PERSONAL ASSISTANT FOR SENIORS WHO ARE SELF-RELIANT

A PROJECT REPORT

Submitted by

V.BHAVANI	**(Team leader)**	**(950619106002)**
K.NANTHINI PAVITHRA	**(Team member)**	**(950619106014)**
P.NIKITHA	**(Team member)**	**(950619106015)**
T.ANANTHI	**(Team member)**	**(950619106301)**

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EINSTEIN COLLEGE OF ENGINEEING, TIUNELVELI-627 012

ANNA UNIVERSITY : CHENNAI 600 025

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BONAFIED CERTIFICATE

Certified this report "**PERSONAL ASSISTANT FOR SENIORS WHO ARE SELF-RELIANT**", for the project, is the bonafied work of **"V.BHAVANI (Team Leader) (950619106002), K.NANTHINI PAVITHRA (Team Member) (950619106014), P.NIKITHA (Team Member) (950619106015) T.ANANTHI (Team Member) (950619106301)"** who carried out the project work under my supervision. Certified further that to the best of my knowledge the work reported here does not form part of any other thesis or dissertation of any other candidate.

SIGNATURE	**SIGNATURE**
Dr. P. REVATHY	**Dr.P.REVATHY**
HOD/ECE	**MENTOR**
EVALUATOR	**SPOC**
Mrs. T. Viji	**Mr.S.ARUNSINGH**
AP/ECE	**AP/ECE**

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We have successfully completed the project with blessings showered onus by god, the almighty, A project of this nature needs co-opreation and support from many for successful completion.

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CHAPTER 1

INTRODUCTION

The category of patients involve all human beings-teachers, students, businessmen, housewives, children and also all of us have a busy hectic schedule. Today's life is full of responsibilities and stress. So people are prone to diseases of different types and it is our duty to make ourselves stay fit and healthy. If the patient stays at home then he or she might get someone to look after him/her but when one is not at home, is out of the city or state away from home then it is hard for the family members to call them and remind them their dosage timings every time.

In our developing and technology dependent life we totally rely on gadgets especially smart phones. Today everyone has a smart phone. With this we get an opportunity to use technology in a better way so that it can be made useful to us. And it plays an important part in our daily life and helps us staying fit in many ways.

The remarkable problem is that patients forget to take the proper medicines in proper proportion and in proper time. Medication adherence, which refers to the degree or extent to which a patient takes the right medication at the right time according to a doctor's prescription, has recently emerged as a serious issue because many studies have reported that non-adherence may critically affect the patient, thereby raising medical costs[1]. Medication nonadherence is a common, complex, and costly problem that contributes to poor treatment outcomes and consumes health care resources.

So we are introducing an Android application whose objective is to remind the patients of their dosage timings through Alarm Ringing system so that they can stay fit and healthy. Through navigation they can search doctors and hospitals and contact details so that they can easily get proper treatment on time. This application focusses on the people who forget to take medicines on time. It allows users to set an alarm along with the fields of date, time and medicine description which will allow them to set alarm for multiple medicines at different time intervals. The notification system will send a notification after setting an alarm. The user can activate or deactivate the notification accordingly. It will be sent as email or message as selected by the user. The patients can search doctor disease wise and area wise which will provide easy searching facility along with doctor's contact information, visiting place and availability time. Medication reminders help in decreasing medication dispensing errors and wrong dosages.

The application is designed on Eclipse. It can be helpful in defence sector and emergency conditions (accidents) and can spread health care awareness. It is life-saving, money saving and time saving application which is easy to use and provides a good user interface.

1.1Project Overview

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. They can search doctor disease wise. The patients will get the contact details of doctors as per their availability. Also the users can see different articles related to medical fields and health care tips. 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.

The effectiveness of a therapy or treatment directly depends upon a patient's ability and willingness to follow a prescribed regimen. The patient's ability for reading and understanding the instructions for medication is a key factor. Patients who face difficulties in understanding the instructions in a prescription which ultimately results in decreased adherence and poor medication management and consumption. Issues of low literacy must be recognized and strategies designed with this limitation in consideration. A patient with heart failure problem not taking prescribed medication or who tents to forget to take their medicine, costs the U.S. health care system an average of almost $8,000 annually, according to a 2011 analysis published in Health Affairs. The _gures are high for other illnesses too almost $4,000 per patient with high blood pressure, over $3,700 per patient with diabetes and about $1,200 per patient with high cholesterol. Dr. Brennan and a team of researchers at Brigham and Women's Hospital, in Boston, have been studying this issue since 2010 by analyzing pharmaceutical insurance claims data. determined

several reasons behind not taking proper medication and among those, one of them is: There is a high degree of complications for patients who takes several different drugs for a variety of conditions. There are currently around 80 million U.S. residents with several c

CHAPTER 2

LITERATURE SURVEY

REVIEW -1

Title of the paper:

A Medicine Dose Controller of Ubiquitous Home Environment(2009)

Name of the Author : Ilkko

➢ 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 implemented to adaptive user interfaces enhanced by Belongings of end-user client devices, the ubi pill device had remind people for elder and for monitoring purposes ubi pill and home server have been design to reliably monitor the medicine box activity by web browse

REVIEW-2

Title of the paper:

Security and communication architecture for networked medical devices in mobility aware eHealth environments(2012)

Name of the Author : Kliem

➢ 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 and privacy requirements of e-health

environments.

REVIEW:3

Title of the paper:

Application of RFID Technology for In-House Drug Management System(2013)

Name of the Author: Parida

➢ 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. the HF tag have assigning the user and by employing RFID reader ,along with camera and web based system to track the user. This system can be beneficial for the old age, less educated people.

