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TITLE: Health Care Application for Consultation.

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project link: https://github.com/shanureddy4/MEDAPP

ABSTRACT

These days most of the things are done through internet. Most organizations have online portals to communicate with customers. most of the medical apps like **DocsApp, 1mg** are giving doctor consultation and medicines to door steps through their applications. These applications make life easier for users. These app give consultation fee with fancy prices and user can able to share everything easily through phones. Even though they maintain privacy still doctors able to view all details about the patient which some patients doesn't want to. As these are big organizations, there is a chance for information disclosure by their staff. A survey said that nearly 8% of patient gets leaked from hospitals. So considering these problems and pandemic situation we are trying to build an application that is able to encrypt the patient data as soon as possible patient enter details and providing most secure connection until it reaches to the corresponding doctor.

Introduction

We can imagine that there are applications for every domine. We can see that there are numerous applications even to treated by the doctor. In this project we develop an application that will Encrypt patient details as soon as patient enters and gives only necessity details to the doctor. Consultant can even schedule the consultation timings and send to the patient. A notification will be send to the patient as soon as consultant accept the request. As details are secured patient has anonymity while consulting to the doctor and able to express all his sufferings without worrying.

Literature Survey

Reference number	Paper Title	Journal / Conference Name & Year	Problem Statement	Algorithms Applied	Tools Used	Results attained	Drawback In the system	Inference
1	Techniques for prevent information disclosu re via dynamic secure cloud resourc es	MICRO FOCUS/2011	Techniqu e to prevent informa tion pass from within the organiz ation	Dyna mic secure cloud resour ce	Cloud comput ing	These are just techni ques	None	These article shows that we can have various techniq ues to preven t inform ation disclos ure

2	Smurfbased Distribu ted Denial of Service (DDoS) Attack Amplifi cation in Internet	IEEE/2007	Intrude r able to create denial of service in target device	Smufi ng techni que	Exploitt tools such as smtraffi c	Able to create servic e denial on host device	Target device do no work after this attack	These article show how to amplify the smurf attack
3	DDoS attack algorith m using ICMP flood	IEEE/2016	As this article says that we should re conside r the protoco ls like TCP and ICMP to prevent flood attack	a DDoS Attac k based algori thm on ICMP Flood ing techni que.	DDoS attack tools	Succe ssful ICMP flood attack	Protoc ols regard ing ICMP should recons ider	This researc h is aimed at giving readers a brief outline of DDoS Attack s and its constit uents, primari ly the ICMP Protoc ol.

4	Application check DocsApp	DocsApp.in/ 2015	Patient have no online portal to contact with doctors	In this application they used lot of algorithms to provide seemless service to users	App development	Able to provide doctors to the patients remotely	Patients data can be seen every doctor	These site have information about the app called DocsApp and how they used to provide seemless services to the users.
5.	Practical quantum digital signature with a gigahertz BB84 quantum key distribution system	OSAPUBLISHING/2019	Enhancement needed for traditional digital keys	Quantum key distribution system	Tools to generate quantum keys.	Able to establish secure connection between server and client	Need to understand many things just to have digital signature	These article shows how to generate digital signature with a gigaherz BB84 quantum key.

Reference number	Paper Title	Journal / Conference Name & Year	Problem Statement	Algorithms Applied	Tools Used	Results attained	Drawback In the system	Inference
6	Secure Network-onChip Against Black	scholarworks.boisestate.edu/2020	Tampering attacks make information	Algorithms used to reduce backdo	Not Mentioned	Able to secure network to maxim	May not possible for implementation	These paper tells how tampering

	Hole and Tampering Attacks		change during transmission	or attacks		um extent		occurs on transmission and how to prevent them.
7.	About 1 mg	1mg.com/aboutUs/ 2015	Patient have no option to contact doctor when ever possible	Many algorithms applied to develop this application	App development	Provided online consultation with doctors and deliver medicines.	This also expose all patient details to the doctor.	This is a application which let's users to consult doctors online.
8.	Three party secure data transmission in IoT networks through design of a lightweight authenticated key agreement scheme	Science direct /2019	Need to have enhancement in transmission of data over a network	Three party secure data transmission	Not mentioned	Able to transmit data securely	Needs to optimized for app level transmission	These paper will suggest to have three party secure data transmission in IOT networking

9.	Developing a secured image file management system using modified AES	Journal.portalgaruda.org	As many of us know AES algorithms it can be easy to understand our encryption level. So we need to customize it	Modified AES algorithm	This can be developed in any of programming language	Able to encrypt image successfully	This is easier than original AES algorithm	These paper suggest that we need to customize every algorithm according to our use.
10.	Economic Success of Physicians in the Online Consultation Market: A Signaling Theory Perspective	Tandfonline	Belief that online consultation makes no profit	Economically written. No algorithm involved	None	Online consultation will make much profit than usual	As article is theory perspective so implementation could be difficult.	This paper says that we online consultation will actually make profit for doctors.

