

# Case Study | MisterZ

Initial Coin Offering platform with fundraising and investment capabilities integrated on smart contracts to provide a trustless experience to the users.



## About the application

This application is about providing a platform to the project owners possessing feasible ideas but lack the funds to develop those projects, project owners can come to this application and register their ideas , and a team of experts shortlist the feasible ideas by voting upon it, if a project successfully pass the voting phase, it gets listed on the application, where investors can invest on the listed incubated projects , meanwhile, project owners get the funding for the development of the projects and investors get the profit out of their investments when project flourishes.

To make this process trustless between the stakeholders, every transaction is listed on the smart contracts, therefore the funds are safe and secure.

Below is the high level flowchart of our application:



# Summary

## Users:

Clients, Experts, Administrator

## Tech Stack:

React.js, Node.js, MongoDB, AWS cloud, IPFS, Solidity

## Team Size (5 Oodlites)

1 Project Manager, 1 Lead Backend Developer, 1 Frontend Developer, 1 QA Engineer, 1 Business Analyst

# Scope of Work

**Clients :** The app users registered as clients must be able to view all the listed projects on the platform and invest in the listed projects , also the clients can raise their own fundraising project application to raise funds from other clients.

Clients as investors can also raise the proposals to revoke their investments from a project, on which other investors will vote, if proposal gets passed in voting, then clients will receive their full investment amount back

Clients as project owners can raise the proposals to their investors for withdrawing funds which are locked in smart contract, investors will vote upon it, if proposal gets passed in voting, then project owner will receive the requested funds

**Experts:** The app users registered as experts must be able to view all the listed projects on the platform and vote on the fundraising project applications .

**Administrator:** Admin user will have full control over the final acceptance of all the applications and proposals, Administrator can also remove any project or user from the platform if needed.



# Let's discuss about top functionalities offered

## Backend Development

Client required dedicated backend interfaces for clients and experts as well as admin users with role-based access to select features.

## Smart Contract Development

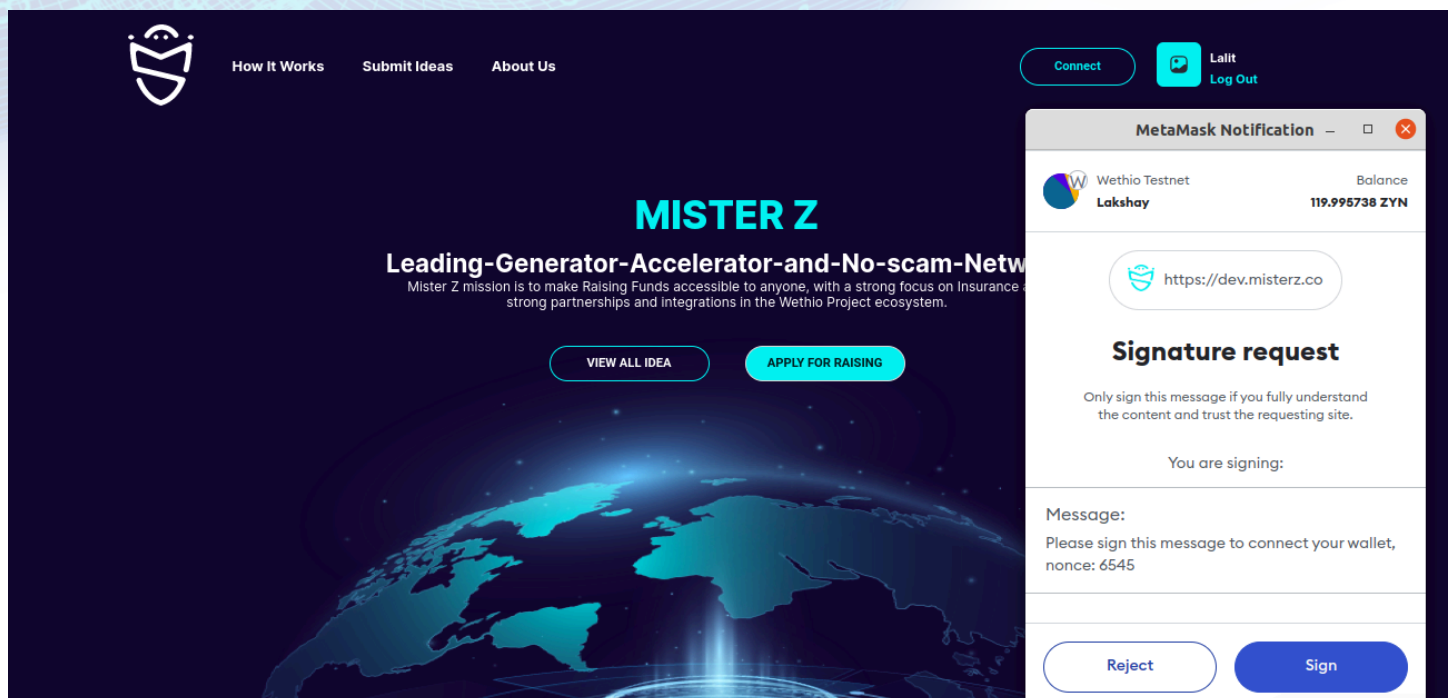
Client require dedicated smart contracts for the trustless interaction between the users on the platform as all the transactions are irreversible and open to all.