REVIEW – 4:

Title of the paper:

A Self-powering Wireless Environment Monitoring System Using Soil Energy(2014)

Name of the Author: Clifton

➢ 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.

REVIEW 5

Title of the paper:

Efficient and secure in-home wearable insomnia monitoring and diagnosis system (2014)

Name of the Author: Hamida

➢ 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.

REVIEW-6:

Title of the paper:

Home Health Hub Internet of Thing(2015)

Name of the Author: Ray

➢ 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

REVIEW-7:

Title of the paper:

Design of vital sign monitor based on wireless sensor networks and telemedicine technology(2015)

Name of the Author: Shivakumar

➢ 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. wifi 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.

REVIEW-8:

Title of the paper:

Multidisciplinary approaches to achieving efficient and trustworthy eHealth monitoring systems(2016)

Name of the Author: Ajmal Sawand

➢ The technological merging between IOT, wireless body area network and cloud computing have vital contribution in e health care which improve the quality of medical care, basically patient centric monitoring play a role in e health care services which involve medical data collection, aggregation, data transmission and data analysis here entire monitoring lifecycle and essential services component have discus as well as design challenges in designing the quality and patient centric monitoring scheme along with potential solution

REVIEW-9:

Title of the paper:

The intelligent pill box-Design and implementation(2016)

Name of the Author: Huang

➢ The implementation of pillbox 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.

REVIEW-10:

Title of the paper:

Home telehealth by Internet of Things (IoT)(2017)

Name of the Author: Al-Majeed

➢ 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

SUMMARY REVIEW

Sometimes elderly people forget to take their medicine at the correct time. They also forget which medicine He / She should take at that particular time. And it is difficult for doctors/caretakers to monitor the patients around the clock. To avoid this problem, this medicine reminder system is developed. An app is built for the user (caretaker) which enables him to set the desired time and medicine. These details will be stored in the IBM Cloudant DB. If the medicine time arrives the web application will send the medicine name to the IoT Device through the IBM IoT platform. The device will receive the medicine name and notify the user with voice commands. In this proposed system an android- based application in which an automatic call system is implemented.

Also interaction between patients and doctors through video calling and secure prescription will be focused upon. First we have to create emergency code with mobile number then through this number default send a call at the patient in this way is very useful for the patient take a medicine at respective time. The buzzer and LED will ON immediately when it gets the incoming call and then LED and buzzer will OFF automatically then the patient take the medicine in their medicine box.

2.1 Existing problem

Many Medication Systems have been developed based upon different platforms and concepts. Use of healthcare related apps is growing but there are many issues related to their functionality. My Medi Health [3] is a medication reminder system for children. It runs on mobile devices such as smart phones, providing user interfaces for configuring medication schedules and user alerts for reminding users about the time and type of medication according to the configured medication schedule. Some systems use sensors, radio-frequency identification (RFID), or motion detection technologies to ensure that patients actually take their medications [4][5][6]. Park et al proposed medication reminder synchronization system based on data synchronization. It transmits OMA (open mobile alliance) DS (data synchronization) based messages containing the patient's medication data and the device configuration data to a remote manager/medical staff. It also synchronizes data (including medication schedules) modified/generated by these personnel in the medication server

Prasad B has discussed the approach of Medicine reminder pro. It is a free application which supports up to 15 reminders. User can select them in either repeating or non-repeating alarm patterns. Any hourly time interval between alarms can be selected, starting from the the minimum of 1 hour. At the scheduled time, application will produce a notification with an alarm, vibration or LED indication. Zao et al have developed Wedjat – Smart Phone Application which tries to avoid medicine administration errors [8]. There are many loopholes of existing reminder systems.

To list a few:

They do not provide disease wise searching of the Doctors, no optional notification only compulsion, no facility for scheduling of appointments to the doctors. Some of the systems have a default alarm tone so the users cannot change them. The scheduled reminder suggests any kind of medicine, dose of medicine, etc. automatically without doctor's prescription, which can cause International Journal of Managing Public Sector Information and Communication Technologies harm to the patients. Lastly, many of the systems available require special hardware which need to be purchased.

2.2 References

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2. Literature Review

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.

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the concept of IOT but due to heterogeneity and interoperability the concept of digitization for health care.

CHAPTER 3

IDEATION & PROPOSED SOLUTION

Your proposed solution should relate the current situation to a desired result and describe the benefits that will accrue when the desired result is achieved. So, begin your proposed solution by briefly describing this desired result.

