Ahmedabad
University

Section-2
CSE-519 Human Computer Interaction
Project report – 3
Group-10
Submitted to Prof. Anurag Lakhlani
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Project Details:

- Name of the Product: healOfy (Mobile Application)
- Focus of the project: Healthcare

1. **Features in App:**

A. **Login Page:**

- **Functionality:**

  Through this feature we want to authenticate that users can sign in to the app if they have previously used it or they can sign up through a username and password or direct google login as provided by many of the websites and applications. This will authenticate that only the real users can login and no one can use the identity of other user. The screenshot and the annotation have been shown below.

- **Implementation**:
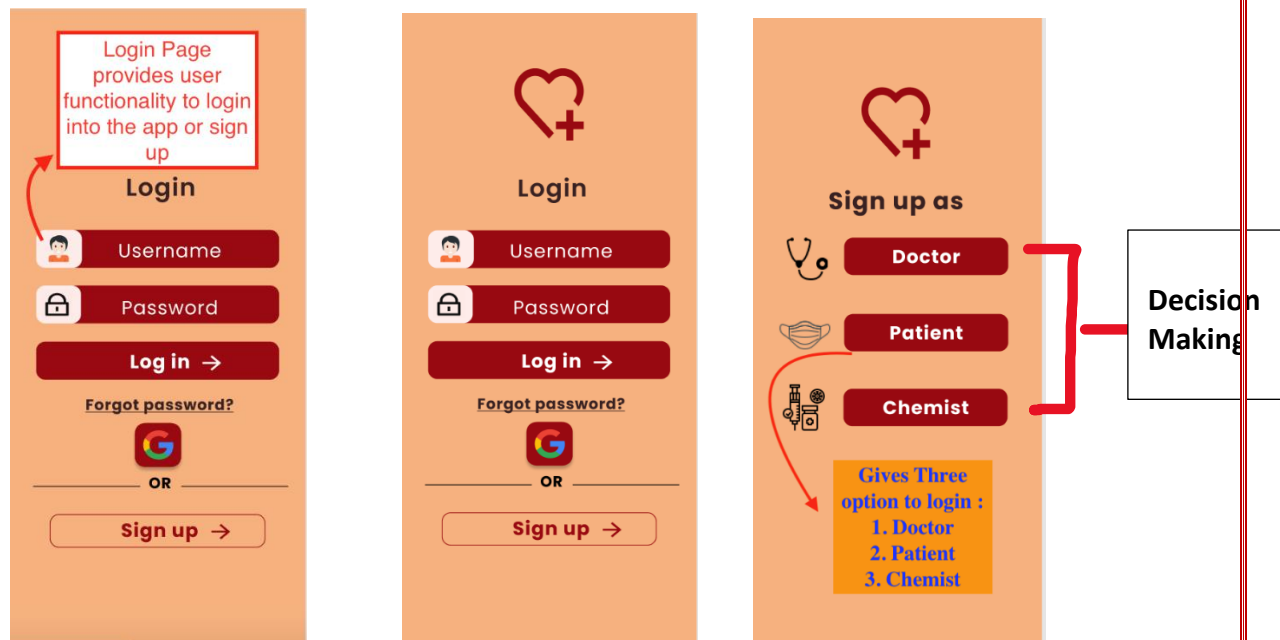
- **Universal Usability → Diverse and Cognitive Perceptual Ability: (Decision Making)**

  Here as shown in the screenshot as you sign up on our app it shows you three option, patient, doctor and chemist and you have to choose as what do you want to login based on your use. Here the principle of decision making is involved under diverse and cognitive perceptual ability. The user has to select the option which suits his/her needs and can make most of it.

- **Interaction Style:**

  Here as you can see the user has to fill up the details for the username or password and hence the principle of the form filling under interaction style has been applied. The user even though chooses google login has to go under filling up some details and hence the principle of form filling is maintained.

