# RAPIDQUBE

## TRANSFORMING BUSINESS PARADIGMS

PHR SOLUTION

**Frictionless connectivity, supported by smart contracts and consistent authorization to access electronic health information**
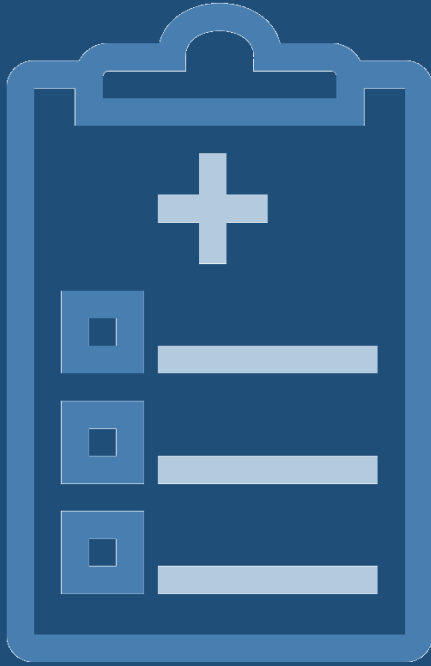
PHR SOLUTION

# Facilitate near instantaneous settlement for transactions

❖ The platform leverages Decentralized ledger technology to track the movement of health records

❖ Provides distributed secure access to patient longitudinal health data across the distributed ledger

❖ Provides full transparency to the individual data owner and complete encrypted security

"A blockchain powered health information exchange could unlock the true value of interoperability. Blockchain-based systems have the potential to reduce or eliminate the friction and costs of current intermediaries

