

MEDI REMINDER

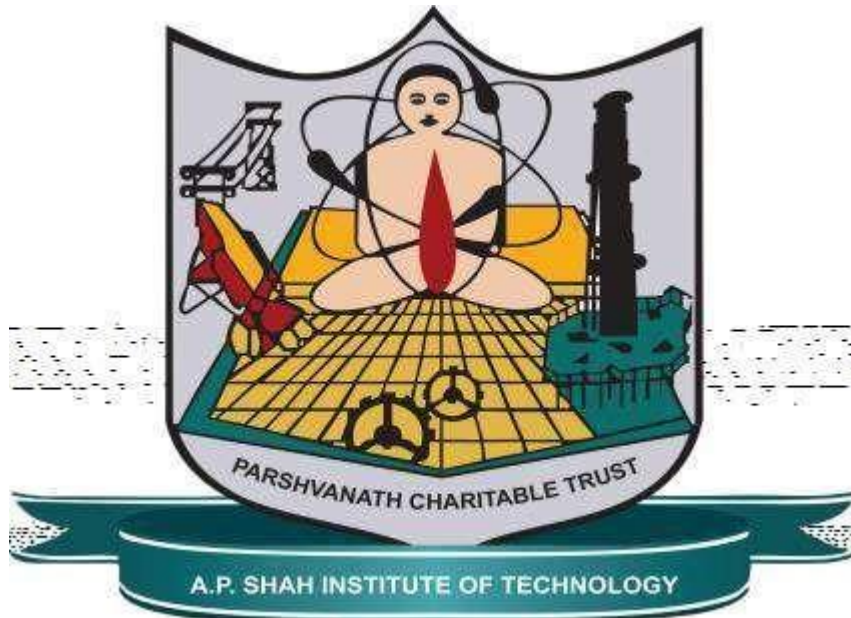
Submitted in partial fulfilment of the requirements of the degree of
BACHELOR OF COMPUTER ENGINEERING

By

Saurav Gupta (20102155)
Rajesh Gowda (20102128)
Mansi Gharat (20102168)
Vedang Deshpande (20102089)

Guide:

Prof Deepak Khachane



Department of Computer Engineering
A. P. SHAH INSTITUTE OF TECHNOLOGY, THANE
(2022-2023)



A. P. SHAH INSTITUTE OF TECHNOLOGY, THANE

CERTIFICATE

This is to certify that the Mini Project 2A entitled “**Medi Reminder**” is a bonafide work of “**Saurav Gupta (20102155), Rajesh Gowda (20102128), Mansi Gharat (20102168), Vedang Deshpande (20102089)**” submitted to the University of Mumbai in partial fulfilment of the requirement for the award of the degree of **Bachelor of Engineering in Computer Engineering**.

Guide
Prof. D. S. Khachane

Project Coordinator
Prof. D. S. Khachane

Head of Department
Prof. S. H. Malave



Project Report Approval for TE

This Mini project report entitled *Medi Reminder* by *Saurav Gupta, RajeshGowda, Vedang Deshpande, Mansi Gharat* is approved for the Bachelor of Engineering in Computer Engineering degree, 2022-23.

Examiner Name

Signature

1. _____

2. _____

Date:

Place:

Declaration

We declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

Saurav Gupta

Rajesh Gowda

Mansi Gharat

Vedang Deshpande

Date:

Abstract

Today, many people are very busy with their daily lives, so they may forget to take their medications on schedule, and their medication treatments may not be as effective as they are supposed to be. Several medication reminder applications for smartphones are already available, but most share a general limitation: users need to enter their medication information and schedule by themselves. This limitation can lead to a new, serious problem: users input erroneous medication information or schedules into their smartphones, especially elderly users. This project proposes a medication reminder application that overcomes this problem. A native Android software called MediReminder Android App Project is designed to help people who are forgetful or busy remember to take their regular meds. It is intended for users who are committed to adhering to the plan and who just need a little help remembering when to take their medications. The user can save pill objects and various alarms for those tablets in the program. A single time of day and numerous days of the week are designated for alarms. The user can choose a date to view medications and can view their pills in today's view. The application also keeps note of when each medication was taken in the past; this will help the user maintain track of their medication consumption.

Keywords: Medicine Reminder, Android App, Medication Adherence, Alarm System

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1.Introduction

Medi Reminder is an android application which helps all the patients to take their prescribed medicines on time. It is especially useful for the old age patients who have weak eyesight as the application also provides a photo with the reminder so that they can easily find out which medicine they have to consume. It is developed by using android studio(for app development) java language(for user-interface functionalities) and XML(for design purpose).The main aim behind developing this app was to help patients to take their medicines from time to time and also it is observed that people give more priority to the work and other materialistic things than their health. If educated, employed individuals are unable of remembering to take their prescribed medications, what will our parents and grandparents face? They frequently forget to take their medications, or occasionally, they take the wrong medications, which worsens their health even more. Our application aims to reduce the problem by reminding the patients to take their medicines from time to time.

The application consists of six modules. At first the user has to register by entering his/her details asked at the time of registration. It in one time OTP based registration so there is no need of remembering password. All the details entered by the user can be seen in the profile page of the app. The profile page can also be updated further. After registration dashboard of the application opens. Here the user can add reminders of the medicine with the help of pic so it is easy to identify at the time. He/she can also delete the reminders if the medicines are changed. All the reminders set by the user can be can be viewed in the reminder section of the application. After the consumption of the medicine, he/she has to send message to the guardian that the medicine has been taken. Animation is also used in the application to make it more attractive and it is user friendly.

