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Decentralized Time Banking System for **Volunteering**

Team **3**

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Problem **Statement**

- Lack of Recognition for Volunteer Contributions
- No Standardized Tracking Mechanism
- Limited Incentives for Volunteering
- Lack of Transparency and Accountability

Project Idea

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Solution:

A **Decentralized Time Banking System** that tracks and rewards volunteer efforts using blockchain technology. Volunteers will earn tokens based on the time they contribute to activities or causes, and these tokens can be used as verifiable proof of their contributions.

How It Works:

- Time Tokens
- Reputation System
- Immutable Records

Key Features:

- Transparency
- Incentivization
- Verification

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Why is it Important?

- Fair Recognition of Volunteer Efforts
- Encouraging Participation in Volunteering
- Transparency and Accountability
- Building a Culture of Service

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Key Technologies **and Tools**

01

Solidity

for building smart contracts to track and manage volunteer hours on the blockchain.

02

Web3.js

for integrating the front end with the blockchain, enabling students and organizations to track and record hours seamlessly.

03

Ethereum

for creating an immutable ledger of volunteering efforts and ensuring transparency.

04

React.js

for the user interface where students can log hours, view their balance of time credits, and redeem them for rewards.

Technologies to be **Used**

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05

Metamask

for user authentication, allowing students and organizations to connect their wallets and interact with the smart contracts for logging and verifying hours.

06

IPFS

for decentralized storage of records related to events, volunteering activities, and associated documentation.

Tentative Timeline

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Project Planning (W1)

Identify use cases, define key features, gather UI and contract requirements.

Smart Contract (Solidity) (W2)

Write smart contracts for managing volunteer hours, rewards, and tokens.

Blockchain Backend (Ethereum, IPFS) (W3)

Testnets, IPFS for decentralized storage, and test contract interactions.

Frontend Development (React.js, Web3.js) (W4)

Create UI with React.js for logging hours, tracking rewards, and event management, integrating Web3.js and Metamask for blockchain interactions.

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Initial Implementation Details

- Smart Contracts Development
- Security Concerns
- Token Allocation Model
  - Rate of Conversion
  - Token Usage
- Blockchain Platform (Ethereum)
- Front-end and Blockchain Interaction
- IPFS Integration
- User Experience (UX)

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Thank **You**

Questions?