KARNATAK UNIVERSITY

Shivaji Education Society's

SHIVAJI ARTS, COMMERCE & BCA COLLEGE, BAAD, KARWAR

Department Of Computer Application

PROJECT REPORT ON

"MEDIFY"

SUBMITTED BY

Mr. Nagendra Naik

REG. NO. 20U12209

IN PARTIAL FULFILLMENT OF REQUIREMENT FOR AWARD OF DEGREE

"BACHELOR OF COMPUTER APPLICATION"

INTERNAL GUIDE
MISS. NAUSHEEN MULLA

2022-2023

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CERTIFICATE

This is to certify that Mr. **NAGENDRA NAIK** is the student of our college studying in V semester of BCA course bearing register number **20U12209**.

He was permitted to undertake a project work at **"brahma Nursing Home, Nandangadda, Karwar",** entitled **"MEDIFY"** from **Apr 2023 to Aug 2023**.

This project is based on the studies carried out in the Department and the project work or part of it has not been submitted for any other degree, diploma, associateship, fellowship or other similar title.

Miss.Nausheen Mulla **Internal Guide**	**Miss. Pratyaksha Siddarkar** **Head of the Department**	**Dr. Anuradha Naik** **Principal**

Examiners:

1.

DEDICATED TO

MY BELOVED PARENTS

TITLE OF THE PROJECT

ACKNOWLEDGEMENT

ACKNOWLEDGEMENT

I would be incomplete without greeting those who made it possible and encouragement made the efforts taken a success. It gives me immense pleasure and satisfaction to introduce completion of my hard work and sincere dedication entitled.

"**MEDIFY"**

I express our sincere thanks and gratitude **Dr. ANURADHA NAIK,** Principal Shivaji Arts, Commerce and BCA College, Baad, Karwar, for provide provisions for studies during the entire course. It gives us immense pleasure to avail this opportunity to thank my internal guide **Miss. PRATYAKSHA SIDDARKAR,** Head of Department (HOD) and internal guide **Miss. NAUSHEEN MULLA** for giving their valuable suggestions.

Deep sense of gratitude to my client **Dr. G. R. Anvekar (Bramha Nursing Home)** for providing their great support.

I thank god for his blessings. I am greatly indebted to my parents for showering me with their constant love and affection. I also heartily thank all staff members & Friends who have directly or indirectly helped us by their invaluable support and encouragement in completing the project.

MR. NAGENDRA NAIK

BCA 6th SEM

CONTENTS

CONTENTS

INTRODUCTION

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Medify Application is developed in order to help the user's to get the reminder at a given point of time each day so that they can take their particular tablets on time.

The Medicine Reminder Android application is a indispensable tool for individuals seeking to efficiently manage their medication schedules. This user-friendly app simplifies the process of staying on top of medications, ensuring doses are never missed or taken incorrectly.

With its intuitive interface, users can effortlessly input medication details such as dosage, frequency, and timing. The app then sets up personalized reminders, sending timely notification/Alarm to the user's device. These reminders can be easily customized to fit different schedules and preferences, accommodating busy lifestyles.

What sets this app apart is its ability to maintain a visual log of medication history. Users can track their adherence over time, helping them stay accountable and informed about their health regimen. The app's integration with the device's calendar feature further enhance its accessibility, allowing users to manage their medication schedule across multiple devices seamlessly.

OBJECTIVES

OBJECTIVES

The main objectives of our website are :

- Also providing snooze feature so that the user can get reminder if he/she is busy during that particular time.
- To provide easy to use application so that use need not have to repeat the procedure each time.
- To avoid skipping medicines.
- To help user’s to take their medicines on time.

SYSTEM ANALYSIS

EXISTING SYSTEM

- At present, some people are using the notes/ calendar which is available in devices by default.
- But they are not that effective as the user need to set the reminder each day.
- Still the reminder which is set in calendar/ note only acts as a notification.
- So the user can know about the reminder only if he/she is using the device.

PROPOSED SYSTEM

- Through our application, the user can set a particular tablet/ capsule at a certain time each day.

- The user should also add the time and the description and the type of the medicine.

- Then the application will pass alert at a certain time along with the prescription so that the user can take their medicines.

