



Heevo

A Healing, Evolving Healthcare

THEME : Are we ready for the next wave?

Are our current healthcare and wellness measures sustainable?

TEAM SOLLERTIA

Bhubaneswar • 23 July 2021 • iOS/Android/Web

SOCIAL INNOVATION CHALLENGE 2021

DESIGN X AWARDS



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PROBLEM IDENTIFIED

PROBLEM DESCRIPTION

How can we achieve the **optimal balance** between **fighting the COVID-19 pandemic** & the **maintenance of essential health services** by ensuring access to safe and high quality medical facilities across the life course.



— URGENCY/ IMPORTANCE

WHY IS IT AN URGENT PROBLEM?

The current COVID-19 pandemic has rendered most of us helpless and presents an unprecedented challenge to public health.

Some healthcare services are being compromised in order to meet the demands for COVID-19 patients, and **many people avoid accessing healthcare facilities due to fear of acquiring the virus.** These fears are worsened by misinformation. Therefore it is an urgent issue to be addressed and **requires adaptations be made for the continuity** in the delivery of essential health services.



SYSTEM LEVEL PROBLEMS

- **Dr. Debanshu works in a Multi-Specialist Hospital and frequently come across misdiagnosed patients.** It is a complex issue for him as most patients' lives might be on a crucial stage as a result of inaccurate initial diagnosis. He asks **"How can we find ways to make diagnostic errors less common, from human mistakes to flawed treating and diagnosing conditions?"**
- **Dr. Pratik serves in a local dispensary near a tribal community where the people are not well educated about the healthcare.** Recently one of his colleagues was threatened with his life by the local people when he was treating a serious case of a small boy. **In what ways can the doctors be equipped with immediate help in case of a turf with a local mass (if a mishap occurs)?**



PERSONAL LEVEL PROBLEMS

- **Haritosh is a health enthusiast who prefers scheduled workout without failure and a proper record and track of fitness goals achieved.** But due to being busy with studies and other activities, he sometimes skips the exercises leading to failure in following the workout schedule. **How can he ensure to follow his goals and stick to scheduled exercises?**
- **Tanisha is a neurosurgeon who has to study the medical history of any new patient who is referred to her.** It's very difficult for her to have an analytical study of the past reports in order due to the haphazard way in which people keep their files. **How can it be possible for Tanisha to have all the test reports and medical history of a patient in an organized manner?**
- **Samaakshi has to ensure that the nurse on duty gives the medicines to the patients timely.** Handling multiple medications, it's sometimes confusing about the dosages and it's difficult for them to remember the schedule of giving the medicines on time. **How can the nurses get timely reminders of the pills they have to give and the proper medication is continued?**



PLANET LEVEL PROBLEMS

Purnima consumes a lot of Vitamin and Calcium tablets. She also uses chemical products for skincare and haircare. Lately she is involved in environment protecting organisations so she wants to use natural home remedies (not having side effects) and which can substituted for these chemical products and doesn't harm the environment. **How can she get home remedies made by traditional procedures?**



— USER PERSONA

TARGET USERS

We have identified our target audience as people who even though do not share demographic similarities, will find it feasible to use such a product as they are all bound by the basic need that is healthcare.



Dr. Jagannath Varunny

BIO

Dr. Varunny is a senior doctor who is in charge of attending people who come to the hospital for consultation during the pandemic. According to him a better and timely communication with the aggrieved patient may ease the situation

FEELINGS

- Frustrated about misbehaviour and violence with doctors
- Thinks that there are inadequate resources on education of health care

DEMOGRAPHICS

Age: 37
Marital Status: Single
Children: N/A
Education: MD (Doctor of Medicine)
Occupation: Senior Doctor
Location: Kerala
Annual Income: ₹ 12,00,000

PAIN POINTS

- Scared about surge in violence against doctors and other medical personnels during pandemic
- Encounter with patients who have high level of frustration due to quarantine and containment restriction
- Feels that there is limitation of resources to have educational communication with common population

GOALS/NEEDS

- Thinks that use of telemedicines will reduce face to face contact of patients and thus may reduce violence against doctor
- Thinks that it is important to identify effective ways to improve and strengthen health education



Dr. Divya Pandey

BIO

Dr. Divya Pandey is a medical intern in a government hospital in rural India. She is currently on active COVID duty and has been working day and night to save lives.

FEELINGS

- Uncertain about accuracy of the primary consultancy received by a patient
- Worried about proper diagnosis at an early stage.

DEMOGRAPHICS

Age: 23

Marital Status: Single

Children: N/A

Education: MBBS Graduate

Occupation: Doctor Intern

Location: Uttarakhand

Annual Income: ₹ 2,00,000

PAIN POINTS

- Some severe conditions being left untreated till the last moment.
- OPDs are out of order, causing several issues for chronically ill patients,

GOALS/NEEDS

- Would prefer a platform where people can be diagnosed through reliable sources, preferably using AI.
- And also receive consultancies and test reports for the diagnosis



Babaji Sarjansingh

BIO

Mr. Babaji Sarjansingh is an elderly man suffering from diabetes. He lives in a village in a remote part of Odisha and has to travel a long way for treatment and to buy his insulin injections.

FEELINGS

- Distressed about visiting hospital because of virus infection.
- Insists on leading a healthy life with regular doctor follow ups.

DEMOGRAPHICS

Age: 68
Marital Status: Married
Children: 4
Education: Intermediate
Occupation: Retd. Government Servant
Location: Odisha
Annual Income: ₹ 2,20,000 (pension)

PAIN POINTS

- Faces problem in commuting to hospital due to old age
- Often forgets to take medicines at the proper time which causes health problems
- Finds it difficult to wait for long durations in hospitals to get an appointment of a good doctor

GOALS/NEEDS

- Thinks remote health consultations can help him reduce the burden of travelling
- Feels that timely reminder for taking pills can help him stick to his scheduled medications
- Believes instant appointments can help people in urgent circumstances



Sunita Sharma

BIO

Mrs. Sunita Sharma is an elderly woman suffering from asthma. She lives in a town so she has to pay a lot for her medicines and health checkups.