- **Hierarchical task Analysis:**

  1. Login:
     - 1.1 Sign in through Google
     - 1.2 Enter username
     - 1.3 Enter Password

  2. Forget Password:
     - 2.1 Enter Mobil Number
     - 2.2 Generate OTP

  3. Sign Up as:
     - 3.1 Select Doctor
     - 3.2 Select Patient
     - 3.3 Select Chemist

B. Forgot Password feature:

- **Functionality:**

  If the user has already logged in the app and want to log in again, we need to verify that it is the same user. Hence, we have username and password which is unique to each username set as a login method. Now suppose a user forgets his/her password and still wants to use the app, in such scenario it is important to provide the password recovery option while still maintaining the authenticity of the app. Hence, when users click on the forget password an OTP is generated and sent to their registered mobile number which will help them recover their account.

- **Implementation:**
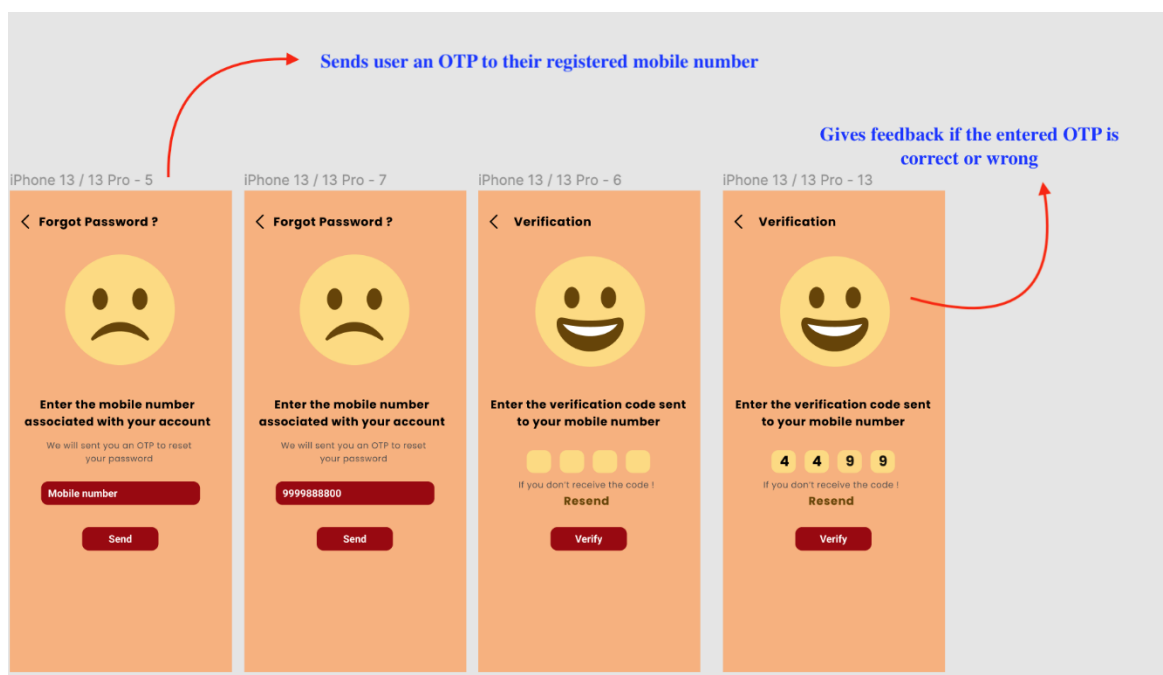
- **Design Principle → Feedback:**

  Here as seen in the screenshot that if users click on the forget password then it takes them to a page to recover it and tells them to enter registered mobile number, If they provide wrong number then it shows feedback to the users. Further the OTP sent needs to be entered in a limited duration and if the OTP is wrong, they will get a feedback that the OTP provided is wrong, if it is correct they will be taken to reset password screen.

- **Interaction Style: Form Filling:**

  Here again the user needs to enter details in order to reset their password and gain access and reset their password. Again while filling up the OTP and re-entering the password we need to fill the form.

- **Hierarchical task analysis:**

  1. Enter Mobile Number:
        1.1 Enters Mobile Number
        1.2 Shows error if not registered number
   1.3 generates OTP if correct

  2. Enter OTP:
        1.1 Enters OTP
        1.2 If correct takes you to reset password screen
        1.3 else shows error.