## UBIQUITOUS
SECURE NETWORK INFRASTRUCTURE
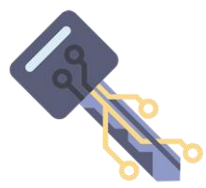
## NON-IDENTIFIABLE
PATIENT DATA

# STATE

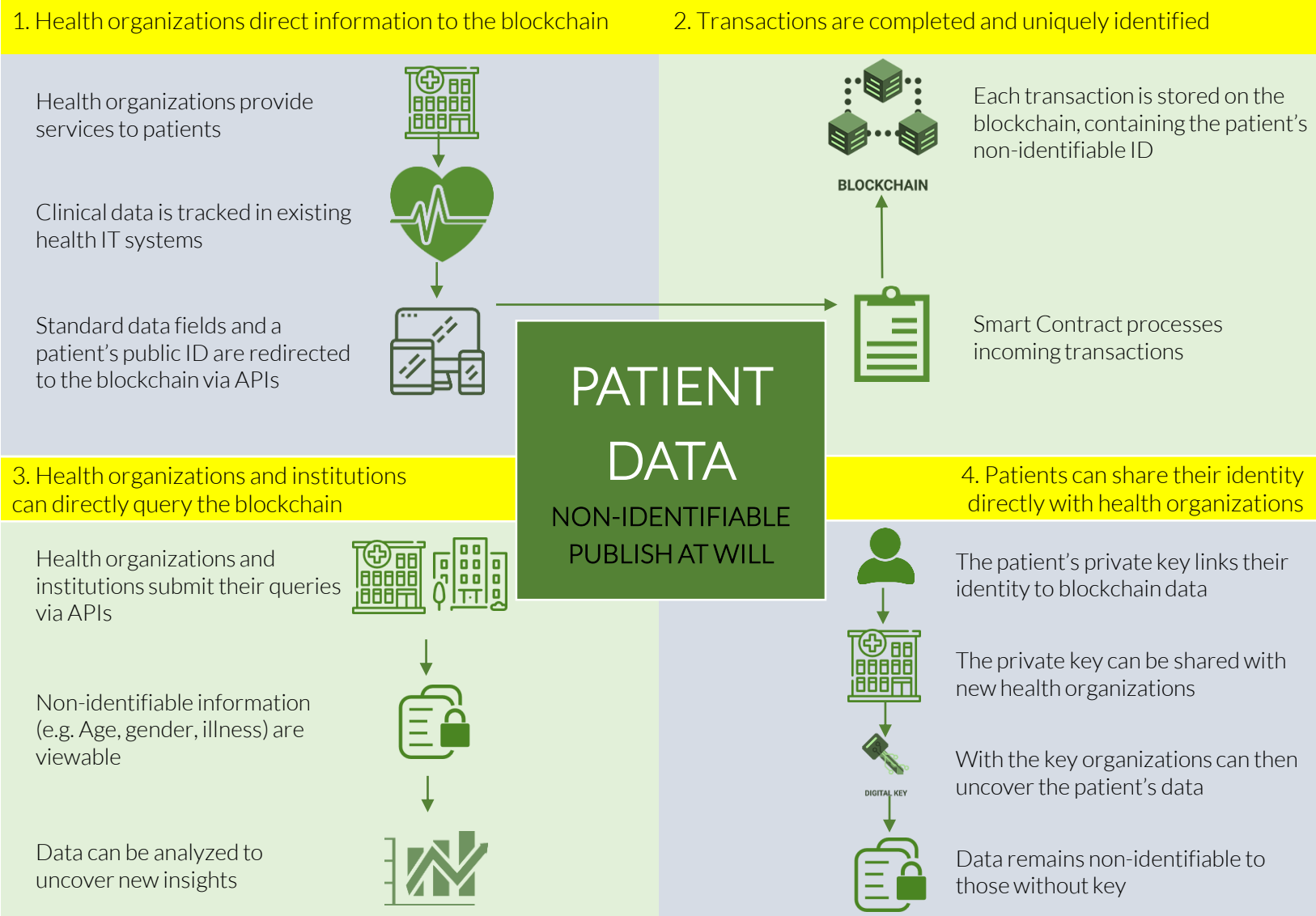| CURRENT STATE | | PROPOSED STATE | |
|---|---|---|---|
| COST PER TRANSACTION | Given low transaction volumes, reduces the business case for central systems or new edge networks for participating groups. | REDUCED TRANSACTION COSTS | Due to disintermediation as well as near real time processing, would make the system more efficient |
| MASTER PATIENT INDEX (MPI) | Challenges arise from the need to synchronize multiple patient identifier between systems while securing patient privacy | DISTRIBUTED FRAMEWORK | For patient digital identities, which uses private and public identifiers secured through cryptography creates a singular , more secure method of protecting patient identity |
| VARYING DATA STANDARDS | Reduce interoperability because records are not compatible between systems | SHARED DATA | Enables near real-time updates across the network to all parties |
| LIMITED ACCESS | To population health data, as very few sources of integrated records | DISTRIBUTED, SECURE ACCESS | To patient longitudinal health data across the distributed ledger |
| INCONSISTENT RULES AND PERMISSIONS | Inhibit the right health organization from accessing the right patient data at the right time | MULTISIGNED TRANSACTIONS | Create a consistent rule-based method accessing patient data that can be permissioned to select health organization. |

# SOLUTION

**ENCRYPTED**

**DIGITAL KEY**

**ANONIMITY**

**1. Health organizations direct information to the blockchain**

Health organizations provide services to patients

Clinical data is tracked in existing health IT systems

Standard data fields and a patient's public ID are redirected to the blockchain via APIs

**2. Transactions are completed and uniquely identified**

BLOCKCHAIN

Each transaction is stored on the blockchain, containing the patient's non-identifiable ID