FEASIBILITY STUDY

FEASIBILITY STUDY

Feasibility study is a test of a system proposed according to its workability, Impact on the organization, ability to user needs and effective use of resources. The objective of feasibility study is not to solve the problem, but to acquire a sense of its scope. The result of the feasibility is formal proposal. This is simply a report a formal document detailing the nature and scope of the proposed solution.

ECONOMICAL FEASIBILITY :

Economic analysis is the most frequently used method for evaluating the effectiveness of the candidate system. More commonly known as cost/benefit analysis, the procedure is to determine the benefits and saving that are expected from a candidate system and compare them with cost. This is an ongoing effect that improves in accuracy at each face of system life cycle.

TECHNICAL FEASIBILITY :

As computers are spread everywhere with an optimum configuration of 40 GB, HDD, 128 MB RAM and other accessories, the said system will certainly improvise the existing minimum infrastructure. This project is undertaken is technically feasible and is within sate of art.

Software is like MS SQL server 2005 and Visual Studio 2008 are used to meet the software requirements.

OPERATIONAL FEASIBILITY :

The project is user friendly and with a demonstration. Any computer user can work on the package without any additional training. Using this software package, the user can get all the required information regarding customer, vendor and design details with a mouse click.

HARDWARE AND SOFTWARE REQUIREMENTS

HARDWARE REQUIREMENTS

- Processor : Snapdragon 215 or higher
- RAM : 512 MB or higher
- Storage : 64GB or Higher
- Android OS : Kitkat 4.4 version or higer

SOFTWARE REQUIREMENTS

- Operating System : Windows 10,11
- IDE : Android Studio
- Formatting Language : XML & Java
- Backend : Firebase

SOFTWARE REQUIREMENT SPECIFICATIONS

XML

XML (eXtensible Markup Language) is a versatile markup language widely used for structuring, storing, and transporting data across different platforms and applications. Its human-readable format and customizable structure make it a fundamental tool for representing information hierarchies in a wide range of contexts.

XML follows a simple yet powerful syntax consisting of tags enclosed in angle brackets. These tags define elements that organize and label the data. Each XML document has a root element, and the elements can nest within each other, forming a hierarchical structure that mirrors the relationships between the data.

One of XML's primary strengths is its flexibility. Unlike fixed data formats, XML allows developers to define their own custom tags and document structures tailored to their specific needs. This adaptability makes XML an excellent choice for representing complex and diverse data types, from configuration files to document content, making it an essential part of various industries like web development, data interchange, and configuration management.

XML documents can also incorporate attributes within elements to provide additional information or metadata. This enhances the document's expressiveness and allows for more detailed data representation. However, while XML is human-readable, it can become verbose for large datasets, leading to increased file sizes.

JAVA

Java is a versatile, object-oriented programming language that has been a cornerstone of software development for decades. Created by Sun Microsystems (now owned by Oracle), Java's design principles emphasize portability, readability, and reliability, making it a popular choice for a wide range of applications.

One of Java's defining features is its "write once, run anywhere" capability. It achieves platform independence by compiling source code into an intermediate form called bytecode, which is then executed by the Java Virtual Machine (JVM) on different platforms. This allows Java applications to run consistently across various operating systems without modification.

Java's object-oriented nature encourages modular and organized code development. It promotes the use of classes and objects, facilitating code reuse, encapsulation, and maintenance. Java's vast standard library provides pre-built classes for common tasks, saving developers time and effort.

Exception handling is a crucial aspect of Java, enhancing the robustness of applications. Java enforces compile-time and runtime checks to catch errors, promoting stable and reliable software.

Java's influence extends beyond traditional application development. It's a key language for Android app development, powering millions of mobile devices. Java's usage in big data processing (Hadoop), web development (Java EE), and scientific computing further demonstrates its versatility.

FIREBASE

Firebase is a comprehensive mobile and web application development platform owned by Google. It provides a range of tools and services to help developers build and manage applications with ease. At its core, Firebase offers features like real-time database, authentication, hosting, cloud storage, and more.

One of Firebase's standout features is its Realtime Database, which is a cloud-hosted NoSQL database. It allows developers to synchronize data in real-time across clients, making it ideal for applications requiring live updates. Firebase Authentication provides secure user authentication with various sign-in methods, enhancing app security.