C. Google Map Integration feature:

- **Functionality:**

  As mentioned in the earlier reports we know that the main part of the app is to connect the patient to the doctors and for that we need to find a mechanism that seamlessly directs the doctors to the patient. For that we have used google map integration which shows the closet route to the doctors on the map. This is shown in the attached screenshot below.

- **Implementation:**
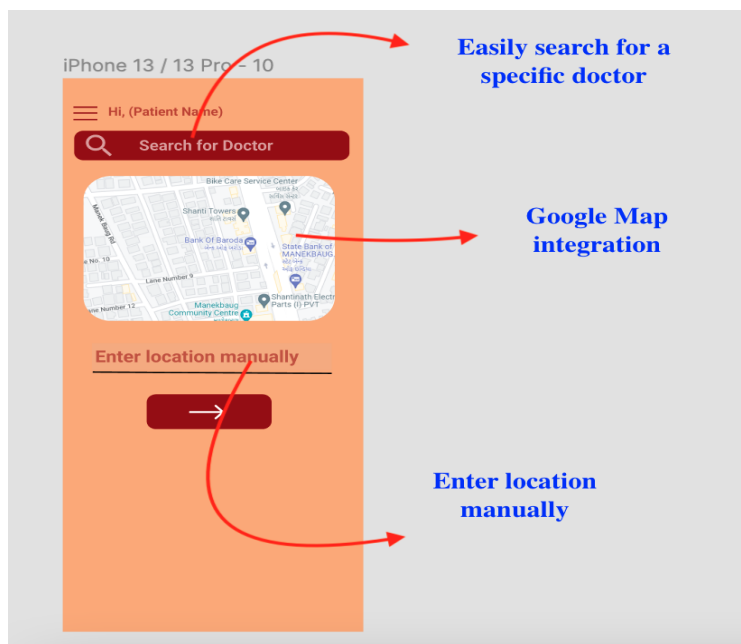
- **Universal Usability → Diverse and Cognitive Perceptual Ability: (Decision Making and Search imagery and Sensory memory)**

  As seen in the screenshot the user has to deal with a lot of decision making and since the map is an image it also triggers the search imagery and sensory memory of the human mind. All these principles are deeply integrated into this feature. As it is evident when the user is looking for a doctor a lot is going through his/her mind and they have to make a lot of decision based on the information which is available to them. Hence the principle of divers and cognitive perceptual ability are deeply integrated in it.

- **Interaction style:**

  Here the interaction style of menu selection is involved as lot of information is available to the user in a structured and graphical way and from that they have to select which doctor they want to go to. Hence the concept of menu selection is used here.

- **Hierarchical Task Analysis:**

  1. Search for a Doctor:
     1.1 Type the name of doctor and it appears on map
     1.2 Type the name of clinic and it appears on map

  2. Google Map Search:
     1.1 Shows the doctor in the vicinity of the patient

1.2 Patient can look for directions in the app

3. Search Manually:
    3.1 Manually enter the location of the doctor's clinic.

D. Doctor's Appointment Manager:

- **Functionality:**

    As mentioned earlier in previous reports that the patient has the luxury to make an appointment through the app itself for the visit to the clinic or hospital, however there needs to be system through which they can manage all these appointments. It may not always be feasible to take all the appointments they get and hence we need to provide them with a feature to reschedule the appointment to a later day or timing or suggest the patient to try another clinic as they are busy at the moment. This is shown in the below screenshot.

