

Automatic Call and Appointment Scheduling for Hospital Management System

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Abstract- Now-a-days, smart phones have reached every hand and every home. As a result, people are making use of the beneficial mobile applications to make their everyday life easier. Our project focuses on developing mobile application and web application for healthcare. Patient details are stored in the hospital's centralized database. Only concerned doctor can see the patient's health details. Patient can book the appointment of the doctor through online. They can also check the doctor's availability. If the patient is in emergency state, they can make emergency call using our application. This call can also be used to identify the exact location of the patient and the hospital management takes the required action. In emergency situation, if the doctor is not available then the admin of the application can alter the doctor's appointment based on the patient's problem.

Keywords- Emergency service, Appointment booking, BMI, reminder.

I. INTRODUCTION

Invention of smart phone has greatly impacted many fields especially in health care. Now a days health care professionals now use smart phones for functions. Smart phones combine both computing and communication features in a single device that held in hand. By using these two features Blackberry has been first introduced in 2002 and the android got introduced in October 2008.

By this revolution, many people are using android mobiles. So we planned to take care of people's health via internet. We integrate multiple hospitals and doctors in our "AUTOMATIC CALL AND APPOINTMENT SCHEDULING FOR HOSPITAL MANAGEMENT SYSTEM". It connects the patient with doctors by consulting patient's health issues and also providing some emergency helpline through calling. The reality of today's situation is more than 1,50,00,000 accidents per year. So, you may download this application for easy and immediate solution.

Emergency care involves diagnosing and treating life-threatening illnesses or injuries that need immediate

attention. Emergency care may take place in ambulance or other transportation vehicles.

Most patients complaint about the time spent between walking into the hospital and being attended by hospital staffs, especially doctors. Making appointments over the mobile phones provides more benefits for us to reduce the waiting time of the patients and to know about the doctor's availability.

The WHO (World Health Organisation) conducted a survey in International Level. The result of the survey in 2011 involves 114 Nations and found that mobile devices are used in almost all countries but vary on uptake levels. Some people are using mobile devices to send notification such as next visiting date, medicine reminder, etc.. Next visiting date is also intimated to the patient's one day before the visiting date. The message is sent to the patients mobile number. The notification about the medicine reminder is also included.

Before 1980, doctors generally use height-weight table to identify the healthy person. But the tables are limited because they have only limited weight table. BMI (Body Mass Index) is introduced to the public in 1990. BMI become an international standard for obesity measurement [2]. This BMI is also included in this application. If User knows their height and weight app will calculate his/her BMI and giving some tips based on your BMI.

II. LITERATURE SURVEY

Syed kabir nasir, syeda shahla kabir [11] illustrated that they found that out of the 7 Emirates, only 2 have health authorities with online services and only 4 Emirates have hospitals that offer online health services. The online health services available in UAE to Make an Inquiry, Book an Appointment, Find a Doctor and Ask a Doctor. Warapom boonchieng [12] illustrated that the limitation of current electronics health record (EHR) system, patient medical record is unable to access outside the healthcare setting. If a patient's emergent situation is detected by a personal mobile host composed of acceleration and vibration sensors, GPS and a code division multiple access communication module, a text

message on the patient's current location is transmitted to the hospital and the guardian's mobile terminal, so that they can cope with the situation immediately. Henry lee seldom [13] illustrated that The increased number of smart phones with high processing capabilities and applications help many health institutions use these devices for medical purposes. The study employs a combination of technologies such as system design and modeling using Unified Modeling Language (UML), data management, biometrics and computer programming in order to develop a prototype health information management system.

