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AI based fund raising platform and tracing using Blockchain

Archana Das[1], Rachitha M V[2],Uma P[3],Anusha B M[4], Sahana L T[5],

2,3,4,5Department of Information Science and Engineering, T John Institute of Technology, Bengaluru, India.
1. Assistent professor, Department of Information Science and Engineering, T John Institute of Technology, Bengaluru, India.

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ABSTRACT
Blockchain first emerged in 2008 because secretive transactions over the internet needed enormous trust between donor and NGO or organization to mediate. Now that digital currencies have been firmly established, charities have the opportunity to engage with a new set of donors. Looking across borders, fundraising platforms that accept donations are the easiest first place to look for charities to starting out. Using Blockchain technology we can track the donation funds contributed to the fundraiser cause and get reassured that the funds are reaching their required destination without any middle intervention and saving the donors from scams. The AI helps predict the cost estimation required for the total cause using datasets and approaching potential donors while maintaining data hygiene.AI is used to predict the requirement for approximate fund for any task to be accomplished.

I. INTRODUCTION

Background

According to National Research University's Higher School of Economics research, 57 percent of people donate. Theproportion of Russian charitable donations in The GDP ratio is 0.34 percent. A donor has the right to request a reporton funds spent; however, just 30% of donors follow the direction of their donations. However, the majority ofdonations are made informally. The money is given to the poor in person (alms, through family and friends, throughwork/study, or through a civil society initiative) and formally, fundraising is not structured in nature, nor is it done on acontinuous basis or with transparency. Donors seldom know how their funds were spent, even though they donated viaa bank account, the Internet, or mobile contact (via SMS). Fundraiser refers to the idea of raising funds for projects or cause through a large group of people online. Individuals or small business can take advantage of it to get early-stage support of their ideas.

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What is Blockchain?

- ❖ Blockchain is a continuous sequential chain of blocks containing information built according to certain rules.
- ❖ Blockchain is a distributed database where storage devices are not connected to a common server. This database stores an ever-growing list of ordered records called blocks. Each block contains a timestamp and a link to the previous block.
- ❖ Blockchain is a promising technology and is becoming predominant for solving many problems in the field related to security under the control of public and private sectors.

Existing System

- Server or cloud based storage for fund details
- One letter from the hospital is enough for fund raise
- The amount required for the treatment is decided by the hospital
- No verification of the fund required
- All the collection details are stored with the third party service provider
- Third party service provider also keeps some percentage from the collection or fixed service charges

Disadvantages

- Transparency issues
- No approximate treatment price

Proposed System

- ❖ The proposed system is a decentralized system running on the blockchain. Being a decentralized system, it is not governed by any third party and doesn't have any centralized entity like a database. Everything is stored in the form of a transaction in the blockchain network.
- ❖ Due to lack of transparency in the transactions involved in Donations the donor(s) are not able to know whether their donations are being utilized properly, which has made people lose trust in Charities.
- ❖ The system will help build trust with donors, recipients, and other stakeholders involved in the process of Charity and ensures that the donation reaches the intended person while improving the total administration costs, speed and efficiency.
- ❖ AI helps in maintaining Data Hygiene by not spamming donors with unnecessary campaigns.
- ❖ AI helps in predicting the cost for a cause using data sets.

Advantages

- Transparent
- Trust worthy platform
- Secured

Analysis

Problem Identification

- ❖ **Frauds** - Charity fraud is the act of using deception to get money from people who believe they are making donations to charities. It also includes businesses accepting donations and not using the money for its intended purposes, or soliciting funds under the pretense of need.
- ❖ **Lack of Transparency & Information** - Transparency will ultimately increase public trust and confidence in the sector by making stakeholders more informed about the work of charities and making it more difficult for people to misuse donor's investment.
- ❖ **Miss out on Potential Funds** - Disconnection with donors, not providing them with right information, lack of communication, not finding out their interest of charity leads to losing donors
- ❖ **Spamming & Data Un-hygiene** - Irrelevancy, overdoing the campaigning, in-accuracy, in sending email blasts might lead into annoying the donors.

Objective

The objectives of the proposed work are

- To develop a secured platform for fund raising.
- To validate the treatment amount using artificial intelligence.
- Blockchain keeps track of donations and transactions.

Secured platform:

A number of factors, such as digital transformation initiatives and the growth of remote work, have contributed to the increasing complexity of corporate networks. While these networks are growing more difficult to secure, corporate security teams and cybersecurity resources are not expanding at the same rate. Organizations require a robust security management architecture to keep up.