- **Implementation:**
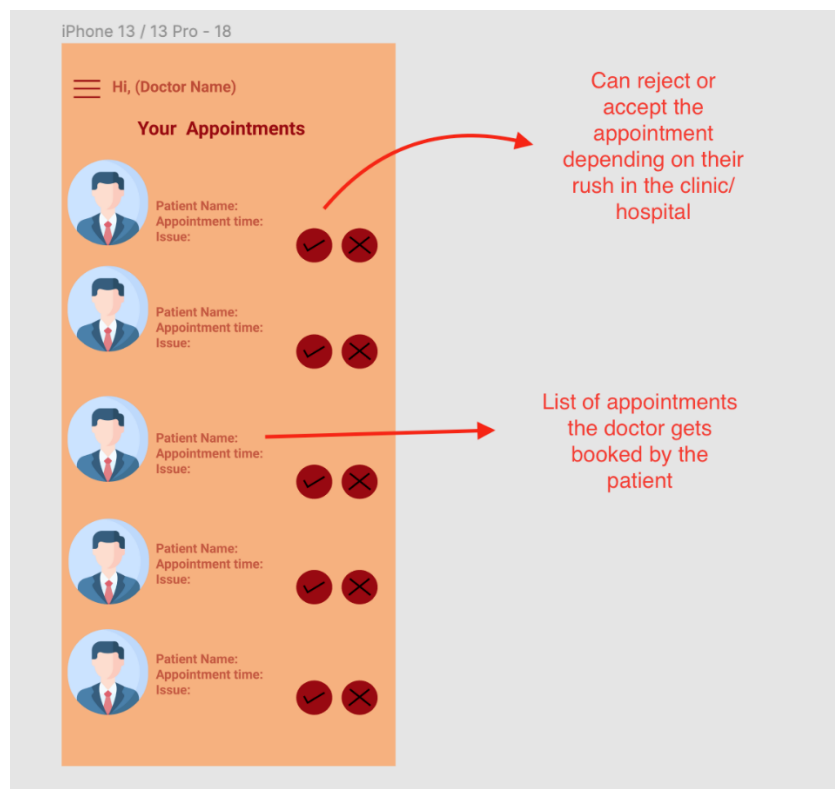
- **Universal Usability → Diverse and Cognitive Perceptual Ability:**
    (Decision Making and Perceptual Mental load)

    As seen in the screenshot the doctor has to make a lot of decision in who to reject or reschedule for the visit as all the patient who have taken an appointment are in some

pain or the other and hence they have to cancel such important visits due to the load of the clinic and this cause perceptual load on their brain also causes a feeling of depression and a sense that they cannot help all the people which needed them. Thus this are the principle involved in this feature.

- **Interaction Style:**

  Here none of the interaction style seem to connect with the feature and hence we have not written any.
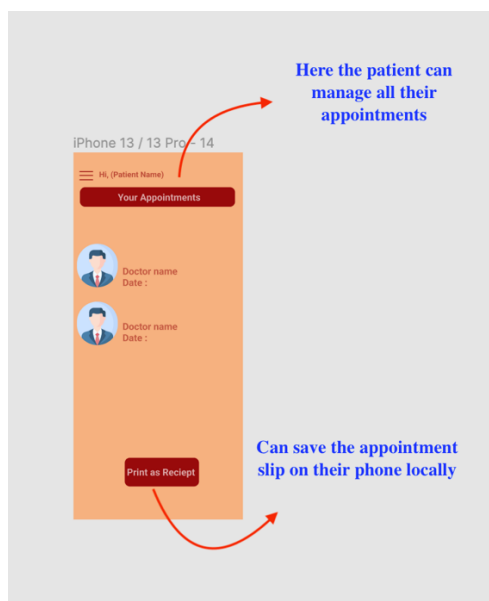
- **Hierarchical Task Analysis:**

  1. Selects a patient's appointment:
          1.1 Accepts the appointment
          1.2 Rejects the appointment
  2. Rejects the Appointment:
          2.1 Reschedules the appointment
          2.2 Suggests another Clinic to visit

E. Manage your Appointments Feature:

- **Functionality:**

  As mentioned for the doctor it is also important for the patient to manage their appointments and hence a feature to have all their appointments in one place is needed. Here we have selected the feature to provide the user with ease to have all their appointments in one place and thus they can manage it easily.

- **Implementation:**

iPhone 13 / 13 Pro - 14

Hi, (Patient Name)

Your Appointments

Doctor name
Date :

Doctor name
Date :

Print as Reciept

Here the patient can manage all their appointments

Can save the appointment slip on their phone locally

- **Universal usability: Diverse Cognitive and Perceptual Abilities:**

  Here the user has the option to check on the appointment they have schedules with the doctor and can also save the receipt or the appointment slip on their phone locally so that they don't have to make use of the internet and thus they don't have the perceptual mental load through this.