FEELINGS

- Anxious about visiting hospitals regularly
- Pressurized about taking a lot of medicines

DEMOGRAPHICS

Age: 54

Marital Status: Married

Children: 3

Education: Post Graduate

Occupation: Teacher

Location: Uttar Pradesh

Annual Income: ₹ 5,80,000

PAIN POINTS

- She doesn't get time from household chores and classes to visit a doctor for checkups
- She doesn't like waiting for the appointment for longer duration in the hospital
- Doesn't like taking up so many medicines everyday

GOALS/NEEDS

- She requires a system where the doctors are available on demand anytime without much wait
- Thinks that knowledge about the availability of medicines at a store before visiting it saves a lot of time
- Would appreciate home remedies for her illness rather than the chemically prepared medicines



Vinod Vishwakarma

BIO

Vinod is a police inspector who has worked as a frontline warrior during the pandemic. According to him COVID-19 has created social upheaval and altered norms causing mental illness.

FEELINGS

- Unsure about the health and well being of his family
- Fears that he might not be resilient enough to cope up with stress

DEMOGRAPHICS

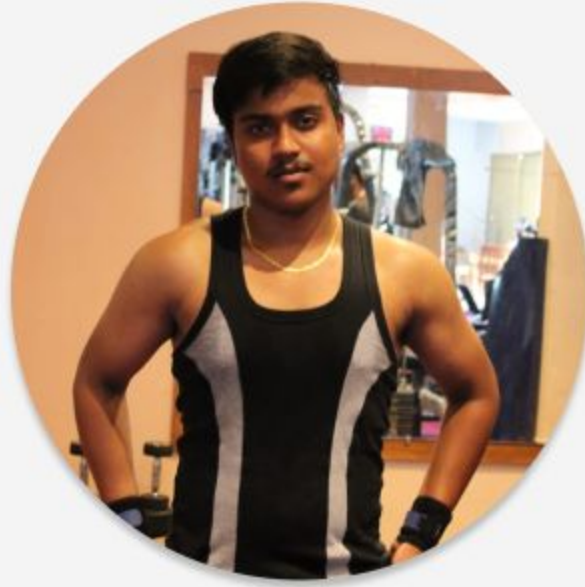
Age: 45
Marital Status: Married
Children: 1
Education: Graduate
Occupation: Inspector of Police
Location: Maharashtra
Annual Income: ₹ 9,00,000

PAIN POINTS

- Managing the lockdown has caused mental stress and they have suffered from a constant fear of contracting the virus
- He feels that being in the force is one of the most mentally-taxing occupations.
- They face mental health problems and experience familial strife due to prolonged threat of virus exposure

GOALS/NEEDS

- Believes that proper consultation and guidance can help him lessen the mental burden
- Reading informative blogs helps him calm down in case of anxiety and stress
- Thinks that regular health checkups are very necessary in his profession



Sitanshu Sahu

BIO

Sitanshu is a health enthusiast who spends a lot of time in gym. He is a student and is very conscious about physical fitness and attempts to have a healthy lifestyle.

FEELINGS

- Feels disappointed if his routine is hampered and wants to track it.
- Wants a good and budget friendly substitute to chemical medicines since he is financially dependant.

DEMOGRAPHICS

Age: 19

Marital Status: Single

Children: N/A

Education: Intermediate

Occupation: Student

Location: West Bengal

Annual Income: N/A

PAIN POINTS

- Is worried about increase in lazyness
- Is not able to have a proper track of fitness
- Thinks that hospitals charge more for regular health checkups

GOALS/NEEDS

- Believes that regular and routined excercise can be very beneficial
- Thinks that natural remedies would be great for use as a substitute of chemical product
- Thinks that blogs and factual videos can help to know about own body and health



| **End of Phase 1**



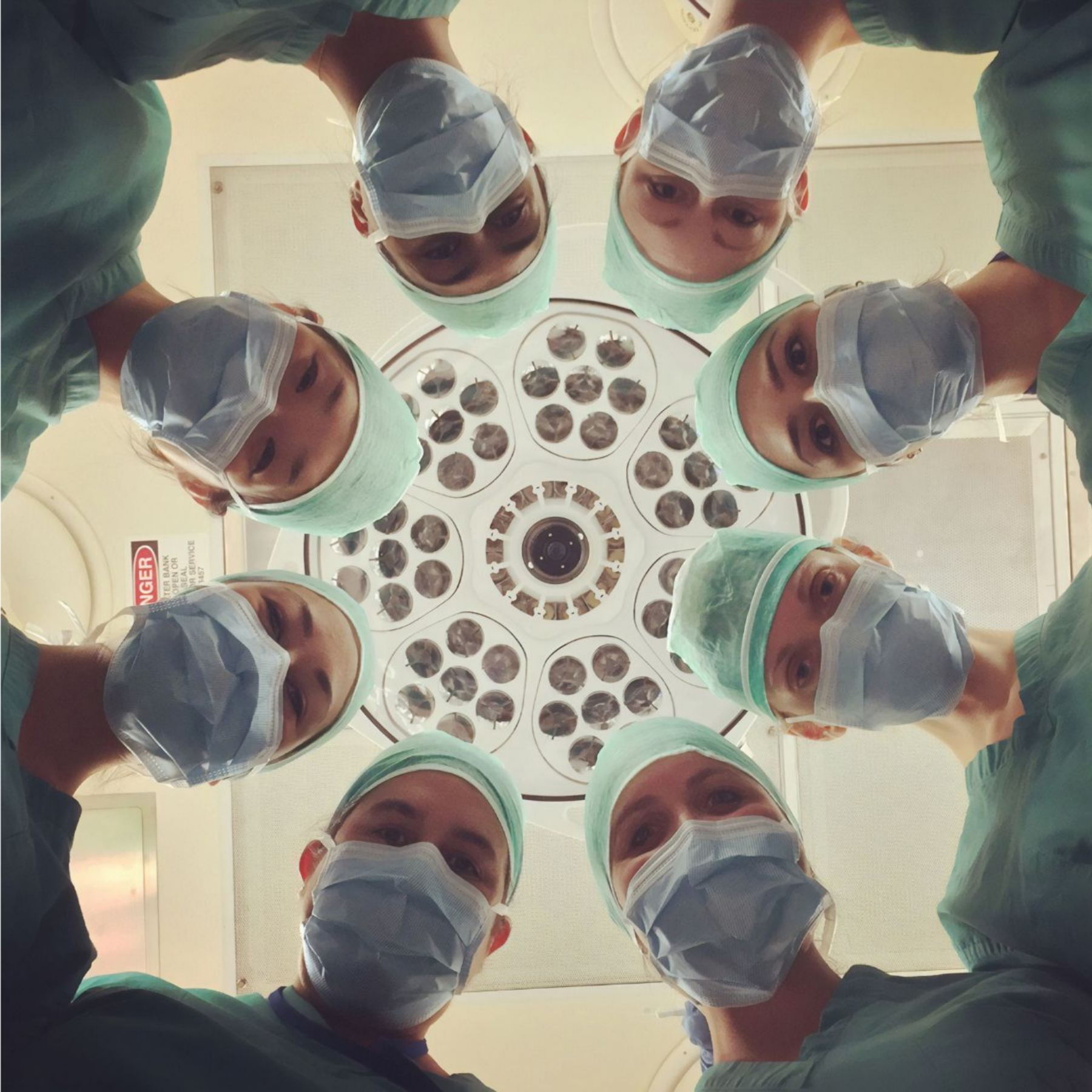
EXPLORATIONS (SOLUTIONS AND IDEAS)