Security management platforms are systems designed to provide a centralized and unified platform for security teams to manage enterprise network security. By providing centralized visibility and policy management, unified security management systems maximize the utility of an organization's security team by minimizing the wasted time and overlooked threats

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created by the need to learn and monitor multiple different standalone systems.

As a result, security teams are able to eliminate inefficiencies and more effectively protect their networks against cyber threats.

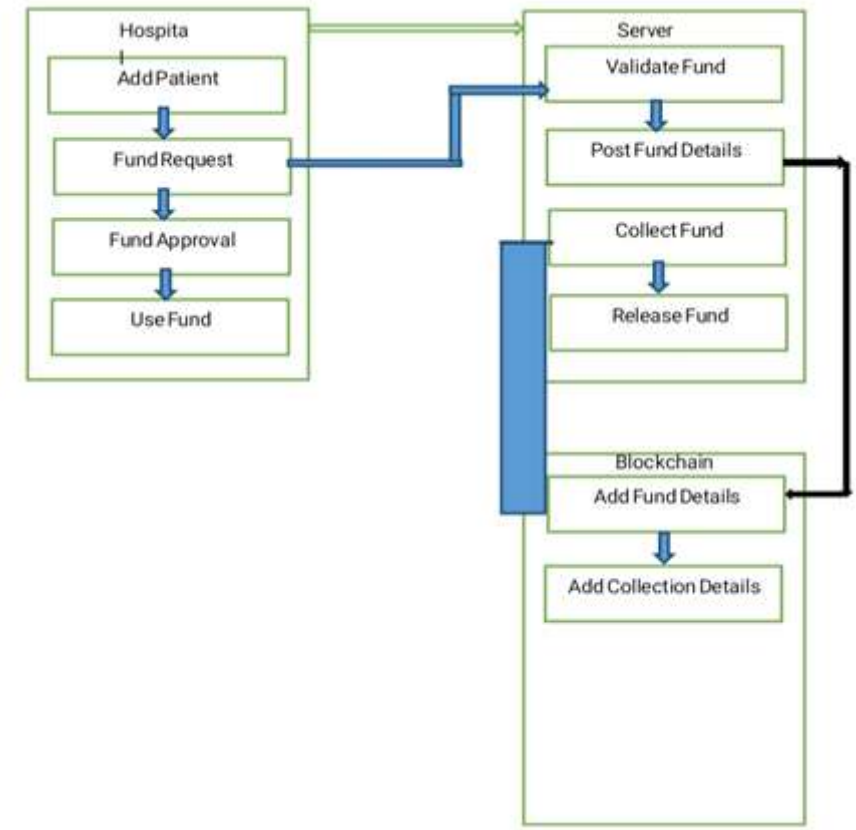
Artificial intelligence:

artificial intelligence is a field, which combines computer science and robust datasets, to enable problem-solving. It also encompasses sub-fields of machine learning and deep learning, which are frequently mentioned in conjunction with artificial intelligence. These disciplines are comprised of AI algorithms which seek to create expert systems which make predictions or classifications based on input data.

Blockchain:

A blockchain is a distributed database or ledger that is shared among the nodes of a computer network. As a database, a blockchain stores information electronically in digital format.

Block diagram



Specifications

Methodology

Based on the combination of web and blockchain, thesoftware architecture of the system is divided into threelayers: front-end control layer, back-end control layer, anddata service layer. In the front-end control layer, differentinterfaces are displayed to different users through the dataservice application platform. Users send business requests tothe back-end control layer through the front-end controller In the back-end control layer, the blockchain businesscontroller and the web service controller respond to userneeds and call services. This specific service module can notonly accept blockchain services but also be completed byweb services only according to the service requirements. Inthe data service layer, the transaction information on theblockchain can implement the smart contract, the localdatabase data can be recalled and managed, the fund ormaterial transactions of