- **Interaction Style:**

  This particular feature follows no specific interaction style.
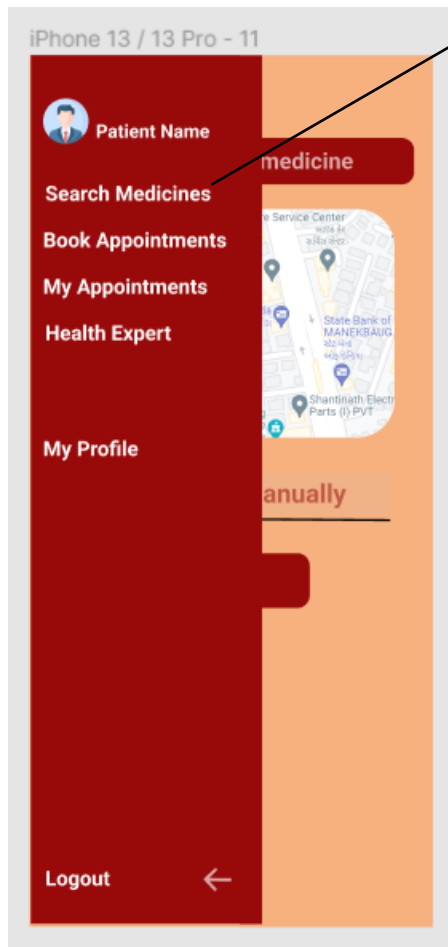
- **Hierarchical task analysis:**

  1. Looks for the Appointment:
        1.1 Finalise the appointment
        1.2 Cancel the appointment
  2. Print as receipt:
        2.1 Saves the appointment as a PDF.
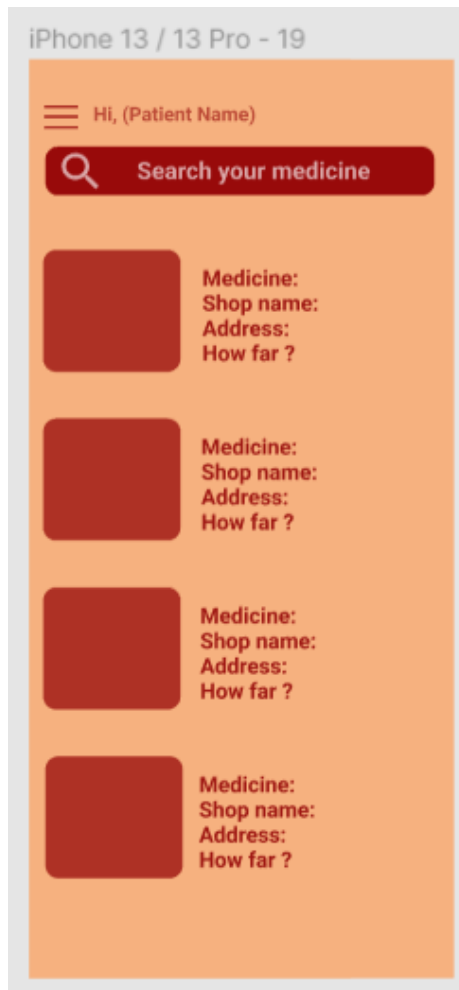

F. **Search your medicine**

- **Functionality:**

  Sometimes it becomes difficult to find a particular medicine during the time of emergency. So, this feature can be used by the user/patient to search for the medicine and get the address of the chemist/ medical shop from where he/she can purchase the medicine. This will also help the user to get the nearest shop address in order to get the medicine. In case if the medicine isn't available then the system will show the medicine that can be used as an alternative.

- **Implementation:**

iPhone 13 / 13 Pro - 11

Patient Name

Search Medicines
Book Appointments
My Appointments
Health Expert

My Profile

Logout

medicine

anually

On clicking this, the user will be guided to the search medicine page.

The decision making and problem solving comes into picture as we have to make decision about the medicine and this will solve the issue related to the finding of

- **Universal Usability: Diverse Cognitive and Perceptual Abilities**

This feature will solve the problem of finding medicines from a given shop. Even this will help to know which shop is the closest to the current location of the user. The decision making comes into picture as the user has to decide from where he/she has to get the medicine.