The main technology stack used for implementation stack is java for UI functionalities and firebase for backend purpose. The data entered by user at time of registration is stored in firebase. All the pics of medicines are also stored in the fire base in the form of URL and at the time of reminder the images are fetched and displayed. The number entered by guardian at the time of registration receives a SMS that medicine has taken by a patient. For milder medications, this might not be hazardous, but for more potent and concentrated medications, it might cause additional bodily harm. Exactly in this situation might our medication reminder system be useful. Our system receives the user's prescription information, including the term of the prescription, the names of the medications, the times they should be taken, and the recommended dosage for each medication. After entering all of this information, Our technology will send a mobile message and a physical reminder to the user at the appropriate moment to remind them which medication has to be taken. Customers can leave the taking of medications to our app. As soon as the time for the Upon expiration of their medication, they will be informed and just need to take their prescriptions only for that specific period.

Furthermore, some patients are so occupied with their day-to-day activities that they just forget to take their medications. This is particularly true for old patients who have to take more than one medicine at more than one time in a day. Setting alarm clocks is a tedious task

which patients are too lazy to set again and again. If asked about what time people have to take their medicines, many forget to answer the correct times or remember whether they have already taken the medicine in the day already if utilized if done properly, this will significantly reduce drug overdoses caused by Patients will be reminded to take their medication to prevent forgetfulness and medicines. If asked about what time people have to take their medicines, many forget to answer the correct times or remember whether they have already taken the medicine in the day already. Elderly people specially face this problem because of their degrading memory and in severe cases, forget that they have already taken their prescription and retake the same medicine 2 or 3 times in the same duration 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. The former leads to several disastrous health implications while the latter delays the treatment of the patient and in worse cases, allows the illness to spread further requiring further treatment any health maintainance organizations, health practitioners and medical researchers have realized that increased use of patient reminders can significantly increase the treatment of chronic illness and 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 Medication reminders help in decreasing medication dispensing errors and wrong dosages.

2.Literature Survey

According to a landmark study on medical errors conducted by the US Institute of drugs in 1999 [4], medication errors and adverse drug reactions are the foremost common cases among all medical errors. These adverse drug events (ADE) incurred significant tolls in terms of patient fatality, medical expenses, productivity losses, and damages to morale and reputation of healthcare professionals. Out-patient medication administration has been identified because the most error prone procedure amidst the whole medication process. They accounted for 25% - 40% of all medication errors and were the most reason for admission of elderly into nursing homes. As of 2017, there have been 7.6 billion people on earth [4]. Thanks to modern medical advances, longevity has been extended over the past century. Today, the anticipation of an individual once he or she reaches the age of 65 is now about 84 years old in the United States and about 86 in Japan. As a result, 962.3 million people or 12.66% of the world's population are seniors, over 60 years old. In Asia, many countries are considered to be aging societies: these are societies where the proportion of seniors, 65 years of age or over, exceeds 10 percent of the whole population. These countries include Singapore, Thailand, Vietnam, and Malaysia, as well as Myanmar which will become an aging society in the next few years [1]. Most out-patient medication errors were made when patients bought prescribed and over-the-counter (OTC) medicines from different drug stores and use them reception without little or no guidance. Common causes of those errors include: irregular medicine in-takes thanks to the patient's busy or erratic lifestyles, complicated in-take schedules thanks to the large number of medicines taken by the patient, adverse drug reactions caused by un-reconciled prescriptions obtained from different sources, lack of data about proper use of medicines, lack of consultation with healthcare provider and lack of monitoring mechanisms to stay track of patient's medicine in-take schedules. Multiple pharmacy (the use of multiple medications to treat multiple conditions) and polypharmacy (the concurrent use of multiple medications to treat one condition) among senior citizens are global phenomena. A study in 2015 [2] showed that 40.6% folks seniors with an average age of 76.9 years used multiple pharmacies, and 35.6% used polypharmacy. A 2016 study in Canada reports that 65.7% of Canadian seniors were prescribed with 5 or more different drugs, with 26.5% being prescribed with 10 or more drugs and eight .4% prescribed with 15 or more. In Thailand, 36.8% of seniors employ polypharmacy. Moreover, that study reveals that about 61% also had poor medication adherence and 60.2% in the polypharmacy group were found to manage their medication poorly reception. In recent years, telemonitoring has been investigated as a cost-effective approach to impose internal control onto out-patient medication administration [2]. By using remote control devices to issue medicine in-take reminders, dispense proper medicines and record patient in-take schedules, Health Maintenance Organizations (HMO) hope to scale back cost of service while improving quality of care offered to elderly or chronically ill patients. Although the installation of those remote-controlled devices represents a step within the right direction, the drugs dispensers are often bulky, expensive and susceptible to mechanical dispensing errors. an alternate solution is to put in a medication scheduler,