Smart Contract processes incoming transactions

## PATIENT DATA
### NON-IDENTIFIABLE PUBLISH AT WILL

**3. Health organizations and institutions can directly query the blockchain**

Health organizations and institutions submit their queries via APIs

Non-identifiable information (e.g. Age, gender, illness) are viewable

Data can be analyzed to uncover new insights

**4. Patients can share their identity directly with health organizations**

The patient's private key links their identity to blockchain data

The private key can be shared with new health organizations

DIGITAL KEY

With the key organizations can then uncover the patient's data

Data remains non-identifiable to those without key

**SMART CONTRACTS**

**DISTRIBUTED LEDGER**

**DECENTRALIZED**
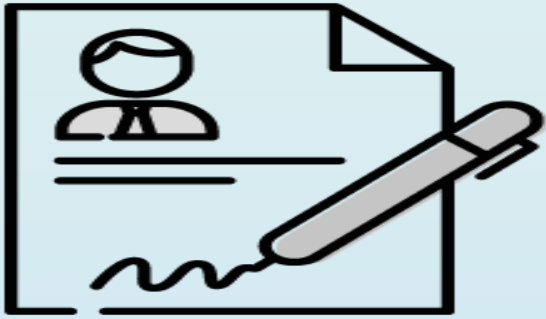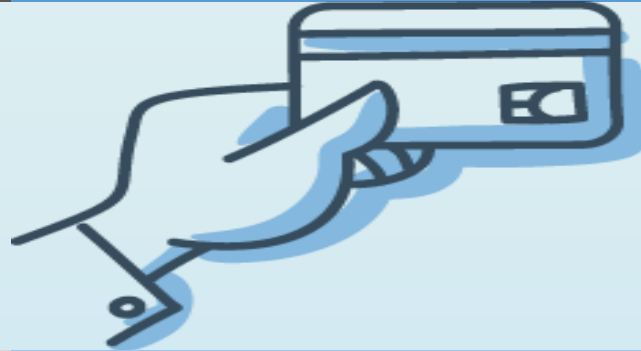
# FEATURES

## DEMOGRAPHIC INFORMATION

Capture and maintain demographic trackable over time like

- Date of birth
- Gender
- Ethnicity

## CONTACT INFORMATION

Capture contact information including

- Addresses
- Phone numbers
- Email address of the unique user

## FAMILY HISTORY

Store a problem list that includes chronic Status: conditions, diagnoses, or symptoms and functional status, both past and present

Provide ability to manage problem lists over time, allowing documentation of history information and tracking the changing character of the problem and its priority

## HEALTH SUMMARY

Provide a one-screen, Printable, bulleted summary list of all of the information essential function areas that is sortable both chronologically and by category