Problem Identified

Nearly 8 % of patient data is leaked from such applications. And patient gives fake identity while communicating with the doctor so it will difficult for an organization to identify him to send proper precautions and Patient want anonymity while contacting to the doctor.

Aim

We think that data is stolen directly from the database so we aim to develop an application that will encrypt the details as soon as patient enters and goes into database with encrypted and provide the patient details to the doctor as per patient needs.

Algorithm Used : Vigenere

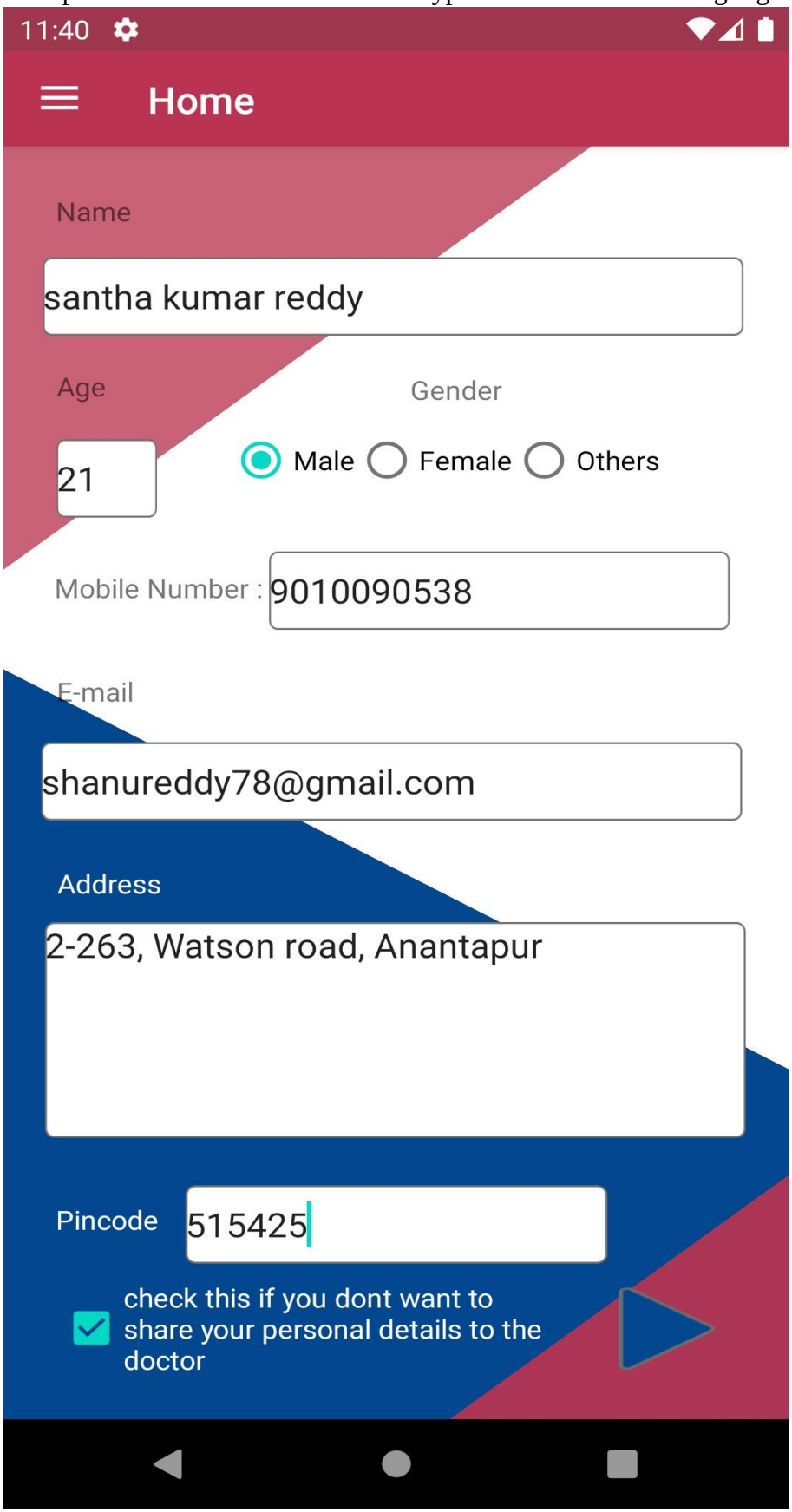
GUIDE

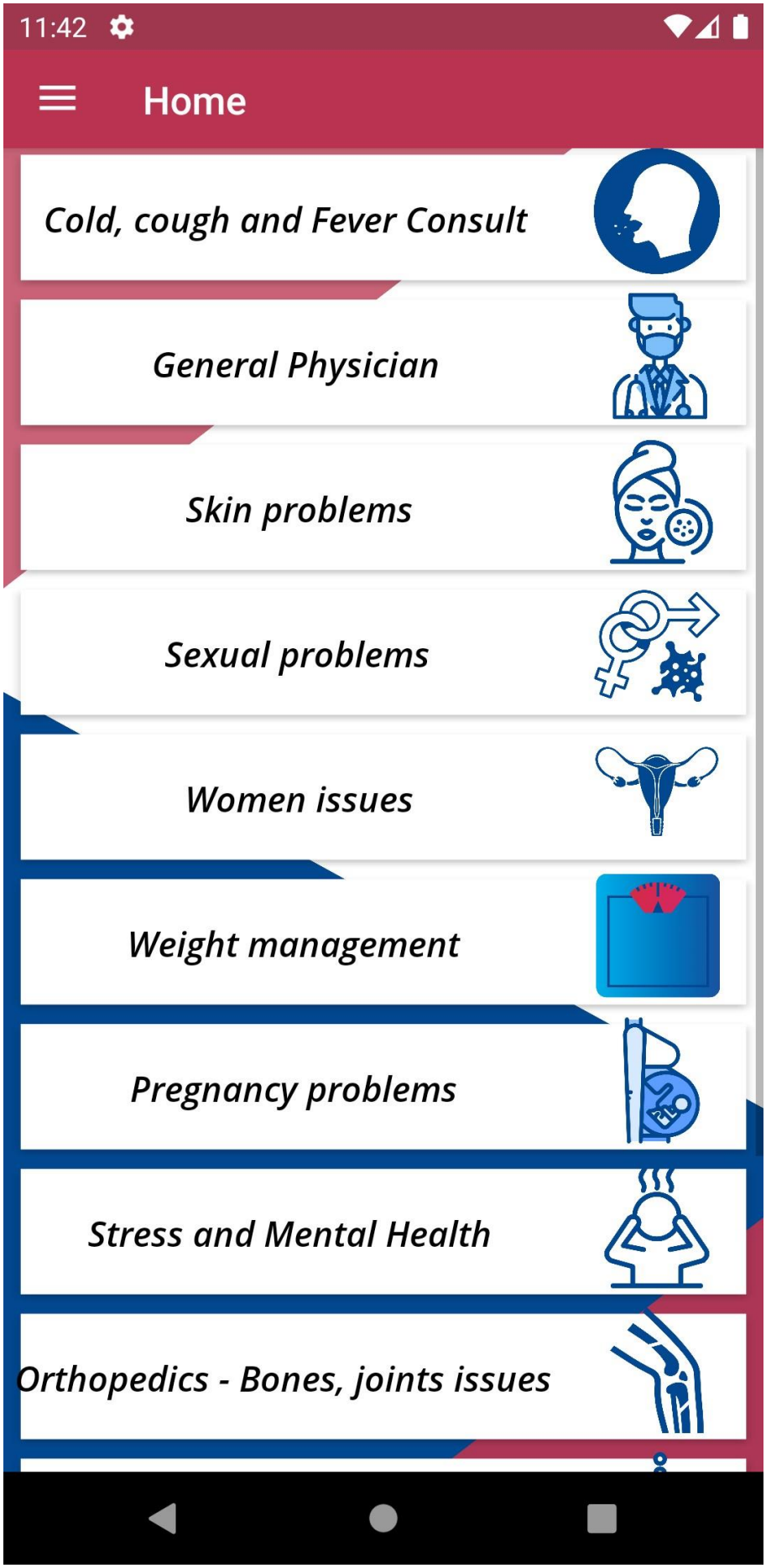
1) **User need to enter personal details and his/her problem and choose the doctor. At last user need to describe problem in brief.**
2) **After entering details the details will be encrypted and stored in firebase database.**
3) **Here for every doctor a key and credentials will be given.**
4) **On patient selecting doctor the respective key will be sent to database.**
5) **Using that key when doctor login it will display no of patients with their ID**
6) **On doctor login it will give patient ID and decrypted KEY.**
7) **Doctor need to search patient using patient ID and need to decrypt using KEY.**
8) **On patient view page doctor will able to see the information only which patient will provided for viewing.**
9) **Google meet link will be generated and sent to doctor and patient with timings.**

Results Home page

Patient details

Here patient will enter details and encrypted on submission using vigenere algorithm




11:42
Home
Cold, cough and Fever Consult
General Physician
Skin problems
Sexual problems
Women issues
Weight management
Pregnancy problems
Stress and Mental Health
Orthopedics - Bones, joints issues

11:42

Home

Dr.J Surya Chandra
MBBS,MS-Orthopaedics
(Orthopedist)