reminder and monitor on a mobile and using that mobile application along with a conventional pill box. This solution is cheaper and may result in deeper penetration into the consumer market. In this work, we present a mobile application on Android that not only reminds seniors to require their medicine on schedule but also collects their medicine-taking behaviours as well as analyses and submits them to their physician. The rest of this paper is organized as follows: first, we review related works; a completely unique medicine records dataset in; our framework scenario explains the system intimately in; Next, we conduct some experiments to certify the effectiveness of our system in then, we evaluate our approach against two baselines; Finally, we conclude this work and discuss our future direction. The Reminder Professional Gadget (RES) represents the final decision on how clinical reminders are delivered to data subjects. The proposed answer is closely related to the smart house as a stopping factor for initiating clinical notifications to patients, but currently the simplest smart house cannot be the endpoint. • Smartphone Messaging Utility – RES can be used to send clinical reminders to any endpoint tool or utility. As a motif for this paper, we show how to apply his RES to current phones as well, using the Telegram Cell Utility. • SMS/MMS Client • Phone Booth SmartphoneName - Configure automated gadgets to generate medical name reminders. RES is the maximum of the proposed solutions, so it should be very robust and always provide high availability. RES Middle is primarily based entirely on Java OSGI constructs and provides a easy way to extend gadgets non-intrusively at runtime. Each RES functionality (QR interpreter, database reader, user authentication) is further developed as a completely independent Java library. In the proposed device, the same engine, open HAB, is used for his RES and smart home appliances. A typical RES float starts using the data subject's QR code provided with the help of the pharmacy. The scan begins with a hardened connection to his RES network service that the data subject chooses to authenticate to allow interpretation of the QR code. User authentication is done using virtual certificates or defined consumer passwords. After authentication, the RES can use her QR code interpreter to interpret the consumer information. This aspect plays an important role in extracting clinical treatment information from the prescription ID provided. When extracting the drug ID, RES takes the drug series type and uses it to query the drug database. In this way, drug photography is prepared for uncomplicated usage, standard usage rules, and side effects. All facts are exposed to end users. This guide was written by the Institute for Safe Medication Practices (ISMP) . they provide safety Effective and efficient approach to timely management planned medication. Based on guidelines, related terms are defined as:

- Planned dosing includes all maintenance doses administered according to a standard repeating cycle of frequency
- Time-limited prophylaxis is when: a. early or delayed maintenance dose of More than 30 minutes before or after the scheduled appointment Doses can cause damage or lead to significantly suboptimal results therapeutic or pharmacological action.

A universal list of time-sensitive scheduled medications is: Impractical because hospitals treat different patient populations (e.g., mental health, oncology, transplant patients, etc.). A variety of medications must be included to address the risks. But here's an example:

- 1) Medication with a dosing schedule every 4 hours or
- 2) scheduled opioid use for chronic pain and palliative care.

There are various smart home systems, Commercial to open source implementations proposed in Solution openHAB system is used. we chose openHAB multiple reasons. First, openHAB has a growing community driving approach. Second, connection to 153 different devices Protocols such as Samsung TV, Z-Wave, Asterisk many others. To make openHAB aware of RES you need to install it. RES library (aka binding) to running openHAB A system that can interpret her JSON responses to drugs.

RES binding is responsible to:

- Translate RES JSON response to a set of reminders within openHAB
- Bind medication reminders to a specific openHAB rules on how smart home will act on medication reminder OpenHAB has simple rules configuration control where each rule can be configured on a running system from the user interface. Depending on rule configuration user (patient) living in smart home can create a set of actions that can be performed by smart home devices to make medicament notification:
- Voice (Text to Speech)
- Smart Phone Messenger – Telegram messenger is used as existing messaging application providing secure and reliable delivery [2]
- TV display

• Light: Any of notification devices can be linked together to make medication process very easy to use. All of the rules are configured once, and each new medication is following created rules. Voice notifications are very useful and are easily controlled by openHAB, providing unambiguous information at the right time. OpenHAB speaks medication name, dose and time to take it. At the same time, you will get a visual notification A smart TV with a pop-up dialog that displays medication information. Here's an example of a medication reminder on a smart TV. If the patient is not home at this time, a notification will be sent Automatic transfer to user's smartphone telegram client. Notifications of this type are considered A notification is generated that the patient may not be home Since it's a predefined time, the user has time to do it. Similar procedure happens when user leaves home, RES notification is sent to the user to take medications for later use. Only some fields are available to see reminder details Edited by user. B. Medication end date period. Other Important Information. B. the name of the drug, the time/frequency of drug intake or dosing is fixed. After reviewing the information and clicking Confirm, A reminder is automatically generated for this input record. Medication schedules are categorized and displayed in groups based on the prescribed dosing times for a given day. A medication list is provided for each period. Each record includes a drug picture (if available), name, medicinal use, and dose. The schedule has two different colours to indicate your medication status. Blue indicates that you have taken your medication, red indicates that you have not. Additional details about each drug are also displayed by clicking on each drug entry in the schedule. smart medicine reminder system is designed for, but not restricted to, helping old 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 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 especially 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. The former leads to several disastrous health implications while the latter delays the treatment of the patient and in women cases, allows the illness to spread further requiring further treatment. Additionally, some patients simply forget to take their prescription because they are too busy with their daily tasks. This is especially true for elderly people who must take multiple medications throughout the course of the day. Patients are too indolent to repeatedly set their alarm clocks, a laborious chore. Many people struggle to recall the exact times or whether they have already taken their medication for the day when asked what time they need to take it. Due to their declining memory, elderly people are particularly susceptible to this issue. In extreme circumstances, they may forget that they have already taken their medication and retake it two or three times within the same time frame. For milder medications, this might not be hazardous, but for more potent and concentrated medications, it might cause additional bodily harm. Exactly in this situation might our medication reminder system be useful. Our system receives the user's prescription information, including the term of the prescription, the names of the medications, the times they should be taken, and the recommended dosage for each medication. After all of this information has been submitted, our system will notify the user by smartphone notification and a physical reminder, at the appropriate time, which medication has to be taken. Patients can rely only on our app to administer their medications. reminder. The patients can leave taking medicines to just our app. Whenever the time for the medicine is up, they will be notified and they only have to take their prescriptions during that time, and no other time. If implemented properly, this will drastically decrease overdose of medicines due to forgetfulness and the patients will also be reminded to take their medicines. The only responsibility of the medication reminder system will be to notify the user when it is time to take their medication. We employ three different methods of reminder in an effort to ensure that the user never forgets to take their medication. One is that the light serves as a visual indicator. We also considered that if a person is not seated close to the pill box, he might not notice the lights; as a result, we incorporated a buzzer that would provide an audible cue that the medication must be taken. We have a mobile reminder app that will notify the patient utilising mobile notifications if they are outside. The hardware and software components of the system can be categorised into two groups. The task's reminder component, which involves reminding patients to take their medications and how many spoonful's or pills they should take, will be handled by the softare component. Both the online application and the mobile app can be used to set the reminder. Users of both programmes must log in before their prescriptions and calendars may be synchronised. We will give each drug a colour in order to further enhance this procedure. The ArduMed medicine reminder system serves reliable reminders, has a good and easy to use user interface and supports a lot of features adhering to medicines. The details are not at all confusing and can be easily understood by the user. The best part of the application is that the details only have to be entered one time. On submitting the details once, the data is