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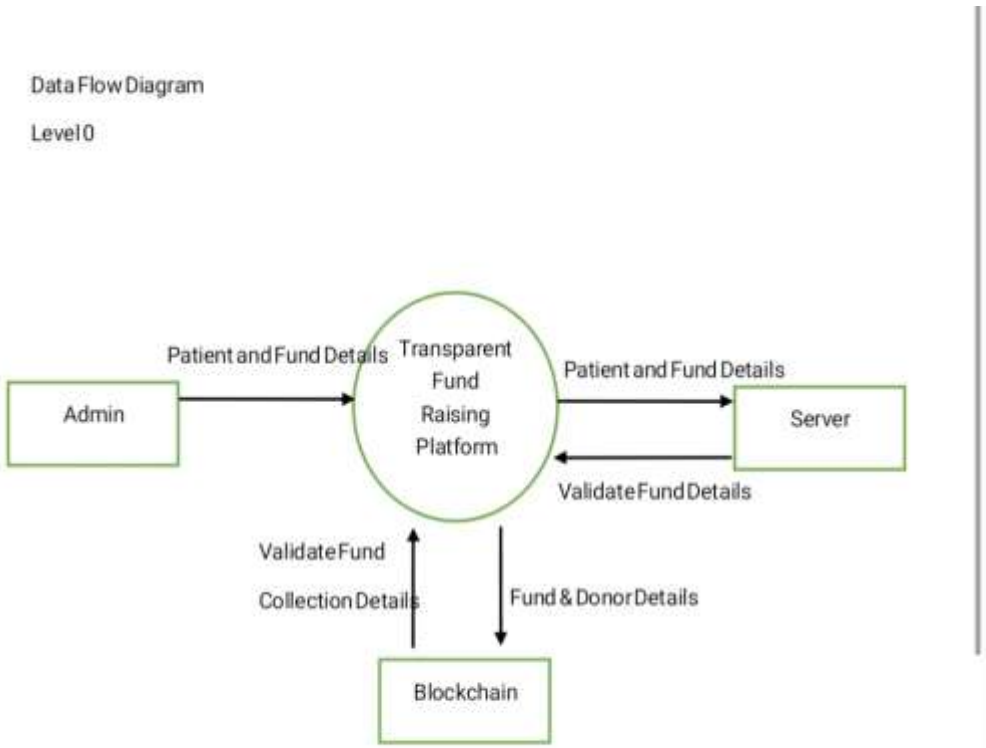
donors are stored on the blockchain,and the local database provides local data queryIn funds management, the substitution of cryptocurrencyfor traditional funds can avoid transaction tampering. Whilethe donation project is set up, the system issues tokens andcompletes the user's rights of token exchange, transfer, andrecovery by calling the qualified smart contract on theblockchain. The transaction information is stored in theMerkle tree of the blockchain, and the hash value of thetransaction data is stored on the node. Due to theirreversibility and non-conflict of the hash value algorithm the hash value of each transaction is unique. Firstly, the hashvalue corresponding to each transaction in the local databaseis queried, and the smart contract queries the correspondingtransaction records and transaction data on the blockchainplatform. This two-stage query ensures the accuracy of the data and solves the problem of authenticity and transparency.In materials management, the demand for preventionmaterials drives manufacturers, suppliers, distributors,retailers, logistics providers, charity management agencies,the operation of the service system will inevitably bring alarge number of complicated multi-source heterogeneousdata. By using smart contract, we make the data consistenton each node. Only consistent data can be uploaded. At thesame time, in order to avoid different formats of datainformation from different users, the data needs to be judged communities, and voluntary service agencies to form anintegrated functional network chain of disaster reliefmaterials supply. The core of disaster relief material supplyblockchain management is the comprehensive control ofgoods flow, information flow, logistics, capital flow, etc. Thebusiness logic of charity donation material management isrecorded on the blockchain in the form of a smart contract.As the typical role of the blockchain, the users access theblockchain network through an online platform or otherdistributed applications to obtain the information on thechain. Based on the alliance chain, the system strengthens theaccess mechanism and authority control. According to thefunction and storage node, the system gives differentparticipation rights according to different roles. Theoperation of the whole chain can promote multi-partyparticipation, data transparency, and traceability.