III. ARCHITECTURE DIAGRAM

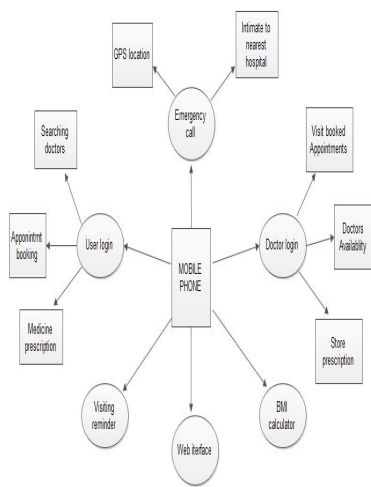


Figure 1. Architecture diagram

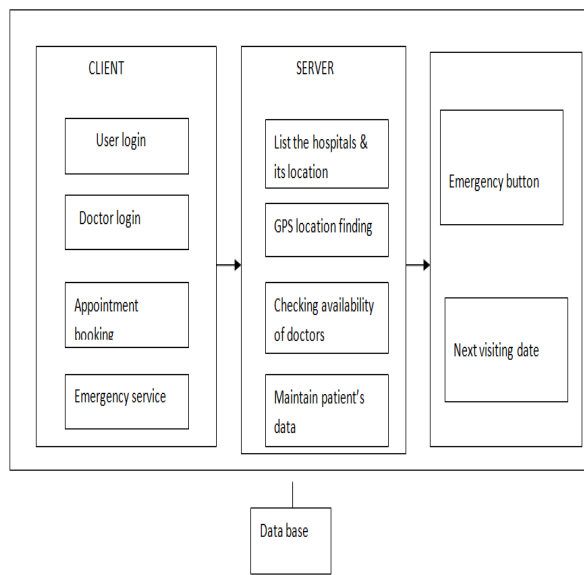


Figure 2. Client Server Architecture

The above architecture is client server architecture. Users can download the application in their mobile phone, then update the details required for the registration. This application mainly focuses on booking appointment through online and also provide the emergency service on a single click.

IV. WORK FLOW

In this application we have two major features. The first feature is that the people can search the doctors regarding their health issues. To book the appointment based on the doctors availability. The second feature is to make a call for ambulance service. If user is in emergency situation, he has to click on the emergency call button. The GPS will be turned on automatically and then track the location of the patients and the call is forwarding to the Ambulance service centre. The Ambulance service centre checks the nearby location of ambulance.

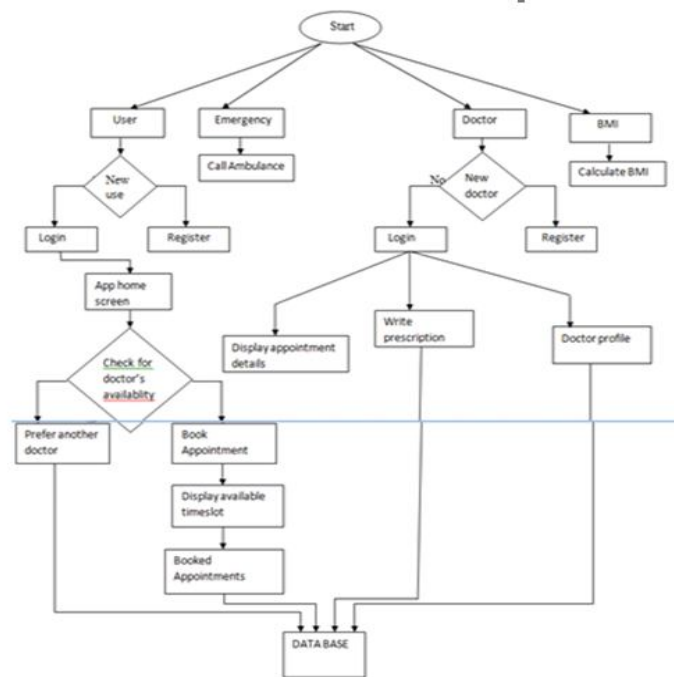


Figure 3. Flow chart

This application intimates the next visiting date also through online notification. For user convenient, the prescription will be stored in their mobile application also. It has BMI calculator also and it checks the healthiness of the patient. It gives some tips based on their Body Mass Index value.

V. TOOLS USED

Application is designed with help of backend and frontend. Front end is designed with Android,PHP and backend is designed with MYSQL . For Designing the UML Diagrams EDRAW Tool is used.Android studio and Wamp server are used.

VI. CONCLUSION

Thus this application can be downloaded to facilitate the patients to access the doctors through online.Thus they can save their valuable time and energy which they may spend on searching for a specialist in emergency situation.

VII. ACKNOWLEDGEMENT

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