

MobiCare

Healthcare System

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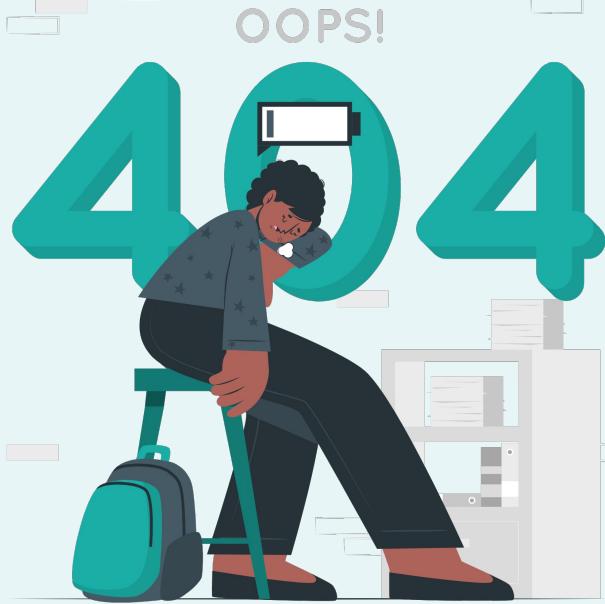
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Problem Definition





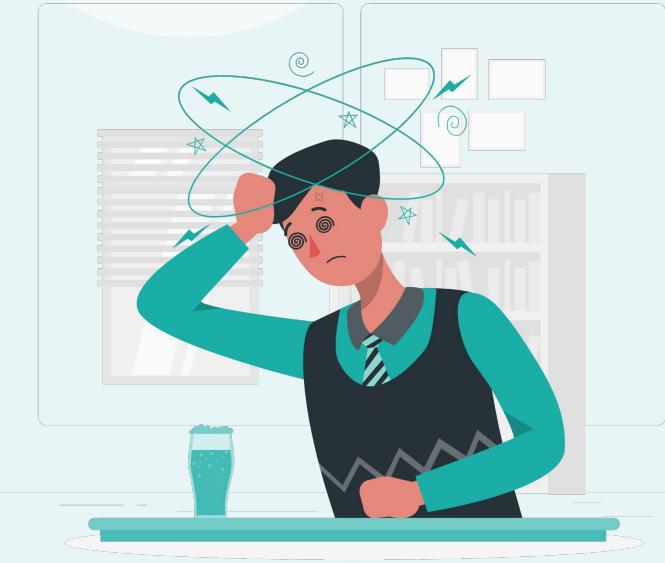
**Sometimes patients find it difficult to go to
doctors**



Patients don't know doctors around them.



The patient's history is not always available.



Patients ignore and forget their medications.



The patient has a lack of awareness.



