

Healthcare Appointment Android Application

Asst. Prof. Aniket Bhojar¹ Komal Mungle² Ashwini Kathale³ Pranay Raut⁴ Akshay Katole⁵

¹Assistant Professor

^{1,2,3,4,5}Department of Computer Engineering

^{1,2,3,4,5}Suresh Deshmukh College of Engineering, Selukate, Wardha

Abstract— Nowadays, if a person wants to get a doctor's appointment he has to go to the doctor's clinic or need to call, to book an appointment. This consumes the precious time of the patient. Also if the doctor cancels his/her schedule, the patient does not come to know about it unless he/she goes to the clinic. The objective of this project is to build a system that will ease the process of booking appointment of the doctor. The patient will book the appointment through his/her mobile phone. The doctor will come to know the number of patients he has to attend in a day. The system will save patient's as well as doctor's time. It will save the paperwork of both doctor and patient. The system will prove to be useful for a doctor as he can check his appointments whenever and from wherever he wants from his mobile phone. It also contains the functionality to connect with doctor online, for suggestions and counseling.

Key words: Healthcare, Booking Appointment

I. INTRODUCTION

Many medical applications for smart phones have been developed and widely used by health professionals and patients, so that we can develop a doctor patient interaction system on Android platform to meet the needs of the patient and provide doctors more efficient and convenient means of communication with patients when the mobile communication technology is developing rapidly. 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. The use of these applications is very helpful because it leads to better communication between doctors and patients. The formation and enhancement of the doctor patient interaction system is a very necessary requirement, especially now when the mobile communication technology is developing rapidly. The advantages of the mobile web can save the precise time of the patient and decrease the distance gap between doctors and patients and provide fast and adequate medical services. Through the connection between mobile terminals and specific service, both doctors and patients are able to obtain required data to achieve a better interaction. If anybody is ill and wants to visit a doctor for checkup, he or she needs to visit the hospital and waits until the doctor is available. The patient also waits in a queue for getting appointment. Thus this system will help to enhance the overall treatment quality. Through the connection between mobile terminals and specific service, both doctors and patients are able to obtain required data to achieve a better interaction. Android is a operating system which is mainly used in portal devices with excellent performance thus making its market share growing.

II. LITERATURE REVIEW

Here we present 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 necessary suggestion about the symptoms and interact with the doctors on their own mobile terminals, while doctors can track patients whenever and wherever possible or make a diagnosis of alert depending on the monitored data from the hardware of mobile terminals. Our solution is to build a system that will help the needful people and people who wants to save their precious time. Any needed information can be supplied at the time of installation. This removes the need for a technician to install software and enormously quickens the implementation of a patient monitoring system. In this paper, we solve this problem by proposing a new system based on android technology, through that the doctor can manage his/her appointments from anywhere. In addition to this the patient who is unable to go to the clinic and take the appointment can also book his/her appointment from a mobile phone within 2-3 min. Paper describes the needful things that the Doctor has to do every day.

III. PROPOSED WORK

The proposed system consists of two panels, Doctor and Patient. The users will first have to download the application from Google Play store and install it on their android mobile devices. Once installed, this application will remain into the device permanently until the user deletes it or uninstalls it.

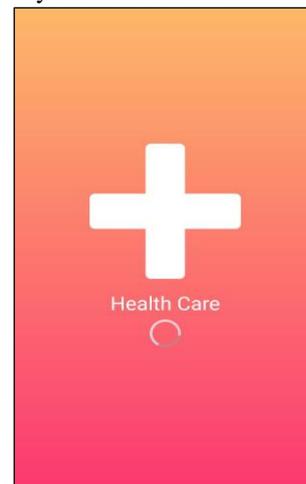


Fig. 1: Healthcare Application Start Screen

The new user will have to register into the application for the first time. On registering, the patient will receive a username and password. The patient can select any particular doctor and view his profile. The patient will send a request for an appointment to doctor. Also the patient can view the doctor schedule and look for an appointment according to his convenience. The add-on to this system is

that the patient will receive a notification before the actual appointment is booked. Required information about the patient will be saved into the database, and when user will use this application the second time then only the name of patient and his/her mobile number will be required. The database will get updated accordingly and the patient will get a notification on his/her mobile phone. The proposed work in this paper is an Online Hospital Management Application that uses an android platform that makes the task of making an appointment from the doctor easy and reliable for the users.

