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"VIRMEDO"- An Android Application for Hospital Assistance

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Abstract: *Due to population explosion, a patient's journey within multi- healthcare system is highly challenging especially the accountability, tracking, recording, and analysis of patient data. Developing a system for collecting patient medical information from multiple health care centers where patient can analyze their medical details and access other requirements they want during the period of hospitalization. It provides real time information and additional documents of the patient by the doctor. Facilities of the hospital like booking appointment, prescription, test reports of the patients an easily accessed. Through this application the patient gets complete information and updates about the hospitals, as per requirements it include hospital map and virtual queue. These features are helpful for both bystander and patient. It increases the chances of positive decisions before treatment by checking previous medical records of the patient and their details is recorded within the database.*

Key Word: *Android Application, Web Application, Real time updations.*

I.INTRODUCTION

Social The automation of health care system is one of the revolutionary goals of this century. Because a patient journey withinthe healthcare system is quiet exhausting. These are provided within the medical departments and its facilities to provide an optimal environment for medical professional as well as public. Quick access to data is heart of the system. These programs must provide an information network that acquires process and stores information for the patient to fulfill those specifications. Patient related information are obtained from several sources like their reports, themselves, online patient tracking services, assessment by doctors and records already stored. The doctors need to retrieve patient's previous data reports for examination. The common way is to link it to hospital portals. However, multiple accesses to portal due to high data rate from various terminals can cause performance issue as well as crashes. The use of the digital storage and recovery techniques increases the capability of automating these health care systems and solves the above issues. Mobile media plays key role in this. The above-mentioned features should also be affordable to public, must be user friendly for interactions, secure and upgradable along with information updates. Upon consideration of the criteria, android application is perhaps the most apt choice that can be used information systems for health care. The application design in this paper provides real time information access and prescriptions by the appointed doctor of the patient. It also provides great accountability, tracking, recording and as well as analysis of patients data. It is developed in accordance to ease the collection of patient's medical history from multiple health care systems, which can be accessed, by both hospital staff and patient during the period of hospitalization. With the help of this application patient gets a complete digitalized mode of hospital processing such as being admitted, settings up appointments etc.

II.MATERIAL AND METHODS

Materials:

1. **Software Specifications**
   Operating system: Windows 10
   or above.IDE: Notepad ++.
   Front end: HTML, CSS JAVASCRIPT.
   Back End: Android, PHP,
   MYSQL.Tool kit:
   XAMPP, Android studio.
2. **Hardware Requirements**
   Processor Intel Core i3 – 3220 (3.3 GHZ)
   or above.RAM 4 GB or above.

Storage 512 GB or above.
Other Keyboard and Mouse.

Methods:

This application proposes an android application for better interaction platform for the patient and assists during the hospitalization. We use different modules in [2] Doctor, Hospital, Administrator and User panels. User uses android application and administrator along with doctors and hospital uses web application. Hospital and doctor do updation of [1] patient's medical data. The patient can view the doctor's schedule for that day and [2] make an appointment through the application. Introduction of virtual queue system within the application helps patient save time and energy. People visiting for the first time are unfamiliar with hospital grounds. They can access the map showing the entire structure of the hospital, which would ease navigation. When hospitalized, patients can choose the room's type provided which includes AC/Non AC and Ward services. Patients are assigned bed number. App also contains a one click emergency bell, which would alert the hospital staff. The patient can request a wheelchair and other requirements at any time through the app. The database containing patient details and records are stored within the application server. Patient can set reminders for doctor checkup, medicine, injection, exercise. At the hospital's side website is used. It includes consultation, patient, room creation, doctor, map-uploading portal, room assign along. Doctor [4] part mainly has Consultation and user has calling help desk, access profile, view bed, [3] consultation, map, booking, diet, request, alert, reminder. Administrator provides [1] access to the hospital and views feedback from hospital and user.

III.RESULT

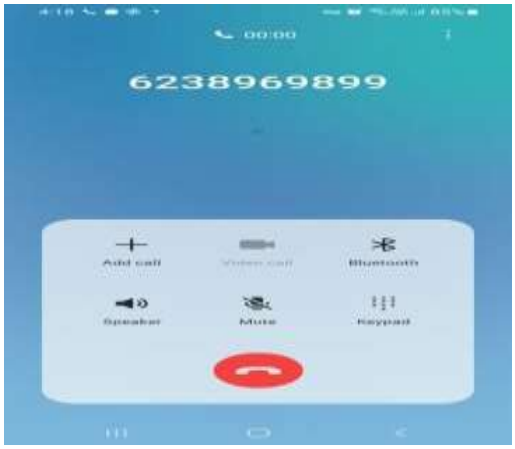

Fig.1 Help desk

User can contact the hospital through help desk.