3325 ratings

Dr.Tejaswi Konidela
MBBS, MD-General Medicine
(General Physician)

2350 ratings

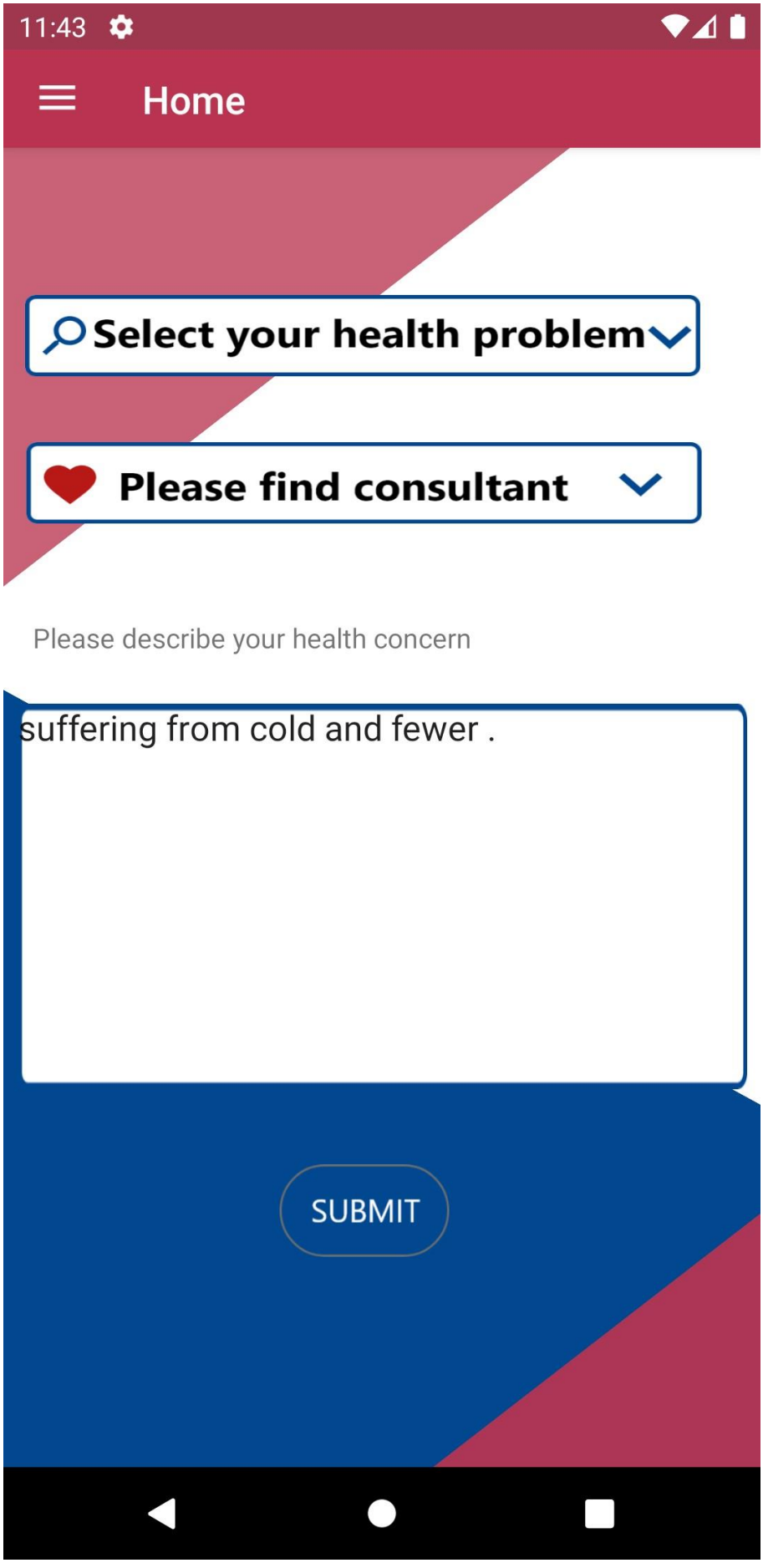
Dr.Sravani
MBBS, MD-Pulmonary Medicine
(Pulmonologist)