3.1 Empathy Map Canvas

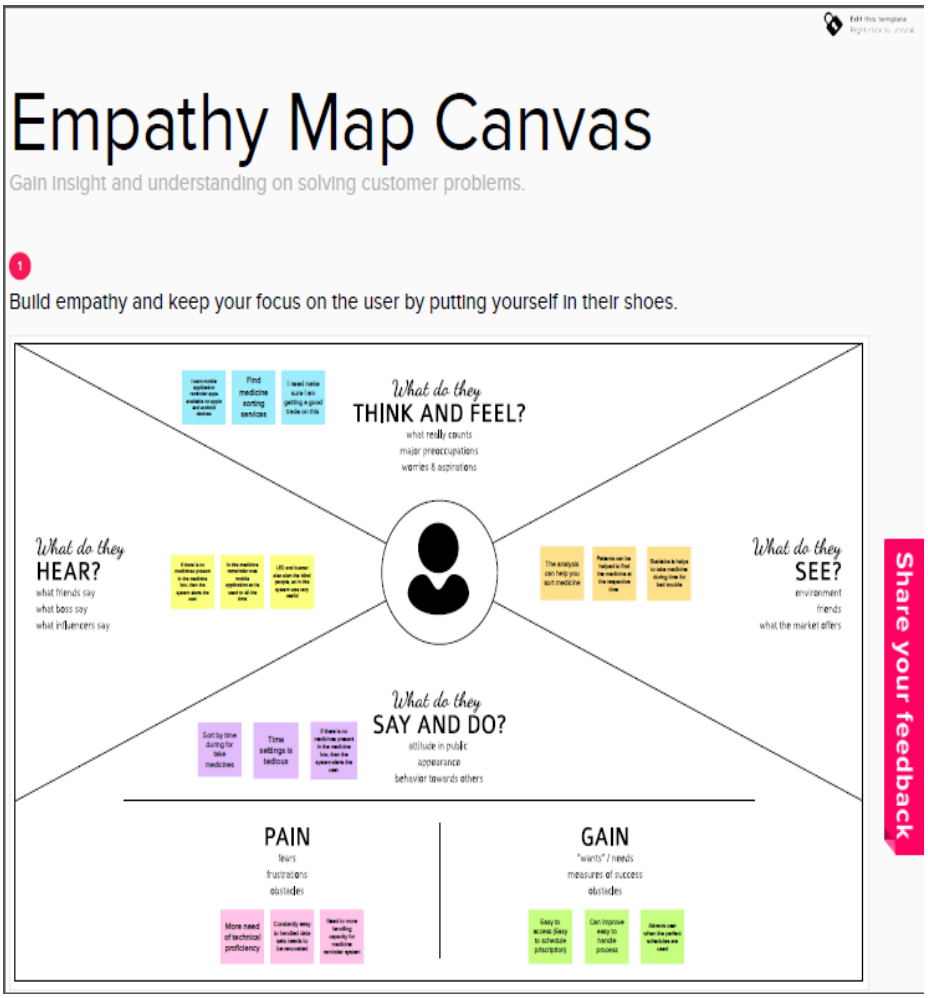


Fig 3.1.1 (Empathy Map Canavas)

3.2 Ideation & Brainstorming

Defne your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm

PROBLEM

In this system an android based application in which an automatic call system is implemented. Al so interaction between patients and doctors through video calling and secure prescription will be focused upon.

First we have to create emergency code with mobile number then through this number default send a call at the patient in this way is very useful for the patient take a medicine at respective time. The buzzer and LED will ON immediately when it gets the incoming call and then LED and buzzer will OFF automatically then the patient take the medicine in their medicine box.

3.3 Proposed Solution

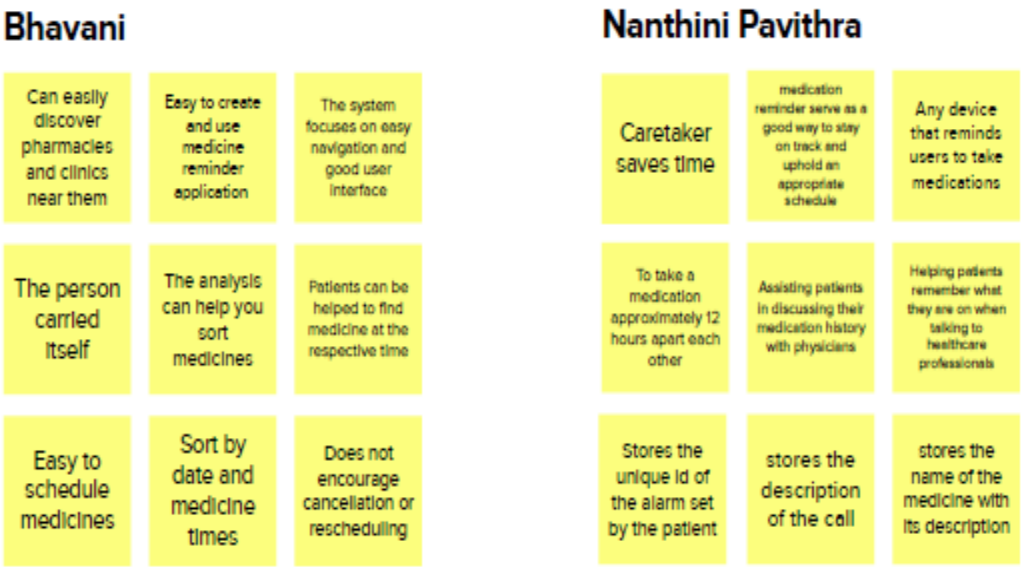


fig 3.3.1(Proposed solution)

