BLOCKCHAIN LAB PRESENTATION

DONATION SYSTEM
USING BLOCKCHAIN

Group Members:
**Arkam Malbari**

Piyush Patil

Aftab Khan

Mahesh Tandel

Under the guidance of:
Prof. Arun Saxena

INTRODUCTION

Blockchain technology has the potential to revolutionize the donation system by providing transparency, security, and efficiency. With its tamper-proof ledger and smart contracts, blockchain ensures that donations are used for their intended purpose, reduces transaction costs, and automates fund distribution. This innovation democratizes philanthropy, making it more accessible and impactful on a global scale.
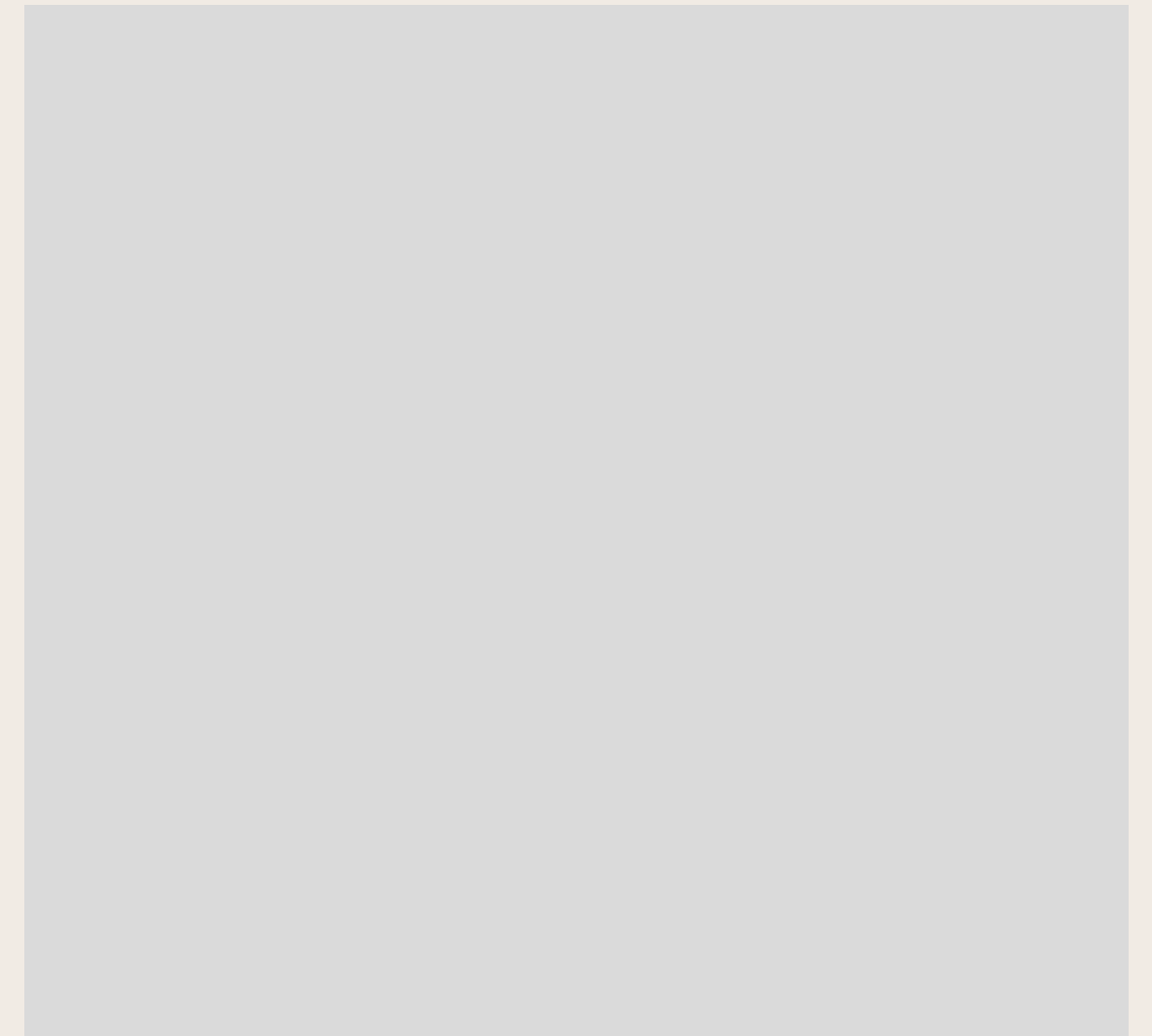
PROBLEM STATEMENT

Traditional donation systems suffer from inefficiencies, lack of transparency, and high transaction costs, diminishing the effectiveness and trust in charitable giving. Donors often face uncertainty about how their contributions are utilized, while intermediaries can impose significant fees and delays. Additionally, centralized systems are susceptible to fraud and mismanagement of funds. To address these challenges, there is a need for a donation system that offers transparency, efficiency, and security. Blockchain technology provides a decentralized and immutable ledger that ensures transparency and accountability in donation transactions, promising to revolutionize the charitable giving landscape.

Challenges in Traditional Donation Systems and its Solutions

Traditional Donation System Challenges:

Reduced Transaction Costs through Smart Contracts	Immutable Recordkeeping for Accountability	Enhanced Security with Cryptographic Encryption

Blockchain Solutions

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Lack of Transparency	High Transaction Costs	Inefficient Record keeping

Payment App

The Payment APP is a Flask-based web application that enables users to transfer funds using Ethereum and Web3. It is a key component of our blockchain-based charity donation platform, providing a secure and efficient way for users to make donation transactions.

Functionality provided:

- **User Registration:** Users can create an account on the Payment APP by providing their personal information and creating a secure login.
- **Wallet Integration:** The Payment APP integrates with users' Ethereum wallets, allowing them to securely store and manage their funds.
- **Donation Transactions:** Users can easily make donation transactions through the Payment APP. They can select a charity organization, specify the donation amount, and complete the transaction securely using their Ethereum wallet.
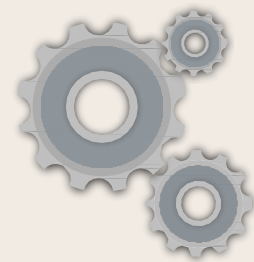
TECHNOLOGIES TO BE USED

01. FLASK
Python framework used for creating the web application and handling routing.

02. MetaMask
MetaMaskbrowser extension that allows users to manage Ethereum wallets

03. JavaScript
JavaScript is commonly used to interact with the Ethereum blockchain through the web3.js library

04. web3.js
JavaScript library that provides a collection of APIs to interact with the Ethereum blockchain.

05. HTML
markup language for creating the structure and content of web pages.

06. CSS
for web styling

KEY FEATURES

Decentralized ledger for transparent transactions

Integration with MetaMask for wallet management

User-friendly interface for fund transfers

Real-time updates on donation

BENEFITS

Enhanced transparency and accountability

Reduced transaction costs

Minimized fraud and mismanagement risks

Increased trust and confidence among donors

CONCLUSION

By leveraging blockchain technology, your charity donation system addresses the key challenges faced by traditional donation systems, including lack of transparency, high transaction costs, susceptibility to fraud, and inefficient recordkeeping. The implementation of a decentralized ledger, smart contracts, enhanced security measures, and immutable recordkeeping ensures transparency, reduces costs, enhances accountability, and improves the overall efficiency of charitable giving. This innovative approach not only benefits donors by providing a transparent and secure donation experience but also empowers beneficiaries with increased trust and confidence in the utilization of donated funds.

THANK YOU!