A key feature of an personal health record is its ability to present, summarize, filter, and facilitate searching through the large amount of data
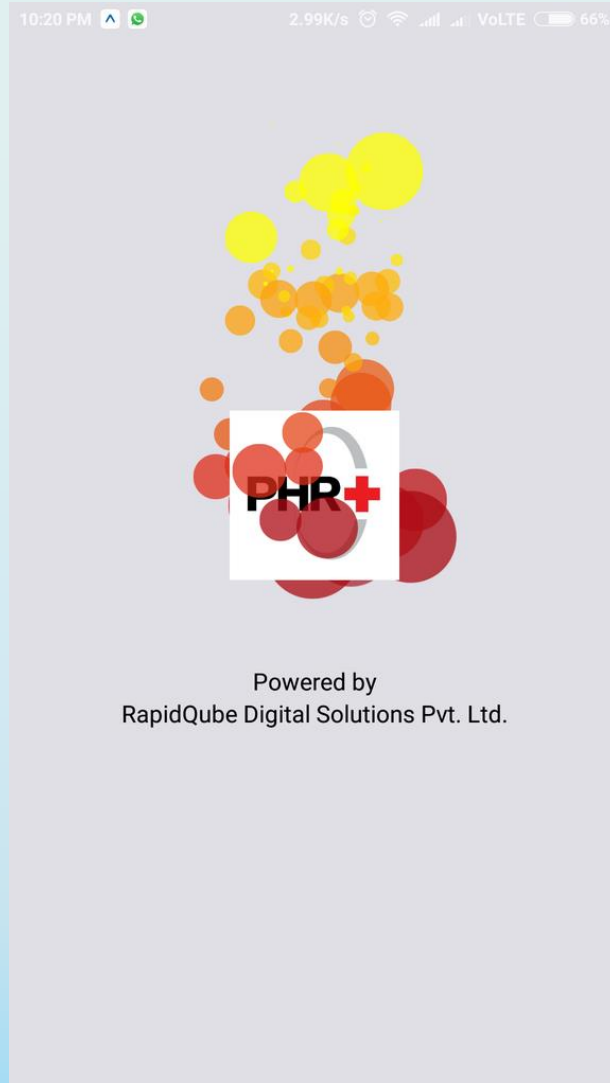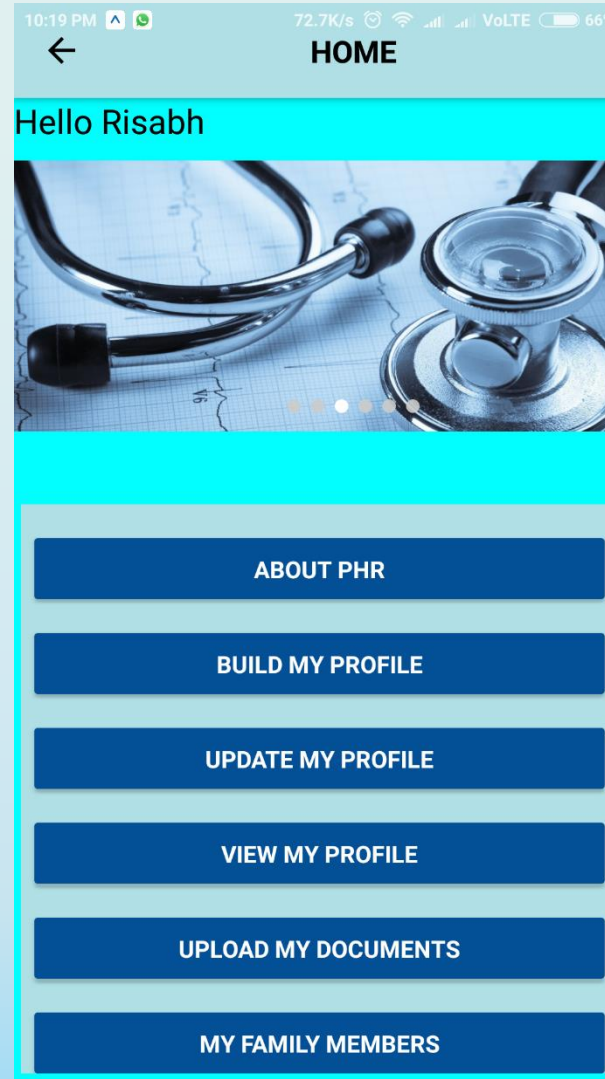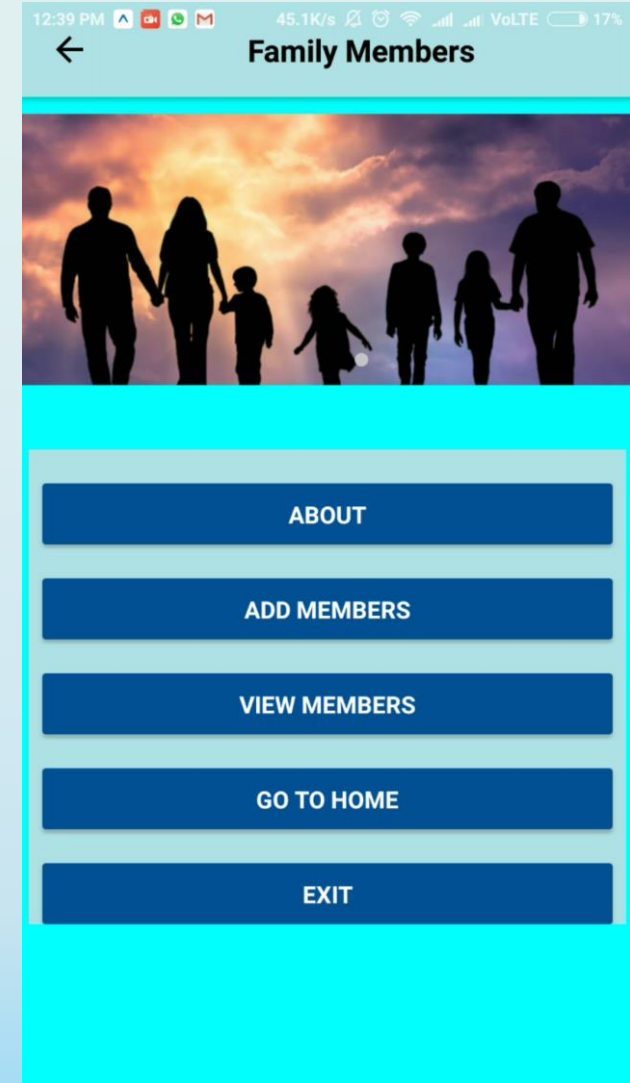
# PHR Solution **– Architecture/Flow**