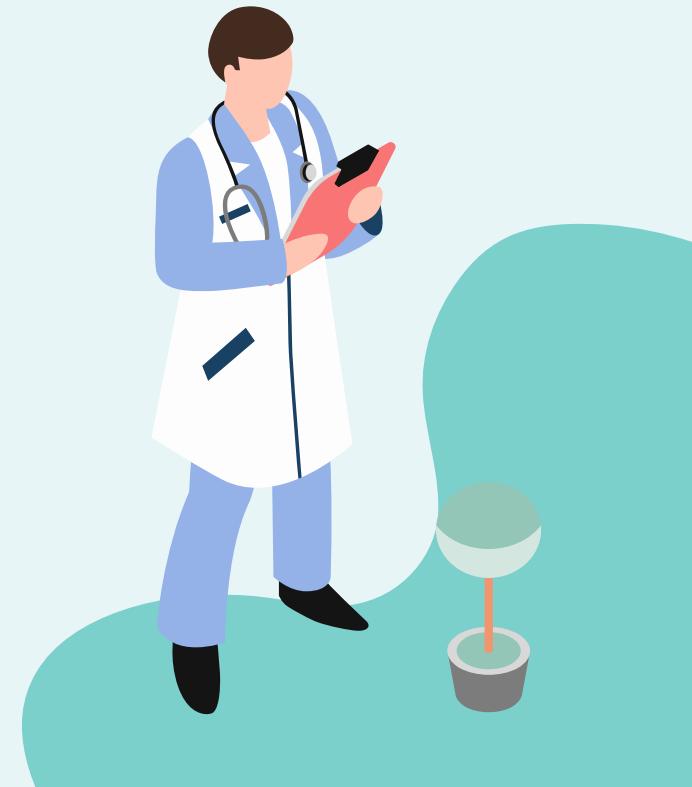
+ Competitive Analysis



| | MobiCare | Vezeeta | Doctor fly | Housepital |
|--------------------|----------|---------|------------|------------|
| Home Visits | | | | |
| Keep prescriptions | | | | |
| First aid tips | | | | |



MobiCare



All the information you need



MobiCare is a healthcare System that facilitates communications between doctors and their patients.

Features



System features



Keeping the patient's medical prescriptions.

Provide a section for emergency contacts.



System features



Provide a section for first aid tips.



Doctor features



Providing a medical reports about patient situation.

Chatting with patients and calling them.





Doctor features



Uploading videos and articles.

Scheduling tasks



Doctor features



Adding patient to the patient's list

Adding a note to patients.



Patient features



Searching for doctors.

Chatting with doctors and calling them.



Patient features



Scheduling medication.

Sending home visit requests.