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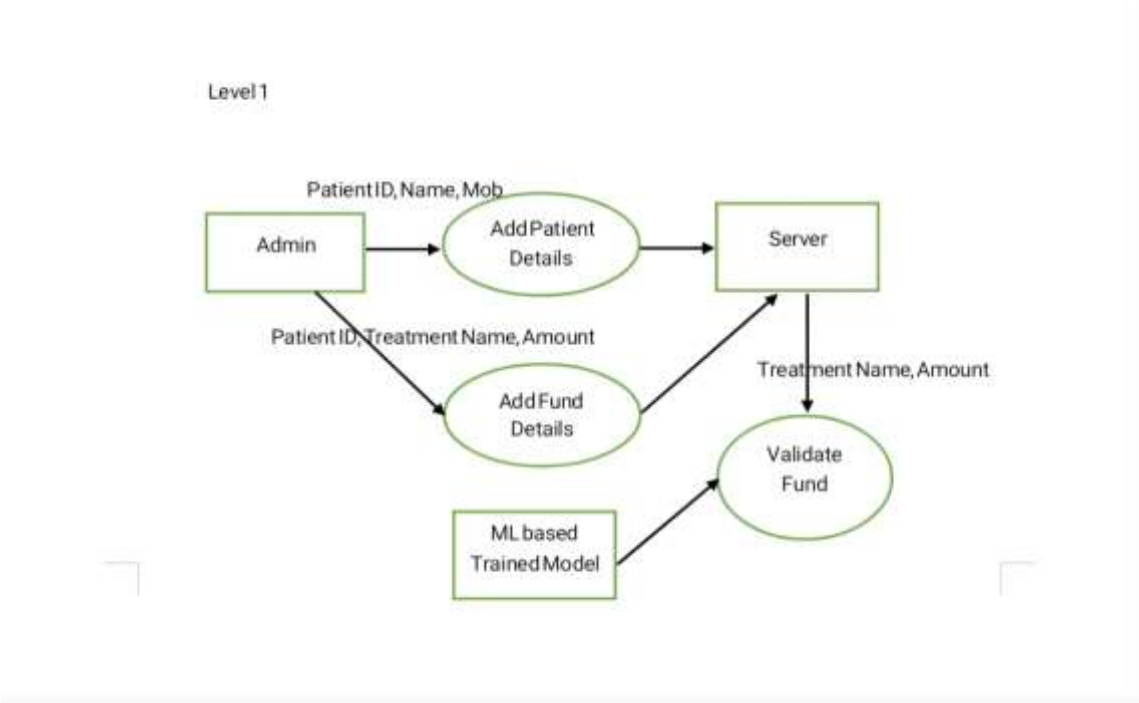

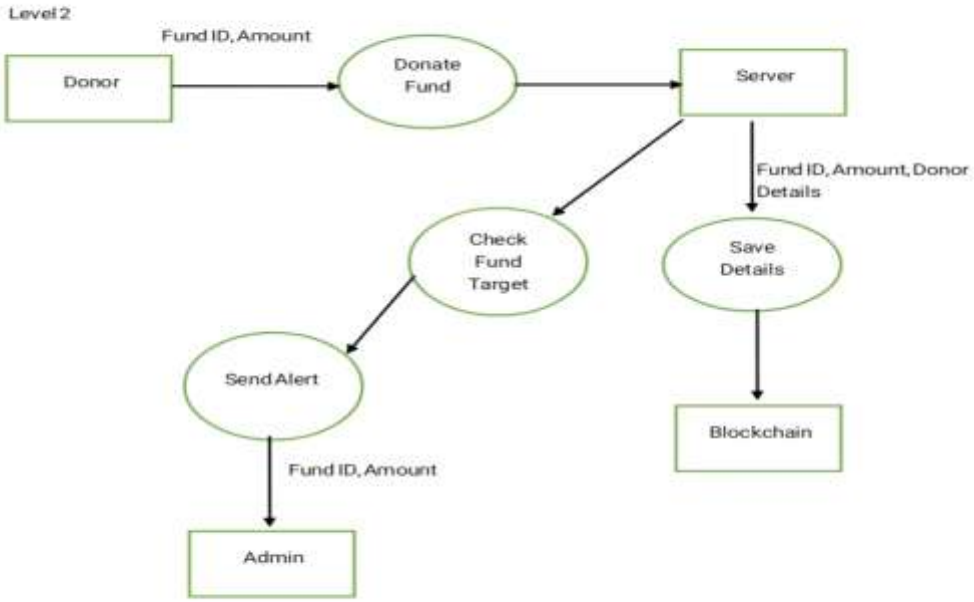

II. CONCLUSION

We studied the combination of blockchain technology and philanthropy, a new charity platform model based on blockchain was proposed. In this system, users complete the donation and use funds with smart contracts. All transactions are recorded on the blockchain to realize traceability of funds, which increase the transparency of charities. The lack of transparency in charity activities could be solved technically with this blockchain charity system, which could increase the public's trust in charity organizations. Some core components have

been realized and verified by a Dapp we have developed. A complete charity system based on blockchain in the future is the next step for us.

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