OUR CONCEPT;

After analysing our UX research, we decided to use the idea of Telemedicine to develop a product which could be used as a **one-stop solution for accessing healthcare on your fingertips**. The salient features of our product were AI based self diagnosis system, a digital locker for medical records, online consultation as well a place where you could find home remedies, articles and blogs written by legitimate sources. Our product was meant to **bring about a change in the healthcare system by making it more patient-centric**.

ALTERNATIVE:

Another concept was to develop a product that could be used to **provide healthcare membership for their local hospitals to people**. The product was a **cost effective solution for people belonging to all the stratas of society** and could also help to revolutionize the healthcare management.



— FINAL SOLUTION AND INNOVATION

SOLUTION DESCRIPTION

Our solution is based on the **concept of Pocket healthcare Assistant and Telemedicine**. We have tried to produce a product where all the **medical essentials can be found at a single place**.

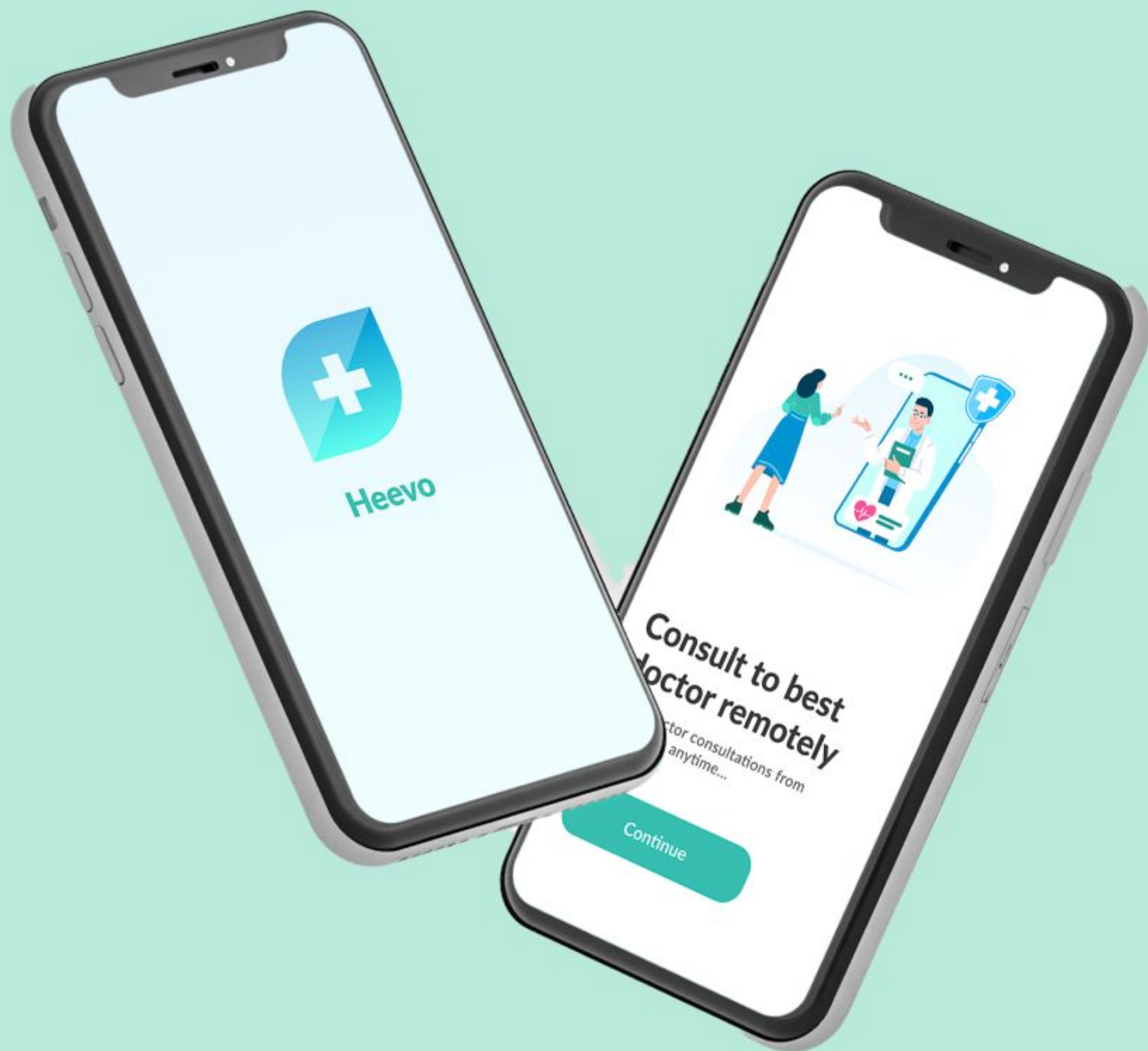
Comprising of a smooth and efficient UI, we present Heevo, a smart and effective solution to all your healthcare woes.