3.3.2Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups3.3

Fig (3.3.2) Group Ideas

3.3.3 Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

Fig (3.3.3) Prioritize

3.4 PROPLEM SOLUTION FIT:

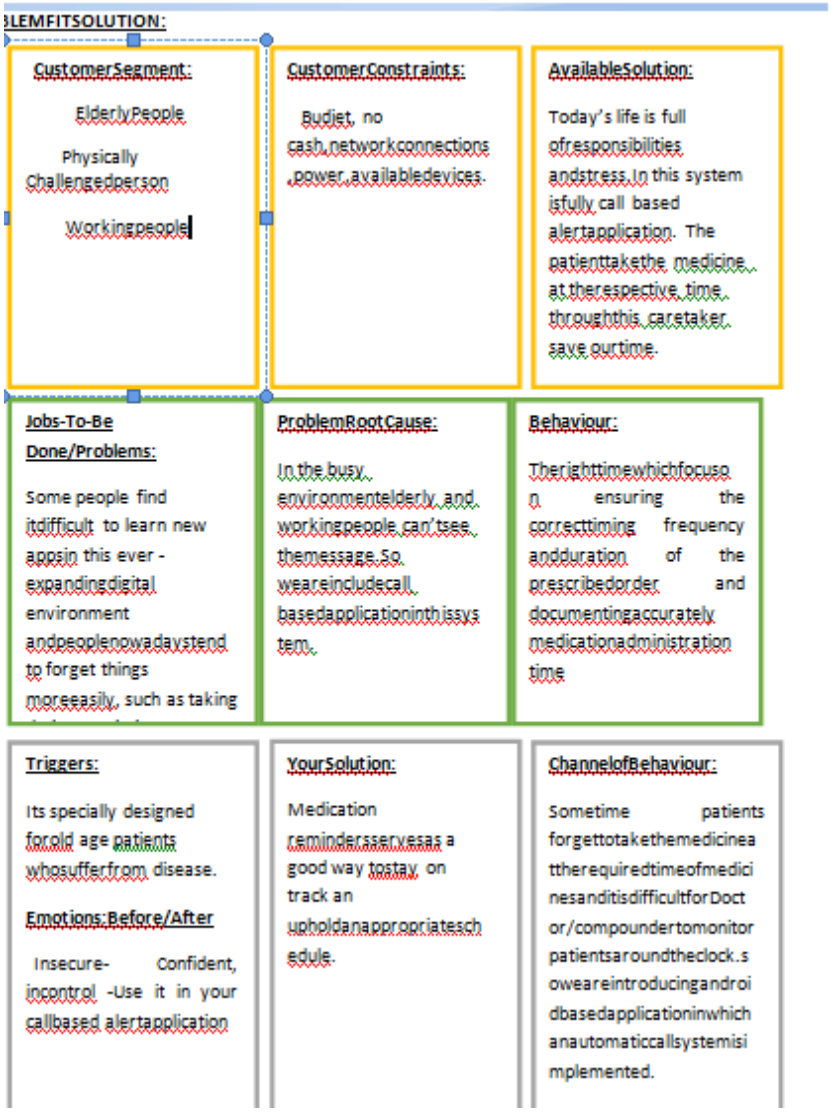


Table 3.4.1(Problem Solution Fit)

CHAPTER 4

REQUIREMENT ANALYSIS

A solution requirement is aimed at the concerns of the people who will build and deliver the solution. It tells those people what the functional and non-functional requirements for the solution will be and how the solution will deliver on the business and stakeholder requirements

4.1 Functional Requirements:

FR No.	**Functional Requirement (Epic)**	**Sub Requirement (Story / Sub-Task)**
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Login	Login through Email Login through Gmail
FR-4	Dashboard	Access the Dashboard

Table 4.1.1(Functional Requirements)

4.2 Non-Functional Requirements:

NFR-NO	Non-Functional Requirement	Description
NFR-1	Usability	It also helps you to give the right information to the user as per their needs.
NFR-2	Security	Security reminders are a required administrative safeguard under the mobile application security rule
NFR-3	Reliability	Each office should establish a simple, reliable tracking and reminder system to facilitate communication improve patient safety and quality of care.
NFR-4	Performance	Reminder systems are effective at improving attendance, cancellation and rescheduling of appointments.
NFR-5	Availability	In this reminder system scheduling tool which provides a reliable, very simple t use and fast solution to schedule Meetings
NFR-6	Scalability	Possibility of increasing or decreasing the system poweraccording to the needs of the moments and customer

Table (4.2.1) Non-Functional Requrements

CHAPTER 5

PROJECT DESIGN

Project design is an early phase of the project lifecycle where ideas, processes, resources, and deliverables are planned out. A project design comes before a project plan as it's a broad overview whereas a project plan includes more detailed information

5.1 Data Flow Diagram

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enter and leaves the system, what changes the information, and where data is stored.

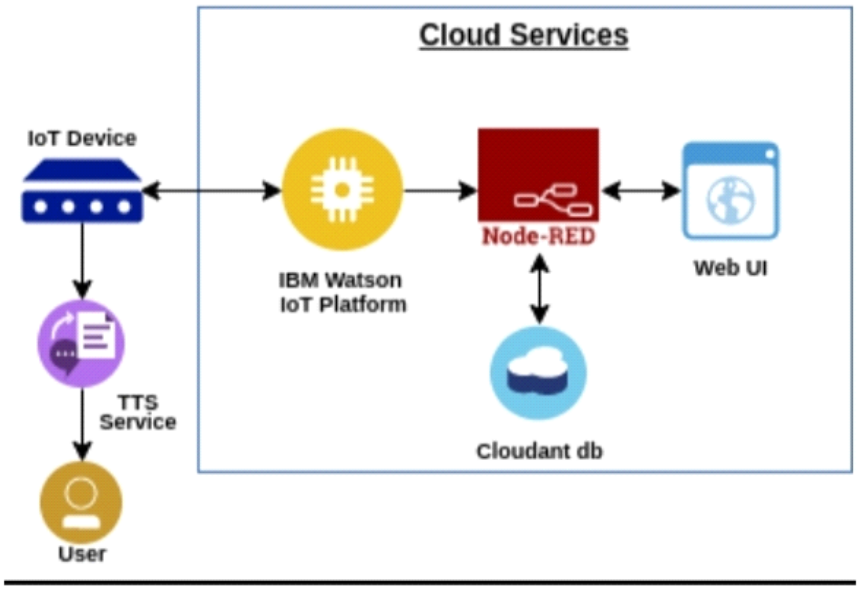


Fig (5.1.1) Data Flow Diagams

- Sometimes elderly people forget to take their medicine at the correct time.

- They also forget which medicine He/She should take at that particular time. And it is difficult for doctors/caretakers to monitor the patients around the clock.