## Storing project details on IPFS

Application saves all the project related data on IPFS and create a dedicated new escrow contract for all the new projects, all the funds and addresses are saved on the contract which are non editable

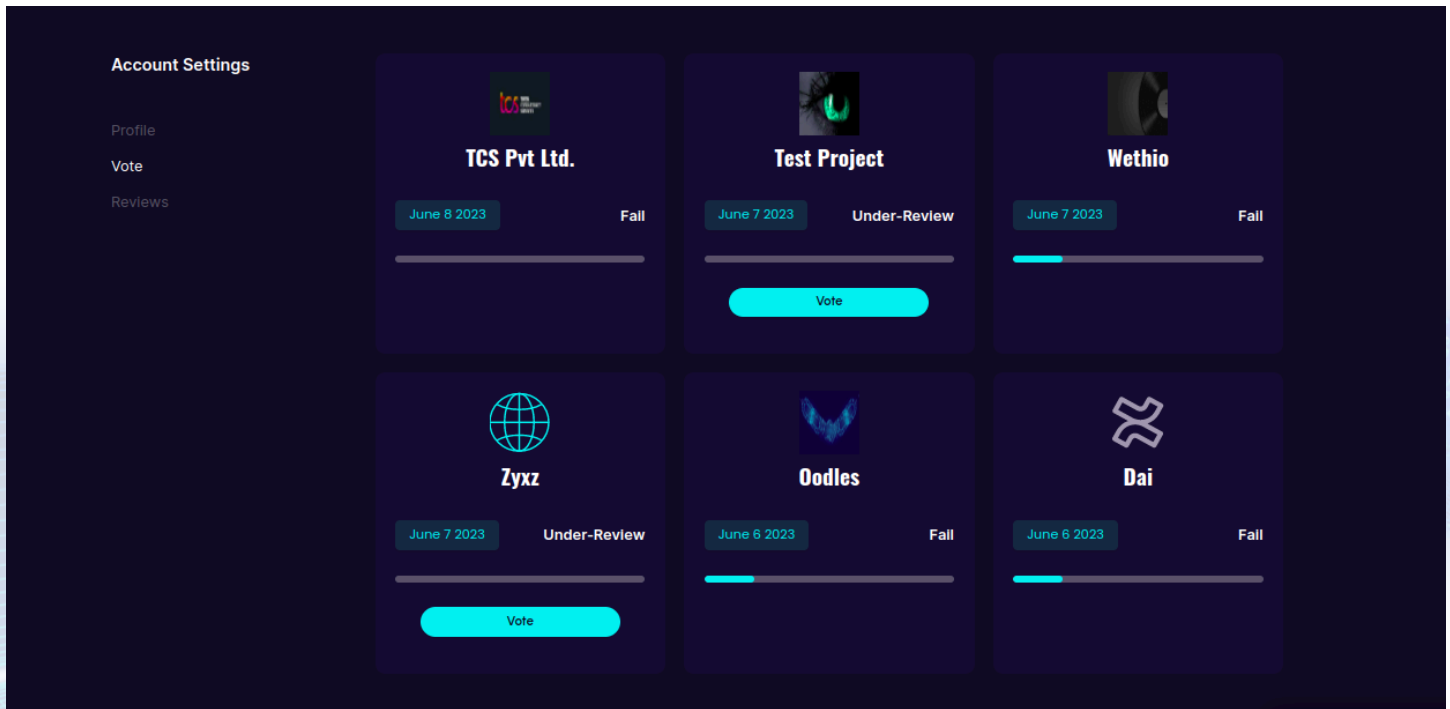
## Metamask Integration

Application should allow the users to do all the transactions using metamask wallet. Token addresses and wallet addresses used to create the project are created on metamask only



