PolyFund

Crowdfunding Platform powered by Blockchain

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Introduction

Crowdfunding is one of the most popular ways to raise funds for any project, cause or for helping any individual in need. With the onset of Covid we have seen a rise in Crowdfunding activities across the globe which includes small campaigns to help people get oxygen and medical help to large funds such as PM Cares.

Major Problems

Security

Transparency & Anti-Fraud

Global Contribution

Feasibility: Technical & Non-Technical

Technical

- It is to be a ReactJS based application, which will be supported by any web browser.
- Internet connectivity will be required.
- Users will require 'Metamask' browser extension to sign transactions.

Social

- Crowdfunding over the years has helped people but has also seen heavy frauds in the name of Crowdfunding. With Porlyfund we want to bring transparency to the process of crowdfunding and build trust among people to contribute to all the causes.

Feasibility: Technical & Non-Technical

Economic

- Given the Ethereum Blockchain provides us with most of the security features, the development does not require much cost.
- The only cost would be the server cost of the deployed application.

Scope

- With Polyfund we aim to make the crowdfunding process transparent, anti-fraudulent and secure.

02. Proposed Solution

- Identifying Stakeholders
- Detailed Solution

Identifying stakeholders

The stakeholders can be divided into two parts:

- **Campaign Creators :** These are the users who have created a Campaign.
- **Contributors :** Contributors are the users who contribute and fund the campaigns.

Detailed Solution

- Any web based application is a centralized application which means that anything we do on the platform is managed by a server which is owned by a single company.
- We propose a Decentralized Application powered by Ethereum Blockchain, where all the information about campaigns, contributions, withdrawal requests and funds are kept on a Blockchain Network, visible to all and decentralized. This means the funds and transactions are visible to and stored at every node on the blockchain, and prevents the data from being stored in a centralized server, single location.
- Hence not letting the money get into the hands of anyone and eliminating every possibility of it getting misused — an elegant and logical solution to the problem in hand.

Following are the proposed features

Feature-1

Creating Campaign

Just like Crowdfunding in the real world as well as on other crowdfunding platforms, anyone can create a campaign in a few minutes. The campaign information will be managed by the Ethereum-based smart contract and thus cannot be tampered with.

Feature-2

Contributing to a Campaign

Once a campaign has been created, users can share the campaign and anybody can contribute to the campaign. **The funds will go to the address of the campaign and not to the creator of the campaign,** thus making the process more efficient and anti-fraudulent.

Feature-3

Withdrawal of Funds

The Creator of a Campaign can propose how to use the funds in the form of a Withdrawal Request.

Tech Stack Analysis

In order to achieve the solution we have chosen a tech stack that is

Optimized For speed

Efficient

Secure

Tech Stack Analysis

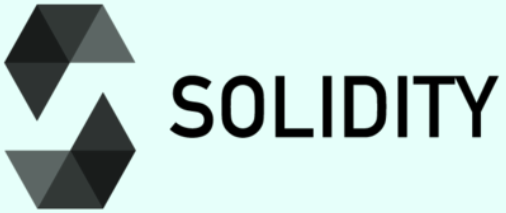
The Technologies that have been used are :

NextJS

Next.js is an open-source React front-end development web framework that enables functionality such as server-side rendering and generating static websites for React based web applications.

Chakra UI

Chakra UI is a simple, modular and accessible component library that gives the building blocks one needs to build React applications.



Solidity

It is the programming language for implementing Ethereum based Smart Contracts.

Tech Stack Analysis

The Technologies that have been used are :

Web3

web3.js is a collection of libraries that allow you to interact with a local or remote ethereum node.

Ethereum Smart Contract

It is the collection of functions and data that reside at a specific address on the Ethereum Blockchain.

Conclusion

- Conventional crowdfunding methods have long suffered from lack of transparency and fraud. It is an avoidable problem, and we believe that we have implemented a solid solution that can do away with these long-standing problems.
- The aim to have a transparent, anti-fraudulent, decentralized platform has been achieved to a great extent. This project has covered the weak points of general crowdfunding platforms to provide transparency to the process of crowdfunding and build trust among people, so that they may contribute their wealth to good causes without fear of fraud.

Thank You