Firebase Hosting simplifies web hosting, enabling developers to deploy static files quickly and efficiently. Firebase Cloud Storage offers scalable storage solutions for user-generated content like images, videos, and files. Firebase Cloud Functions allow developers to run backend code in response to events, enhancing the application's functionality.

The Firebase Analytics tool provides insights into user behavior and engagement, aiding developers in making informed decisions. Firebase also supports remote configuration, allowing changes to app behavior without updating the app itself. Firebase Performance Monitoring helps identify and resolve performance issues.

ANDROID STUDIO

PHP is a servAndroid Studio is the official Integrated Development Environment (IDE) for Android app development, created by Google. It offers a comprehensive set of tools and features that enable developers to design, develop, test, and debug Android applications efficiently.

The Layout Editor within Android Studio allows developers to create visually appealing user interfaces using a drag-and-drop interface, along with XML code editing. It supports various screen sizes and orientations, facilitating responsive design.

The Code Editor offers intelligent code completion, syntax highlighting, and error checking, which aid in writing clean and error-free code. Android Studio supports multiple programming languages, including Java and Kotlin, making it versatile for developers with different language preferences.

The Gradle-based build system automates the compilation, packaging, and deployment of Android applications. It manages project dependencies, allowing developers to easily integrate external libraries and resources. This streamlines the development process and ensures consistent and efficient builds.

The Android Emulator lets developers test their applications on virtual devices with different Android versions and screen configurations, aiding in identifying compatibility issues. Additionally, Android Studio supports physical devices for testing and debugging.

INPUT AND OUTPUT OF THE PROJECT

INPUT OF THE PROJECT

ADDING MEDICINE FORM :

It accepts the necessary credentials of medicines so that it can give reminder's on particular time which is specified while adding the reminder.

This Form contain fields like medicine name, reminder time, the date, and the dosage quantity and the notification type which is either alarm or simple notification.

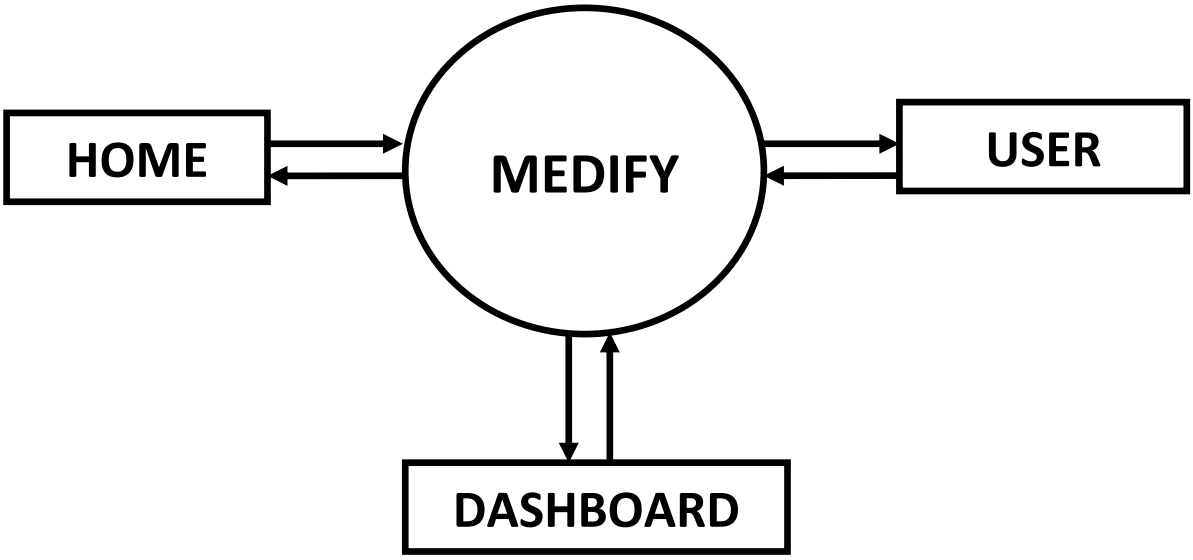
OUTPUT OF THE PROJECT

The app reminds the user when the alarm activates at the particular time at which the user have set the reminder. The app also allows the user to snooze the alarm in case if he/she is busy during that particular time. So that the user can remember the medicine after certain period of time.