Patient features

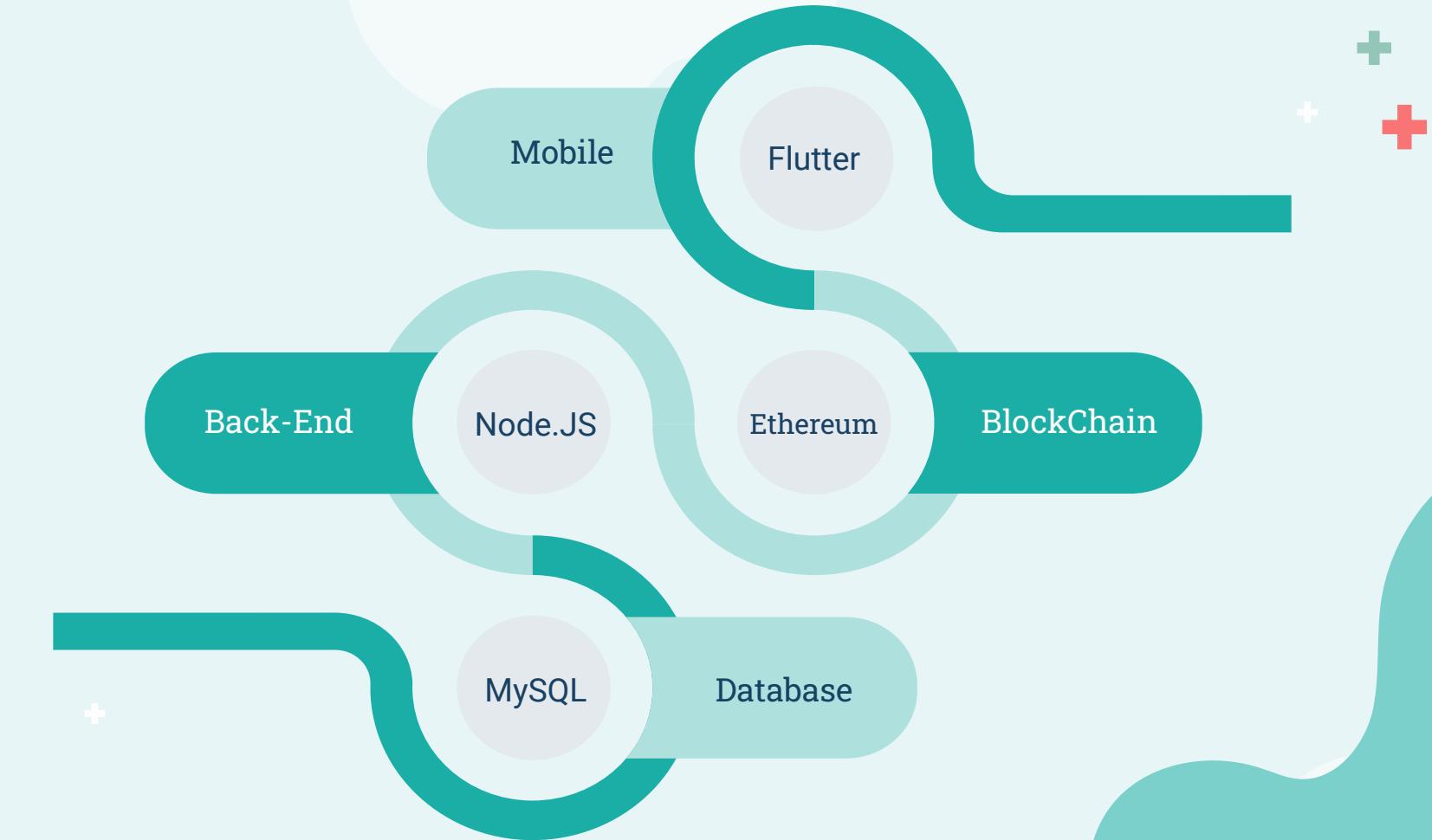


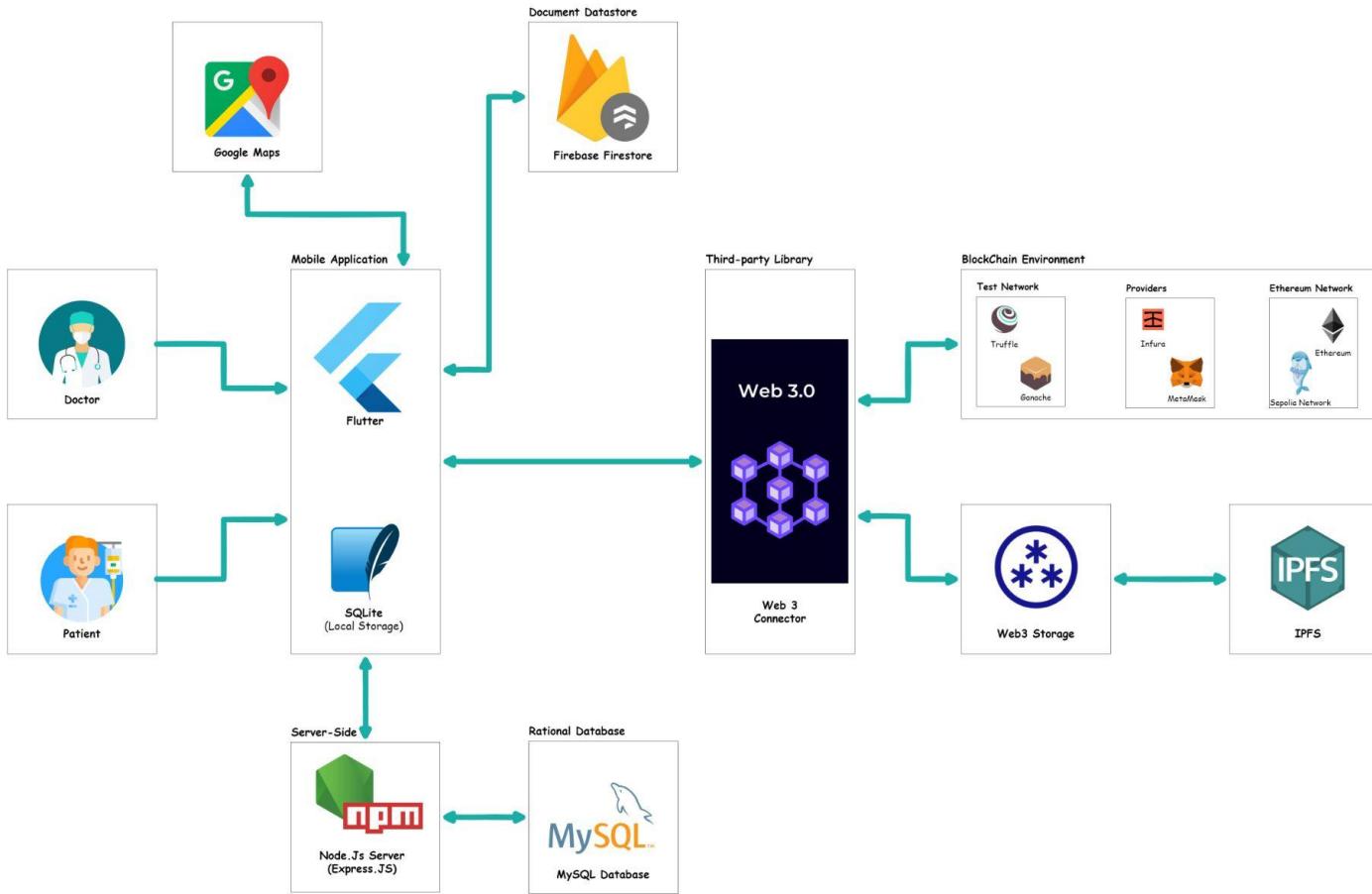
Adding symptoms

Check illness history.



Technologies





BlockChain

BlockChain is a **distributed open ledger** of transactions that is duplicated and distributed across the entire network, and stores data in a way that makes it difficult or impossible to change, or hack.



Smart Contracts



Smart contracts are simply programs stored on a blockchain that run when predetermined conditions are met.



Local Environment



Solidity



Truffle



Ganache





Providers



Infura



Web3.Storage



MetaMask



BlockChain Network



Sepolia Testnet



IPFS



Ethereum

Authentication & Authorization

JWT Signature

Encoded

PASTE A TOKEN HERE

```
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ  
zdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4  
gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.7u0ls1sn  
w4tPEzd0JTFaf19oXo0vQYtowiHEAZnan74
```