1552 ratings

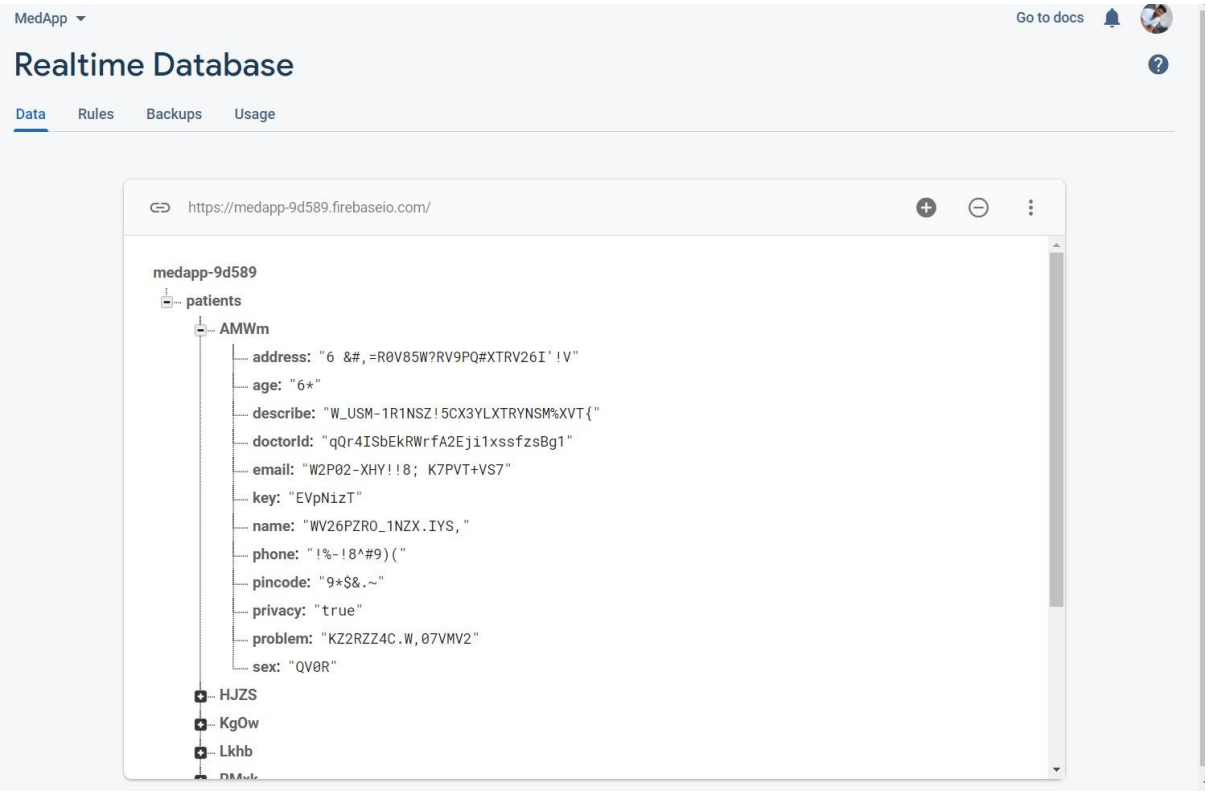
Dr.Harshini
BDS, MDS
(Dentist)

5545 ratings

Dr.A.N. Priyatham Reddy
MBBS, Fellowship in Nephrology
(Neprologist)