Fig.2 View bed

Fig.3 consultation

It contains present and previous record.

Fig.4 Map

It assists the navigation for users.

Fig.5: Booking

The booking can do after checking the doctor availability.

Fig.6 Virtual queue

After booking it enables the virtual queue to reduce the waiting time.

Fig.7 Diet plan

Patient can view the diet plan provided by the doctor.

Fig.8 Reminder

Patient can set the reminder for their personal needs.

Fig.9: Hospital feedback

It will contain the feedback left by hospital.

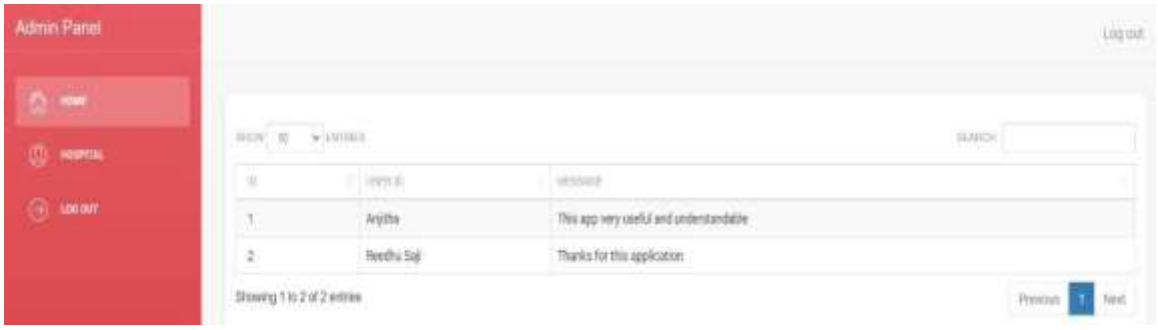

Fig.10: User feedback

It will contain the feedback left by user

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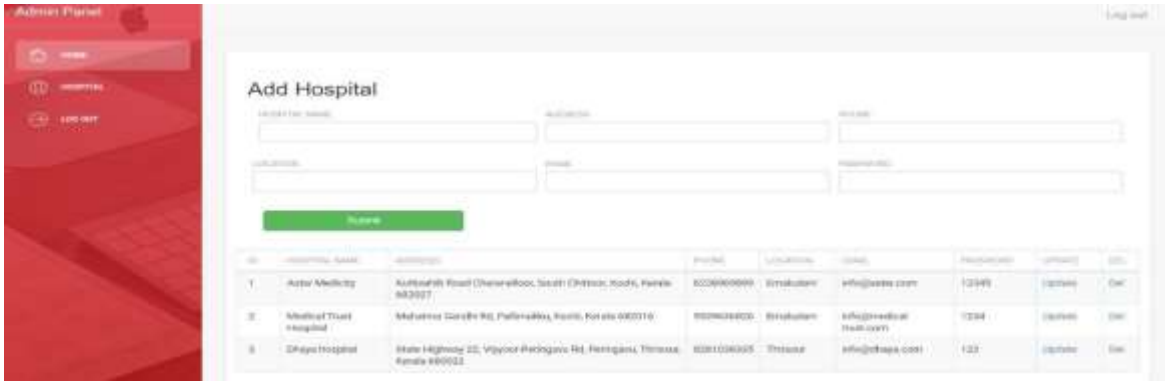

Fig 11: Adding hospitalIt enables the administrator to add hospital which can use the application.

IV.CONCLUSION

In most developing countries, medical errors and patient death are caused by lack of medical history prior to treatment, lack of maintenance of prescription, lack of communication between hospitals and inefficient method of booking in hospitals. Therefore, to reduce the medical errors the application designs in this paper with a personal smart health system interaction with every user with his/her medical information. They can find much convenience that can change the way people react in emergencies. Instead of being panic, people may find a quick and effective way to reach the solution with the help of this application. It also reduces the waiting period to minimum to nothing. It will be more helpful for the patients and bystanders equally in hospital at the time of admitted. In any emergency, the person can easily access the application for the needs immediate medical attention, booking and

other needs. This way it is very efficient for all users as well as the hospital because the user has to just login with the app and mostof the things will be automatically taken care of by the hospital. Finally, the suggestions and prescription from the doctor are addedto the patient's prescription online after treatment. The application can easily adapt to future technology and feature updates.

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