- **Interaction Style: Menu Selection**

Menu selection comes into consideration as the user can get the option to choose the shop from where he/she can get the medicine. Even it helps the user to know how far the shop is from the current location. It decreases the amount of error that can be caused by the user while making the decision.

- **Hierarchical task analysis:**

1. **Search medicine:**
    1.1 Click the search medicine option.
    1.2 Search the required medicine.

1.3 Select the shop from where you want to buy the medicine.

1.4 Check the distance of shop from current location.

G. Book Appointments

- **Functionality:**

This feature will make the life of patients easy as they can book their appointments from their home. The patient can search for the doctor of his/her choice by entering the name manually in search bar or can select from the list provided on screen on the basis of ratings given by the user. This can help to book appointment as per the conveniency of the patient as they can get the choice of selecting the time duration.

- **Implementation:**
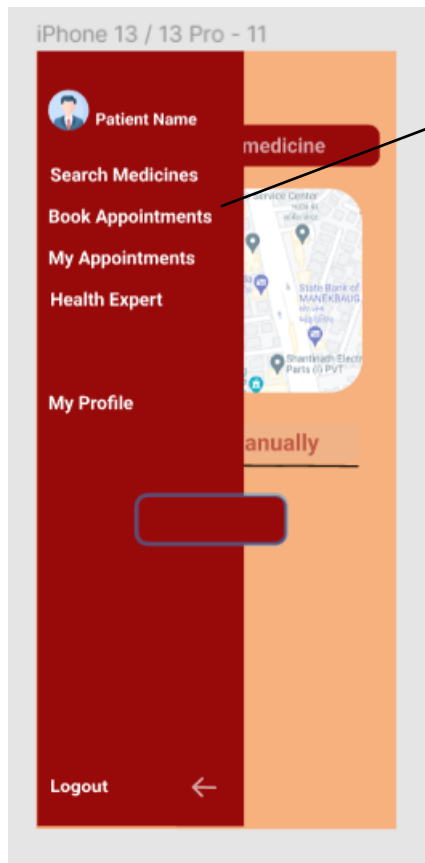
On clicking this, the user will be guided to the Book your appointment page.
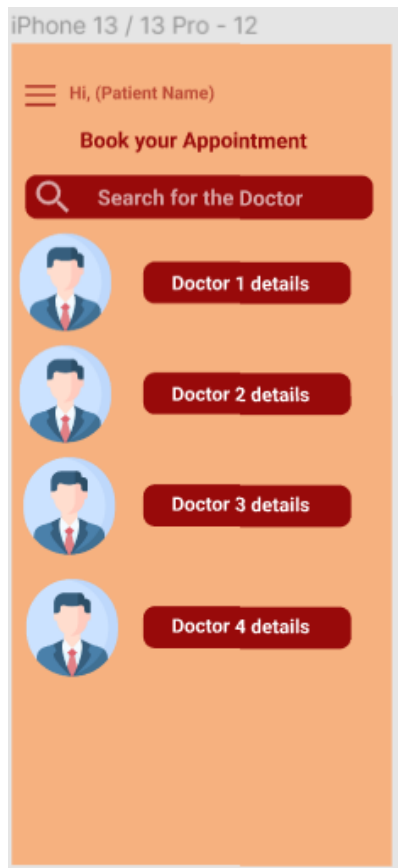
The decision making and problem solving comes into picture as we have to make decision about which doctor to choose on the basis of ratings and this will solve the issue of waiting in long queues at the

- **Universal Usability: Diverse Cognitive and Perceptual Abilities**

This feature will solve the problem of finding doctor related to our health issues. Even this will help to know which doctor to choose as per the ratings given by the users. The problem of waiting in long queues at the clinic can be solved by booking the appointments online as per the user's convenient time

- **Interaction Style: Menu Selection**

Menu selection comes into consideration as the user can get the option to choose the doctor from where he/she can get the proper guidance. Even it helps the user to know which doctor to choose on the basis of the ratings. It decreases the amount of error that can be caused by some neophyte while making the decision.

- **Hierarchical task analysis:**

1. **Book appointments:**
   1.1 Click the book appointment option.
   1.2 Search for the required doctor/ select from the list shown as per the ratings.
   1.3 Select the doctor from whom you want to get the guidance.
   1.4 Book the appointment as per the user's convenient time.