synced on all the user's devices on which he/she is logged in. This allows for easy reminders no matter what device the user is using. The reviews on the system are overall positive and it addresses most of the flaws in the current reminder systems. Out-patient medication administration was identified as the most error-prone procedure in modern healthcare. Most medication administration errors were made when patients acquired prescribed and over-the-counter medicines from several drug stores and use them at home without proper guidance. In this paper, we introduce a smart phone application that helps patients to avoid these mistakes. can remind its users to take the correct medicines on time and keep an in-take record for later review by healthcare professionals. It has two distinguished features: it can alert the patients about potential drug-drug/drug-food interactions and plan an in-take schedule that avoids these adverse interactions; it can revise an in-take schedule automatically when a dose was missed. In both cases, the software always produces the simplest schedule with least number of in-takes. The app works with the calendar application available on most smart phones to issue medicine and meal reminders. It also shows pictures of the medicine and provides succinct in-take instructions. As a telemonitoring device, can maintain medicine in-take recordson board, synchronize them with a database on a host machine or upload them onto an electronic medical records (EMR) system. A prototype has been implemented on Window Mobile platform. This paper introduces the design concepts of with emphasis on its medication scheduling and grouping algorithms.

Reference Documents	Application	Special Features	Summary
Juthada Suwanthara, Areena Noinongyao, S irion Vittayakorn, WiseMed: Medication reminder for seniors. Published-2022 https://ieeexplore.ieee.org/document/8974675	By the QR code on the medication package, the user's medication and schedule are accessible.	Evaluations demonstrate that QR codes mitigate the seniors' errors by 42%.	Users enter data into the framework by scanning the QR code on their pill bags.
Milan Ramljak, Smart Home Medication Reminder System. Published-2017 https://ieeexplore.ieee.org/document/8115585	eHealth system generates a QR code which is then delivered as part of the prescription, holding a set of information, such as medications treatment, duration, next visit, and similar.	In used system, three types of notifications are used, smartphone notifications, home voice, and video notifications.	The medical care of a patient may include a smart home system, it can also be applied in hospitals.The RES system can be enhanced to notify .
Mayuresh Waykole,	Helping old people in	Showing LEDs to	The Ardumed medicin

<p>Vatsalya Prakash, Himanshu Singh, Nalini N,</p> <p>ArduMed - Smart Medicine Reminder for Old People. . Published-2016</p> <p>http://www.ijser.org</p>	<p>taking care of themselves by taking their medications at the correct time and in the correct amount.</p>	<p>identify which medicine has to be taken currently.</p>	<p>e reminder system is a useful resource for taking care of their health.</p>
<p>John K. Zao (SMIEEE), Mei-Ying Wang, Peihuan Tsai, Jane W.S. Liu (FIEEE), Smart Phone Based Medicine In-take Scheduler, Reminder and Monitor . . Published-2010</p> <p>https://ieeexplore.ieee.org/abstract/document/5556577</p>	<p>When the patient misses some doses, the Medication Scheduler revises the in-take schedule and refreshes the Calendar.</p>	<p>After the patient takes the dose, Medication Scheduler notes down the in-take time and maintains it in the medication in-take record (MIR) file for file synchronization or upload.</p>	<p>This mobile computing application combines mobile phone-based telemonitoring techniques with real-time scheduling algorithms.</p>

3.Problem Statement

To implement an SMS and visual viewer-based medicine reminder application.

It is a frequent observation that people give more preference to their work and other material things than taking care of their health. If smart, working adults can forget to take proper medications, the situation can only be worse for our parents and grandparents. Often they forget to take their medicines or sometimes they take the wrong medicines, resulting in further health deterioration.

Objective

- 1) Our system aims to reduce this problem by reminding patients about their medications and showing them the correct amount of medication to take.
- 2) It is a combination of physical and digital reminders that will be helpful for people of any age but is especially helpful to old people who forget to take their medications.
- 3) The system aimed to provide patients with an accurate medication history, and give them reminders about medication-taking by means of real-time monitoring of taking the medication.

Scope

- a. The user can add instructions and set reminders to remind patients to take their medications on schedule.
- b. The application will also offer the option to add the medicine's picture in addition to its name, making it easier to recognize the medication.
- c. Additionally, this app will offer a function that enables users/patients to reply to their guardian by sending a message to their mobile phone with the subject "MEDICINE TAKEN".

4. Proposed System

In the current system only the reminders of the medicine are displayed. It is difficult for old age people to read the names so our application provides image of the medicine along with name so it is easy to identify the medicine.

