

MédicoHistory

Friend of Doctor.....



TEAM

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Agenda

- Previous work till last presentation
- Work Done
- Work Left
- Work Done
- Analysis Result
- Conclusion and Future Work
- References

In Last Presentation.....

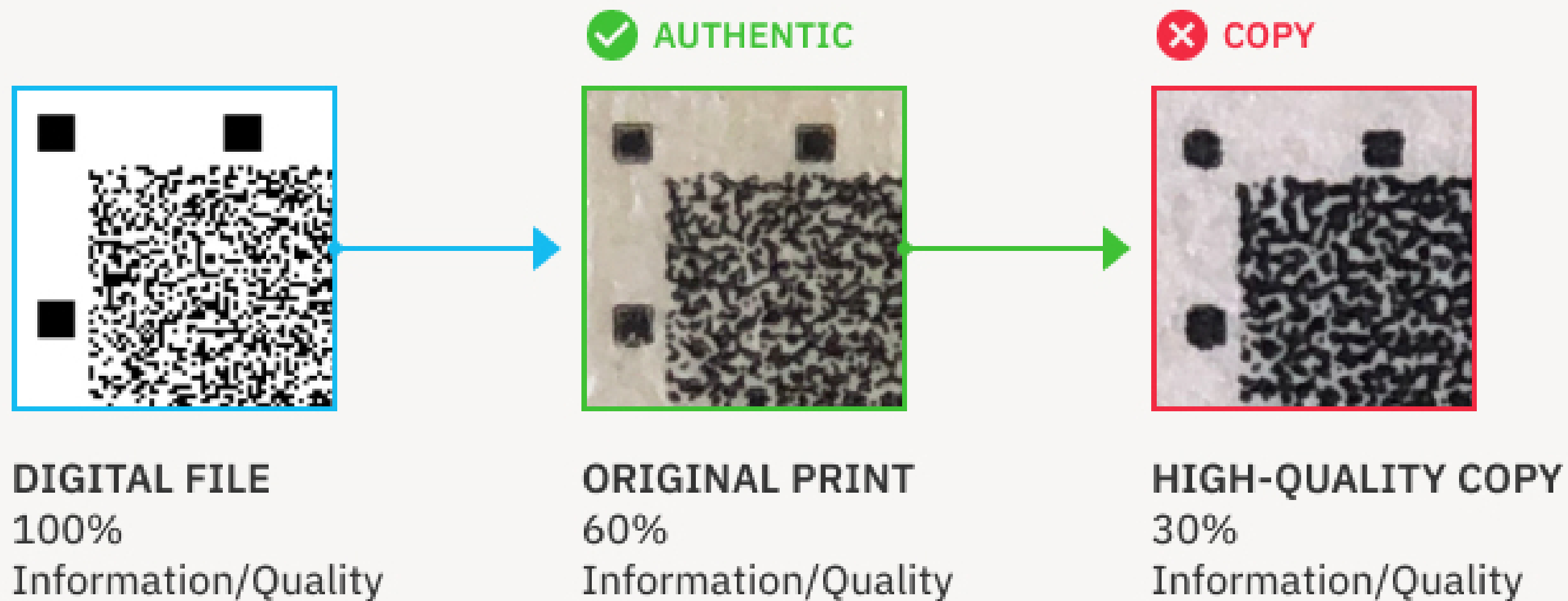
- TrackoDrug , counterfeit the medicines using blockchain
- **PROBLEMS:**
 - How to tackle problem of QR code scanning

Can you spot the fake?



Solution :

- While printing the QR code over package, mark micro-holes in QR code, so that if there is any counterfeit using these QR codes, then these will not be scanned with full quality like they were in original.



History



October

Project changed to MedicoHistory.

First 15 Days,

- Setup and learning,
- successful completion of smart Contract

Next 15 Days

- Setup Repos,
- Setup backend database and Blockchain connect

Next 5 Days

- Setup Frontend for this Project
- Completed Few Pages



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Changes are bound to happen

- Various Ideas like of Elastic Search to embedd in searching from blockchain failed & thus required to change ideas.

Problems with ElasticSearch



Hardware Limitations...