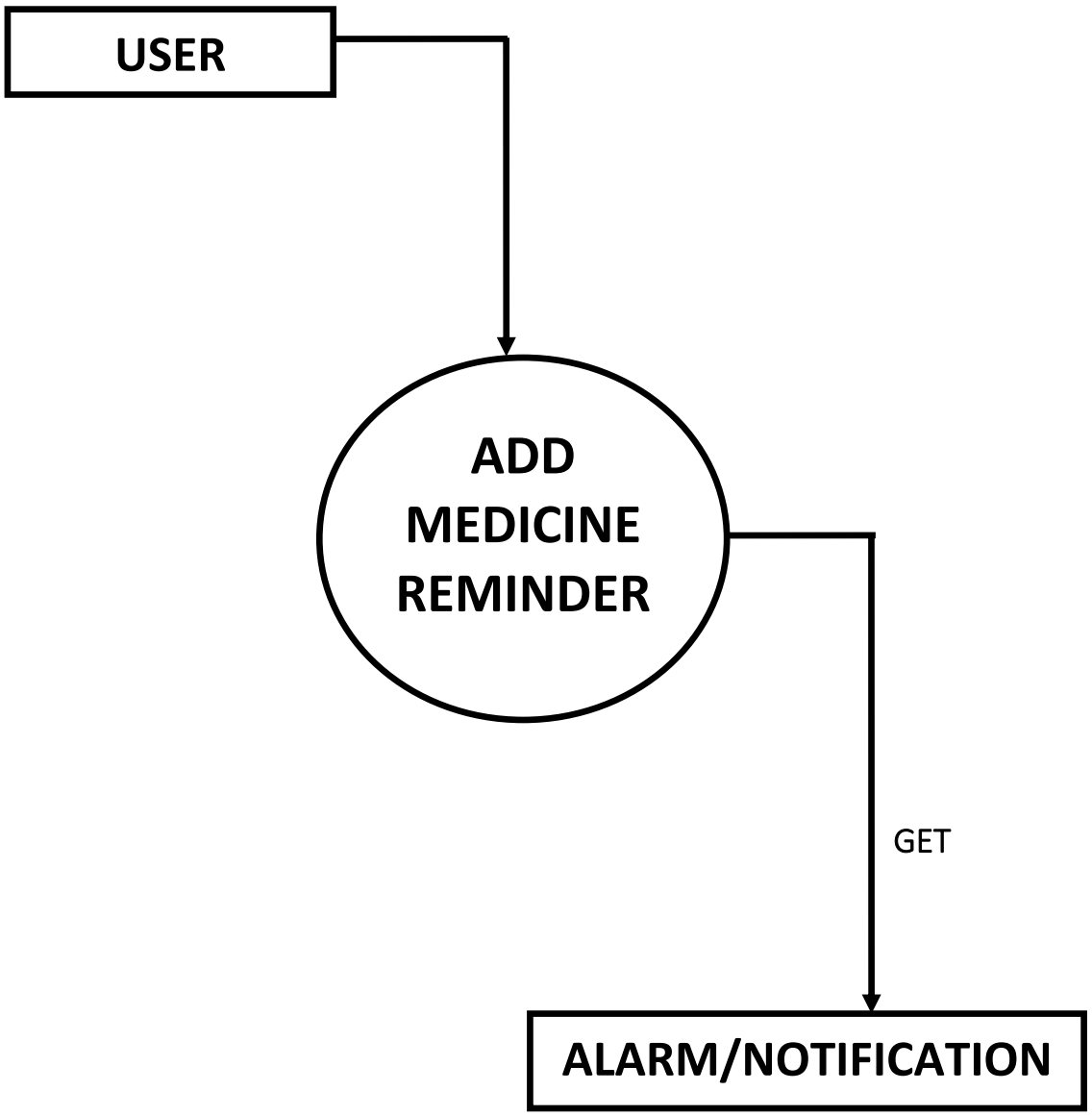
SYSTEM DESIGN

DATA FLOW DIAGRAM

LEVEL – 0

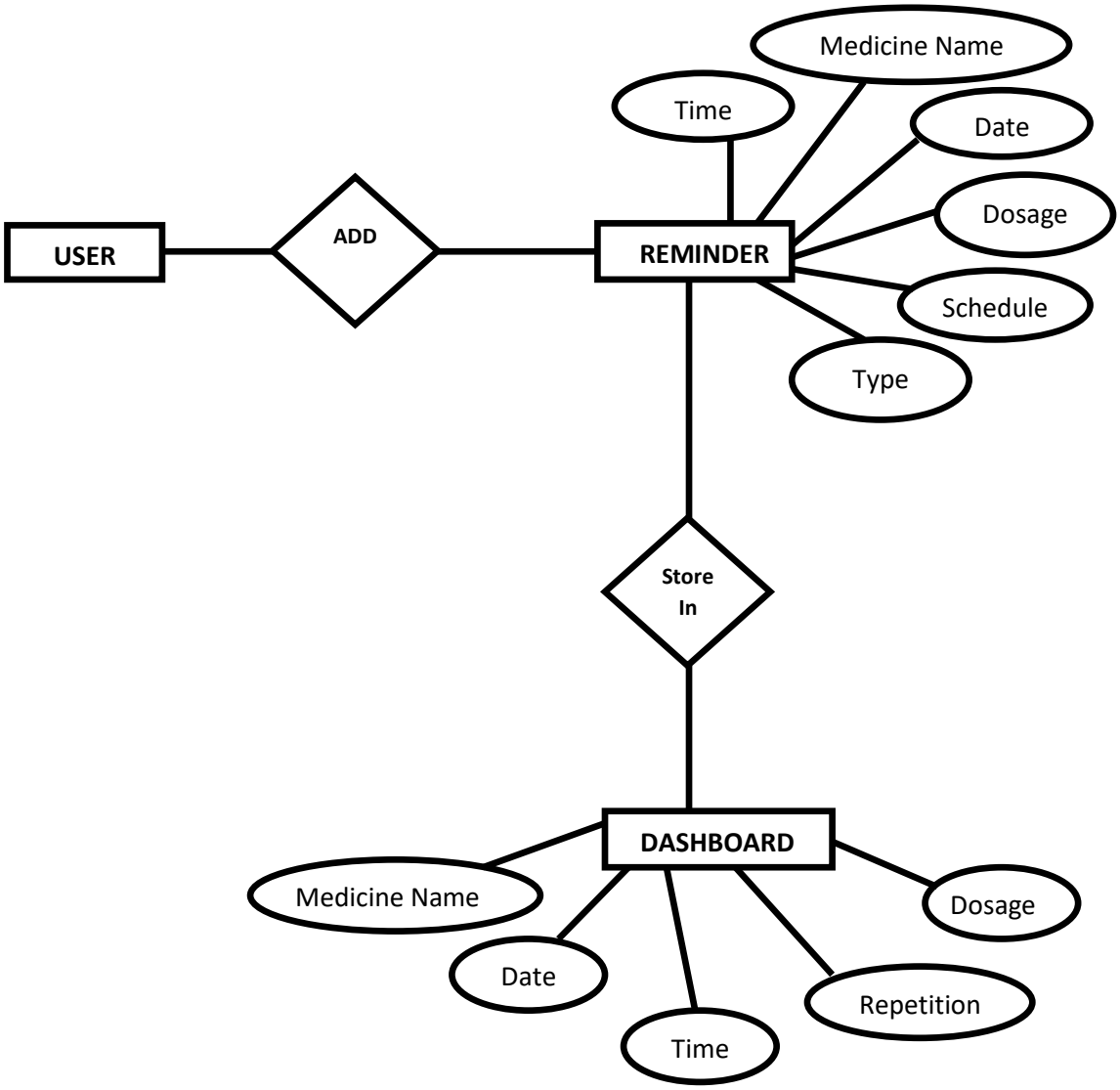


LEVEL – 1



ENTITY RELATIONSHIP DIAGRAM

ER – DIAGRAM


Medicine Name
Time
Date
Dosage
USER
ADD
REMINDER
Schedule
Type
Store
In
DASHBOARD
Medicine Name
Dosage
Date
Repetition
Time