5.2 Solution & Technical Architecture

Table-1

S. No	Component	Description	Technology
1.	User Interface	User interacts with Mobile application	C, Python
2.	Application Logic-1	Developing application	Python
3.	Application Logic-2	To add speech transcription Capabilities to application	IBM Watson TTS service
4.	Application Logic-3	To automatic interactions with customers	IBM Watson Assistant
5.	Database	To create database	MySQL, NoSQL
6.	Cloud Database	Database Service on Cloud	IBM Cloudant
7.	File Storage	Storing data	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	To deliver accurate and precious data	IBM Weather API
9.	External API-2	To verify data	Aadhar API
10	Machine Learning Model	To identify and locate objects	Object Recognition Model
11	Infrastructure (Server / Cloud)	To compile and run the apps locally	Local, Cloud Foundry, etc.

Table (5.2.1) Solution & technical Architectu

CHAPTER 6

PROJECT PLANNING &SCHEDULLING

Project design is an early phase of the project lifecycle where ideas, processes, resources, and deliverables are planned out. A project design comes before a project plan as it's a broad overview whereas a project plan includes more detailed information.

6.1 Sprint planning & Estimation

Functional Requirements:

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Login	Login through Email Login through Gmail
FR-4	Dashboard	Access the Dashboard

Table (6.1.1) Poject planning & scheduling

Non-functional Requirements:

NFR-NO	non-Functional Requirement	Description
NFR-1	Usability	It also helps you to give the right information to the user as per their needs.
NFR-2	Security	Security reminders are a required administrative safeguard under the mobile application security rule
NFR-3	Reliability	Each office should establish a simple, reliable tracking and reminder system to facilitatecommunication , improve patient safety and quality of care.
NFR-4	Performance	Reminder systems are effective at improving attendance, cancellation and rescheduling of appointments.
NFR-5	Availability	In this reminder system scheduling tool which provides a reliable, very simple t use and fast solution to schedule Meetings

Table(6.1.2) Poject planning & scheduling

6.2 Sprint Delivery Schedule

Program

Sprint	Functional Requirement(Epic)	User Story Number	User Story/Task	Story point	Priority	Team Members
Sprint-1	Registration	USN-2	As a user, I can register for the application by entering my email, password, and confirming my password.	2	High	Bhavani. V
Sprint-1		USN-2	As a user, I will receive confirmation email once I have register for the Application	1	High	Nanthini Pavithra .K
Sprint-2		USN-3	As a user, I can register for the application through Facebook	2	Low	Nikitha. P
Sprint-1		USN-4	As a user, I can register for the application through Gmail	2	Medium	Ananthi. T

Sprint -1	Login	USN-5	As a user, I can log into the application by entering email & password	1	High	Bhavani. V

Table(6.2.1) Sprint delivery scheduule

6.3 Reports from JIRA

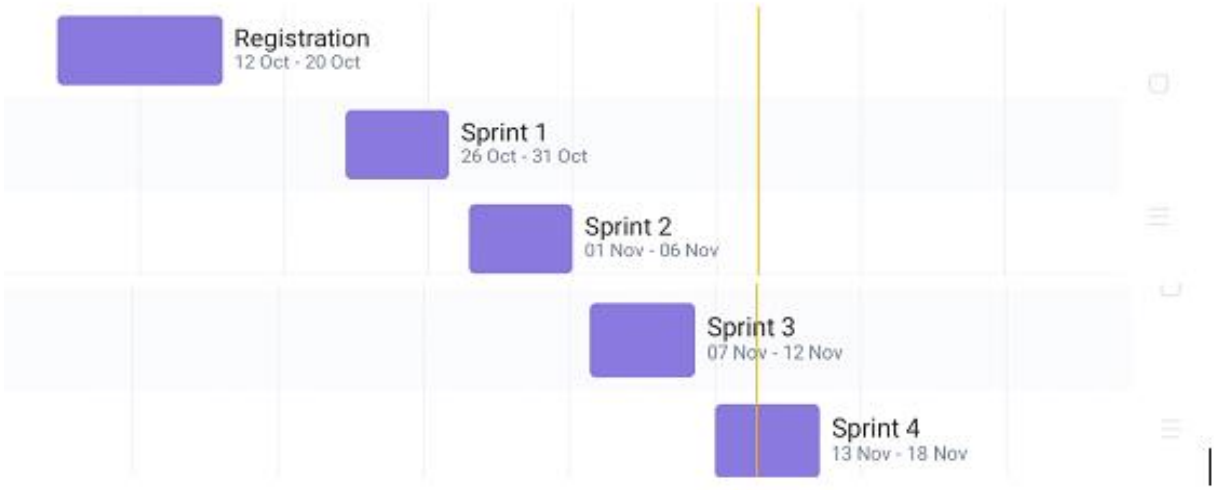


Fig 6.3.1 Reports from JIRA

CHAPTER 7
CODING & SOLUTIONING

7.1 Feature 1

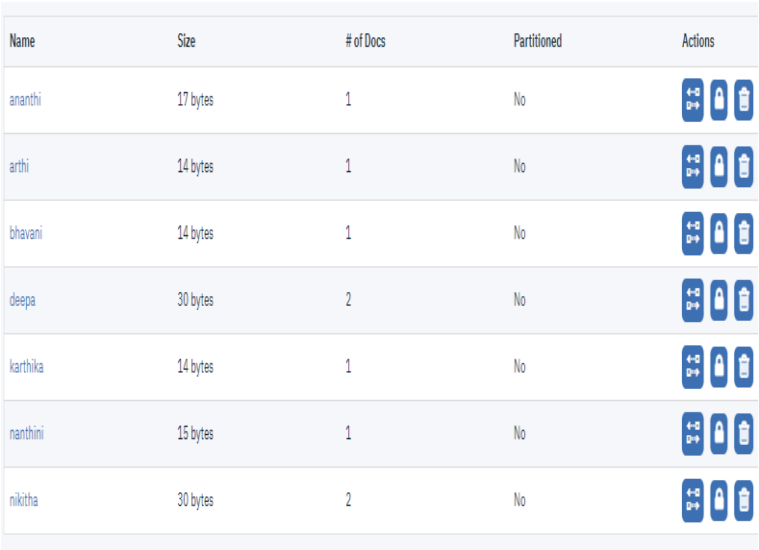
- Language : HTML
- Libraries : Recommendation

