# **Investor Protector**

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### **Problem facing**

FundRaising sites do not have effective measures to limit startup managers. They are unable to monitor the flow of money, resulting in many fund raising programs becoming scams.

We want to create a platform where the probability of investors losing money is drastically decreased, the uncertainty of the project is reduced, and the chances of fraud are mitigated.

### **Project Objectives**

- Start-up manager be able to create a fundraising event.
- A secure portal will be in place for investors to contribute.
- Start-up manager will be able to create a request for funds.
- Investors will be able to approve request for funds.
- We are able to verify the account where the transactions are leading to this helps confirms where the money is actually going.
- know how much progress has been made on the project.

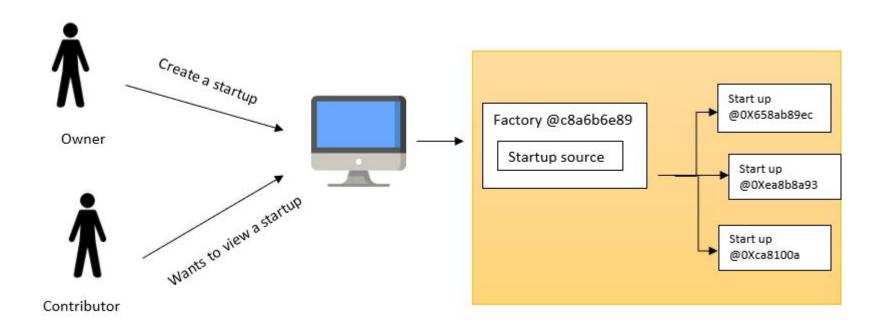
### **Techniques and Tools used**



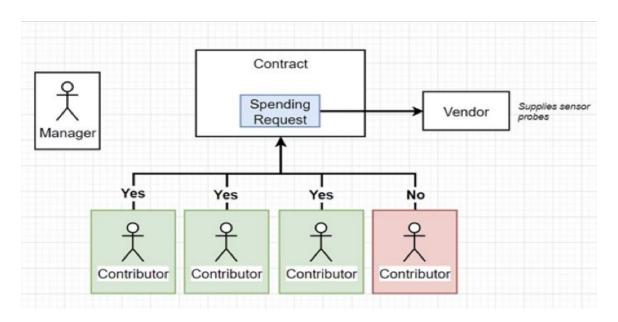


- Ethereum
- Smart Contracts written in Solidity
- Node.Js
- React
- Mocha and Remix
- Rinkeby as a test network.
- Metamask as a ethereum wallet account manager.
- Web3.js

### **System Architecture**



### **Introducing Smart Contract**



## **Fundraising Contract**

| Variables           |            |                                                                        |  |
|---------------------|------------|------------------------------------------------------------------------|--|
| manager             | address    | Address of the person who is managing the start up.                    |  |
| minimumContribution | unit       | Minimum donation required to be considered a contributor or "approver" |  |
| approvers           | mapping    | List of address for every person who has donated money                 |  |
| requests            | Requests[] | List of requests that the manager has created                          |  |

| Request Struct |         |                             |  |  |
|----------------|---------|-----------------------------|--|--|
| description    | string  | Purpose of request          |  |  |
| amount         | uint    | Ether to transfer           |  |  |
| recipient      | address | Who gets the money          |  |  |
| complete       | bool    | Whether the request is done |  |  |
| approvals      | mapping | Track who has voted         |  |  |
| approvalCount  | uint    | Track number of approvals   |  |  |

| Functions       |                                                                                                        |  |
|-----------------|--------------------------------------------------------------------------------------------------------|--|
| Campaign        | Constructor function that sets the minimumContribution and the owner                                   |  |
| contribute      | Called when someone wants to donate money to the start up and become and "approver"                    |  |
| createRequest   | Called by the manager to create a new "spending request"                                               |  |
| approveRequest  | Called by each contributor to approve a spending request                                               |  |
| finalizeRequest | After a request has gotten enough approvals, the manager can call this to get money send to the vendor |  |



Open Startups

Create Startup

0xf7eeeAa62B1e3b33F87f2521C4F7BeDEF345b76C

0xb93eBAa2323F7EeBDEe58E8eFdfc2a4D0564afB6

View Startup >

View Startup >

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#### Create a Startup

Minimum contribution

we

Create!

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Amount to Contribute ether Contribute!

#### Startup Info

#### 0x3afcFFd873918bdE8Eb12ffE E9c5b602F814aA0D

Address of Manager

The manager created this Startup and can create requests to withdraw money

#### 10000

to become an approver

Minimum Contribution (wei)

You must contribute at least this much wei

#### 1

Number of Requests

A request tries to withdraw money from

by approvers

the contract. Requests must be approved

2

Number of Contributors

Number of people who have already

donated to this Startup

#### 0.00109 Startup Balance (ether)

The balance is how much money this Startup has left to spend.

View Requests

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#### Requests

Add Request ID Description Recipient Approval Count Approve Finalize Amount Material x

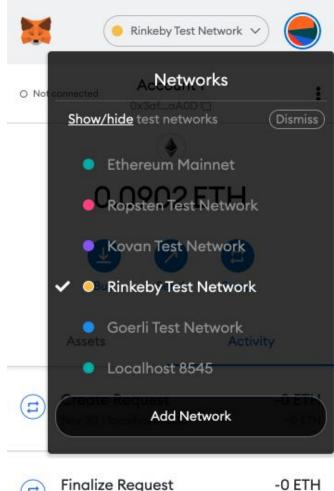
0.000055 Material Y

Finalize Approve

Found 2 requests.

0x3afcFFd873918bdE8Eb12ffEE9c5b602F814aA0D

0/2



Finalize Request
Nov 30 · localhost:3000

-0 ETH

### **DEMO**