WHY IS OUR SOLUTION INNOVATIVE? HOW DOES IT HELP TO ADDRESS THE PROBLEM?

We have harnessed digital technology support to the public healthcare in response to COVID-19 worldwide. Our aim is to **bring progress in health industry by mixing mobile friendliness with healthcare**. This will allow patients to take as much time as necessary as it enables them to associate themselves with the specialists, even remotely. This will **make remote patient monitoring (RPM or Telehealth) a simple thing**.

They can use the application to perform routine tests without any assistance, as a part of AI based self diagnosis. This innovation is helpful in times where adequate medicinal services are not accessible. **This app is spontaneous, less demanding and gives fast access to data, which enables doctors to respond to a disease or crisis very quickly**. Here the estimation of time is related with lives of patients, not cash. The future of public health is likely to become increasingly digital, and we aim to strengthen the healthcare management for future.



— USER EXPERIENCE

WHAT OUR UX AND UI LOOKS LIKE

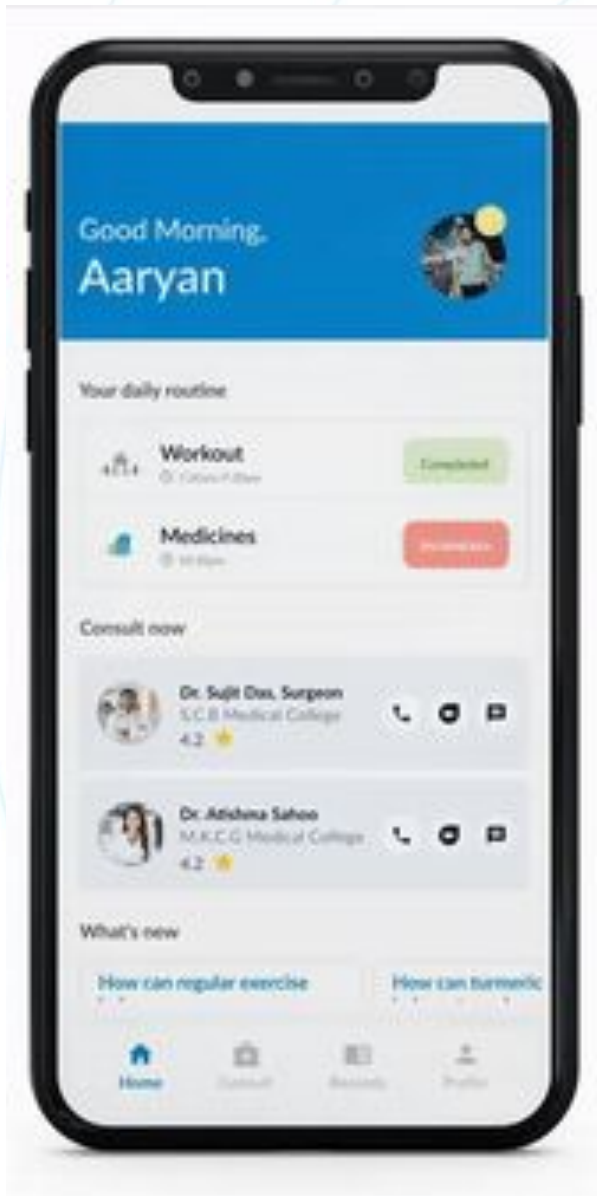
We have developed an idea which will **provide an enriching user experience** and help them in achieving their needs. We made a **swift flow of user interaction for better user retention.**

Video Link:

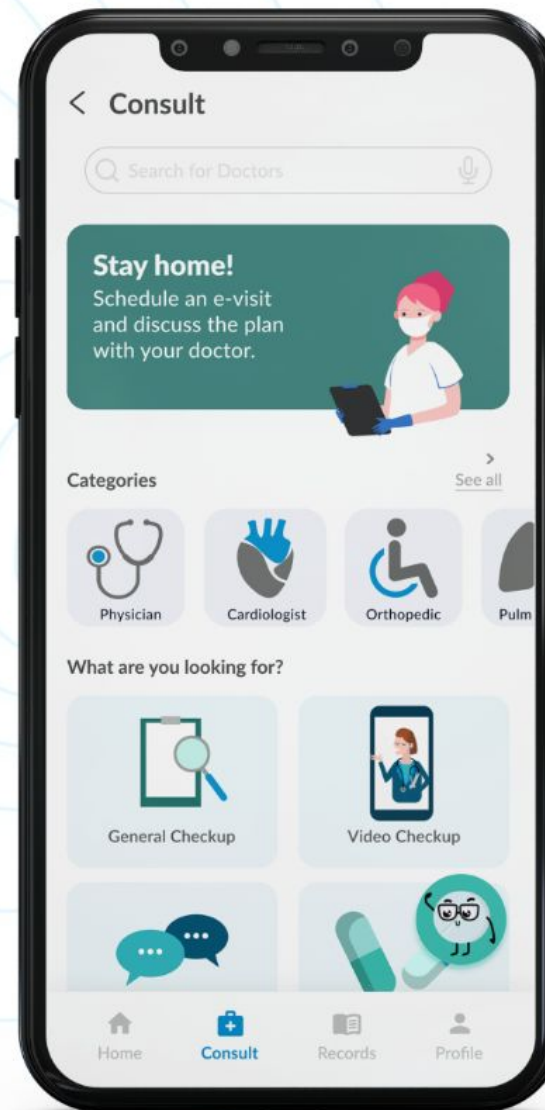
<https://drive.google.com/file/d/1PCpG6zA396N3sxxk-us23ti5K1USCHIMV0/view>