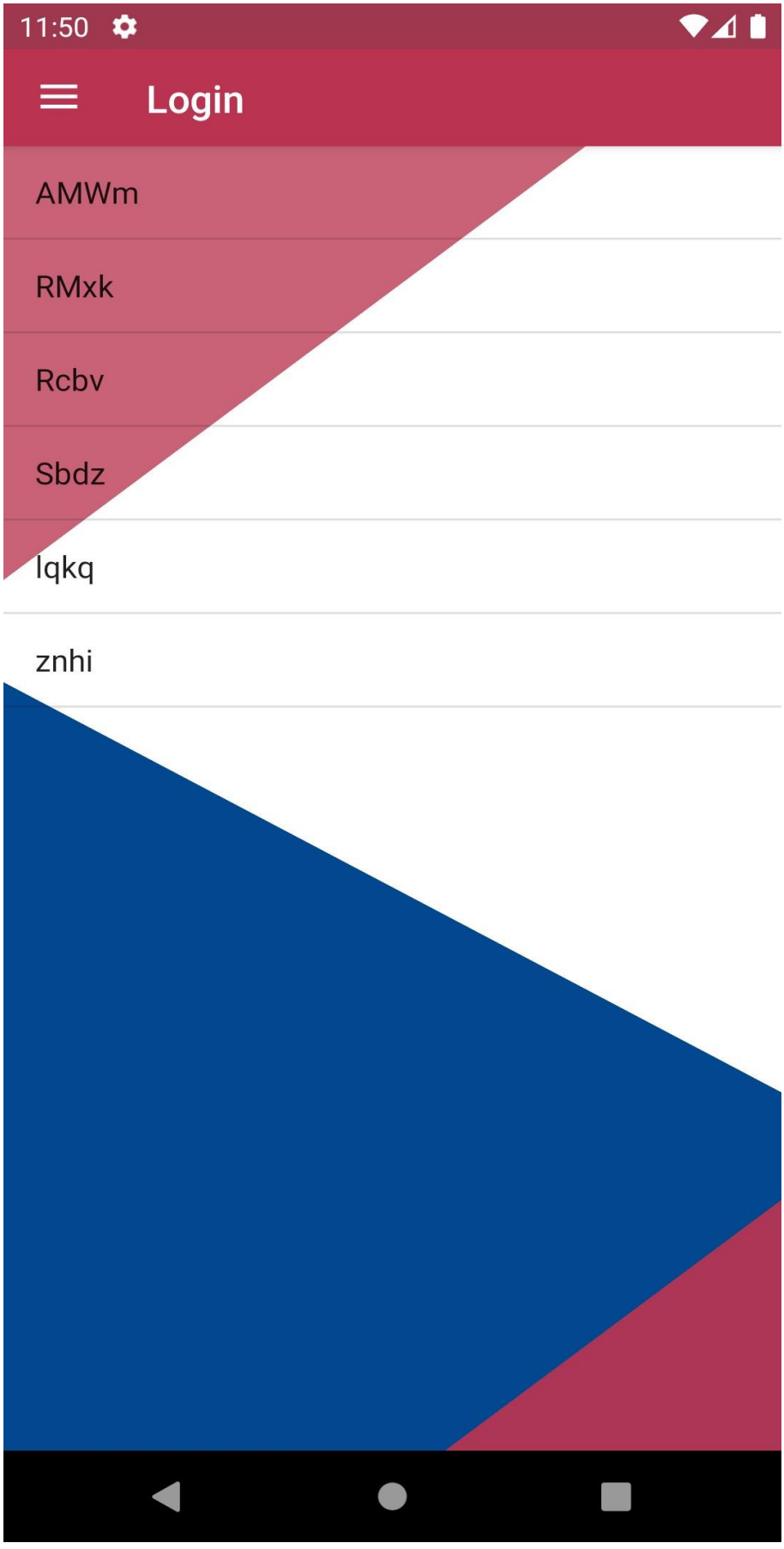

11:43
Home
Select your health problem
Please find consultant
Please describe your health concern
suffering from cold and fewer .
SUBMIT