- Requires 4GB ram in starting and this goes to upto 32GB depending on the data.
 - Laptops has at Top 6 Gb ram , that too with low Linux OS, not working.
-

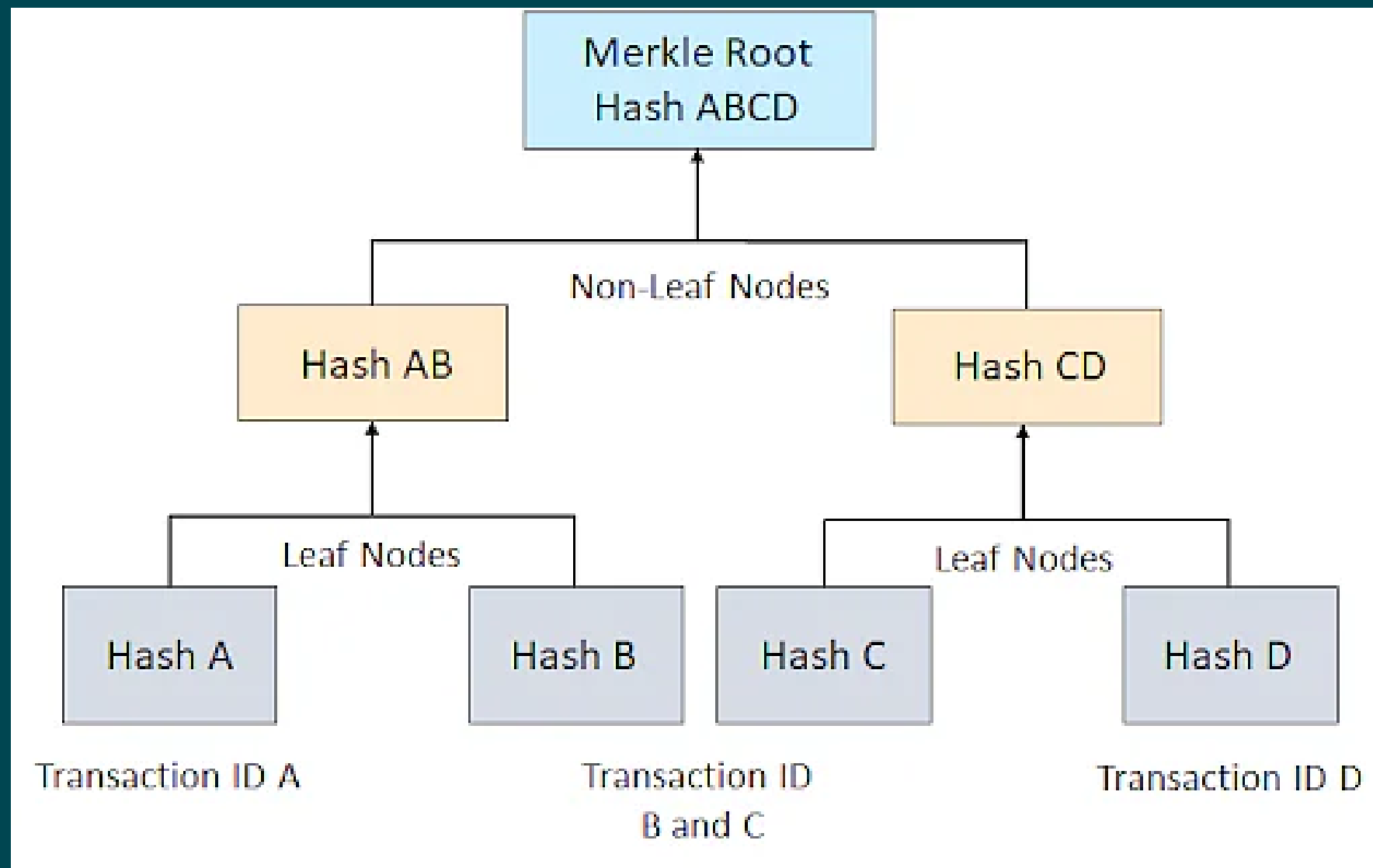
Merkle Tree in Blockchain

- It is easy to use it with database, but in blockchain which is based on Merkle Tree, cannot be used
-

Solution

- Using the power of Blockchain that the data is Immutable, we can put whole data to database and keep track of blockchain and database being insync.