Org1   U1   d1   d1   d3

Document Repo on cloud

Mongo DB

React-Native

NodeJS

Distributed Ledger

Blockchain Platform

API

Kj234hj2 [] []

Kj234hj2 [] []

Kj234hj2 [dkajsd,lkjasd] []

Kj234hj2 [dkajsd,lkjasd,llls aasd] []

Gddsdfs[] [dkajsd,lkjasd,llls aasd]

Operations:
- Login
- User Registration
- Profile Building
- Document Request
- Dashboard
- Medical History
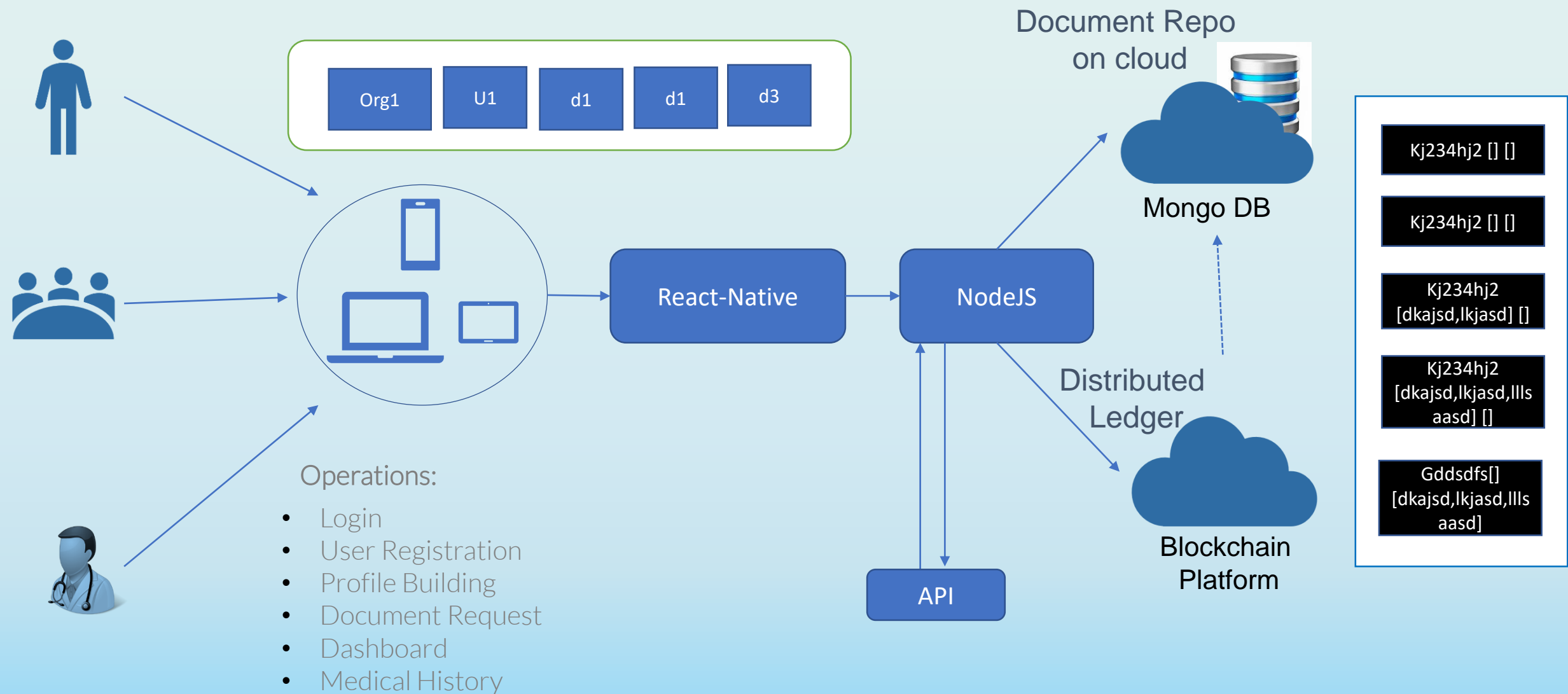
# PHR Solution **– Screen Shows**

