

# MEDISET APP

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## ABSTRACT

*This is an Android based application in which an automatic alarm ringing system is implemented. It focuses on doctor and patient interaction. Patients need not remember their medicine dosage timings as they can set an alarm on their dosage timings. The alarm can be set for multiple medicines and timings including date, time and medicine description. A notification will be sent to them through email or message inside the system preferably chosen by the patients after scanning the prescriptions which are issued by the doctors both hand written and also the printed prescriptions also. They can search doctor disease wise. The patients will get the contact details of doctors as per their availability. The system focuses on easy navigation and good user interface. Many such Medical Reminder Systems have been developed where a new hardware is required but in our work we have made an attempt to develop a system which is economical, time-saving and supports medication adherence.*

**Keyword:** - Natural Language Processing (NLP), AWS, JAVA, Mysql.

## 1. INTRODUCTION

There is a popular saying that health is wealth. Our Mediset App is designed for, but not restricted to, helping people in taking care of themselves in taking their medications at the correct time and in the correct amount. It has been observed that people in general neglect their health and give preference to other things than taking their medicines. This is also the reason they forget to take their prescriptions on time. Many health maintenance organizations, health practitioners and medical researchers have realized that increased use of patient reminders can significantly increase the treatment of chronic illness and many other curable diseases, delivery of medical services to the patients who need it.

Several organizations have themselves started implementing the patient medicine reminder system in the health care field and it is currently being implemented in several hospitals in the western countries to see if the method reaps any benefits. It is known throughout that Over The Counter (OTC) medication taking patients should take prescriptions in a limited or prescribed quantity at the respective times they are supposed to take their medications. However, many patients and specially old people, do not take their medicines in the correct quantity. They either take overdose of medicines thinking it will help them heal faster, or they fear the doctor has prescribed a larger quantity than required and take under dosage of medicines.

### 1.1 OBJECTIVE

- To make the user to take the medication on time by setting the alarm on the smartphone of the user.
- To give info of the medicine the user is taking by scanning the prescription given by the doctor and display a small description of the medicine.
- To develop a working model of this application and make the life easier in this field of problem

## 1.2 SYSTEM ARCHITECTURE

The new designing and developing android based medicine reminder application is to automate the reminding of patient to take their prescribed medicine or pills within the proper stipulated time and proportion, the automation is carrying out using the swift programming language alongside some swift standard libraries by utilizing the AWS integrated development environment.

## 2. LITERATURE SURVEY

Dhanuja Ilkko et al<sup>4</sup> proposed UbiPILL A Medicine Dose Controller of Ubiquitous Home Environment (2009), Home automation and wireless sensor network which have enhancing the quality of life by providing security, information and comfort. Here had discuss a centric home server with three main roles: use of existing Interfaces on registered systems for remote monitoring and Control, serving the surrounding system as a data gateway and Providing content adaptive user interfaces enhanced by Belongings of end-user client devices, the ubipill device had implemented to remind people for elder and for monitoring purposes ubipill and home server have been design to reliably monitor the medicine box activity by web browser.

Kliem et al<sup>5</sup> proposed Security and communication architecture for networked medical devices in mobilityaware eHealth environments (2012), Telemedicine concept is cost efficient and location autonomous monitoring system, the suitable and secured medical data can be transferred with different devices with attention towards security and privacy issue. Emergency situations need on the flutter network integration and data transmission fluctuating from domains like patients home, medical practices, ambulances and, hospitals, where each domain may parallel to a different authority so, mobility aware approach allowing out of the box medical device integration and authentication, and simultaneously fulfilling the typical security.

Parida et al<sup>3</sup> proposed Application of RFID Technology for In-House Drug Management System (2012), RFID based technology have used to make drug management system, in this tracking of medicine can be done including emergency or regular medicine with or without RFID tag. Clifton et al<sup>2</sup> A Self-powering Wireless Environment Monitoring System Using Soil Energy, proposed A largescale clinical validation of an integrated monitoring system in the emergency department(2013).In the integrated patient monitoring which include electronic patient data which generally have more amount challenges to acquire cope with artefact data with the help of algorithm, analyzing and communicating the resultant data for reporting to clinician, here in this demonstrated the machine learning technology embedded within healthcare information system which provide clinical benefits for improving patient outcomes in busy environments.

