

Medygon

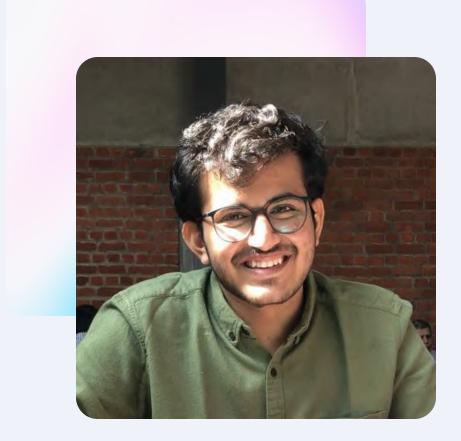
Blockchain-based medical records on Polygon's Matic network



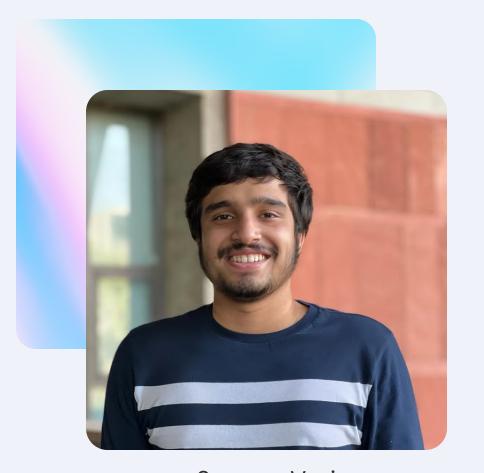
Team Noobs 🙀



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Overview

WHY DECENTRALIZE HEALTHCARE IN THE FIRST PLACE?

- Medygon solves the problem of tampering with medical records through blockchain's immutability.
- Currently, **Doctors** and **Patients** are the stakeholders considered in the transaction.
- Initially, the Patient grants access to the Doctor.
- Only after that, the Doctor can view the patient in his/her list and add documents for that Patient.
- The uploaded report can be viewed by the Patient and each upload is identified by the Doctor's public key.

Project Timeline

SMART CONTRACTS

Rules about the application
Written in Solidity

DEPLOYMENT

Local Blockchain

Test ETH network (Rinkeby)

Polygon's Testnet

WEBSITE

Built using React

INTEGRATION

Calling the Smart Contract as the user interacts with the website



Technologies used

- Polygon: Level 2 PoS based Ethereum sidechain to store the records
- Solidity: Smart Contracts
- Truffle: Compiling .sol files
- Ganache: Personal local blockchain
- IPFS: P2P distributed hypermedia protocol
- React: Client facing website