Architecture Diagram

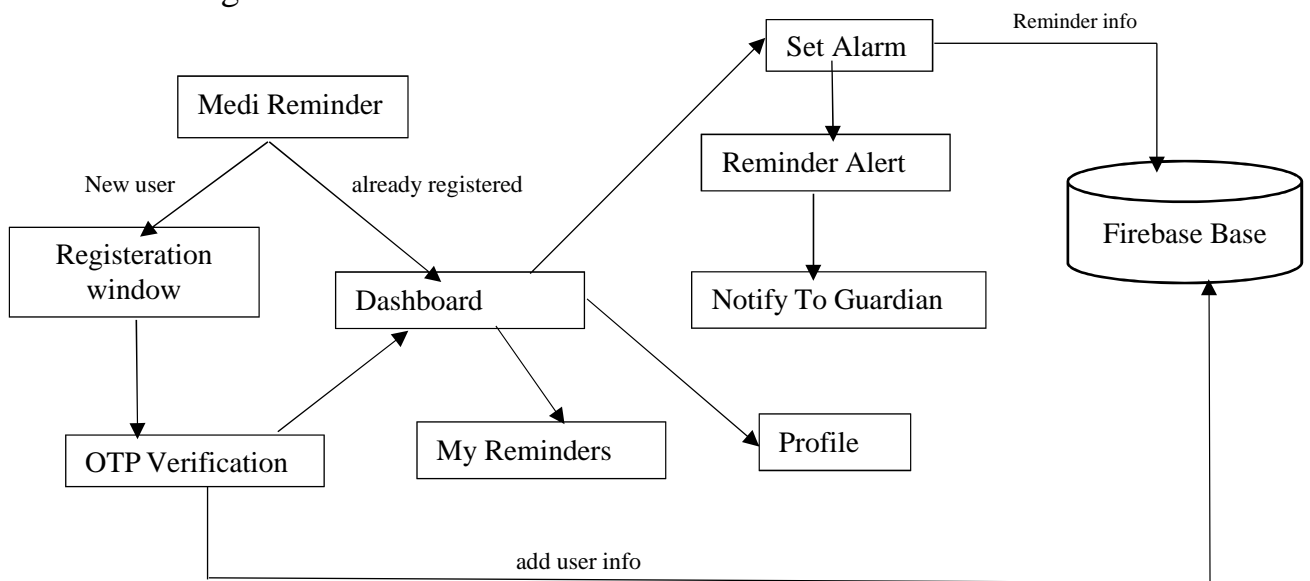


Figure 1

UML DIAGRAMS

DFD Level 0

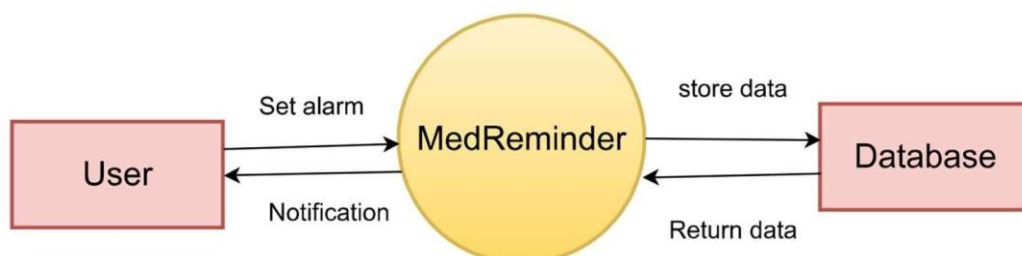


Figure 2

DFD Level 1

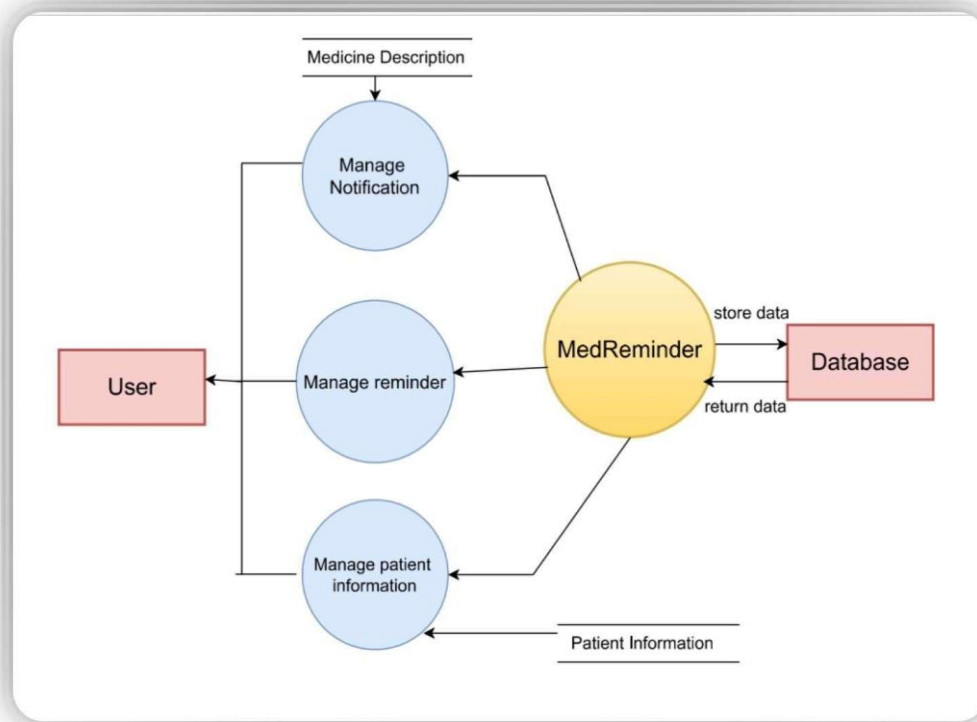


Figure 2

Use-Case Diagram

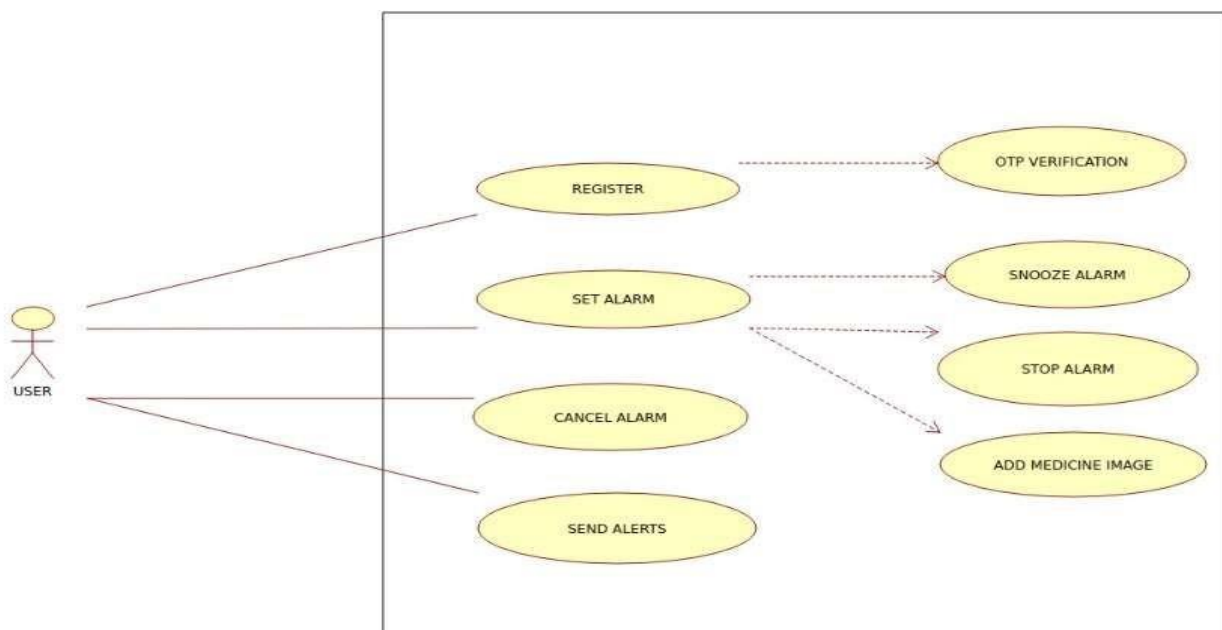


Figure 3
18

Sequence Diagram

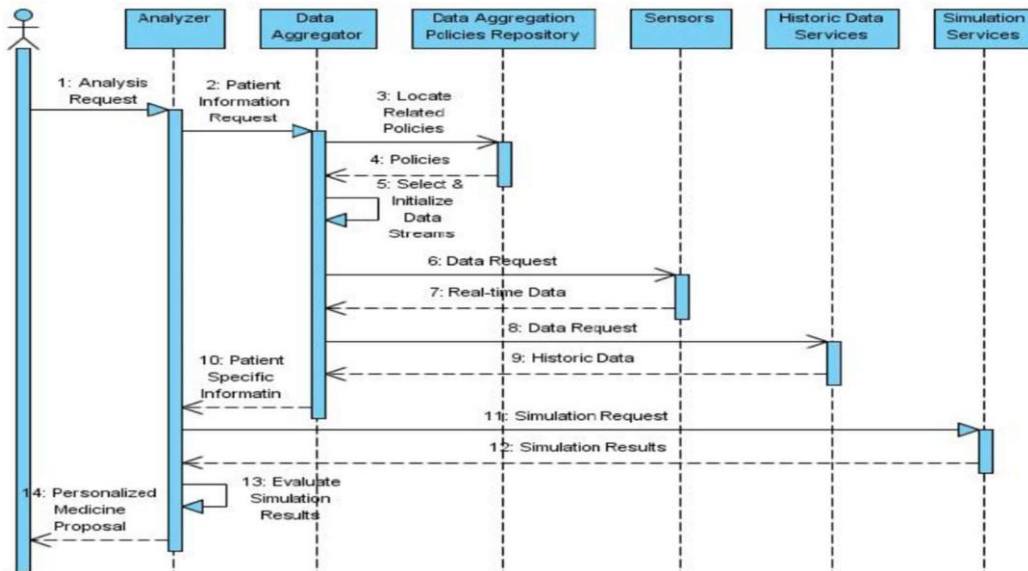


Figure 4

Activity Diagram

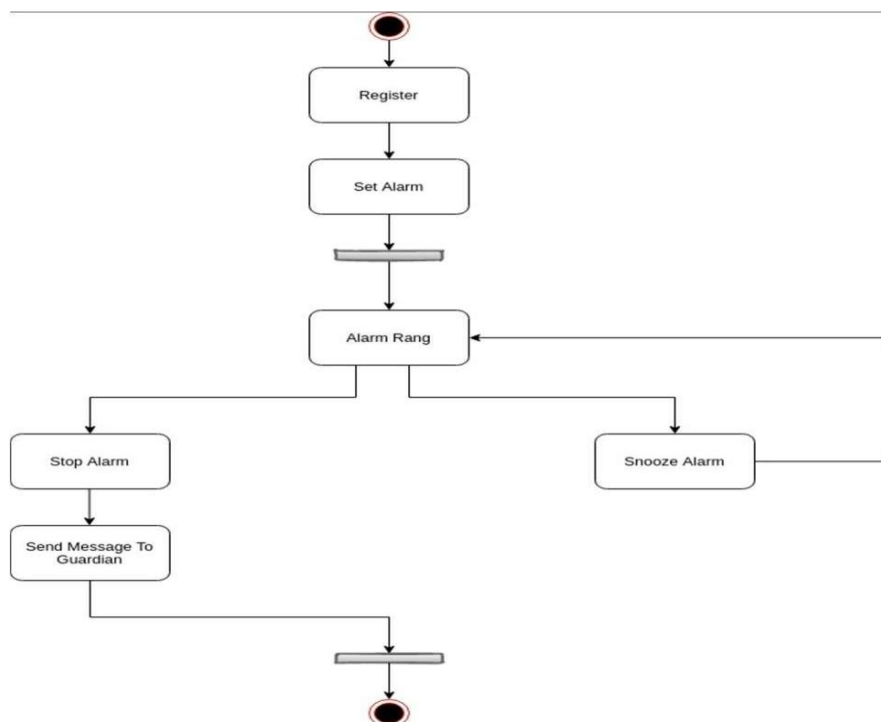


Figure 5

5.Implementation Technology

5.1 Hardware Requirements

- Laptop Or Desktop

5.2 Software Requirements

- OS: Linux-Ubuntu, Windows 7-10
- Min 4gb ram
- 64-bit CPU (Intel/AMD architecture)
- 5 GB free disk space

Android Studio - For app development.

Android Studio is the official integrated development environment (IDE) for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development. It is available for download on Windows, macOS and Linux based operating systems. It is a replacement for the Eclipse Android Development Tools (E-ADT) as the primary IDE for native Android application development.

Java - For UI functionalities.

Android Gradle plugin 3.0.0 and later support all Java 7 language features and a subset of Java 8 language features that vary by platform version. When building your app using Android Gradle plugin 4.0.0 and higher, you can use a number of Java 8 language APIs without requiring a minimum API level for your app.