Hamida et al<sup>6</sup> proposed towards efficient and secure in-home wearable insomnia monitoring and diagnosis system (2013), Due to the evolution in technology it is now possible to specific timing monitoring here delivers an experimental estimation of communication and security protocols that can be used in in-home sleep monitoring and health care and highlights the most proper protocol in terms of security and overhead. Design Procedures are then derived for the distribution of effective in-home patients monitoring systems.

Al-Majeed et al<sup>10</sup> proposed Home telehealth by Internet of Things (IoT) (2015), The real time monitoring can be possible through IOT which helps in development of low cost medical sensing, communication and analytic devices which make quality of life, in case of density of messages there is fear of information degradation but by using proper algorithm we can resolve the problem and can make the low cost imaging, sensing and human computer interaction technology.

Huang et al<sup>8</sup> proposed the intelligent pill box—Design and implementation (2014), the implementation of pill box has proposed by keeping the problems of old age people in mind to provide full medication safety. The pill box will remind the patient about timing by doing this drug abusing can be controlled.

Ray et al<sup>7</sup> proposed Home Health Hub Internet of Things (H3IoT)( 2014) , Health is vital part of life and it is quite necessary to give priority health related issue in which digitization helpful by using number of devices through the concept of IOT but due to heterogeneity and interoperability the concept of digitization for health care is neglected, here in this the best focus given to architecture framework for human health hub which have envision of usage of real life implementation.

Shivakumar et al<sup>8</sup> proposed Design of vital sign monitor based on wireless sensor networks and telemedicine technology(2014), Vital sign monitor can be implemented with Bluetooth technology which is embedded with sensor, the transmitter will include the application oriented smart phone enable with 3G or IEEE 802.11 i.e. wi fi based transmission. The data from transmitter will be sending to cloud for centralized monitoring takes place; the expert in remote place can view all patient data and in case of emergency can take appropriate action.

### 3. SYSTEM ARCHITECTURE

The architectural configuration procedure is concerned with building up a fundamental basic system for a framework. It includes recognizing the real parts of the framework and interchanges between these segments. The beginning configuration procedure of recognizing these subsystems and building up a structure for subsystem control and correspondence is called construction modeling outline and the yield of this outline procedure is a portrayal of the product structural planning. The proposed architecture for this system is given below. It shows the way this system is designed and brief working of the system.

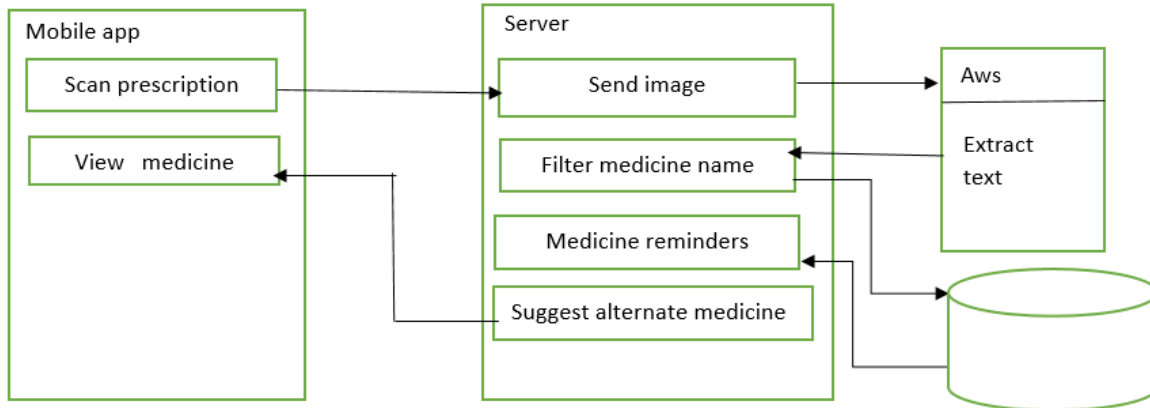


Chart -1: Whole System Architecture.

### 4. CONCLUSION

The mobile application comes in one of the most widely used mobile platforms namely the Android. This application is basically a medication or pill reminder, the application makes a reminder to a patient about his routinely administered drug, the application works by making a buzz or an alarm on the smartphone till the patient makes an acknowledgement. After the user scanning the prescription using the smartphone this process is the totally the automated one in this problem anyone who uses the medicine can use this automated app. The application helps to keep medication intake on track and on time with an excellent medication intake reminder.

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