H. Health Experts

- **Functionality:**

Sometimes it becomes difficult for the user to physically visit the doctor. So, this feature will connect the users to health experts in order to discuss their concerns and get solutions to it. The user can connect either by the chatting feature or the video call option too. This can make one to one interaction with health experts possible just by sitting at home.

- **Implementation:**
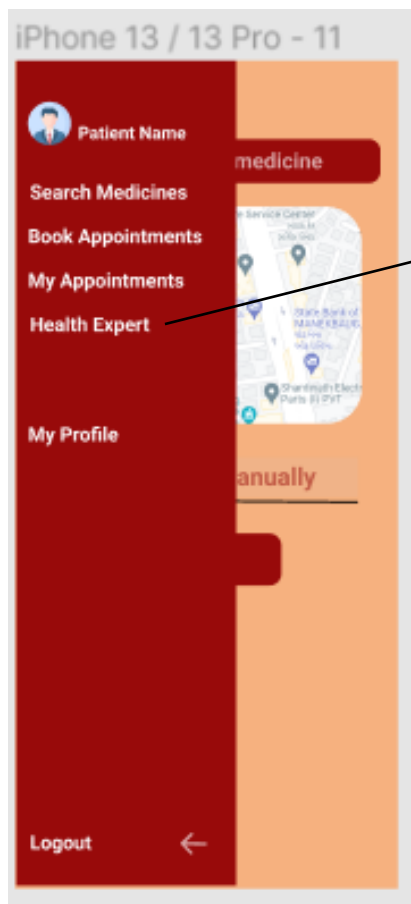
On clicking this, the user will be guided to the Health expert page
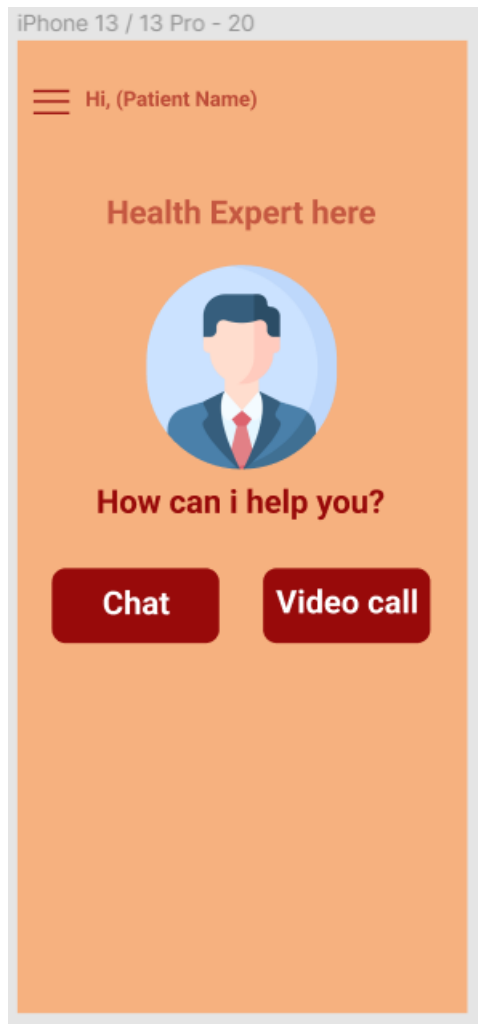
The decision making and problem solving comes into picture as we have to decide whether to do video call or ask questions through chat option and this will solve the issue of getting solution to our health issues just by sitting at home

- **Universal usability: Diverse Cognitive and Perceptual Abilities**

This feature will solve the problem visiting doctor physically. Even this will help to get the health experts advice on the basis of issues which we are facing without visiting the clinic. The user can decide whether he/she wants to connect with the health expert through the medium of video call or through the chatting option.

- **Interaction Style: Menu Selection**

Menu selection comes into consideration as the user can get the option to choose the medium through which the user can connect with the health expert.

- **Hierarchical task analysis:**

1. **Health expert:**
    1.1 Click the health expert option.
    1.2 Select the option to connect with the expert.
    1.3 Get your concerns related to health solved just by sitting at home through video call or chatting option.