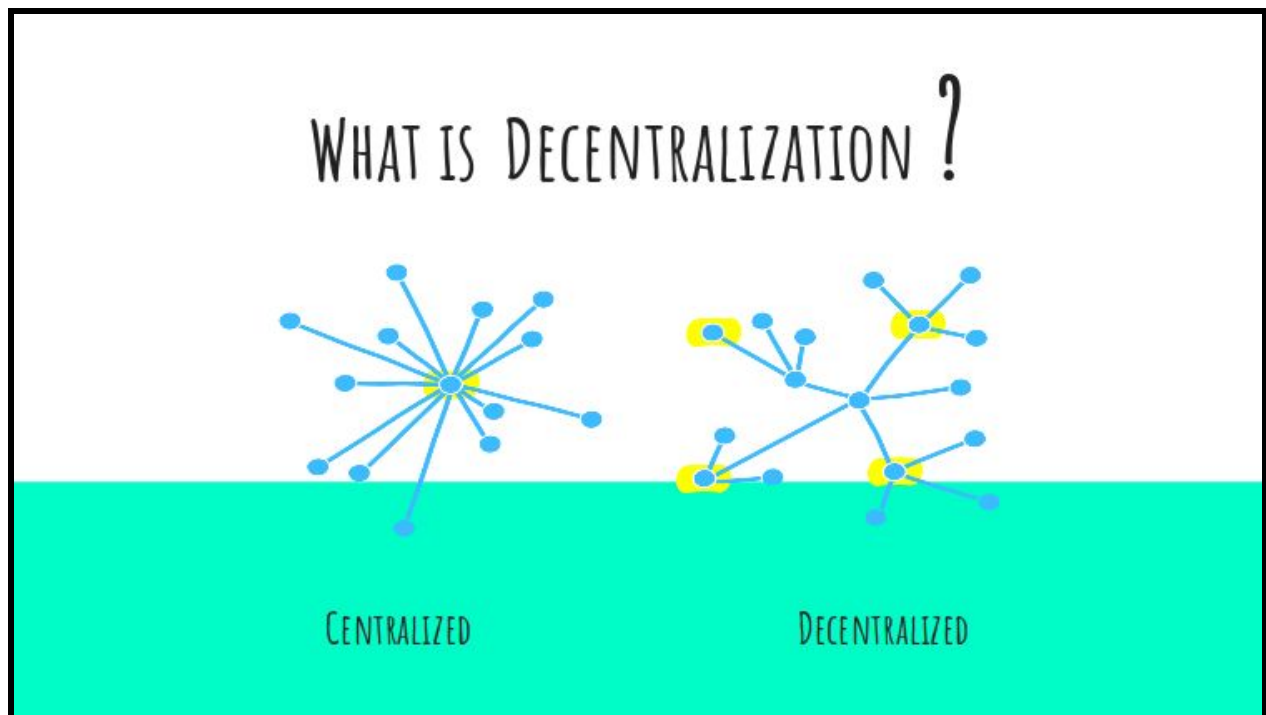# Sahara : A Decentralized NGO

TEAM ("not_sure")

