

MANASA HARI PARVATHY KANNANKUMARATH MADOM KRISHNAN NIHANJALI MALLAVARAPU SUNG-YIN YANG

VOTE

# WHAT ARE THE ISSUES WITH CURRENT VOTING SYSTEM?

Fraudulent voting

Double voting

Data integrity issue



#### WHAT IS DECENT VOTE?

Decentralized voting application using blockchain

Prevents double voting and fraudulent voting

100% transparent, no central authority owns it



A decentralized voting system to ensure a fair voting process is followed ie, no vote tampering occurs by using a blockchain mechanism to validate the votes and log the voters picks.



## WHO CAN USE IT?

Any user that requires a democratic voting/polling system

- Democratic Party Poll Convener
- Opinion poll voters
- Fantasy League Commissioner Election Organizer
- Fantasy League Member voters



# Anonymity of voters

Only one vote per person

Data integrity



What does it guarantee?

### **TECHNOLOGY**











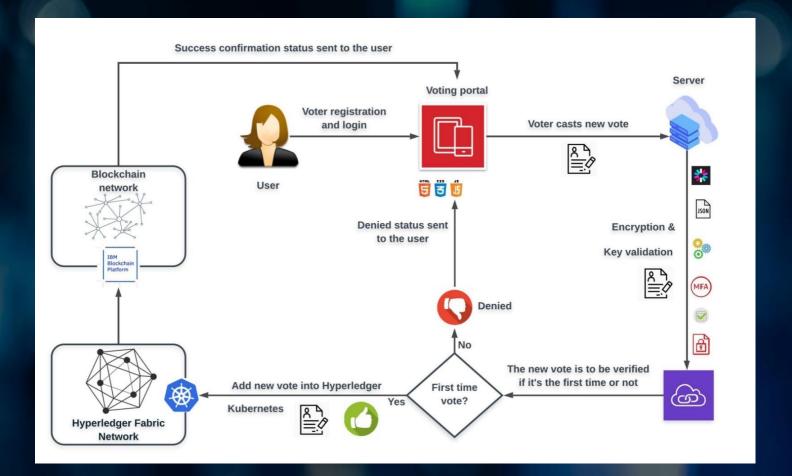
HYPERLEDGER FABRIC NODE.JS

**VUE.JS** 

IBM BLOCKCHAIN PLATFORM

**KUBERNETES** 

#### ARCHITECTURE





#### **END USER FLOW**

#### User registers to vote

- Validate id
- Create a private and public key for the voter with CA
- Add key to wallet

#### User casts ballot using Id

- Check if already voted using id
- Vote added for chosen candidate
- Update world state

# **IMPLEMENTATION**

Create and use IBM Blockchain Platform

2

Create smart contract blockchain back-end using Hyperledger Fabric 3

Deploy Hyperledger Fabric nodes in Kubernetes 4

Deploy server Node.js app to interact with deployed smart contract. 5

Deploy client Vue.js app for UI





QUESTIONS?



THANK YOU!