SOLLERTIA

1, HOMESCREEN



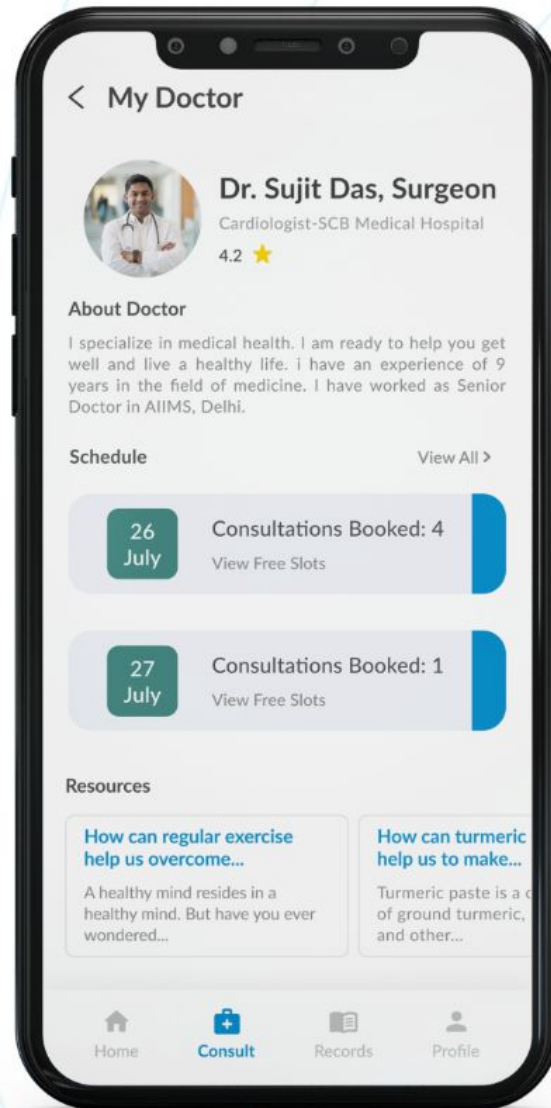
2. CONSULT



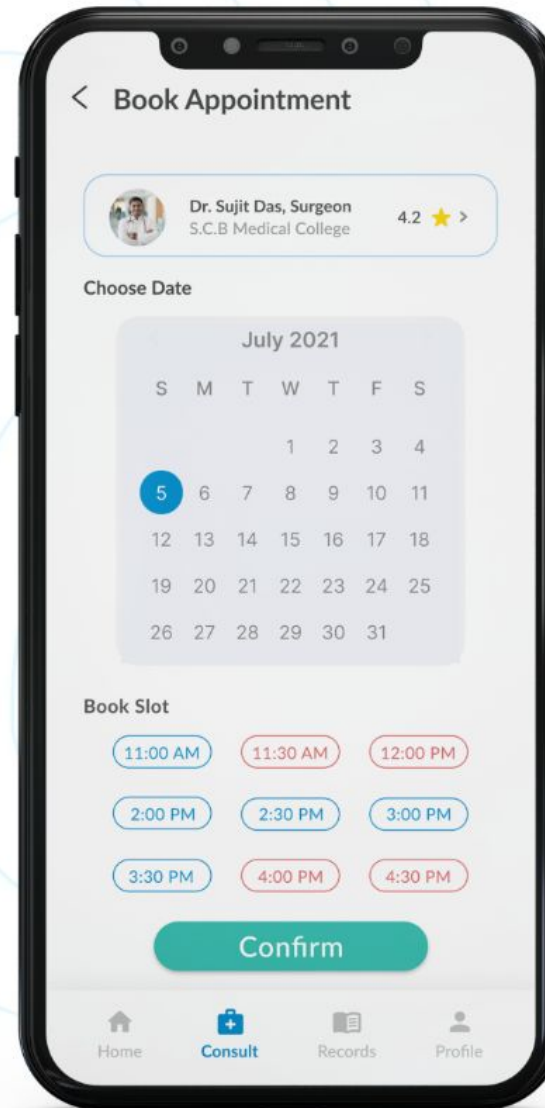
The application opens up to the homescreen, which shows 4 main features- your scheduled to-to list for the day, doctors who are available for a consultation right now, the newest videos and articles in the medical world and directions to the pharmacies and healthcare centres nearby. The navigation bar consists of Home, Consult, Records and Profile.

on clicking the Consult option, you will be redirected to another page which shows the My Doctor card, categories of different specialists, and the type of checkup you are looking for. it also has a pop up of our AI chatbot, Magsie, who will be your self diagnosis assistant.