## Start up



## Menu
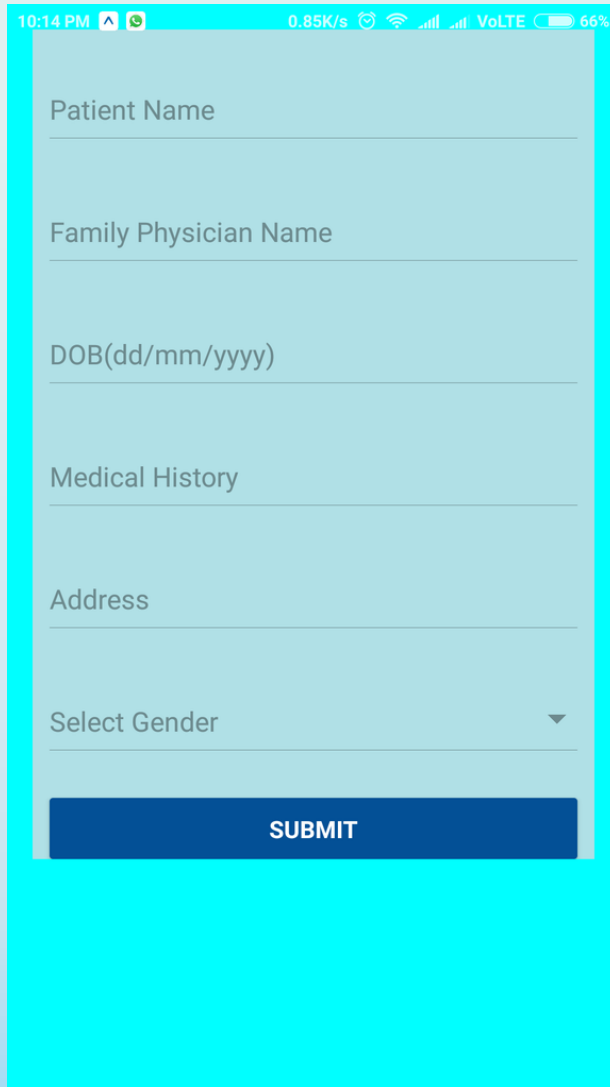


## My Family Members Menu

# PHR Solution **– Architecture/Flow**

## Build Profile
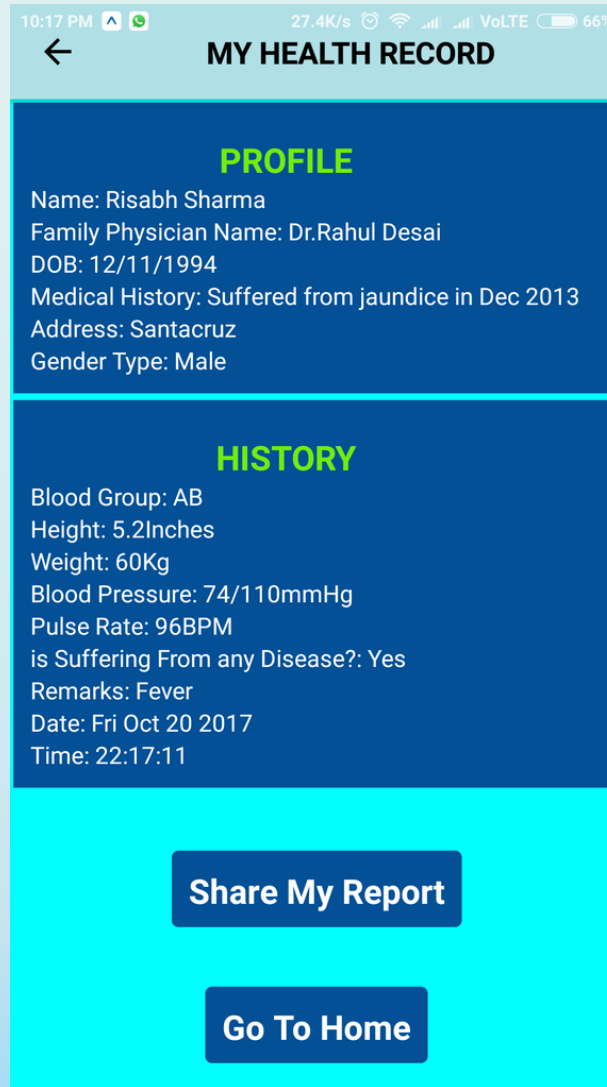


Patient Name

Family Physician Name

DOB(dd/mm/yyyy)

Medical History

Address

Select Gender

SUBMIT

## View My Profile



### MY HEALTH RECORD

**PROFILE**

Name: Risabh Sharma
Family Physician Name: Dr.Rahul Desai
DOB: 12/11/1994
Medical History: Suffered from jaundice in Dec 2013
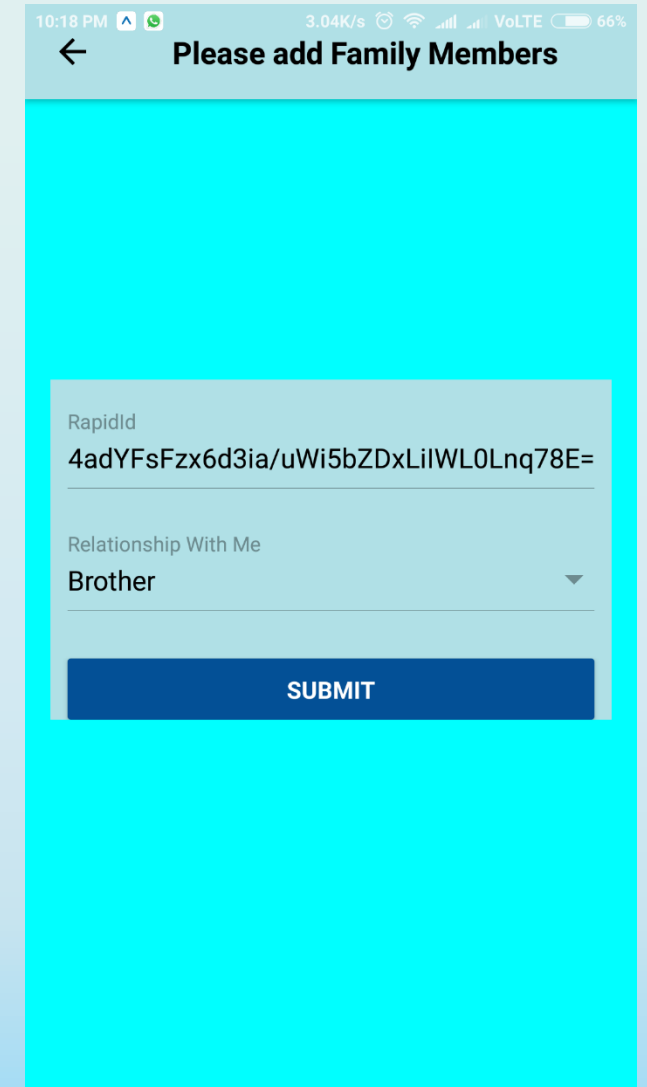Address: Santacruz
Gender Type: Male

**HISTORY**

Blood Group: AB
Height: 5.2Inches
Weight: 60Kg
Blood Pressure: 74/110mmHg
Pulse Rate: 96BPM
is Suffering From any Disease?: Yes
Remarks: Fever
Date: Fri Oct 20 2017
Time: 22:17:11

**Share My Report**

**Go To Home**

## Add Members



### Please add Family Members

RapidId

4adYFsFzx6d3ia/uWi5bZDxLiIWL0Lnq78E=

Relationship With Me

Brother

SUBMIT

# CONTACT

## TEAM



OFFICE LOCATIONS



## CONNECT

✉ info@rapidqube.com

www www.rapidqube.com

in https://in.linkedin.com/company/rapidqube

■ Mumbai, India     ■ Chennai, India

■ Connecticut, USA     ■ New Jersey, USA