Merkel Tree



- Elastic Search requires the data in text form, so that it can use threads in searching the data.
- Data is present in only hashes using Merkle Tree concept in Blockchain

Work Completed :



Backend MongoDB - Mongo DB models created



Routes



Adding data from DB to blockchain done...



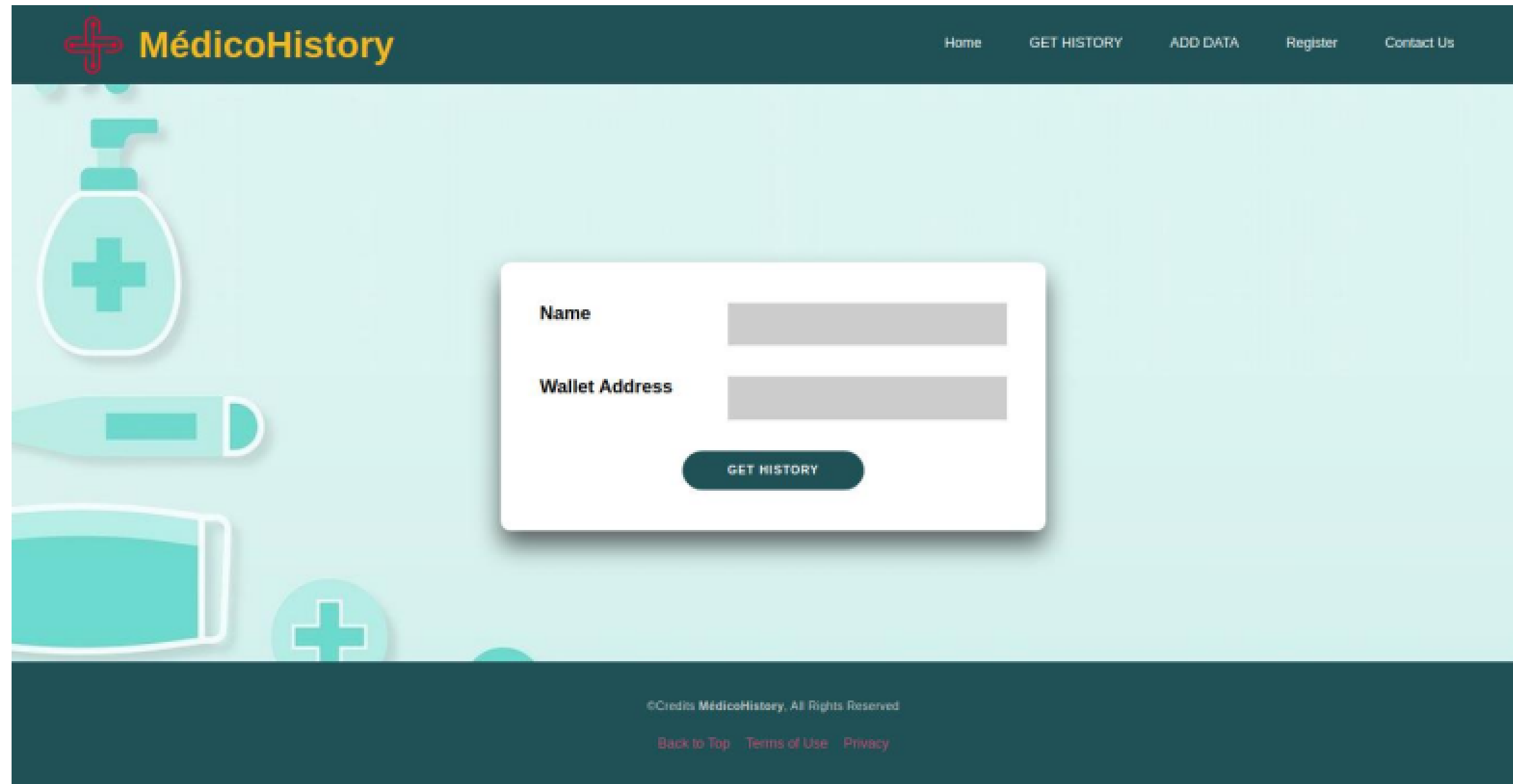
Smart Contract successfully deployed



Frontend - React JS



Results



The screenshot shows the MédicoHistory website interface. The header is dark teal with the logo on the left and navigation links on the right. The main content area has a light teal background with medical icons on the left. A white form is centered, containing two input fields and a button. The footer is dark teal with copyright and link information.