DATABASE DESIGN

ADDING MEDICINE TABLE

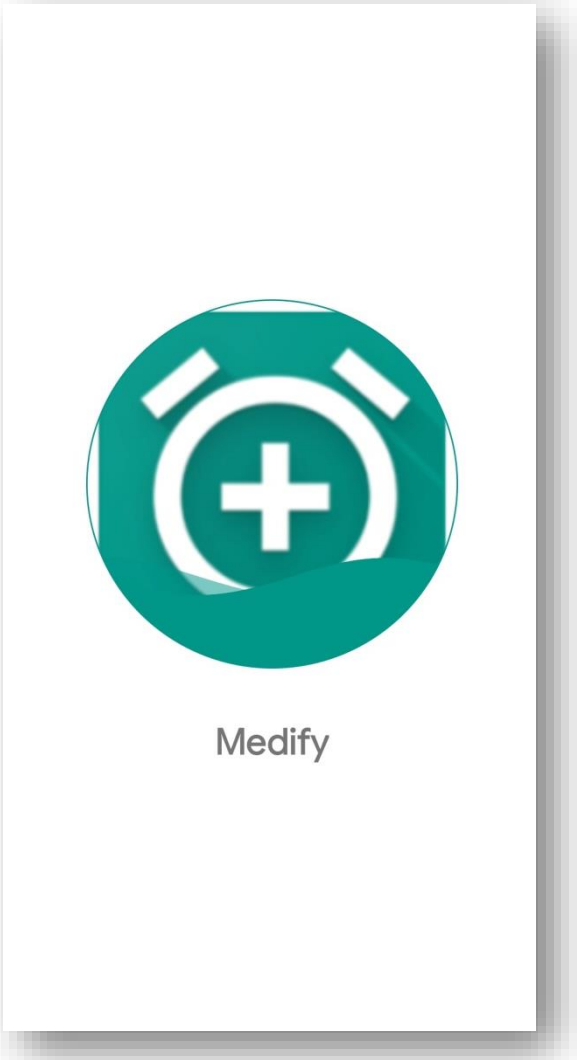
COLUMN NAME	DATA TYPE	SIZE	CONSTRAINTS
medicine_name	varchar	250	NOT NULL
date	datetime	-	NOT NULL
schedule	int	11	NOT NULL
time	time	-	NOT NULL
total_dosage	int	25	NOT NULL
alarm_type	varchar	25	NOT NULL

DASHBOARD TABLE

COLUMN NAME	DATA TYPE	SIZE	CONSTRAINTS
medication_name	varchar	250	NOT NULL
date	datetime	-	NOT NULL
repetition	int	11	NOT NULL
total_dosage	int	11	NOT NULL
time	time	-	NOT NULL