3. MY DOCTOR



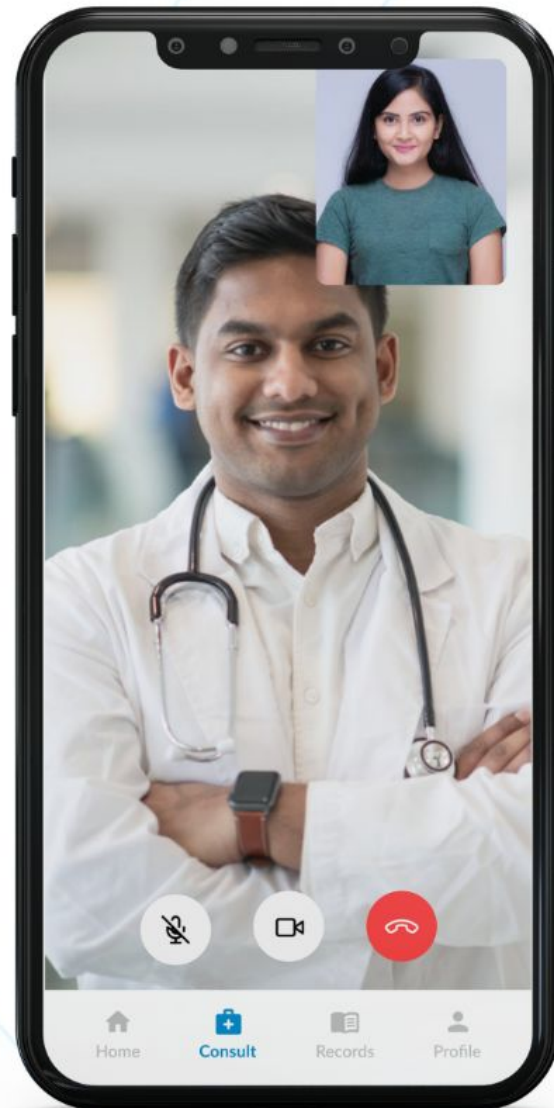
4. BOOK APPOINTMENT



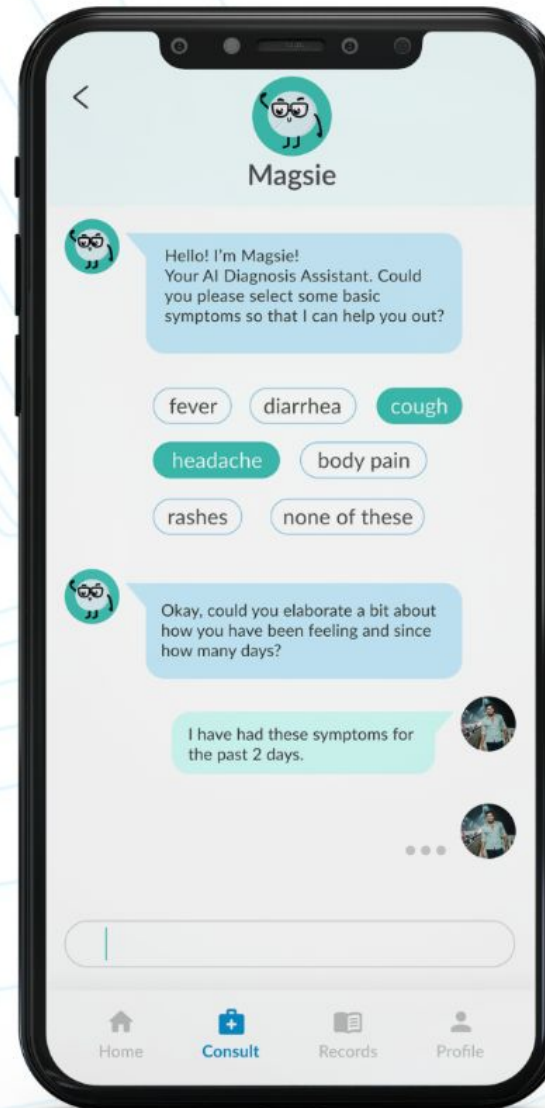
On clicking the My Doctor card, a screen with the doctor's information, and their schedule with the amount of slots they are booked for that day is visible. It also consists of a list of articles and blogs written by that particular doctor which can be found under resources. to book an appointment for a specific day, click on the desired date under the Schedule option.

On the Book Appointment screen, there is calender showing your desired date, which can be changed according to preference. Next, you can choose a time slot during which you want the consultation to be held. once you have selected your preferences, click on Confirm and your appointment is booked.

5. VIDEO CALL SCREEN



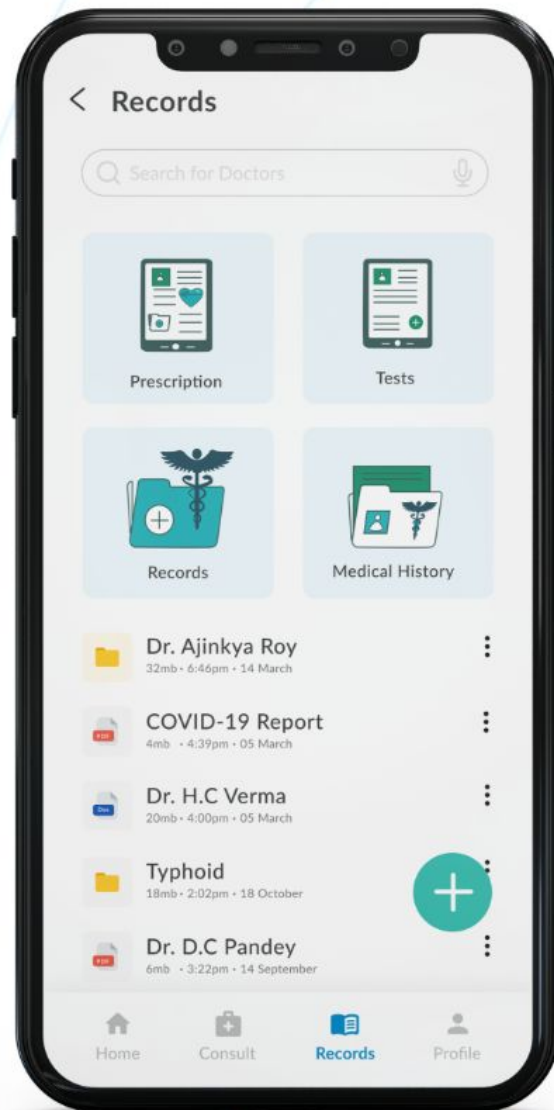
6. AI SELF DIAGNOSIS



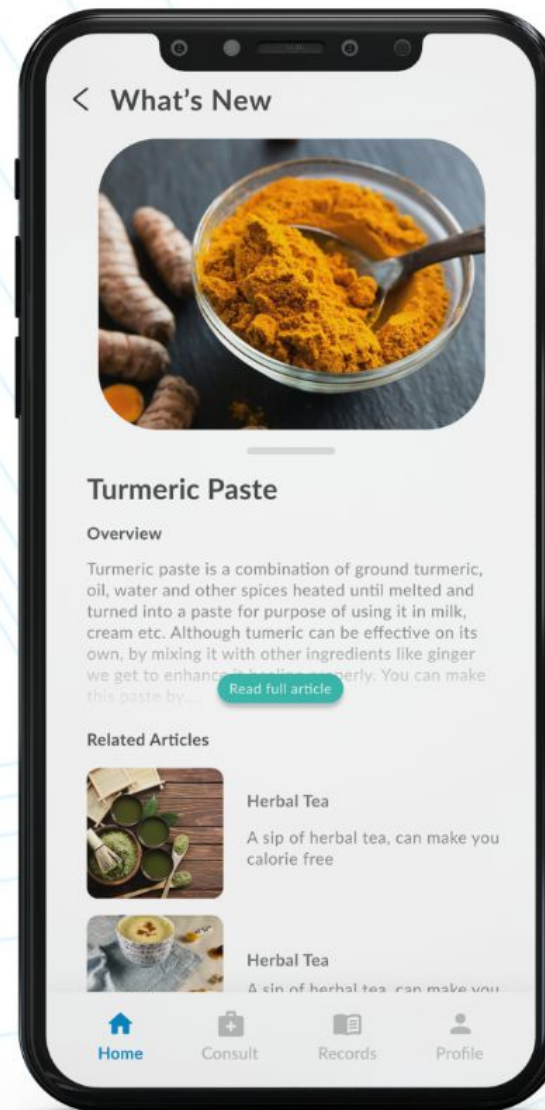
Next in the Consult screen, we have Video call category for consultation. The consultation can be instant or scheduled.