MédicoHistory Home GET HISTORY ADD DATA Register Contact Us

Name

Wallet Address


GET HISTORY

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Get Data History from Blockchain

Add Data to blockchain

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Patient's Data

Wallet Address

Disease

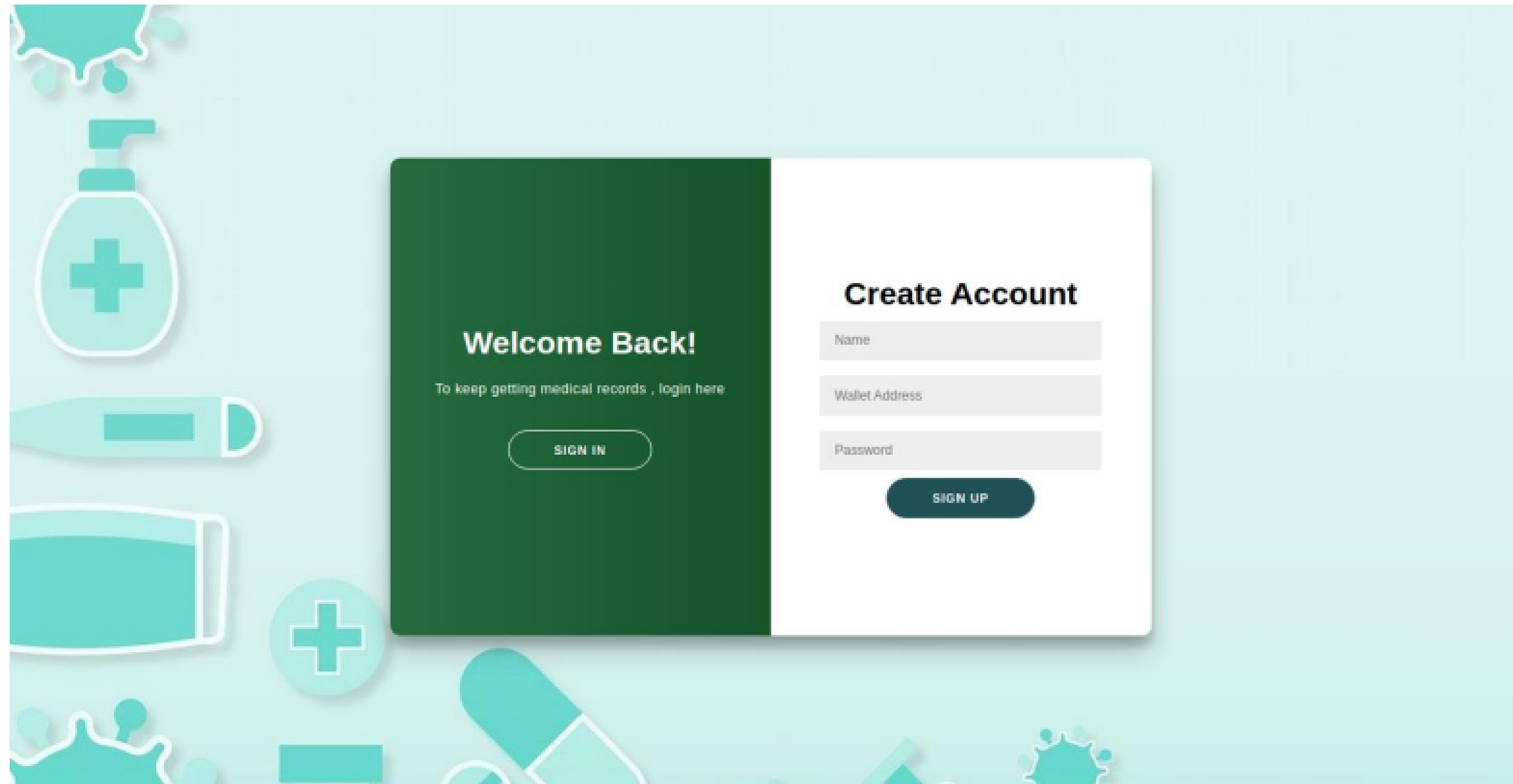
Medicine

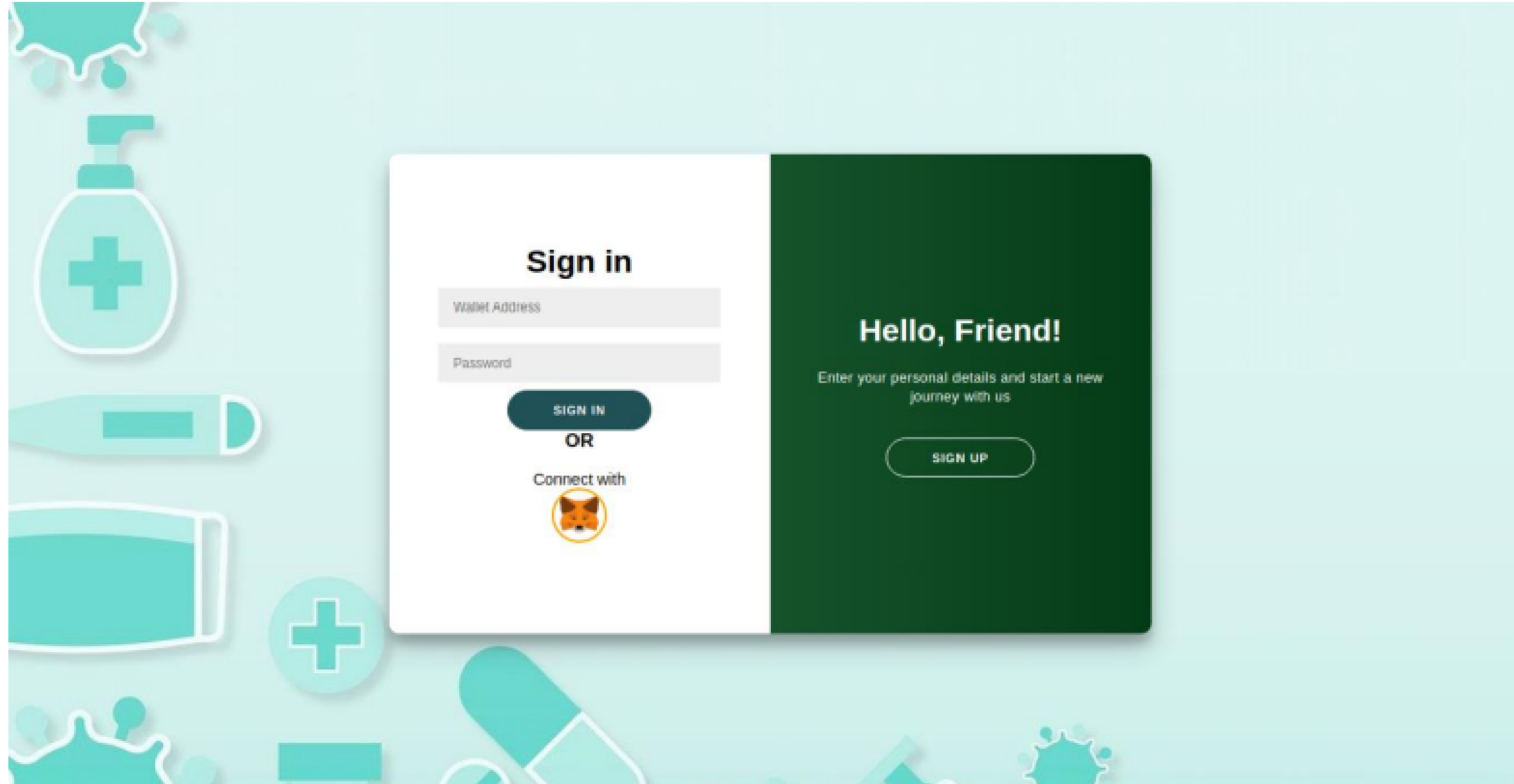
[SUBMIT](#)