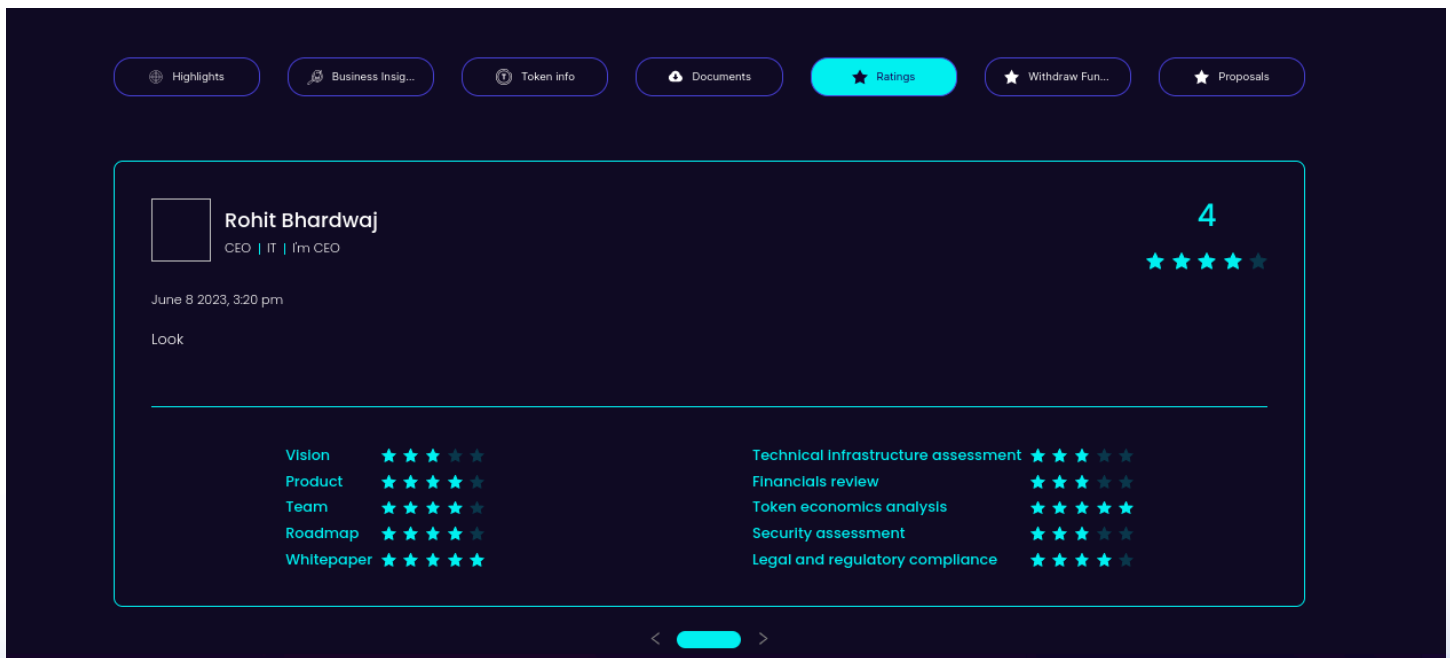
## Voting consensus mechanism

Application provided dynamic voting mechanism on smart contract which allowed the users to reach a consensus to decide the future of the projects, all the votes are irreversible and requires a transaction which is visible to all, we have provided the review mechanism integrated with voting, so that the users can justify the reasons of their vote as well