7.2 Feature 2

- Developed tools for receiving a call and schedulling
- Language : Python
- Tools /IDE : Twilio

  Libraries

7.3Database Schema



Name	Size	# of Docs	Partitioned	Actions
ananthi	17 bytes	1	No	
arthi	14 bytes	1	No	
bhavani	14 bytes	1	No	
deepa	30 bytes	2	No	
karthika	14 bytes	1	No	
nanthini	15 bytes	1	No	
nikitha	30 bytes	2	No	

Fig (7.3.1) DATABASE SCHEMA

7.4 CODING

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible"
content="IE=edge">
    <meta name="viewport"
content="width=device-width, initial-scale=1.0">
    <link rel="stylesheet" href="static/styles.css" />
    <title>Personal assistance</title>
  </head>
  <body>
    <section class="min-h-screen flex items-stretch
text-white ">
      <div class="lg:flex w-1/2 hidden bg-gray-500
bg-no-repeat bg-cover relative items-center"
style="background-image:
url(https://images.unsplash.com/photo-1577495508048-b
635879837f1?ixid=MXwxMjA3fDB8MHxwaG90by1wY
WdlfHx8fGVufDB8fHw%3D&ixlib=rb-1.2.1&auto=for
mat&fit=crop&w=675&q=80);">
```

```
        <div class="absolute bg-black opacity-60 inset-0
z-0"></div>
        <div class="w-full px-24 z-10">
          <h1 class="text-5xl font-bold text-left
tracking-wide">Nevermore Forget
            your meds
          </h1>
          <p class="text-3xl my-4">With personal
assistance you have the
            complete solution for you and your family.
          </p>
        </div>
      </div>
      <div class="lg:w-1/2 w-full flex items-center
justify-center text-center md:px-16 px-0 z-0"
style="background-color: #161616;">
        <div class="absolute lg:hidden z-10 inset-0
bg-gray-500 bg-no-repeat bg-cover items-center"
style="background-image:
url(https://images.unsplash.com/photo-1577495508048-b
635879837f1?ixid=MXwxMjA3fDB8MHxwaG90by1wY
```

```
WdlfHx8fGVufDB8fHw%3D&ixlib=rb-1.2.1&auto=for
mat&fit=crop&w=675&q=80);">
          <div class="absolute bg-black opacity-60 inset-0
z-0"></div>
        </div>
        <div class="w-full py-6 z-20">
          <h1 class="my-6">
              <img src="static/img/logo.png" class="w-auto
h-12 inline-flex" />
          </h1>
          <form action="/login/verify" method="post"
class="sm:w-2/3 w-full px-4 lg:px-0 mx-auto">
            <div class="pb-2 pt-4">
              <input type="email" name="email" id="email"
placeholder="Email" class="block w-full p-4 text-lg
rounded-sm bg-black">
            </div>
            <div class="pb-2 pt-4">
              <input class="block w-full p-4 text-lg
rounded-sm bg-black" type="password"
name="password" id="password"
placeholder="Password">
```

```
            </div>
            <div class="text-right text-gray-400
hover:underline hover:text-gray-100">
              <a href="signup">First Time? Register
here</a>
            </div>
            <div clas="flex">
              <div class="px-4 pb-2 pt-4">
                <input type="submit" class="uppercase block
w-full p-4 text-lg rounded-full bg-indigo-500
hover:bg-indigo-600 focus:outline-none">
              </div>
            </div>
          </form>
        </div>
      </div>
    </section>
  </body>
</html>
Footer
© 2022 GitHub, Inc.
```