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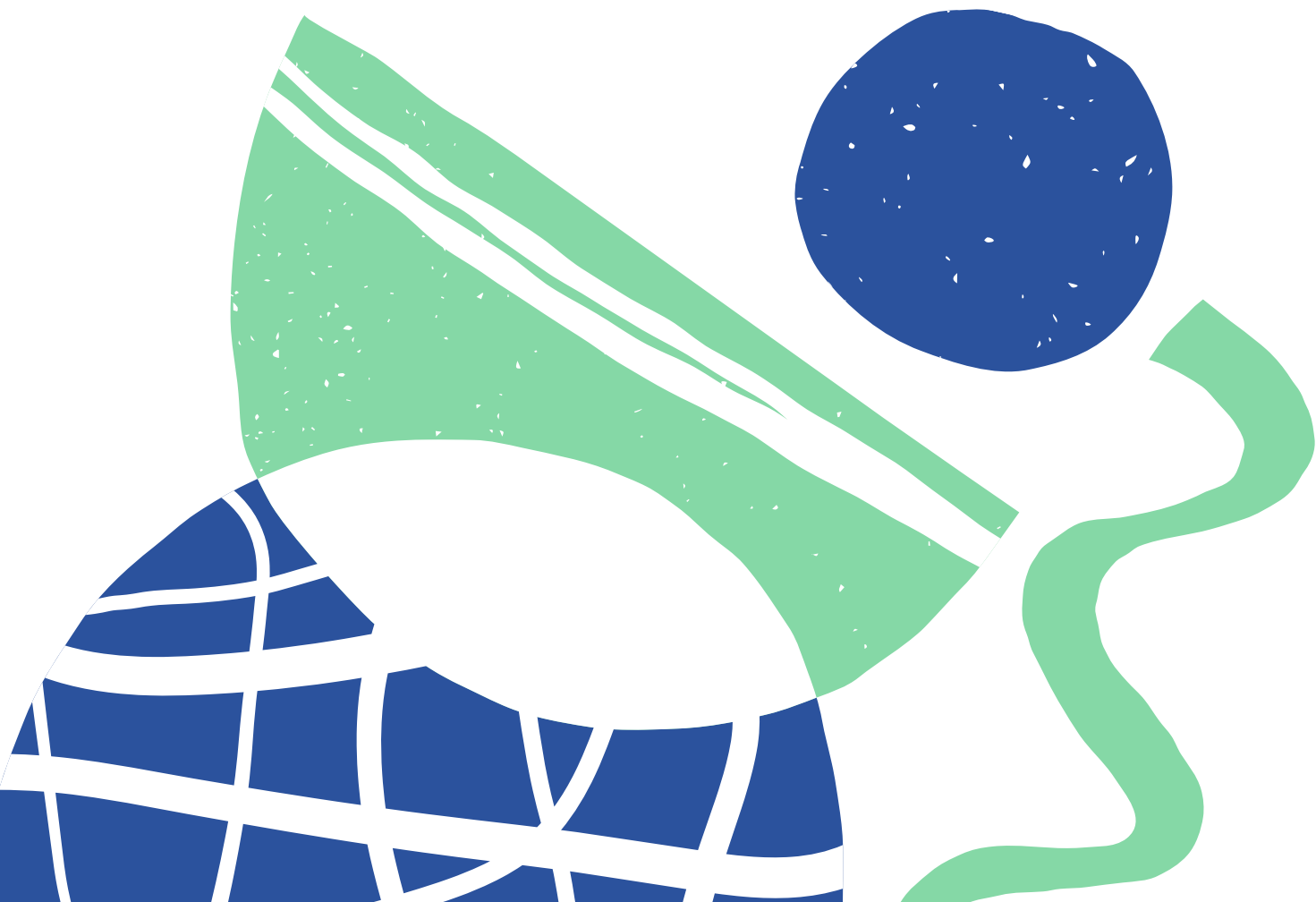
SIGN IN & CREATE ACCOUNT PAGE WITH METAMASK OR AUTHENTICATION





Work Left :

- Getting data from Blockchain , faster way (other than ElasticSearch)
- Connecting Frontend to Backend completely
- Making two factor authentication for doctors other than login signup
- Storing data in database in encrypted form...