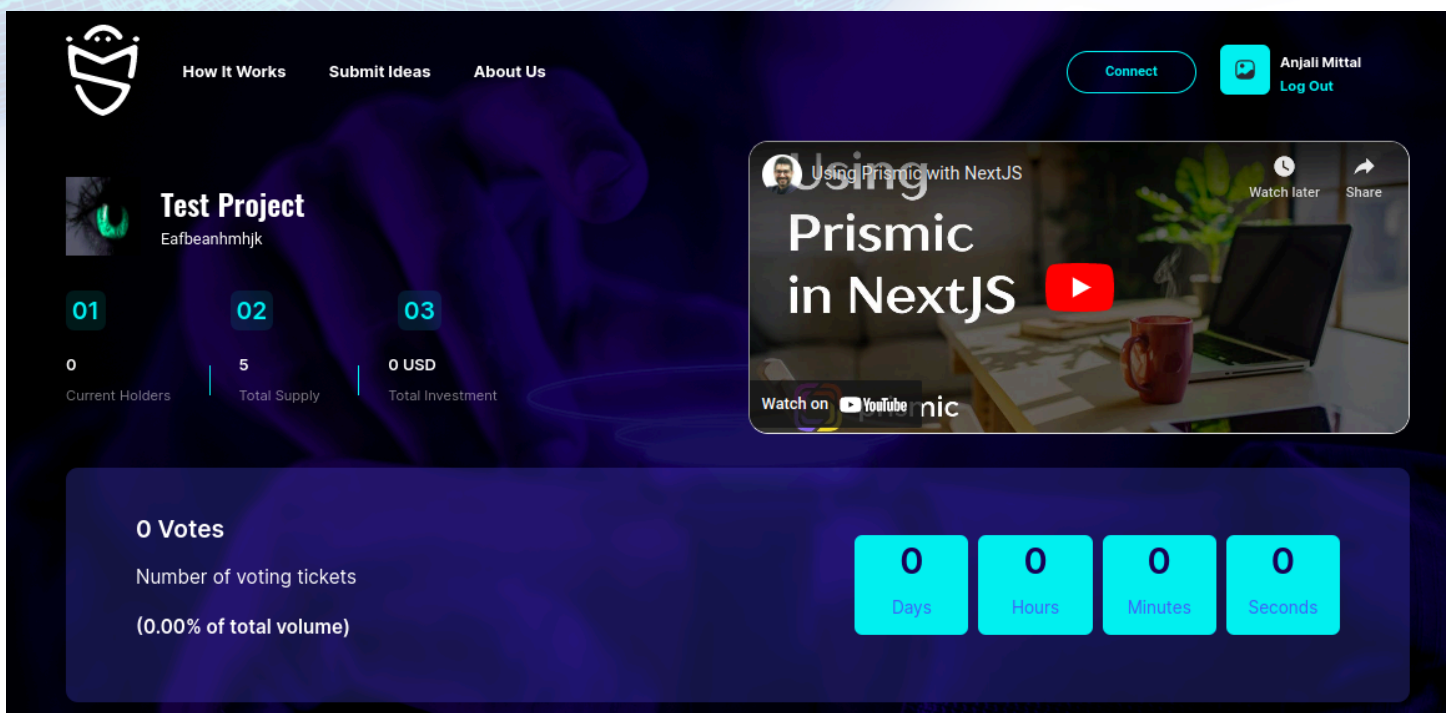
## Transparency to users

For all the projects, we have provided the ratings , proposals and transaction history section on the project page itself, so that the new investors can analyze the project before investing



## Multi round investment

Project owners are provided with a functionality to set the multiple round investment period where project owners can dictate the price of the project token according to their requirement. We have provided the timer functionality on the project page, where investors are able to view the price of the project tokens in different investment rounds with investment period duration. Investors can invest within the investment periods accordingly.



## Revoke investment functionality to limit frauds

Investors are equipped with “Revoke investment proposal” functionality , where investors can raise a proposal to the other investors by stating the reason of their action, in case the other investors also agrees with the reason and accepts the proposal with consensus, then their investment shall be withdrawn from the project and the project shall be dissolved.

The screenshot shows a web interface for 'Account Settings'. On the left is a sidebar with links: Profile, My Investors, My Investments, My Projects, Create Proposal (highlighted), History, Voting, and Reviews. At the top, there are three tabs: 'CREATE PROPOSAL' (active), 'SUBMITTED PROPOSAL', and 'DELETED PROPOSAL'. The main content area contains a form with two dropdown menus: 'Revoke Investment' and 'Witho'. Below these is a 'Reason:' label followed by a text box containing 'Project is delayed'. A red asterisk is next to the 'Reason:' label. At the bottom of the form is a blue 'Submit' button.

## Withdraw funds functionality to funds safety

The investments made on a particular project stays locked on the project’s escrow contract until the project owners raise the Withdraw funds proposal to their investors by stating the amount of withdrawal with reason of withdrawal, if the investors accepts the proposal and agrees to provide the funds to the project owner with a consensus, then requested funds gets credited to the project owner’s wallet.



Account Settings

CREATE PROPOSAL

SUBMITTED PROPOSAL

DELETED PROPOSAL

Profile
My Investors
My Investments
My Projects
Create Proposal
History
Voting
Reviews

Withdraw Funds

MisterZ

0x56922b778Beef470ce3bAfF8351Dd184Eab2503D

Amount: 1200

Reason: Hire a front end developer

Submit

Highlights
Business Insig...
Token info
Documents
Ratings
Withdraw Fun...
Proposals

Withdraw Funds Proposal

00:28:29

Full Name | CEO | P.hd | BlockChain crypto  
Mai 3 2023, 08:45 AM

Amount: 1200 zyn coin

Reason: erftghj drcgvhbjnkmxcfcgvbhjnc ctgvbhjnm xrcfvghbjn xerctvybunim edrftgyhuj sedrftgybunm xdrtybnjs

In Progress

Accept

Reject

Road map

MiddleTerm

### Admin Approval

All the project approvals and the proposals approvals require final approval from the admin, admin can also remove and pause any project on the platform, admin can remove any user from the platform as well.



Project Management

User Management

Client

Expert

Request Management

Expert Requests

Project Application Requests

Withdraw Funds Requests

Revoke Investment Requests

Voting Management

Contract Management

Do you have an  
influencer  
network  
supporting you?

**Voting Results**

Approved Votes :- 0

Rejected Votes :- 0

**Result- Fail**

Accept

Reject