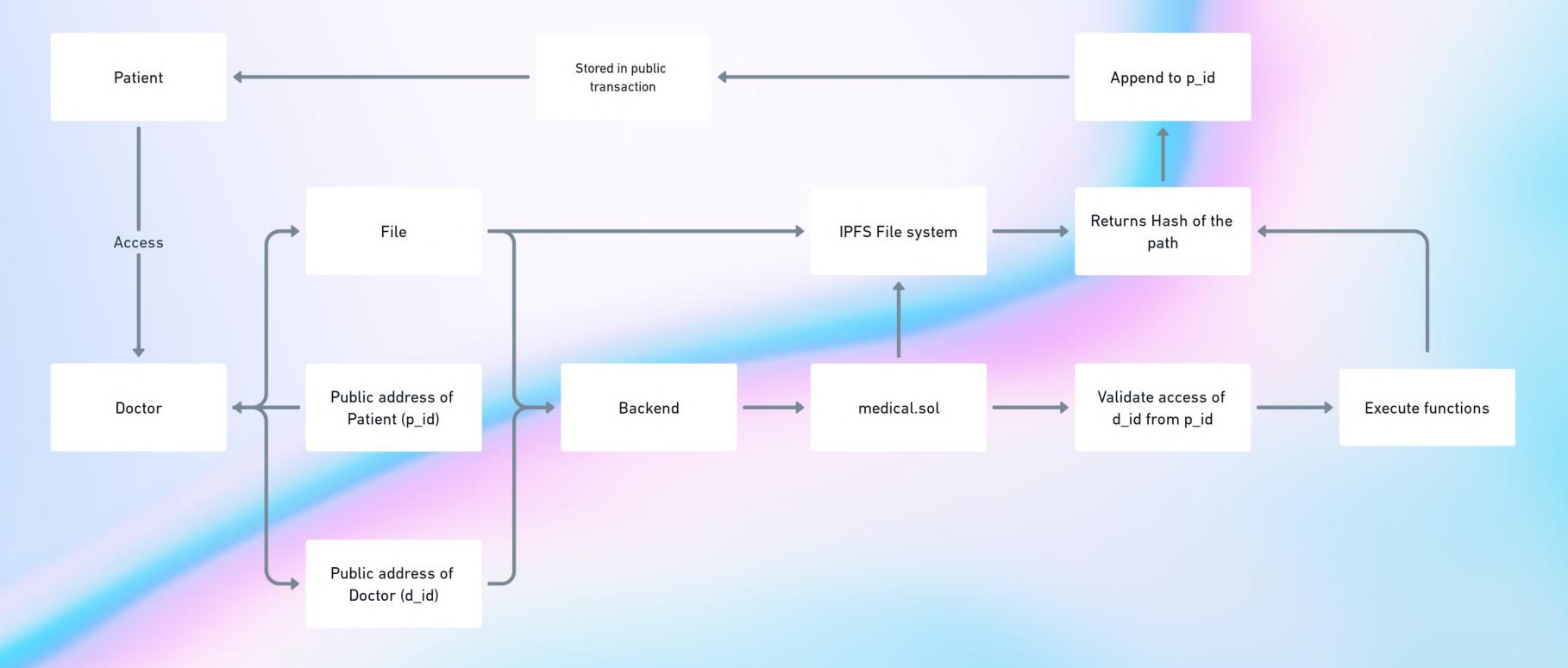




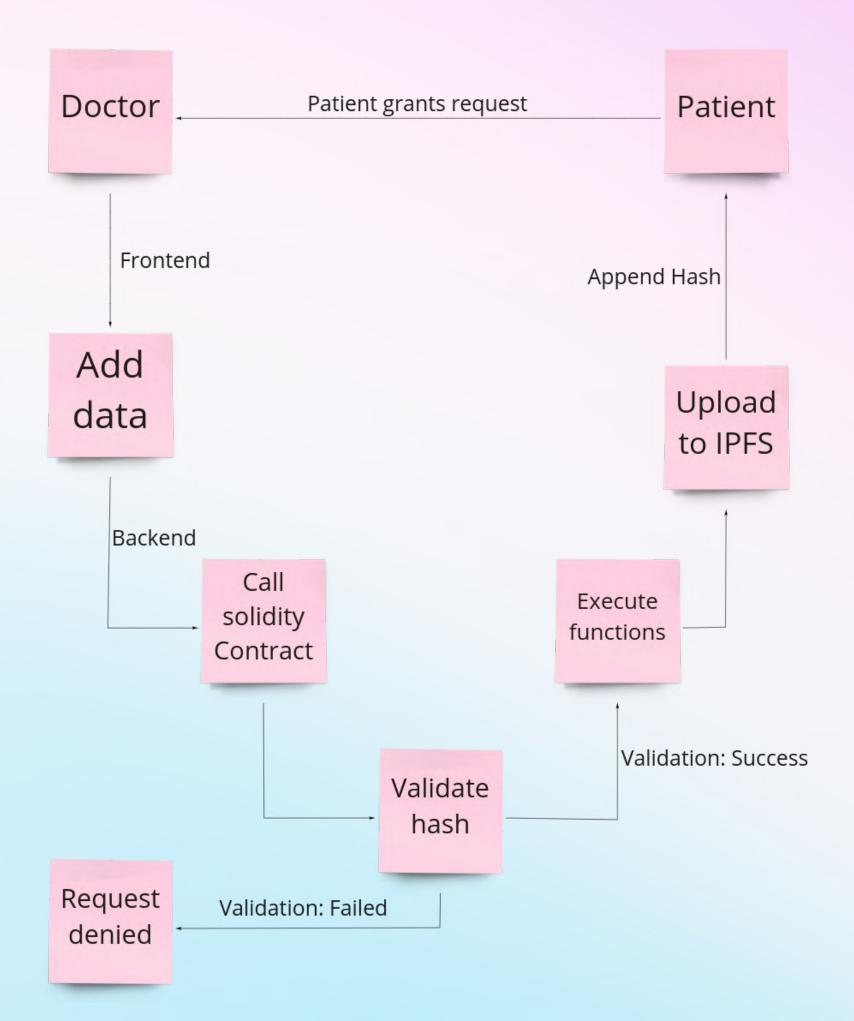




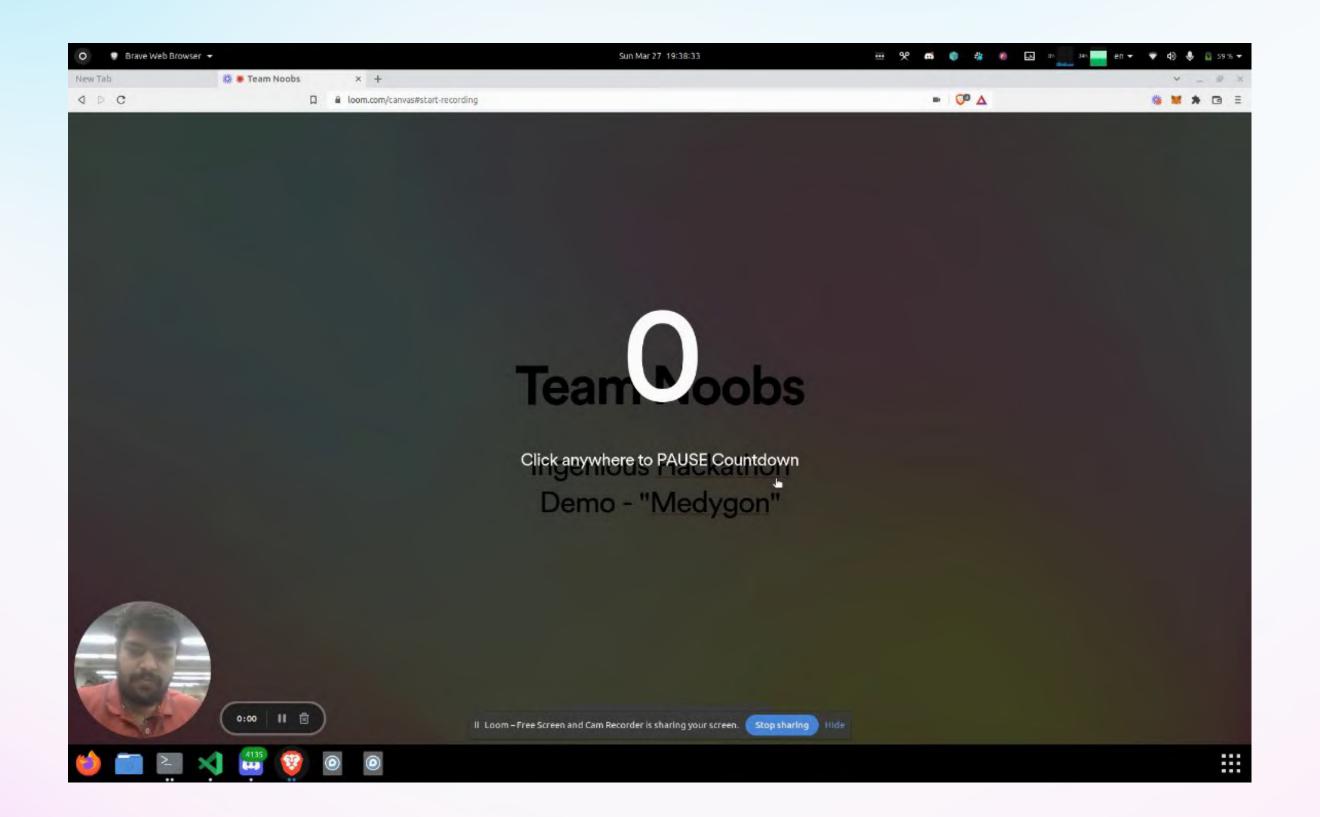
Architecture



Processes







Demo for Medygon



Future Work

- Extend the list of stakeholders to accommodate pharmacists, labs, insurance companies, etc.
- Incorporate Meta Transactions (similar to Biconomy) to collect gas from Hospitals
- Implement querying mechanisms to query through previous records (using GraphQL or similar)
- Report encryption-decryption before uploading using IPFS.



Thank You





Medygon

The future of healthcare, powered by Web3.