XML - For UI design.

Every app project must have an AndroidManifest.xml file (with precisely that name) at the root of the project source set. The manifest file describes essential information about your app to the Android build tools, the Android operating system, and Google Play.

Firestore – For storage purpose (Backend).

Firestore is a set of hosting services for any type of application (Android, iOS, Javascript, Node.js, Java, Unity, PHP, C++ ...). It offers NoSQL and real-time hosting of databases, content, social authentication (Google, Facebook, Twitter and Github), and notifications, or services, such as a real-time communication server.

MODULES

MODULE 1-Registraion Page

- Users must submit personal information just once.
- You can use Firebase Authentication to allow users to log into your app by sending them an SMS with a one-time password to their devices.
- OTP verification is performed at the time of registration.
- The user enters this OTP into your app; if they coincide, sign-in is successful, and they are able to use your app.

MODULE 2-Profile

- All the details of the user can be seen in the profile section.
- He/she can update the details in the profile section.

MODULE 3- Dashboard

- This is main page of the application.
- User can add/delete reminders of the medicine they want to take.
- Reminders set can also be viewed in the dashboard.
- User can also update the reminders according to their need.

MODULE 4- Set Medicine Reminders

- User can set their medicine reminders with the pic so that it is easy to identify which medicine they have to take.
- So users can get time to time labelled reminders with image of medicine.
- They can also set multiple reminders at a time.

MODULE 5- Reminders

- All the reminders set can be viewed in reminders section.
- User can also reminder if the medicine dose has been changed.

MODULE 6- Confirmation Message

- After the patient has taken medicine a pop-up box appears, if patient clicks YES then a confirmation message is sent to the guardian that the “Patient has taken Medicine.”
- This message will be sent to the guardian as a confirmation message if the patient has not taken the medicine he/ she has to report that “I have not taken my medicine” / “ I’ll take medicine later”.

6.Results

Registration Page



11:30 77%

MediRemind



Register

Take care of your health with us. Please register yourself.

Full Name

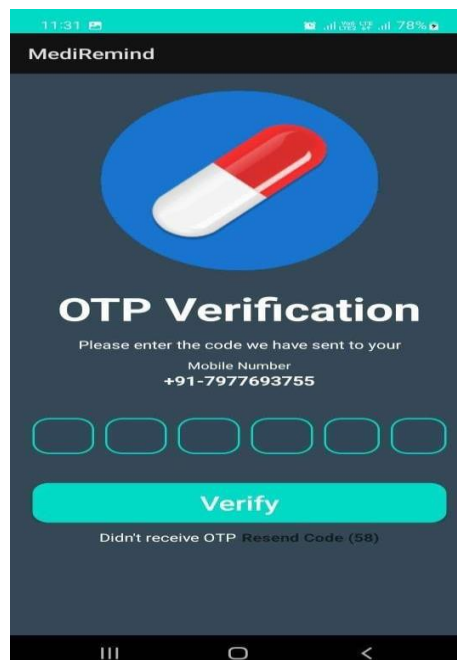
Date Of Birth 

Mobile Number

Guardian's Mobile Number


Disease Name

Register



11:31 78%

MediRemind



OTP Verification

Please enter the code we have sent to your
Mobile Number
+91-7977693755

Verify

Didn't receive OTP Resend Code (58)

