We regularly interact with a lot of people around us and notice problems they face on a day-to-day basis. As a product manager you have a keen eye for such hurdles and acknowledge the need to work on it.

Tell us about a real-world problem that you have observed around you which can be solved using a digital product.

KARAN CHITTORA

Roll No. - 180040050

180040050@iitb.ac.in

Problem: Accessing Medical and Financial facilities for Healthcare

Current System

Paperwork

A lot of paperwork is required to avail both medical and financial facilities

Time Consuming

A great amount of time is spent in validating individual applications

Loss of Life

Many lives are lost every year due to unaffordability of medical facilities

Bob need to undergo a surgery. He goes to a hospital but finds that he cannot afford that surgery. He tries 2-3 more hospitals but fails to get a treatment

Bob goes to a bank for loan but they ask for a lot of paperwork and it is very time consuming process. He needs to visit the bank regularly to get his job done

Bob is very stressed and his health condition is getting worse everyday, he is confused about how to get help for the treatment or what other options are possible

Unawareness or Lack of Access??



Only about 10% of the poorest one-fifth of Indians in rural (10.2%) and urban India (9.8%) had any form of private or government health insurance, show data from India's largest national survey on social consumption, conducted between July 2017 and June 2018.

The poor are routinely forced to dip into their savings, borrow, delay treatment or receive poor quality care, experts said. Overall, few Indians--14.1% in rural areas and 19.1% in urban areas--had any form of health coverage, found the report by the National Survey Office (NSO) of the Ministry of Statistics and ...

Manali Shah (name changed on request), a 33-year-old software engineer working in the private sector, lost her savings of eight years in a day when her father, 65, underwent a liver transplant in a private hospital. "Not only did my savings go, I also had to borrow money from the family to foot the bill. The procedure and hospitalisation cost almost Rs 30 lakh, and we have to continue spending Rs 10,000 each month for medicines, follow-up consultations and diagnostics," she says



Each round of chemotherapy and radiation costs her almost Rs 1 lakh, but she didn't consider AIIMS because the radiotherapy machine there is booked for the next seven months.

Complex Process or Lack of Knowledge??



Rashtriya Arogya Nidhi (RAN)

The RAN was set up in 1997 to provide financial assistance to patients, living below poverty line prescribed from time to time and who are suffering from major life threatening diseases related to heart, liver, kidney and cancer cases, etc., to receive medical treatment at any of the super specialty Government hospitals / institutes or other Government hospitals. The financial assistance to such patients is released in the form of 'one time grant' to the Medical Superintendent of the hospital in which the treatment is being received.

Revolving Funds have been set up in 12 Central Government hospitals/institutes and amount up to Rs. 50 lakh is placed at their disposal for providing financial assistance. Accordingly only cases for financial assistance beyond Rs. 5 lakh would now be required to be referred to Ministry of Health and Family Welfare, Government of India

Getting Started with Digital Platform

A platform connecting hospitals to insurance companies providing users a one-stop solution to know and access the services available

Approaching hospitals to know about their medical facilities and cost of every service and medicine

Gathering data about health insurance and other services through financial institutes like banks, insurance agencies, etc.

Generating database of end users importing their basic details and general physical and medical data

Validating users' data using government issued Id to avoid fraudulent and duplicate entries

Data Collection and Digitalization

Collecting data of end-users, medical institutes and financial institutes

Cleaning and validating data using proofs, certificates, and other documents (one time process)



Data Integration

Connecting medical facilities to relevant schemes provided by financial institutions

Providing personalized suggestions to end-users about useful facilities based on their profile