Fig. 2: Patient Registration Form

IV. ADVANTAGES

- The application will prove very beneficial to doctors and patients.
- The application is a freeware, user friendly and easily accessible.
- It will save time, reduce the effort and paperwork of both the patient as well as the doctor.
- The system focuses on improving the rate of attendance at healthcare appointments.
- It supports an easy implementation as it is less expensive, trustable, adaptable, and easily accessible.

V. RESULT AND DISCUSSION

The improvement of doctor and patient interaction system is very important requirement, especially now when the mobile communication technology is developing rapidly. The mobile application is tested using a variety of emulators of Android Development Tools from Google, and on several smart phones such as Galaxy Grand 2, Galaxy Core Prime, and Sony Xperia C. The applications are tested by a local doctor and their patients and we noticed a big satisfaction of the users in time saving and mobility. Initially mobile phones were developed only for voice communication but now-a-days the scenario has changed, voice communication is just one aspect of mobile phone. Every day more than one million new Android devices are activated worldwide. Android gives you a world-class platform for creating apps and games for Android users everywhere, as well as open marketplace for distributing them instantly.

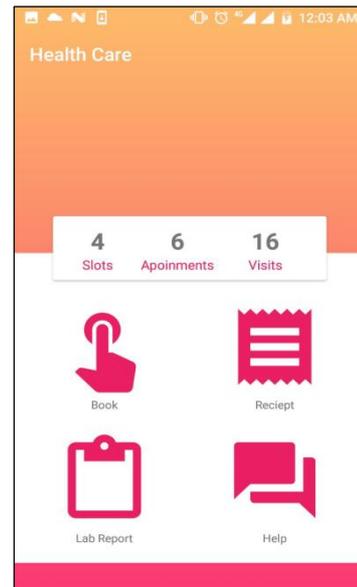


Fig. 3: Patient Main Screen

VI. CONCLUSION

A mobile healthcare system based on Android platform is presented. This system aims to simplify the task of the patient and doctor. It will make patients more relaxed as they do not have to stand in a long queue to fix their appointment and also book an appointment according to their choice in a more convenient way. The proposed online appointment system has been implemented in android studio. This application simplifies the task of both the patient and the doctor. It will be very beneficial to the patient because now they don't have to stand in a long queue to take their appointment.

REFERENCES

- [1] Frank Sposaro and Gary Tyson, "iFall: An android application for fall monitoring and response", 31st Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 1:6119-22, 2009.
- [2] International Journal of Advanced Trends in Computer Science and Engineering.
- [3] International Journal of Managing Public Sector Information and Communication Technologies (IJMP ICT)
- [4] <http://www.developer.android.com>
- [5] N. Zarka, M. Hinnawi, A. Dardari, M. Tayyan, Patient keeper medical application on mobile phone, ICTTA, IEEE, 19-23 April 2004.
- [6] Rashmi A. Nimbalkar and R.A. Fadnavis "Domain Specific Search of Nearest Hospital and Healthcare Management System", Recent Advances in Engineering and Computational Sciences (RAECS), 2014, pp.1-5.
- [7] Luschi, A. Belardinelli, L. Marzi, F. Frosini, R. Miniati and E. Iadanza "Careggi Smart Hospital: a mobile app for patients, citizens and healthcare staff", IEEE-EMBS International Conference on Biomedical and Health informatics (BHI), 2014, pp.125-128.