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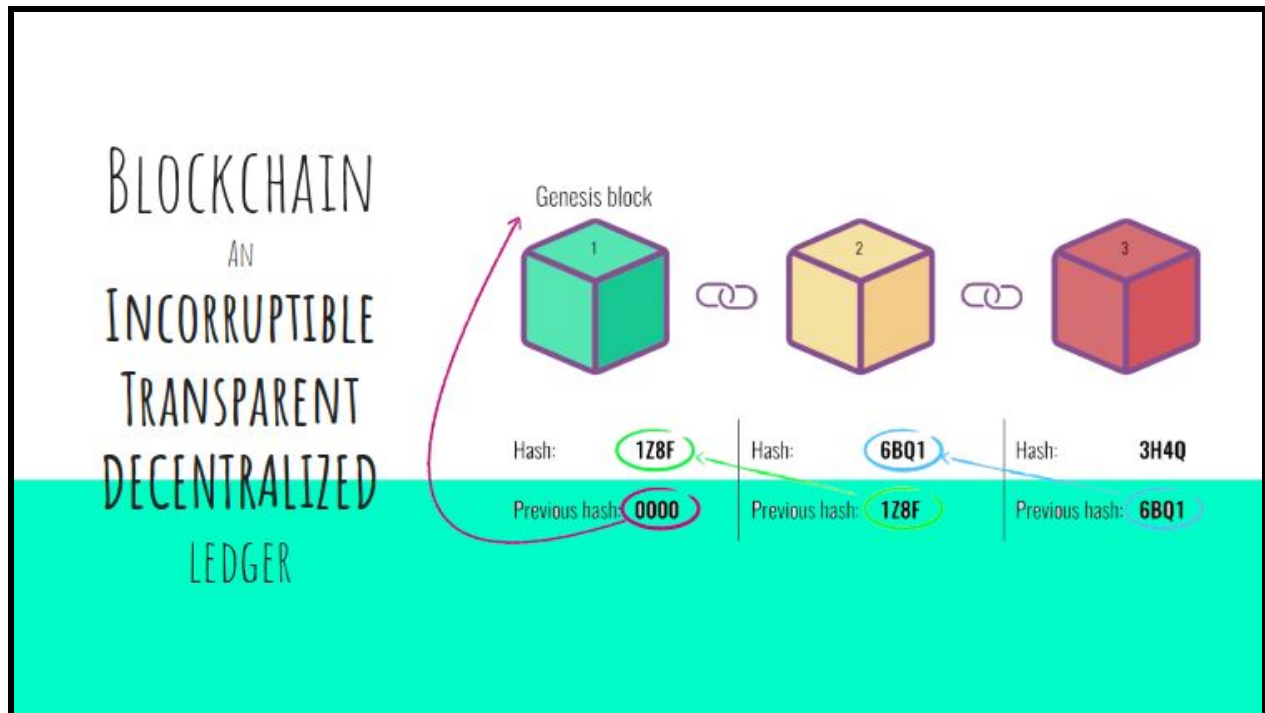
WHAT IS DECENTRALIZATION ?

Decentralization means the network operates on a user-to-user (or peer-to-peer) basis.

WHAT IS BLOCKCHAIN ?

An incorruptible and a digital ledger in which transactions are recorded chronologically and publicly.

PROBLEM STATEMENT

The current contribution system of NGO works in a biased manner. There is a centralized authority which approves the request made by the contributors in any form towards a project. There is no record of the transactions(requests made by a contributor) available to any individual other than the centralized authority. Since the amount donated is for the good of the public, the lack of transparency in the workings of the NGO is a major issue. Data tampering can easily be done. Therefore, the system becomes corruptible.