```
MXwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB
8fHw%3D&ixlib=rb-1.2.1&auto=format&fit=crop&w=6
75&q=80);">
          <div class="absolute bg-black opacity-60 inset-0
z-0"></div>
        </div>
        <div class="w-full py-6 z-20">
          <h1 class="my-6">
            <img src="static/img/logo.png" class="w-auto
h-12 inline-flex" />
          </h1>
          <form action="/login/verify" method="post"
class="sm:w-2/3 w-full px-4 lg:px-0 mx-auto">
            <div class="pb-2 pt-4">
              <input type="email" name="email" id="email"
placeholder="Email" class="block w-full p-4 text-lg
rounded-sm bg-black">
            </div>
            <div class="pb-2 pt-4">
              <input class="block w-full p-4 text-lg
rounded-sm bg-black" type="password"
```

CHAPTER 8

TESTING

In general, testing is **finding out how well something works**. In terms of human beings, testing tells what level of knowledge or skill has been acquired. In computer hardware and software development, testing is used at key checkpoints in the overall process to determine whether objectives are being met.

8.1 Test Cases

Test case ID	Feature Type	Component	Test Scenario	Pre-Requisite	Steps To Execute	Test Data	Expected Result	Actual Result	Status	Commnets
LoginPage_TC_002	UI	Home Page	Verify the UI elements in Login/Signup popup		1.Enter URL and click go 2.Click on My Account dropdown button 3.Verify login/Singup popup with below UI elements: a.email text box b.password text box c.Login button d.New customer? Create account link e.Last password? Recovery password link	https://demo.com/	Application should show below UI elements: a.email text box b.password text box c.Login button with orange colour d.New customer? Create account link e.Last password? Recovery password link	Working as expected	Pass	Steps are not clear to follow
LoginPage_TC_003	Functional	Home page	Verify user is able to log into application with Valid credentials		1.Enter URL(https://shopenzer.com/) and click go 2.Click on My Account dropdown button 3.Enter Valid username/email in Email text box 4.Enter valid password in password text box 5.Click on login button	Username: MNBA@gmail.com password: 2468	User should naaigate to user account homepage	Working as expected	Pass	
LoginPage_TC_004	Functional	web page	Verify user can able to view the medicine calender and shceduling		1.Enter URL(https://shopenzer.com/) and click go 2.Click on My Account dropdown button 3.Enter In Valid username/email in Email text box 4.Enter valid password in password text box 5.Click on login button	Username: mn@gmail.com password: Testing123	Application should show the medicine time and shceduling page	Working as expected	pass	
LoginPage_TC_004	Functional	web page	Verify user can able to view the medicine calender and shceduling		1.Enter URL(https://shopenzer.com/) and click go 2.Click on My Account dropdown button 3.Enter Valid username/email in Email text box 4.Enter Invalid password in password text box 5.Click on login button	This website is not responsive and doesnot have a mobile version	Application should show 'Incorrect email or password' validation message.	not working	fail	
LoginPage_TC_005	Functional	web page	Verify user can able to view the medicine calender and shceduling		1.Enter URL(https://shopenzer.com/) and click go 2.Click on My Account dropdown button 3.Enter In Valid username/email in Email text box 4.Enter Invalid password in password text box 5.Click on login button	Username: mn@gmail.com password: 9876	Application should show the medicine time and shceduling page	Working as expected	pass	

Fig (8.1.1) Test cases

8.2 User Acceptance Testing

- **Purpose of Document**

The purpose of this document is to briefly explain the test coverage and open issues of the [ProductName] project at the time of the release to User Acceptance Testing (UAT).

- **Defect Analysis**

This report shows the number of resolved or closed bugs at each severity level, and how they were resolved

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	10	04	02	03	20
Duplicate	01	0	03	0	04
External	02	02	0	02	06
Fixed	11	01	03	20	37
Not Reproduced	0	0	0	01	01
Skipped	0	01	01	0	02
Won't Fix	0	04	03	01	08
Totals	23	16	14	25	78

Table 8.2.1 user acceptance testing

- **Test Case Analysis**

  This report shows the number of test cases that have passed, failed, and untested

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	8	0	0	8
Client Application	50	0	0	50
Security	2	0	0	2
Outsource Shipping	3	0	0	3
Exception Reporting	9	0	0	9
Final Report Output	4	0	0	4
Version Control	2	0	0	2

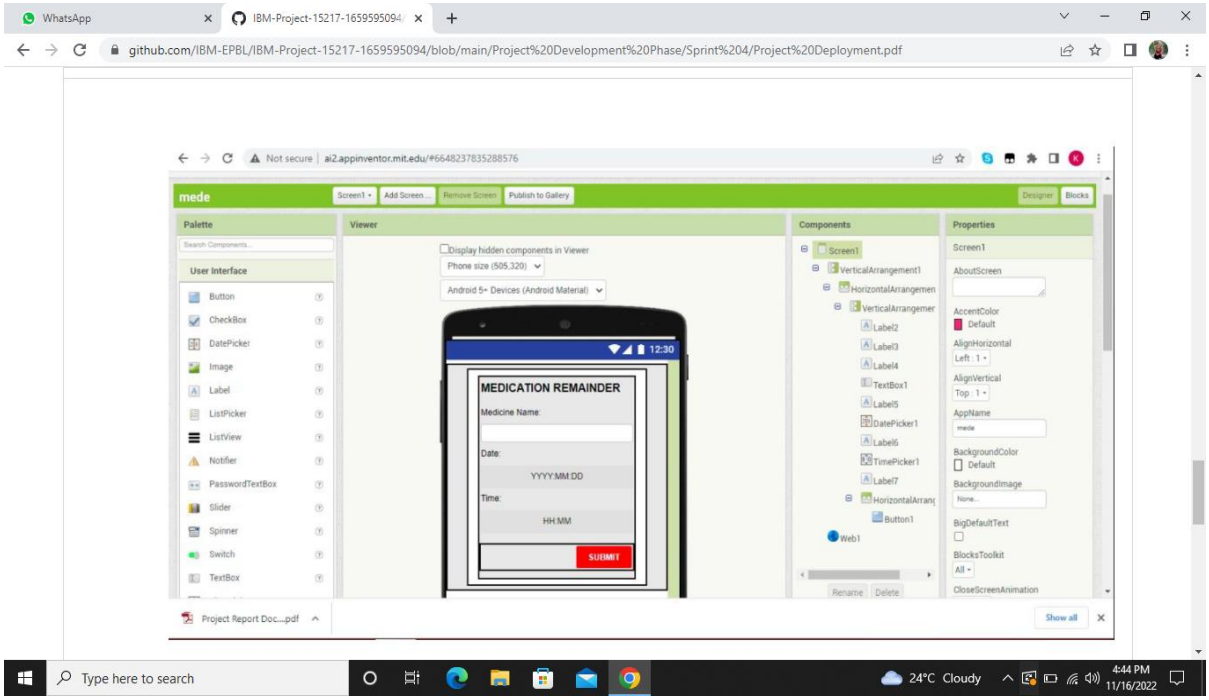
Table (8.2.2)Test case analysis

CHAPTER 9

RESULTS

Overall project result and performance metrices were analysed ,This used to check the progress and correct them before the plotting on the product to the enviroinment

9.1 Performance Metrics



(Fig 9.1.1)Performance metrices

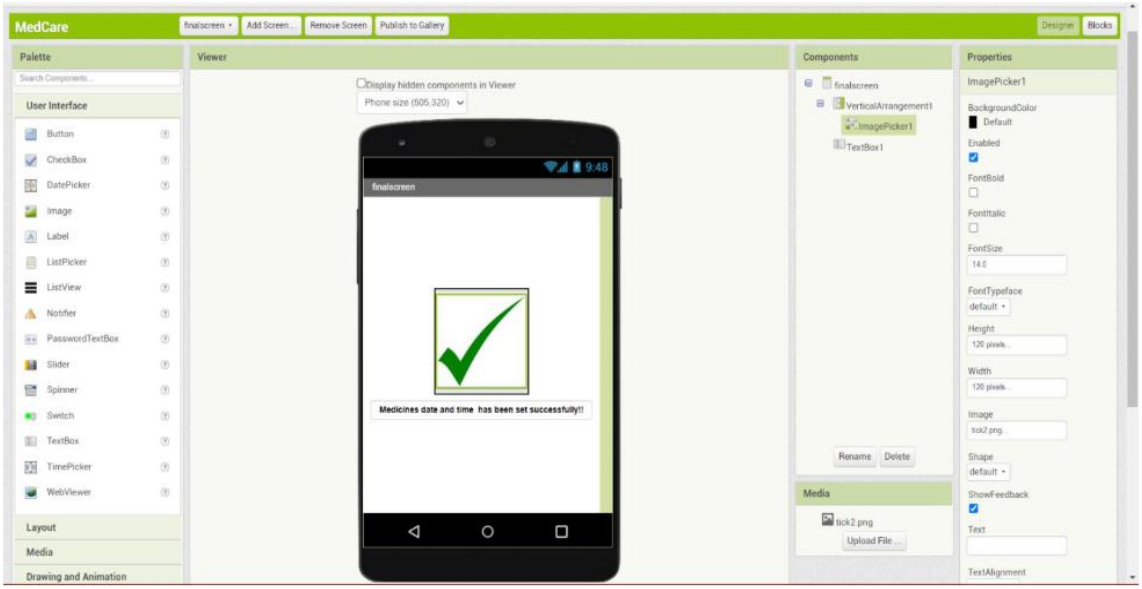


Fig (9.1.2) verification

CHAPTER 10

ADVANTAGES & DIS-ADVANTAGES

10.1 ADVANTAGES

1.Patient can be helped to find the medicine at the respective time.

2.Statistics helps to take medicine during time for bad hole

3.Its Specially designed for old age patients Who suffers from disease

4.Bujects ,no cash, network connection power available devices.

5. Make your medical facility's offer more attractive

6.Minimising losses by being able to arrange new patients in placedenied appointments

7.Automate marketing and organizational activities.

10. 2 DISADVANTAGES

1.Its difficult to set time and date everyday.

2.The website is not response sire and does not have a mobile version.

3. Does not access the offline mode.

CHAPTER 11

11. CONCLUSION

Many Medication Reminder System have been developed on different on different platforms. Many of these system require special device to hardware device to remind the patient about the medicine in-take timing. Purchasing new hardware device become costly and more time and money consuming. So in the given work an attempt has been made to implement a system Which is economical, easily accessible and improve medication adherence. Medication non-adherence reduces the effectiveness of a treatment and imposes a financial burden on health care systems [14] [15].

The patient will get the schedule of medicine in-take time with medicine description , starting and ending date of medicine, notification through message or email, automation alarm ringing system and navigation system. The scheduled reminder will not suggest any kind of medicine which is not prescribed by the doctor that will assure the safety of the patient and also will avoid wrong dossage. The patient can also search doctors disease wise (depending upon the specialization of the doctor), Which provide easy searching facility to the users and saves the time. Doctor can view all the fixed appointment along with date and time, Which he fixed and through this he can make new appointment schedules

CHAPTER 12

FUTURE SCOPE

We plane to focus on improving the overall performance of the system. Also, interaction between patients and doctors through video calling and secure prescription will be focused upon. Some more ways to achieve medication adherence will be focused.

CHAPTER 13

APPENDIX Source Code GitHub & Project Demo Link

13.1 APPENDIX