We also have a chatbot, Magsie, who can help you to self- diagnose and verify your symptoms through a series of questions and selection of options on a chat screen. You get access to her via a pop up towards the end of the Consult screen. This will prevent wrong as well as late diagnosis and would be crucial in determining the extent of recovery in several dire cases.

7. MEDICAL RECORDS



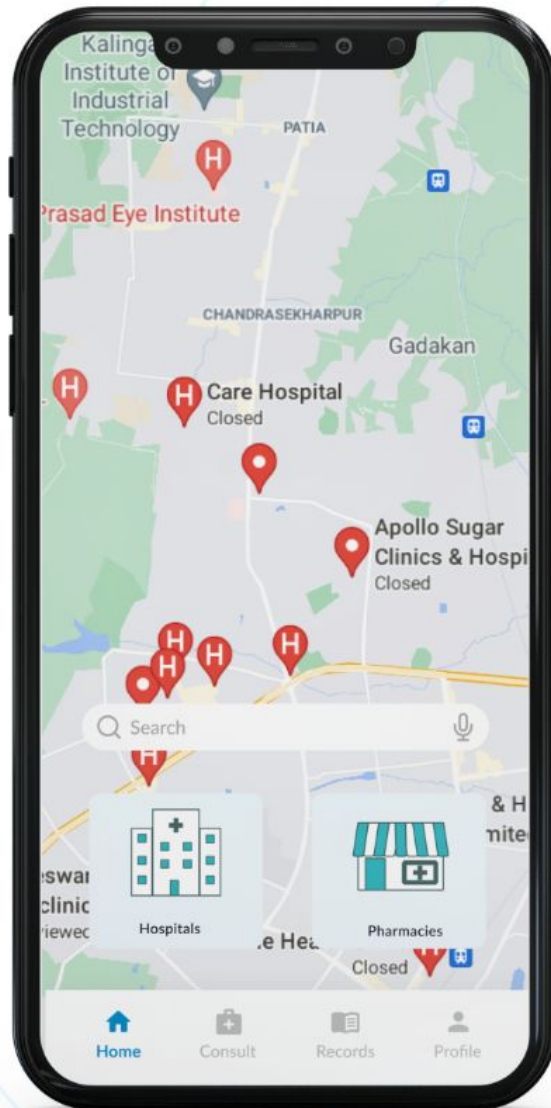
8. WHAT'S NEW



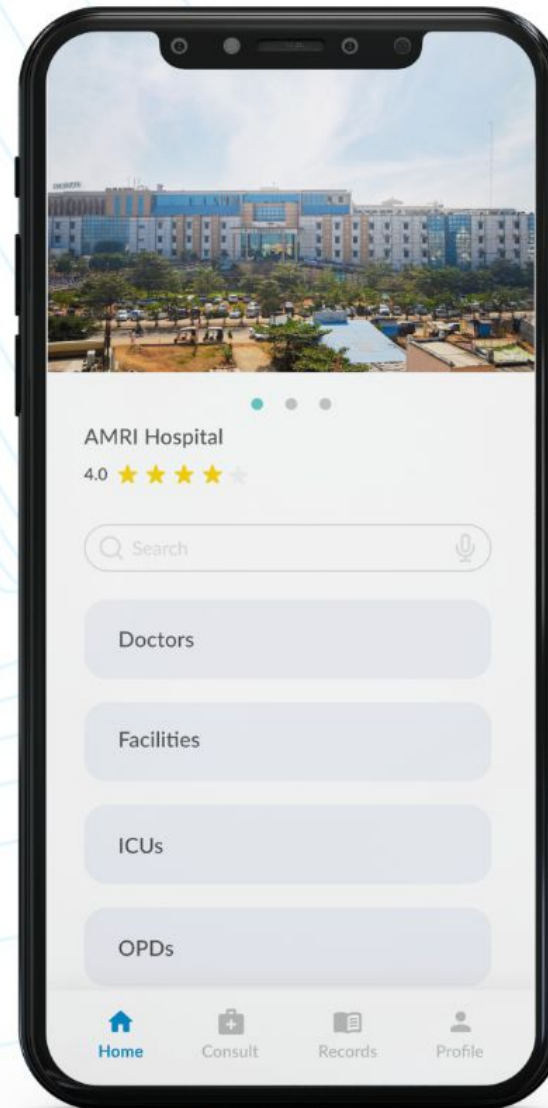
Then we have the Records section to digitally store your medical files. It can be accessed through the Records option in the navigation menu. It has 4 categories, prescription, blood and other test reports, radiology records and medical history to make searching and storing for files easier.

You can find the latest resources of the medical world, ranging from home remedies, to newest medical advancements, to articles and educative blogs from reputed doctors in What's New, which you can reach from the Homescreen.

9. PLACES NEARBY



10. HOSPITAL DETAILS



This is the screen which shows a map of your nearby areas to find your closest hospitals, healthcare centres and pharmacies. We also have the search option to look for specific hospitals and pharmacies in your areas. Two categories are given to make this searching process easier. this screen is accessed through the home screen by clicking on a Near Me card.

After selecting our desired pharmacy or hospital, we are redirected to another page which shows a couple of pictures of that place for easy recognition along with important details like availability of beds, medicines, oxygen and other facilities. it also informs of the opening and closing hours and whether the OPD's are currently functional or not, in case of hospitals.

11. DAILY REMINDERS



We also have a reminder screen so that you can get daily reminders regarding medicines, workouts and other health and fitness related issues at the set time. Once an activity is finished, you can mark it as done which will help to keep a track of your daily and weekly goals. the screen can show you the goals achieved over the last 7 days through its weekly calendar feature at the top.

