Online Doctor Appointment System (One-Health)

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Abstract- **Nowadays computers are making their way into every business, industry and research activity today. The use of computers is becoming so diverse in every field such as entertainment, education, research, business, communication, personal management, solving problem, defense and military, transportation, banks and financial management, etc. In hospitals, the process of maintaining the record of patients and employees working in the hospital, managing reports and appointments calculating bills, etc, requires lots of processing and record keeping in different departments. In order to manage and view information fast and effectively Hospital Management System has been designed and developed. It is user friendly and provides a simple and efficient way of managing the working of hospitals. This system will help in management of patients, managing the schedules of the doctors, and maintaining the records of patients which can be accessed throughout hospitals . Managing, communicating, storing data, analyzing and updating the patient, doctor and other work-related details online. Thus, by implementing this web-based application we can manage many tasks that are usually time consuming and inconvenient.**

Keywords: **Management, Hospital Information System, System design, web application system, Hospital Administration. Easy access to data, reduced paper work, past medical record. Advanced software in hospitals managing data, administration, user friendly.**

INTRODUCTION*:*
In this modern world, technology has become a replacement for manual work and a necessary tool for solving problems, as it arises, everything has been easy for us. That is why in the medical field "Hospital Management System" is very significant nowadays. Doctors are life savers; they shouldn't be too far from those who need healthcare. Doctors medical attention. This system design in order for clients to select the appointment time should make services accessible and available to their clients, as more and more people are having the need according to her/his preference and for medical staff to organize their schedules. Since, taking appointments manually will take or waste a lot of time that would also possibly risk someone's life. Thus, "One-Health" is going to be developed to reduce the problem concerning the practice of manual systems. This serves as an easy way to immediately respond to the clients who badly need a medical doctor.

Motivation: The real motivation for the
The hospital management system project is to make all the management processes like patients registration, billing, doctors appointment, doctors prescription, reports etc. this is often seen that to find out the patient's history, the user has to go through various registers. This results in wastage of time. So by this
system it will become easy to manage all processes. So now by taking the motivation from this scenario which was regularly seen in hospitals we are designing this system which can be beneficial for the patients and hospital staff. So,we'd like to possess this system which help hospital to do
work fast and effectively.

OBJECTIVE:
1)Every patient should be registered, and every person who handles the patients in some or the other way should have a login access to the system so that person can update about the patient relatively.
2)Appointments should be managed effectively.
3)All the doctors should have a system with internet connection and login in order to manage appointments.
4)This webapplication can be developed by using object oriented programming languages for front end like Asp.net, HTML, CSS,JS,jQuery,bootstrap which will provide the latest technology in developing quite user friendly user interface so it is very easy for all the user to understand the system.
5) For backend C# and for database Microsoft SQL Server to ensure proper structured and secure data storage and easily access to data.
6)Proposed system is Website which will create web view and WebApp which will run in all mobile devices .

RELATED WORK:
One-Health Hospital Management System was introduced with the cause for helping hospitals speed up their processes.One-Health came into the picture of hospital management as evolving technologies while modernising healthcare facilities. In today's world, the management of healthcare starts from the hands of the patients through their mobile phones and facilitates the needs of the patient. One-Health was introduced to solve the complications coming from managing all the paperwork of every patient associated with the various departments of hospitalisation with confidentiality. One-Health provides the ability to manage all the

paperwork in one place, reducing the work of staff in arranging and analysing the paperwork of the patients. One-Health does many works like:

● Maintain the medical records of the patient
● Maintain the contact details of the patient
● Keep track of the appointment dates
● Tracking the bill payments.

The advantages of One-Health is as follows:

● Time-saving Technology
● Improved Efficiency by avoiding human errors
● Reduces scope for Error
● Data security and correct data retrieval made possible
● Cost effective and easily manageable
● Reduces the work of documentation

DESIGN INTERACE:

The front end design is simple and user-friendly. Once the application is started the patient will register himself and then he will be able to log in into the application. The patient can make an appointment by selecting the preferred doctor, date and time. The appointments are managed by the admin through a website. The admin also registers a doctor. Admin is able to view doctors, view patient's records and view feedback also. The back end design includes a server which acts as a centralized database. All the data of the registered doctors and patients and the data regarding the appointments are placed on the server. The data is approached and shared by using API'S between the website and the android application. A. ANDROID

Android is an open source operating system which is Linux based and android platform is used to develop many useful applications for the mobile devices that makes the tasks of everyday life easy and faster. The android platform also provides built in database (SQLite database) and Web services. Android platform provides connectivity between the server and the application using certain APIs, hence the task of making a doctor appointment using a mobile application connected to a website located on the server becomes easy using the advanced features and libraries available on the android platform.

B. SOFTWARE DEVELOPMENT TOOLS The following software tools were used during the development process.

• Android studio 2.1.1 and SDK plug-in
• JDK 6
• Android 6.0 (Marshmallow) installed packages
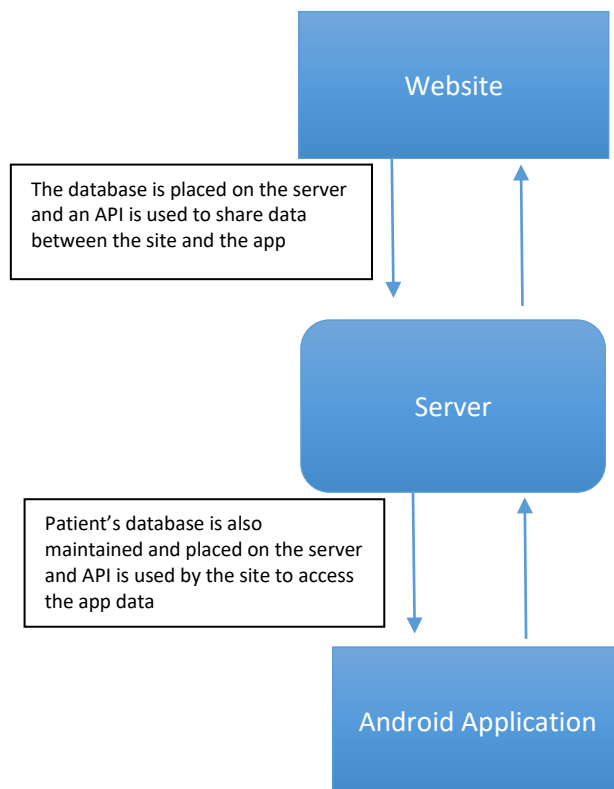• Ipage Server
• HTML
• Php

Figure 1: Block diagram of the appointment application

CONCLUSION AND FUTURE WORK:

The proposed online appointment system has been implemented in android studio for application development and website is developed using HTML and PHP. The tasks involved in this work are divided into modules. The data is approached and shared by using API'S between the website and the android application. The proposed system is efficient and has friendly user interface. Addition of the admin and doctor modules in the android application are included in future work. That would help the doctor to register on the application and perform all the tasks on the app. The admin would be able to use the app for managing the details of the patients and the doctors instead of using the website. A payment or some amount may be charged to the users/patients while making an appointment to avoid the unethical users. As many users only register themselves just for fun and has no concern by making an appointment. Some more future directions are the improvements in the patient's module which includes setting reminders for the appointments and saving the appointment date to the calendar.

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