```
import os
import datetime
from playsound import playsound
from AppKit import NSSound
os. system('clear')
alarmH = int(input("What hour do you want the alarm to ring? "))
alarmM = int(input("What minute do you want the alarm to ring? "))
amPm = str(input("am or pm? "))
os. system('clear')
print("Waiting for alarm",alarmH,alarmM,amPm)
if (amPm == "pm"):
        alarmH = alarmH + 12
while(1 == 1):
    if(alarmH == datetime.datetime.now().hour and
        alarmM == datetime.datetime.now().minute) :
        print("Time to take your medicine!")
        playsound('/your/path/to/file/beep-07.mp3')
        break
```

SOURCE CODE

```
import os
import datetime
from playsound import playsound
from AppKit import NSSound
os. system('clear')
alarmH = int(input("What hour do you want the alarm to ring? "))
alarmM = int(input("What minute do you want the alarm to ring? "))
amPm = str(input("am or pm? "))
os. system('clear')
print("Waiting for alarm",alarmH,alarmM,amPm)
if (amPm == "pm"):
        alarmH = alarmH + 12
while(1 == 1):
    if(alarmH == datetime.datetime.now().hour and
        alarmM == datetime.datetime.now().minute) :
        print("Time to take your medicine!")
        playsound('/your/path/to/file/beep-07.mp3')
        break
```

13.2 DEMO LINK

https://drive.google.com/file/d/1_laZdng1u53_W5rkZeJ8xQaBbtAoCE5K/view?usp=share_link

GITHUB LINK

https://github.com/IBM-EPBL/IBM-Project-43859-1660720135