Decoded

EDIT THE PAYLOAD AND SECRET

HEADER: ALGORITHM & TOKEN TYPE

```
{  
  "alg": "HS256",  
  "typ": "JWT"  
}
```

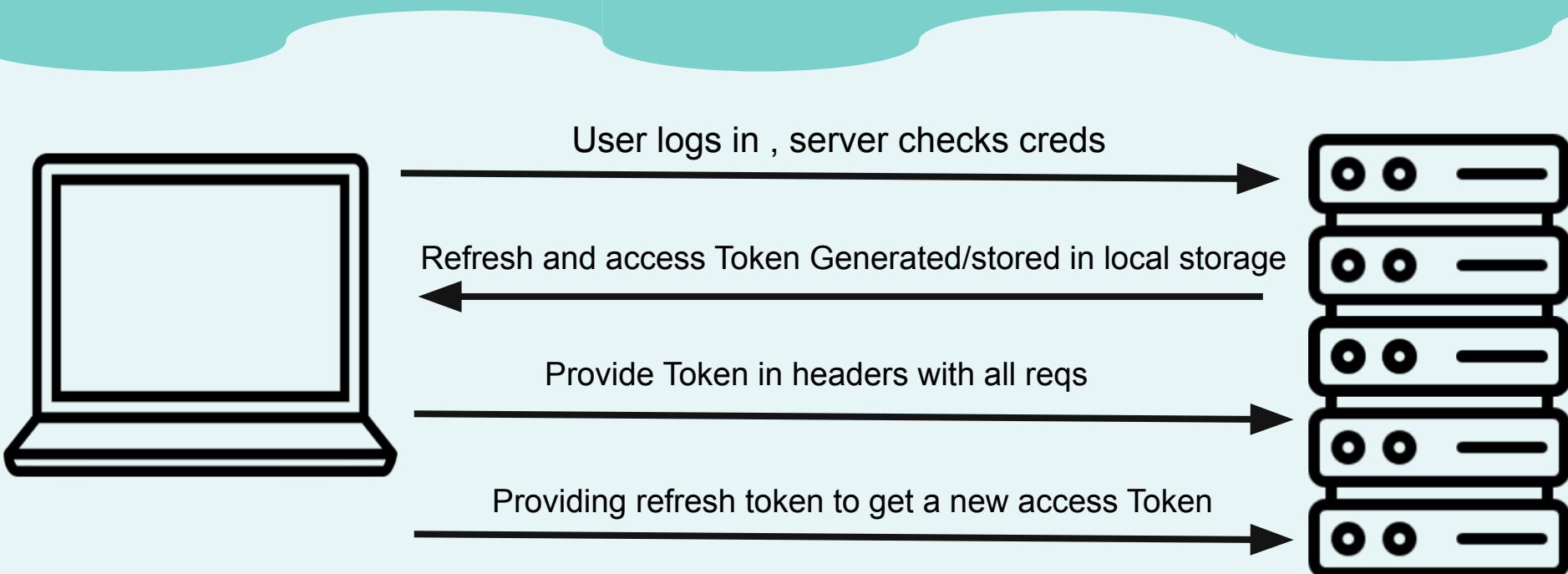
PAYOUT: DATA

```
{  
  "sub": "1234567890",  
  "name": "John Doe",  
  "iat": 1516239022  
}
```

VERIFY SIGNATURE

```
HMACSHA256(  
  base64UrlEncode(header) + "." +  
  base64UrlEncode(payload),  
  tyk123  
)  secret base64 encoded
```

Token based Authentication system



Limitations

Adding Records:

Adding records on blockchain was considered a limitation as we needed ethereum and it was not available



Limitations cont.

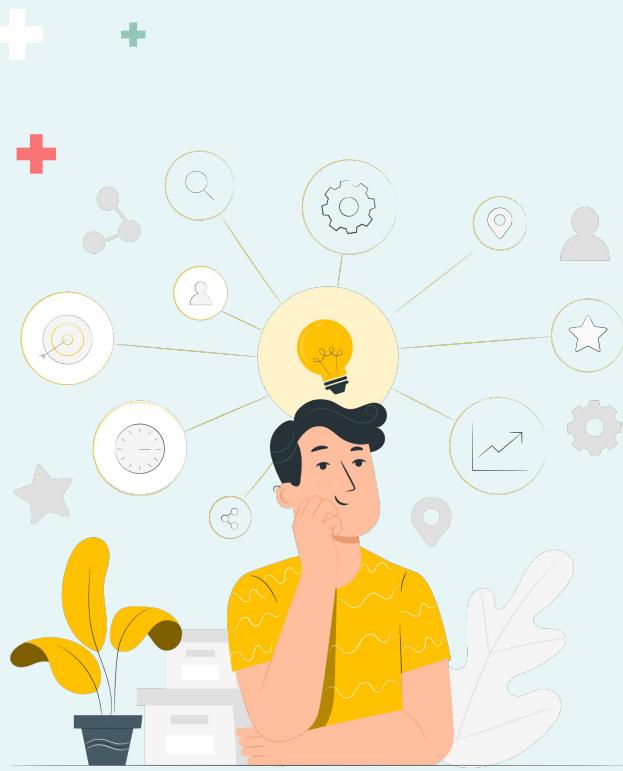
Google maps API:

Google maps API was considered a limitation as it wasn't free to use.



Future Work





Video calls



Pharmacy
recommendation



Prescription detection



Measuring blood
pressure, pulse and
temperature





Thanks!

Any questions?

Special thanks from MobiCare team to
our supervisor **Prof.Doaa Saad** for her
efforts.

