



A Novel technique to handle Medical patient using Android based Technology

Ratnesh Shukla
BE VIII Sem, CSE Department,
PIET, Nagpur

Dhiraj Kalbhut
BE VIII Sem, CSE Department,
PIET, Nagpur

Isar Khan
BE VIII Sem, CSE Department,
PIET, Nagpur

Ankur Kahalkar
BE VIII Sem, CSE Department,
PIET, Nagpur

Prof(Dr.) P.S. Prasad
Professor (Head), CSE, PIET Nagpur

Abstract: Appointment Scheduling systems are mainly used by Hospitals and Clinics to schedule patient appointments. Today if any patient has to schedule the doctor's appointment, then he needs to call in clinic or personally visit the clinic and schedule appointments which consumes the precious time of the patient.

This paper presents an Android based application scheduling system for managing patient appointments. It focuses on doctor-patient interaction. The application keeps track of all the doctor and patient historical data and also an emergency module that enables patient to search for required speciality clinic throughout the concerned geographic area.

Keyword: *Android, Online appointment, Patient registration, Doctor registration, Department Info, Private Doctor-patient interaction.*

1. INTRODUCTION

Health monitoring becomes the need of society in today's lifestyle specially for senior citizen and patients. Reaching the hospital for health checkup in some cases need continuous monitoring at home and work sites.

The advantages of mobile web can be made full use of to make up the time and distance gap between doctors and patients and to provide fast and adequate medical services. Through the link between mobile terminals and specific service, both doctors and patients are able to obtain required data to achieve a better interaction.

Android is a Linux based open source operating system which is mainly used in portal devices with good performance thus making its market share growing.

Making appointments over mobile phones provides more benefit. It saves a lot of time of patients and staff of that organization. There is no wastage of time in queue when mobile based application is introduced in the current scenario. As soon as the patient registers with the application, they get password through their registered Email Id.

2. LITERATURE REVIEW

In today's world if someone wants to book a Doctor's Appointment we require to call in clinic or personally go to that place and book the appointment. The objective of this project is to build a system that will ease the process of booking appointment of the doctor.

This is a doctor-patient interaction system based on Android. Its excellent performance on mobile terminals makes it possible that patients are able to access the hospital server to obtain the needful suggestion about the patient.

The existing system consists of booking a doctor's appointment through the app. The app is very useful as it provides various features. The main drawback of this system is that, it is a website and one requires a very good internet connection as loading of web pages may take a long time[1]. The proposed system consists of two panels: Doctor and Patient. The users will first have to download the application and install it in their mobile

devices. Once installed, this application will remain into the system permanently until the user deletes it or uninstalls it.

The patient can view the doctor’s schedule and look for an appointment according to his convenience. The patient will then send a request to appointment. The doctor can either accept the appointment or reject it. The database will get updated accordingly and the patient will get a confirmation message.[2]

Existing system does not has the feature of Doctor-Patient direct interaction which this project implements so that the doctor knows beforehand history of prescriptions and medical procedures about the patient.[3]

Existing System does not has Emergency module that serves users at times of emergency. When a person meets an accident or critically requires medical assistance, then this module is beneficial for the person. Module gives details about the nearby hospital or clinics knowing the current location of the user and lists down all the nearby hospitals. Thus the user can access the system according to their requirements.

3. OBJECTIVE

Problem Statement: In current scenario, there are very few resources available in market for communication between doctors and patients but most of their functionalities are not really helpful to the users. All the existing applications are meant for making money without providing necessary features that will help the user. This project is free of cost and open to all users with a new initiative which focuses more on patient benefits relating to his/her disease treatment and facilitating the doctors with an easy and optimal way to treat the patients.

Goal of the Project: The proposed Mobile Medical application System aims at enhancing appointment scheduling in hospitals by allowing patients to register for appointments through mobile phones at their own time, and make an appointment on their desired slot of time. The system emphasises on direct doctor-Patient interaction for efficient diagnosis process.

4. PROPOSED SOLUTION

The proposed system is based on Android Operating system which will enable the patients to book a doctor’s appointment through the app. It also reminds the users to take medicines on time through notification. It provides private chat for Doctor and Patient where both can share data relevantly.

The proposed system is based on Android Operating system which will enable the patients to book a doctor’s appointment through the app. It also reminds the users to take medicines on time through notification. It provides

private chat for Doctor and Patient where both can share data relevantly.

The below architecture of the proposed system consists of a main portal system which can manage both admin/server and android based application. The admin/server application is a desktop application developed for windows operating system that is a (.exe) executable file. This application is managed by the admin or the IT manager of the organization. He will manage all the appointment requests to the doctor by checking availability of date and time as described by the patient. Further appointment is generated if the slot is vacant. The admin will do the current and new doctor's registration and will also manage the password recovery of doctor and patient.