PROPOSED APPROACH

The new system will run on a blockchain where NGO will provide a decentralized platform where contributors can make contributions in the form of ether (ethereum currency)towards a project. The request made by the contributors will be approved by the authorised nodes. The system works on consensus i.e. a request will be finalized if more than half of the authorised nodes on the system approves the requests. A request can back another request which means that if amount needed
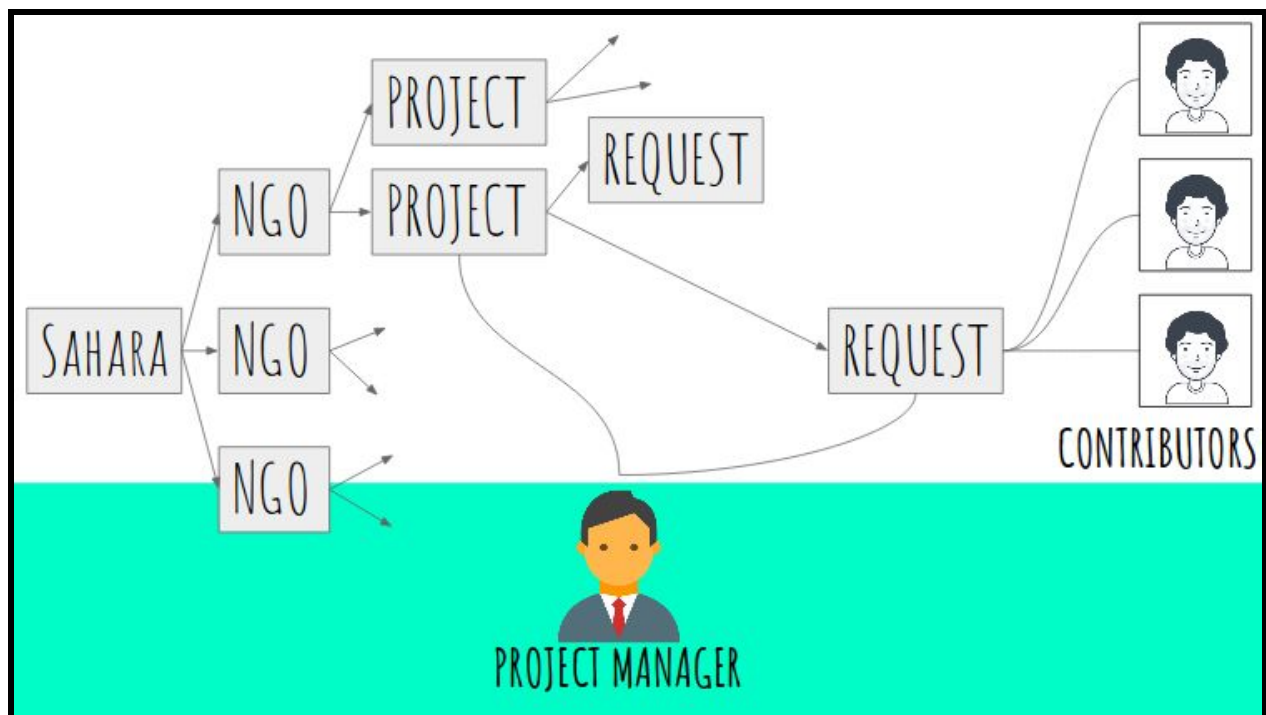
to finalize a request cannot be fulfilled in a given timeline then that amount can be transferred to another project.

For example,

Project1 : amount to be contributed : 20 ethers , but only 5 ethers are contributed towards that project .

Project2 : amount to be contributed : 15 ethers , but only 10 ethers are contributed towards that project .

Therefore , 5 ethers from project 1 can be transferred to project 2 to complete that project.

BASIC WORKFLOW

SOLUTION

The decentralized platform provided by the NGO will have no transparency as the request approval process will be based on

consensus mechanism, due to which data tampering is not possible.Each authorised node will have a record of the transaction of requests, which will be updated time to time. This makes the system incorruptible as the centralized authority does not exists any more.

TECHNOLOGY STACK

- Ethereum
- Node.js
- React.js
- Rink-by Testnet
- Metamask

QUICK LOOK (Need to setup metamask before valid transactions)

- https://amany9000.github.io/Sahara/

PROJECT RUNNING STEPS (You will need assistance)

- WEB

  Set Up Metamask
  - Add 'Metamask' extension to your respective browser
  - Create a new 'Ethereum' account
  - Get the 'Mnemonic' for your account

  Set Up Project
  - Clone the repository – https://github.com/amany9000/Sahara.git
  - Goto 'app' folder
  - Install dependencies – 'npm install'
  - Run the project – 'npm start'
  - Goto – 'http://localhost:3000'

- MOBILE

  Set Up Project
  - Clone the repository –
    https://github.com/DipanshKhandelwal/sahara_app.git
  - Goto 'app' folder
  - Install dependencies – 'npm install'
  - Run the project – 'react-native start'