Firebase database

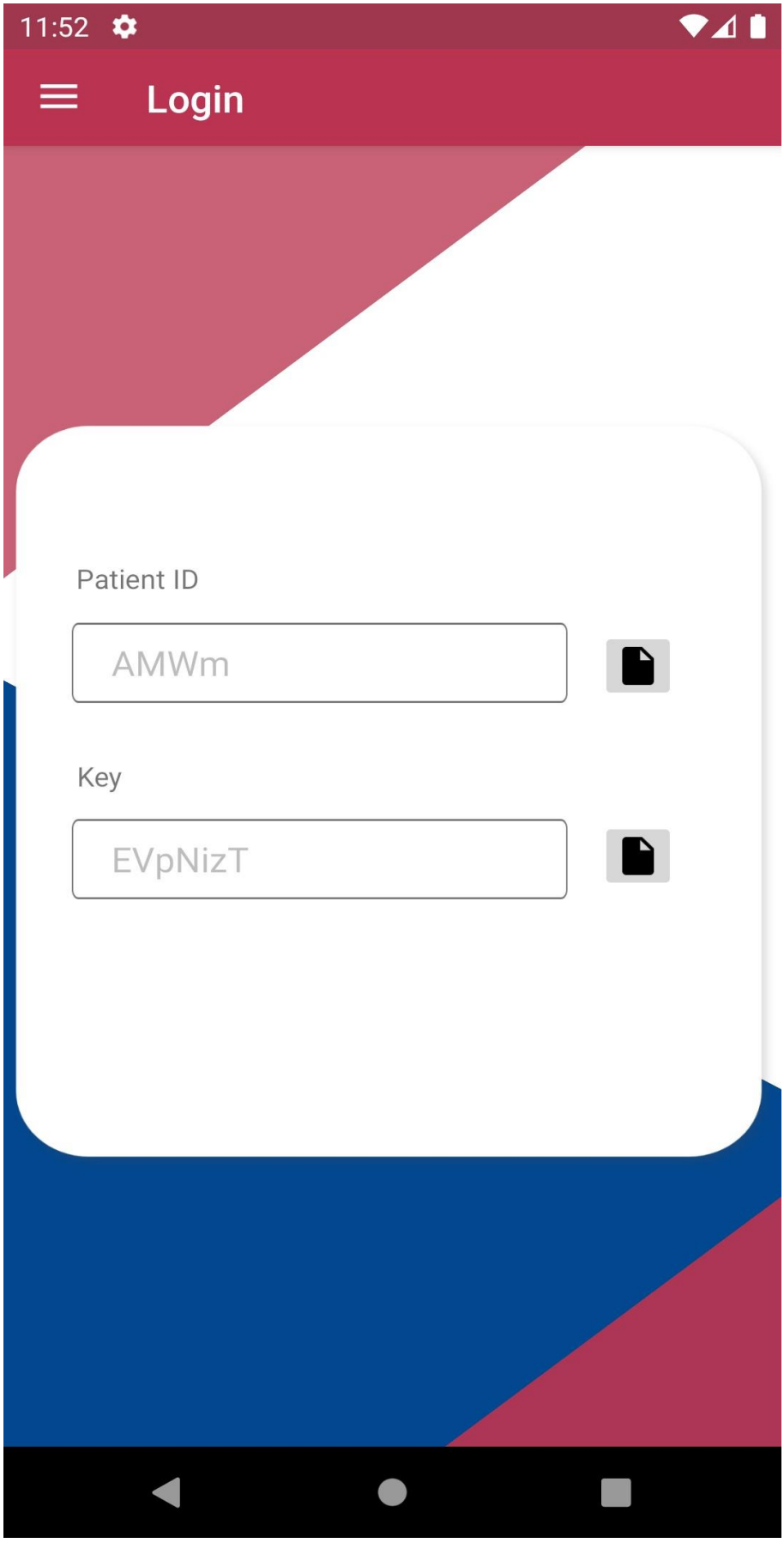


Doctor Login

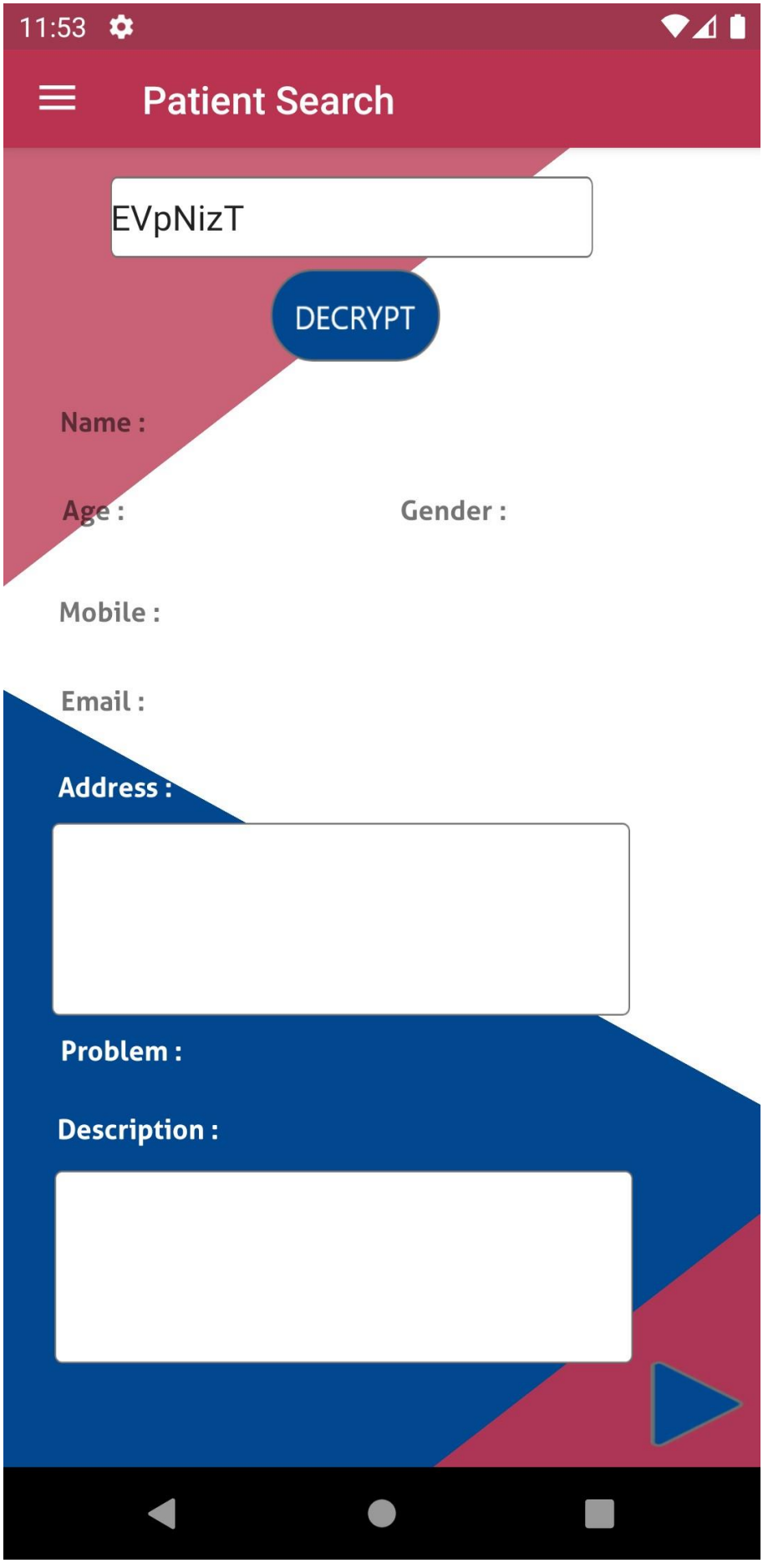
Patient view for doctors



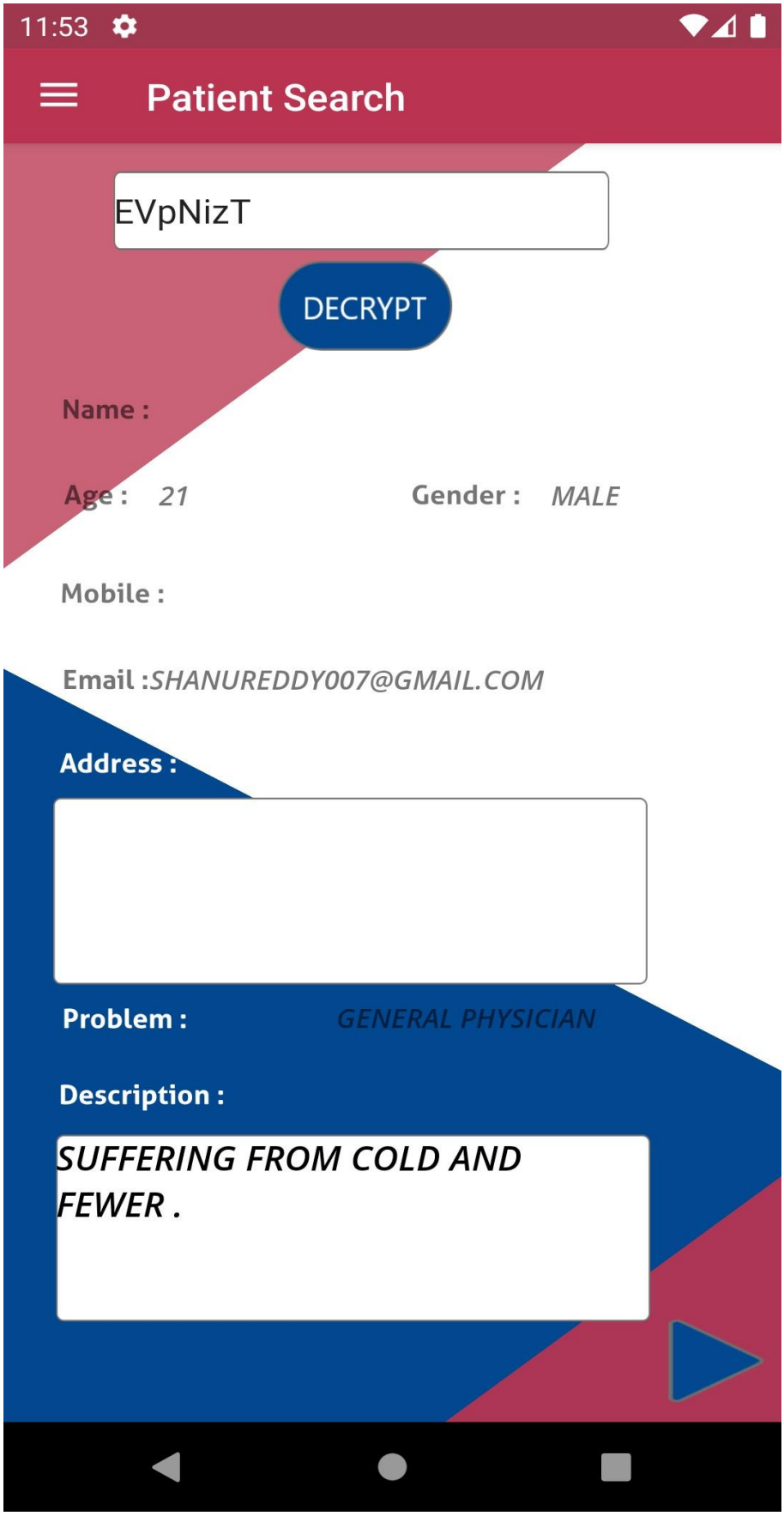
Patient ID and KEY



Patient Search


11:53
Patient Search
EVpNizT
DECRYPT
Name :
Age :
Gender :
Mobile :
Email :
Address :
Problem :
Description :

Decrypted details



Data and time allocation for patient and sent to email

shanureddy78@gmail.com 10:26 (1 hour ago)

to me

Your consultation requrest has been accepted by the doctor.Please make your self available at 2020/10/5 Time :10:26 .Use the link http://bit.ly/jjt4ynpap4UuyFC6TY9PwAjpsng1 to contact the doctor

Reply Forward