project include topic selection, requirements gathering,

Software Requirements Specification, Hardware Requirements Specification. The milestones also depict the project planning stage. In the Gantt chart below the milestones are represented according to the months in the development lifetime.

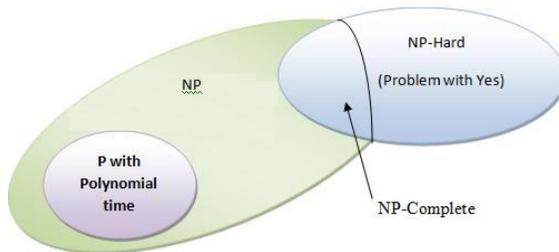


UML DIAGRAM



NP-COMPLETE

- Since this amazing "N" computer can also do anything a normal computer can, we know that "P" problems are also in "NP".
- So, the easy problems are in "P" (and "NP"), but the really hard ones are *only* in "NP", and they are called "NP-complete".



CONCLUSIONS

- The existing centralized donation systems in Korea involve problems related to the transparency and privacy of users.
- In this study, we designed a donation system using a smart contract based on a blockchain for transparency. Through this process, donations are made transparent.
- We also designed a one-off address system using a smart contract to protect privacy.
- This protects the privacy of the users of a donation system by not recording the donation from a specific donor to a specific person.

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