Dashboard Page



Profile Page



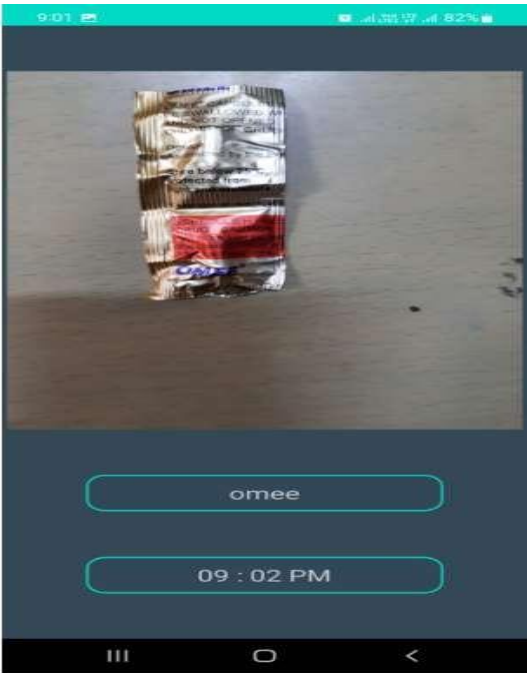
Add Reminders Page



Reminders Page



Medicine Description



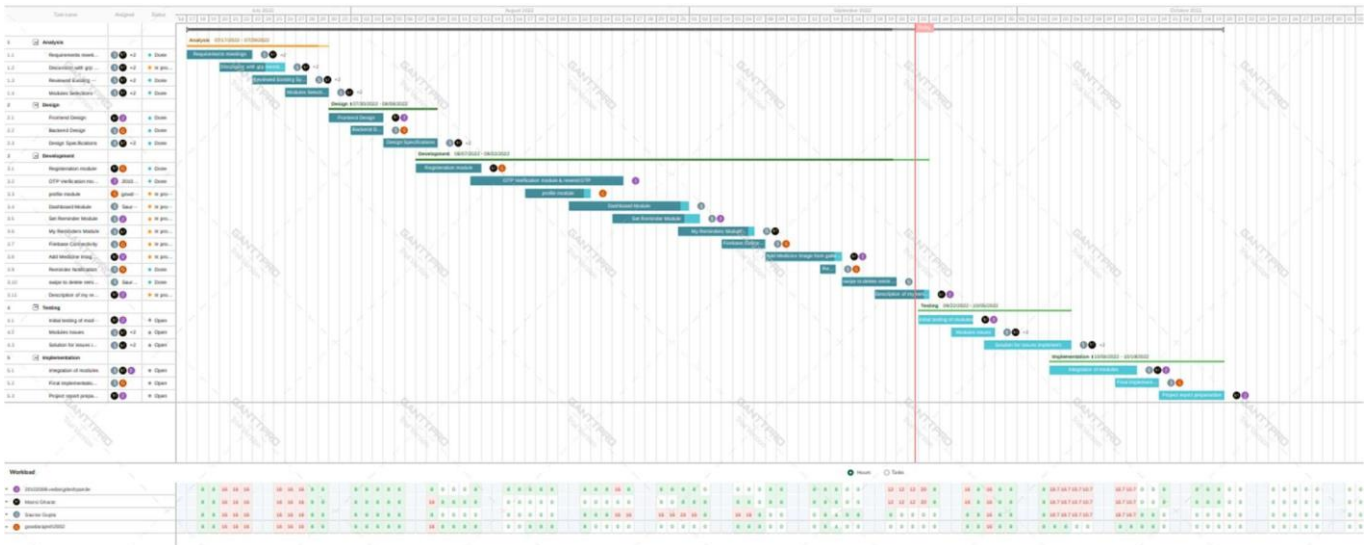
Notification Alert



Message to Guardian



7.Project Plan



8. Conclusion

The use of smart phones and mobile applications has significantly expanded in recent years, therefore creating mobile applications for health services (particularly self-care) can have the desired community impact. Even if there are many different mobile applications for medicine reminders, a native mobile application that is created based on the suggestions of industry experts is crucial. In addition to reminding the user of the medicine administration time and dose, This Application also analyses the patient's medication administration and displays a relevant image of the medication and the appropriate administration technique. The inclusion of these features in the mobile application for medication reminders reduces patient medication mistakes and improves medication adherence.

Without a doubt, This application can contribute significantly to patient health improvement with the right reminder. utilising user-friendly interfaces, data processing, accurate formula calculation, suitable responses, and the display of drug images and explanations. In order to encourage the use of these apps, enhance medication adherence, and reduce medication errors, we advise health care practitioners to make patients more aware of them and introduce them to mobile medication reminder applications.

9.Future Scope

In the future, we plan on working extensively for the betterment of the application by including features such as Online Appointment Booking and Online Medicine Ordering. This way Health care can be improvised using Mobile Technology. Several other features could also be added such as weekly calendar which comprises of a days in week for which the particular patient/user can set alarm corresponding for these days on a particular time. so basically user would receive notification regarding the medicine to take for recurring days in a week . Also a new feature can be added where a user just speak to add reminder for a particular and with that speech a medicine info will be added and reminder would set.

10. References

[1.] Juthada Suwanthara, Areena Noinongyao, Sirion Vittayakorn, WiseMed: Medication reminder for seniors. Published-2022

<https://ieeexplore.ieee.org/document/8974675>

[2.] Milan Ramljak , Smart Home Medication Reminder System. Published-2017

<https://ieeexplore.ieee.org/document/8115585>

[3.] Mayuresh Waykole, Vatsalya Prakash, Himanshu Singh, Nalini N, ArduMed - Smart Medicine Reminder for Old People. Published-2016

<https://www.ijser.org/researchpaper/ArduMed---Smart-Medicine-Reminder-for-Old-People.pdf>

[4.] John K. Zao (SMIEEE), Mei-Ying Wang, Peihuan Tsai, Jane W.S. Liu (FIEEE), Smart Phone Based Medicine In-take Scheduler, Reminder and Monitor. Published-2010

<https://ieeexplore.ieee.org/abstract/document/5556577>