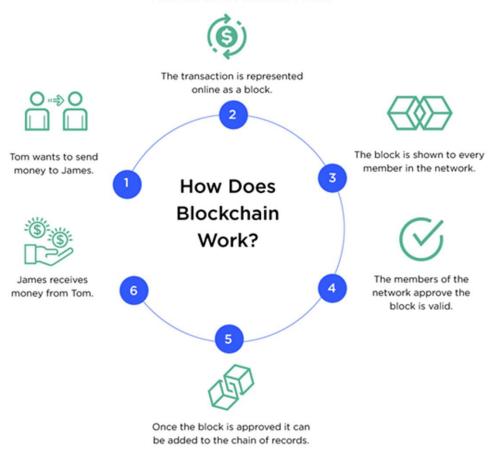
Testing Services

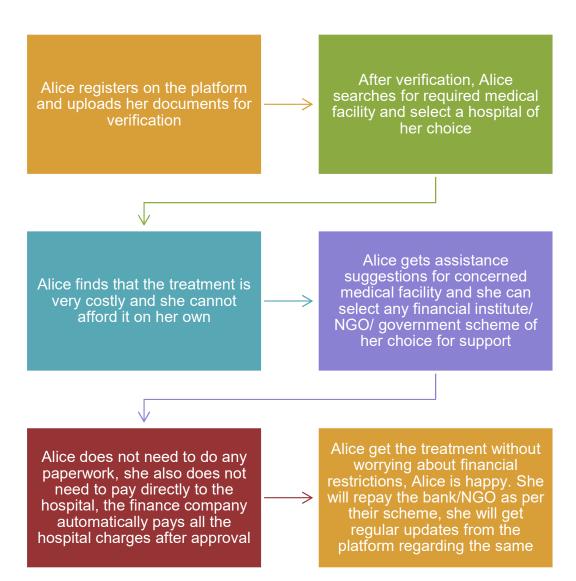
Implementing personalized Chatbot for simplifying the use of platform

Verification of connectivity of medical & financial institutions and end users

Using Blockchain Technology for Integration Blockchain Technology

How Does Blockchain Work?





Potential Impacts of Solving the Problem

Potential Impacts

Awareness and Availability

All the medical facilities and financial support schemes will be available for everyone

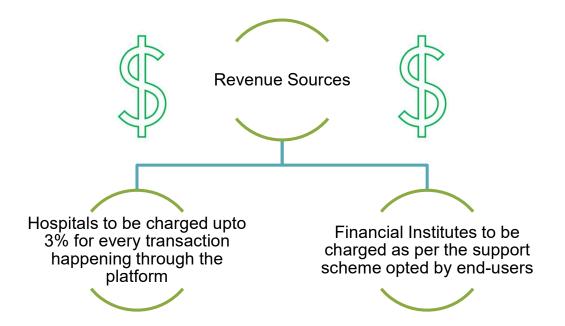
Affordability

End-users can get medical facilities at a fixed cost and can also opt for financial support

Easier Management

Monitoring & managing the data of hospitals, NGOs, banks, insurance companies, etc. would be simpler

Another <u>study</u> that analysed data of 762 leukemic children in a hospital in north India showed that parents of 45% of children abandoned treatment. Researchers found that more than 95% of the treatment abandonment cases occurred for lack of money. The total cost to a family to treat a child with cancer is a complex mix of the direct cost of treatment and indirect costs that include loss of wages and paying for food, lodging and transport for the family.



Our Goal - The 3 A's

Availability Accessibility Affordability

of healthcare services

Measuring Success of the Solution



Monitoring transactions and analyzing for complete/ incomplete requests, number of unverified users

Number of (unique and total) users registered on the platform

Time taken to completely process a request made by the end-user



Keeping track of the ratings provided by users for each feature

Regularly taking in-platform feedback of user's views about what they like and dislike in the platform

Net promoter score: (percentage of promoters) – (percentage of detractors) {passives not included}







Possible Drawbacks and Challenges

Challenges

Data Security

Fraud-Proof System

Building Trust

Malicious Users

There will be a lot of confidential data in the system which needs to be saved from attackers

Blockchain
Technology
provides
cryptographic
encryption
providing
security along
with data
transparency

Some users might try to commit frauds by exploiting flaws in the system

Making foolproof system can be one of the challenges Need to build trust among users, medical and financial institutions about the platform Need to incentivize the institutes so that they come forward to be a part of the platform

Proper
verification of
all the provided
documents
might be a time
consuming task

However, it is a one time task so it won't cause delay every time