# Decentralized Voting System.

#### **PREPARED FOR**

Leoforce

#### **PREPARED BY**

Hargobind Gupta

hargobindgupta.me

# 1. Project Overview

To design a decentralized application for Indian Voting System.

#### 2. Obstacles

- Votes and rules surrounding this use case can be hacked.
- Byzantine Faults.

## 3. Why use the blockchain?

Blockchain architecture provides great solutions to many of our key problems:

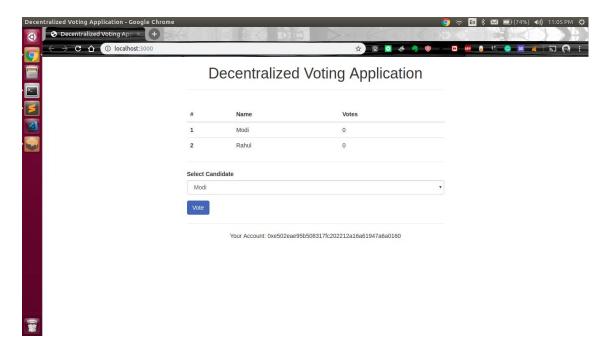
- **High volume**: As voting is decentralized, voting loads are balanced.
- Data Structure: Blockchain uses Merkle trees which ensure the robustness of the system, making it difficult to place unauthorized votes or to modify a vote that has already been placed.
- Decentralized Database: There are multiple exact replicas of the voting results, created at the time of voting. It would be necessary to fake a vote on all of the redundant servers.
- Smart Contract: Rules once coded is decentralized and can not be altered.

### 4. Dapp

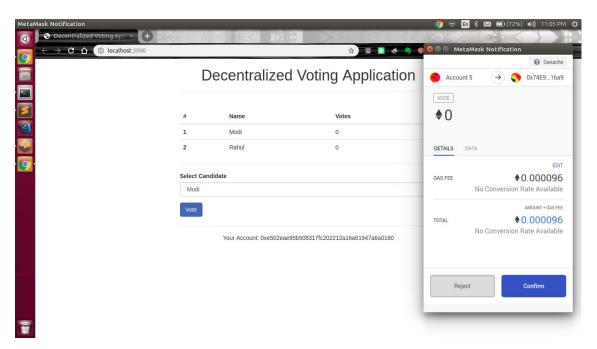
The code is deployed in Github at below link, with a readme file.

URL: https://github.com/Yara1990/voting

Please find the attached Screenshot to get the brief about the Dapp.



2. After selecting a candidate from the dropdown menu, the user clicks on Vote Button, which opens Metamask Plugin to initiate a transaction in order to call the vote function defined in our smart contract.



3. The transaction is confirmed and the functionality to Vode also disappears. This is because a user can only vote once.

Also the count is increased by 1 for Modi. (This info is displayed only for test purpose)