ANALYSIS OF RESULTS

THE FIRST ANALYSIS

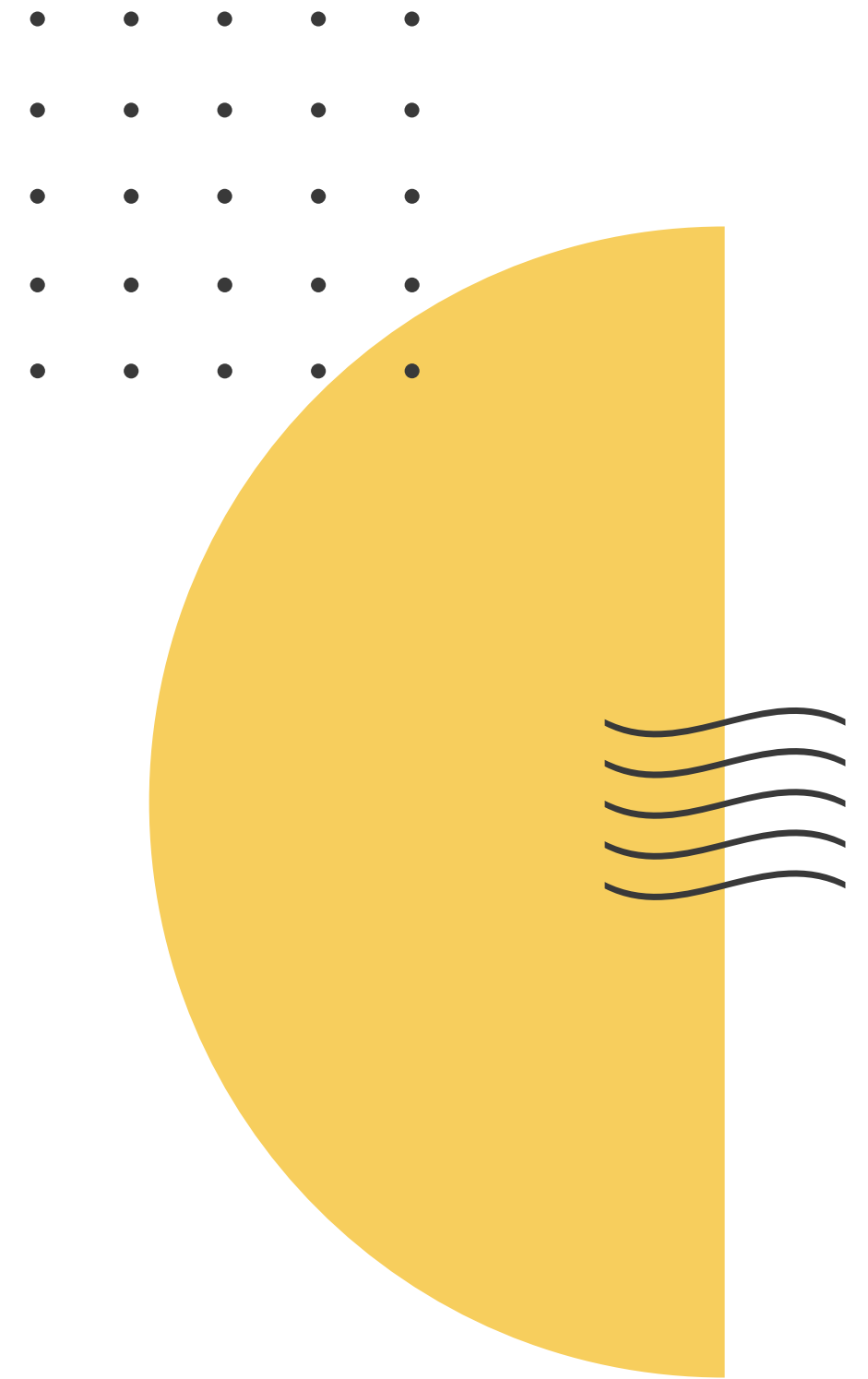
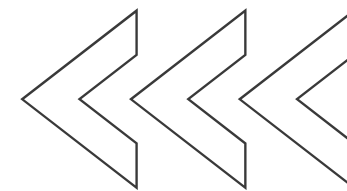
Cannot use Elastic search directly to our blockchain due to inefficient resources

THE SECOND ANALYSIS

Securing the database is required.

CONCLUSION AND FUTURE WORK

- Implement the Elastic Search way of Querying the blockchain.
- Secure channel of storing the data to Database and from there to Blockchain.





References :

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- **StackOverflow**
- **Youtube Channels like :**
 - CodeEater
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