



# crowdfunding application

- Using Solidity

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## Overview

In today's world, blockchain-based systems are in demand across various industries, because of their secure, trusted, and decentralized network as well as for being more efficient than the traditional methods. However, the traditional ways these days are facing a lot of issues and challenges because of the complex and less secure network. Blockchain network integration overcomes the problems faced by traditional methods across industries. The Blockchain integrated network provides benefits such as increased security, increased transparency, increased efficiency, and decreased chances of fraud. Although blockchain-based systems provide various benefits, due to a lack of knowledge about this technology, the implementation rate is low. In this work, we have highlighted the distinction between the traditional crowdfunding platform as well as blockchain network-based crowdfunding platform and the benefits of implementing blockchain networks in other sectors.

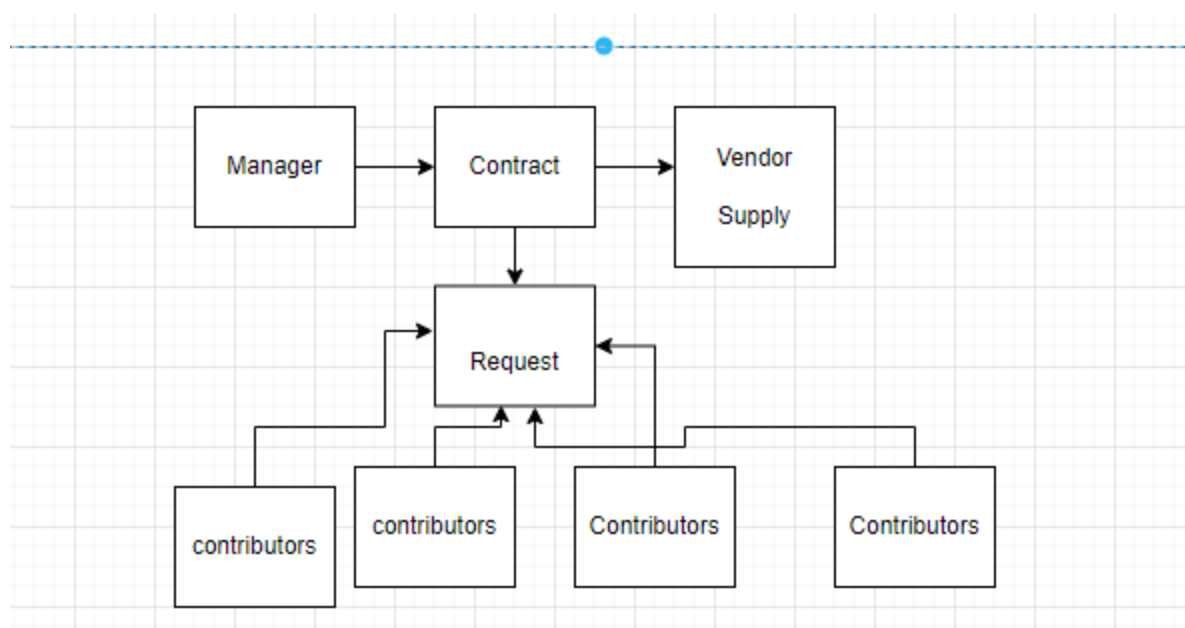
## Goals

1. Who sanctions the release of the funds inside the pool?
2. What if the owner swindles everyone and runs away with the whole funds after crowdsourcing?
3. How do we cross-check the project to see if the crowdsourcer is making progress?

While this might feel like a big task, we will create a smart contract that takes all of this into account and ensures the contributor's funds are utilized based on the agreement.

How?

First, take a look at this diagram of what we intend to build.



## Specifications

A simple smart contract to decentralize the process of crowdfunding.

- What is Smart Contract?

Smart contracts are simply programs stored on a blockchain that run when predetermined conditions are met. They typically are used to automate the execution of an agreement so that all participants can be immediately certain of the outcome, without any intermediary's involvement or time loss. They can also automate a workflow, triggering the next action when conditions are met.

- What is crowdfunding?

Crowdfunding is the use of small amounts of capital from a large number of individuals to finance a new business venture.

Suppose I want to start a small tea shop and I do not have enough funds/money to do it. So, what can I do?

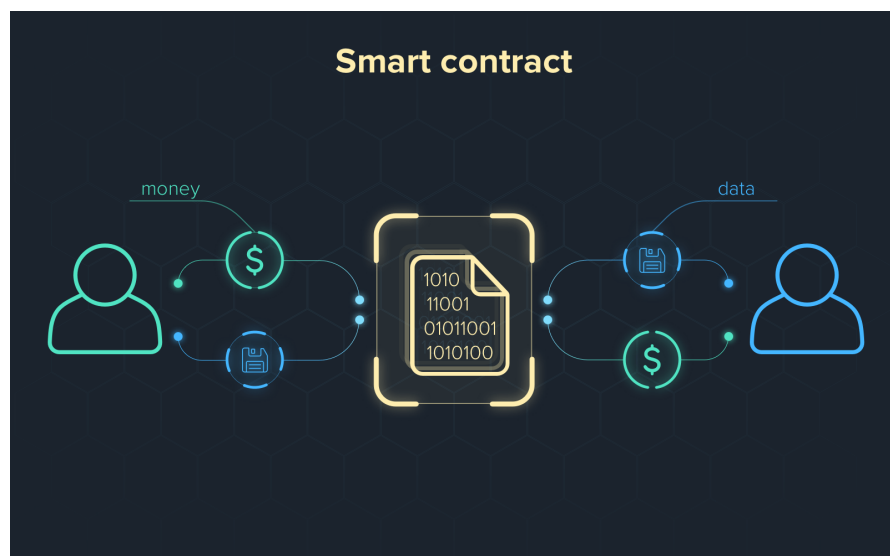
Either I can borrow some money from a friend/family/bank, or I can ask someone to give me money and become my partner in business. If the project is too big for any single

investor to invest money into it, then I will go for crowdfunding. I will ask for money from any individual in exchange for my company shares and every investor will become a stakeholder in the company.


- What are we making?

Anyone will be able to list his/her project for crowdfunding in the smart contract. Create a function where each project will have a unique Id. You can ask for some details like project name, expected cost, starting date, finishing date, etc while registering for a particular project for crowdfunding. After registering for crowdfunding the contract owner will verify the details and validate them. Once the owner has validated the project, it is available for the public to fund the project. Anyone can see the project details and ID accordingly they will transfer their funds from their own wallet to the smart contract.

After the funding process is completed the particular project owner can withdraw his/her collected funds from a smart contract.



Here are the things to know about -

 Topics to know - Cryptocurrency, Ethereum, Mining, NFTs, Defi, Hyperledger, etc.

 Language - Solidity, JavaScript, Python

 Libraries - React Js, Web3Js Tools and Tech - Truffle, Hardhat, Geth

## Abstract-

crowdfunding represents an alternative way of funding compared to traditional borrowing. As a principle, crowdfunding is open to everyone - private persons as well as economic actors. A group of people, the crowd, financially contributes small amounts to projects, products or ideas. These projects, products, or ideas are owned by fundraisers (e.g. entrepreneurs or private persons), seeking money in order to get their project realized. Fundraisers search for investors directly or via a specific digital platform, referred to as intermediaries. Crowdfunding represents a recent web 3.0-based phenomenon gaining more and more scientific attention. Therefore, this article seeks to give an overview of the current state of scientific knowledge on the topic, summarizing core definitions as well as characteristics.