We are also providing a Smart Watch so that you can check on your health and fitness goals and achievements on the go. The watch acts as a device to keep an eye on the amount of calories burnt, no of steps walked and your heart rate. It also has an SOS button which can be used in cases of emergency.



— DESIGN PROCESS

THE DESIGN PROCESS WE FOLLOWED

We divided our design process into 2 major parts- the UX, where we **focused on the pains points of our target audience** and tried to gather ideas to tackle the problem, and the UI, where we **executed that idea into a product which could alleviate the problems** of the users.



BREAKDOWN OF OUR DESIGN PROCESS AND SYSTEM

RESEARCH: Our first step involved of researching and reviewing through articles and exploring our society to recognise the severity of the problem. After that, we conceived and brainstormed several initial ideas to formulate an enticing and comforting solution.

EMPATHISE AND DEFINE: Moving further, we decided to conduct online surveys and in person interviews to get a clear picture of the target audience's perception and deduced their pain points as well as their needs and requirement.



BREAKDOWN OF OUR DESIGN PROCESS AND SYSTEM

IDEATE: In the next phase, we explored various solutions and also came up with their variants. To give our ideas a concrete shape, we sketched, analysed, prepared sitemaps and the design system.

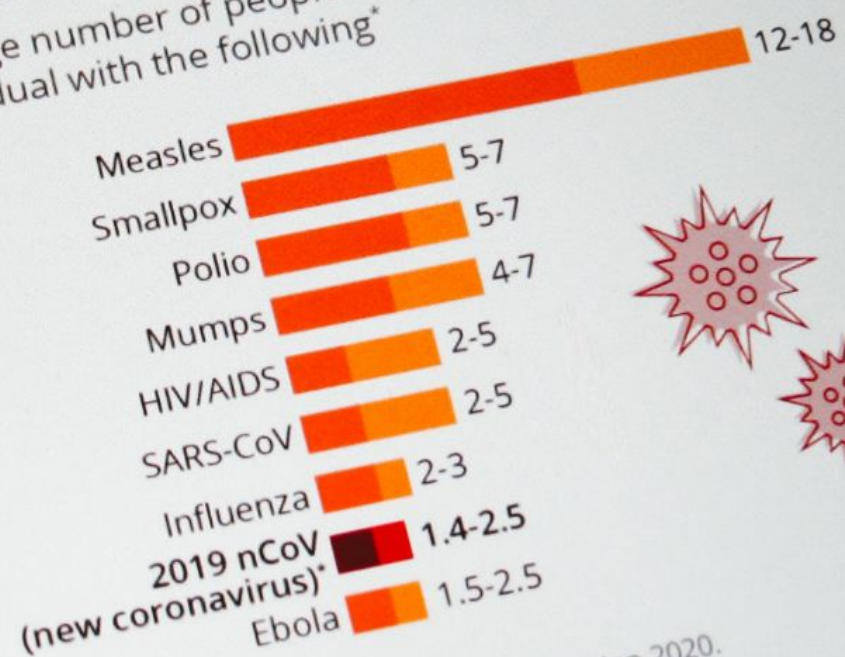
DESIGN: Next off, we designed user friendly low fidelity and high fidelity wireframes, keeping in mind the diversity of our target audience. We then prepared a working prototype with ready to use screens as part of our interaction design.

TESTING: Our final step was to check the feasibility of our design through our users and take their feedback. In the end, we improved our design and applied suggestions to produce a final output.

liable as it is dependent on too...
as the activity of the sick people involved.
the following infographic provides an overview
the average number of new infections for
different forms of disease based on the data
reported by Der Spiegel.

How Contagious is the Coronavirus?

Average number of people infected by an individual with the following*



* Based on current WHO estimated as of 23 Jan 2020.
Source: WHO via Spiegel.de

statista

IMPACT ON SOCIETY

There is a potential economic and social impact by the development of mHealth so rapidly. We promise **solutions to pressing public health problems** such as increasing access to care, reducing inequalities in health, lowering healthcare costs and providing people with new tools to reduce risky behaviour and manage chronic diseases.

We plan to deploy it in such a way that the public health will not be jeopardized. The subsequent rise in the demand of telemedicine has pushed the **health industry to shift to technologically equipped services accessible by the entire population, which is ensured by elimination of linguistic barriers in our app**. We believe there will be an enthusiastic response to this idea from the health professionals, policy makers and the general public, which will create a well built health network.



SUSTAINABILITY

Heevo is tailored to maintain efficiency and sustainability. Users can access systematic and precise diagnosis and treatment along with guidance to look after their health. With climate change and other environmental challenges in the 21st century, we tried to have a **green IT approach** while designing this project.

One of the main aims of our app is **promotion and adoption of Telemedicines**. This eventually **cuts down the usage of paper**, which is otherwise used on a large-scale for prescriptions, medical directory entries, etc on a daily basis.



SUSTAINABILITY

Online consultation has its benefits too. People can get check ups without being exposed to any sort of infections. Added to this, **energy and fuel are saved, which are otherwise depleted on a large scale** when people have to commute for meeting a doctor.

Finally, for the purpose of long term sustainability and ensuring all key factor have been addressed, we expand on preparing for the expected and unexpected, by evaluating change management plans and regulation.



EXECUTION AND BUSINESS VIABILITY

The use of mobile phones and other technologies in the medical industry is seeing a significant rise in recent times. The **healthcare system is struggling with rising costs and inaccessibility to avail modern amenities**. It's time for a fundamentally new strategy.

1. **Easy access**: with increasing demand of remote consultation, our app helps in providing an effective solution that can be accessed from anywhere.
2. **Easy data management**: it allows easy storage of health records, adding credibility to healthcare marketplace.
3. **Bridged network**: the app connects patients, doctors, pharmacists, labs, among others via a smooth communication network.
4. **Lower costs**: with the use of telemedication, there will be lesser travel and transportation costs.

Heevo is an economically viable and a much needed solution which require an initial investment but will deliver more in future.



End of Phase 2
THANK YOU