The patient will have to register into the application for the first time. On registering, the patient will notify a username and password. The patient can use this username and password for logging into the app each time he uses it. After logging in, the patient will have to select a filtration type. The process of filtration is done on two bases:Area wise and Specialty wise. After selecting the filtration type, the doctors list will be displayed. The patient can select any particular doctor and view his profile.

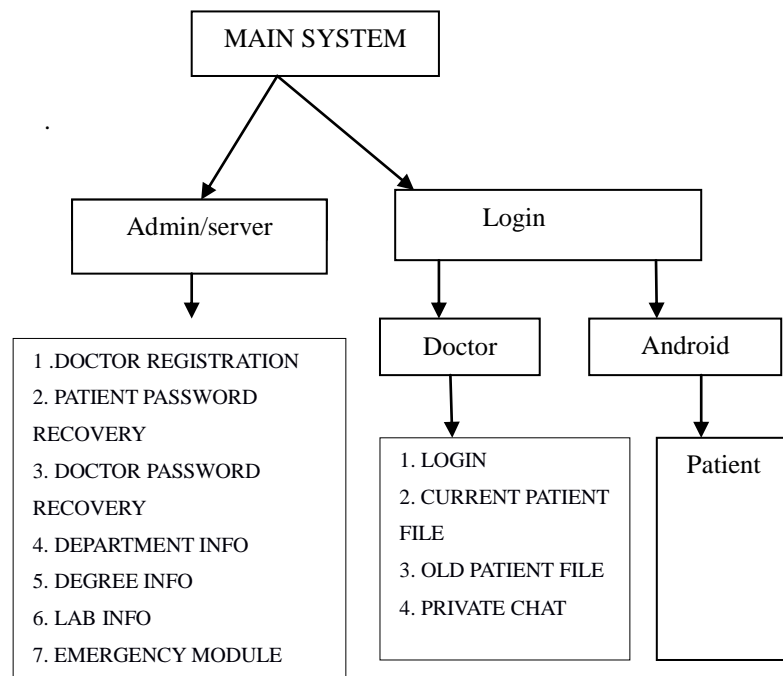


Figure :- proposed system of Hospital appointment using android technology .

5. RESULTS

The application will be beneficial to doctors and patients. The application is a freeware, user friendly and easily accessible. Also it will save time, reduce the effort and paperwork of both patient as well as doctor.

The application gives reliable reminders, good user interface, nice user experience and it supports many new features like private chat, emergency module and prescription info.

6. CONCLUSION

Scheduling appointments appropriately and resourcefully is important to the smooth process of the hospitals' service delivery. People have slight patience for waiting in the queue at the hospitals. Patients, who make appointments in advance, want to be attended within 10 minutes after showing up at the hospital. They prefer to be given a specific time for seeing the doctor rather than arriving at the hospital and wait for an open moment. Confronting the challenges facing existing patient appointment systems, we are proposing an integrated mobile appointment scheduling system that will improve appointment scheduling in hospitals with the aim of simplifying patients and doctors' task. In our system, the admin gathers information from the users and patients based on the availability of doctor time slot. In employing the proposed system, patients will be more relaxed whenever they make appointments without standing in the long queue.

7. REFERENCES

1. Sherin Sebastian, Neethu Rachel Jacob, "Remote Patient Monitoring System Using Android Technology", IJDPS, September 2012. Prema Sundaram, International Journal of Computer Science and Mobile Computing Vol.2 Issue. 5.
2. Hylton, A. & Suresh, S. (2012) Application of Intelligent Agents in Hospital Appointment Scheduling System. International Journal of Computer Theory and Engineering, Vol. 4, No. 4, pp. 625-630.
3. Prof. S. B. Chaudhari, Associate Professor, Computer Dept. TCOER, Pune, India "Android Application for Doctor's Appointment", May, 2013.
4. Anil Kumar, Research scholar, Dept. CSE "Analysis of Medical Image Processing and its Applications in Healthcare Industry", June, 2014.

5. Application of Smart Technologies for Mobile Patient Appointment System. Yeo Symey¹, Suresh Sankaranarayanan², Siti Nurafifah binti Sa, International Journal of Advanced Trends in Computer Science and Engineering. Volume 2, No.4, July - August 2013.

6. Patient History Tracker System, Rutuja D. Rathod, Tanaya S. Deshmukh, Ashwini S. Sawant, International Research Journal of Engineering and Technology (IRJET), Volume: 03 Issue: 05 | May-2016.

7. A novel technique to monitor human body vital signs, G. S. Uthayakumar*, A. Sivasubramanian and A. Gratus Iruthaya Kisho, International Journal of Biomedical And Advance Research.