

Department of Biomedical Engineering



Final Year Project Proposal

Telemedicine Application

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Executive Summary

It will be a telemedicine application. It will look like other social media like facebook, twitter, instagram etc. But it will have some special objectives. Users can use this application like facebook but there will be a special user called doctor. Doctors can create doctor profiles with special features which won't provide general users. General users can create accounts and make friends like facebook. Also they can post video, image, text etc on their news feed. Also general users can contact other friends including chat, audio call, video call etc. Here the doctor is also a general user. But the doctor can move its profile doctor mode. In my application there will be a special mode called "Doctor Mode". It is a special mode of this application, where the general user can't post anything. Here only the doctor's profile can post health related video, image, text etc. General users are capable of seeing this doctor's post and also can like, comment on doctors posts and share its general news feed. If a general user can move its profile into doctor mode then it has to provide all information like educational qualification certificate, recommendation letter from its professor etc as a document. Then it has to wait for verification. The system admin will verify the doctor and enable the 'Doctor mode' for this user. After that this doctor can treat patients. In the Doctor mode, users can see all of the active doctors, also can see doctor's profile information like educational qualification, experiences etc. In the doctor profile a doctor can create a free time schedule on his account for patient treatment. If a user wants to appoint any doctor, the user has to go to the doctor profile then select a doctor's time schedule and pay the fee for the appointment. After paying the fee, the system automatically notify the doctor and send a meeting link to the doctor's schedule room and also user chat book with time, doctor name etc. Then the doctor can enter its schedule if the schedule is booked then click the link and wait for the patient. After that when the patient will click the link which was sent by system then doctor and patient meet up easily. In the video meeting room there will be a chat book also. Actually it moves from a general chat book to the meeting room. Here users can send documents like prescription, medical image, etc. Here will have a special feature that a doctor can generate a prescription by this system and can send it as a pdf to the user. This message will save into the user and doctor chat book. That will help for the next meeting. Also there will be an Ambulance version. If I get enough time to develop this I will develop the "Ambulance Version" InshaAllah.

Objectives

- To make a system that will ease the healthcare system
- To provide healthcare system globally from home by doctor to patient
- Provide Ambulance service door to door.
- Establish a telemedicine hospital
- If possible the service will be provided from physical telemedicine centers globally .

Tools and Resource

Hardware resource:

- Computer
- Internet Connection
- Server (Application server , Database Server, etc) / Cloud

Software tools :

- IDE (Visual Studio, Visual Studio Code etc)
- Programming Language (C# , Javascript , Typescript)
- Database (SQL , NoSQL)
- Framework (Microsoft .Net)
- User Interface (Angular – HTML, CSS / Sass, Bootstrap, JQuery)
- Software Designing (UML Diagram)

Require Steps

1. System Design
2. Software Designing and Modeling
 - 2.1 Use Case Diagram
 - 2.2 Class Diagram
 - 2.3 Activity Diagram
3. Implement the Back End application
4. Design UI/UX
5. Implement the UI/UX
6. Integrate the User Interface and Back End application
7. Deploy application to the Server / Cloud