USER INTERFACE DESIGN

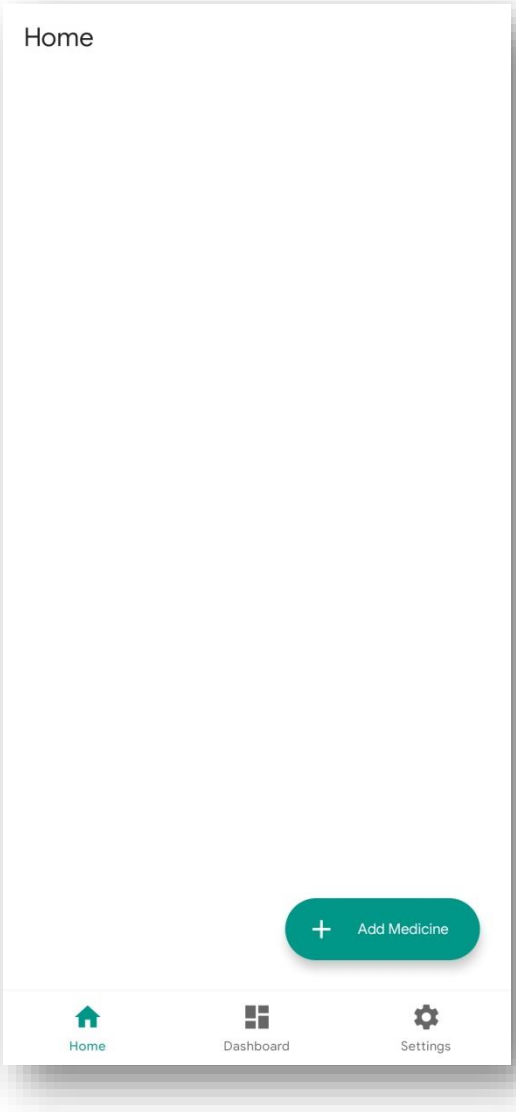
SPLASH SCREEN



Description :

The Splash Screen is the introductory screen which appears when you open the application on your device.

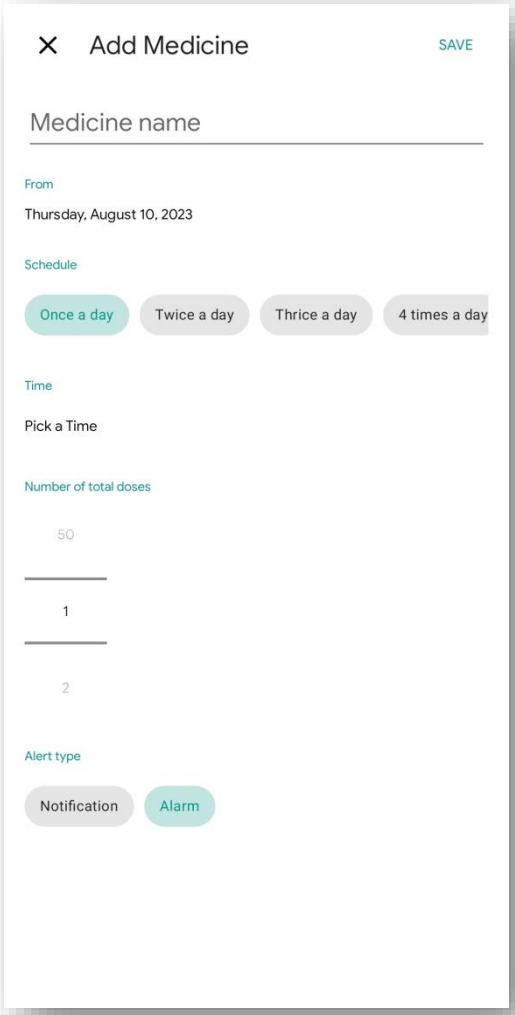
HOME PAGE



Description :

This is home screen of the application where the user can add new medicine by clicking **+ Add Medicine** button. If the user have already set a reminder then those reminder details will be displayed on home screen and they can delete any reminder.

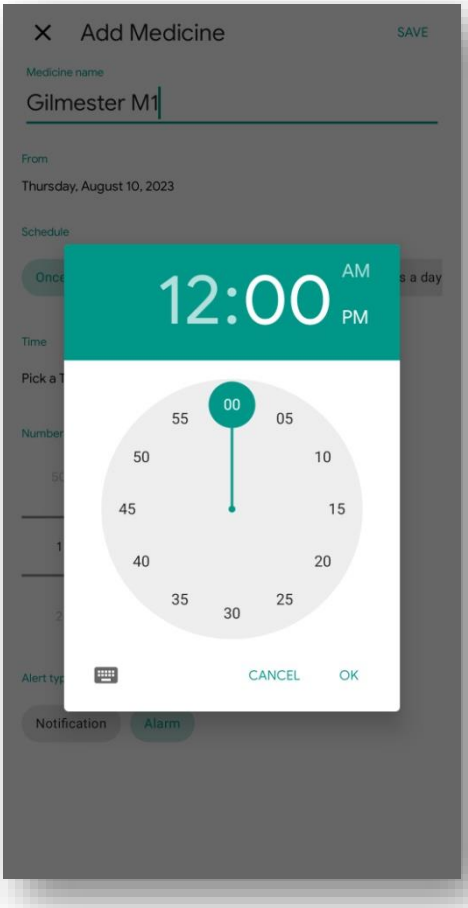
ADDING REMINDER FORM

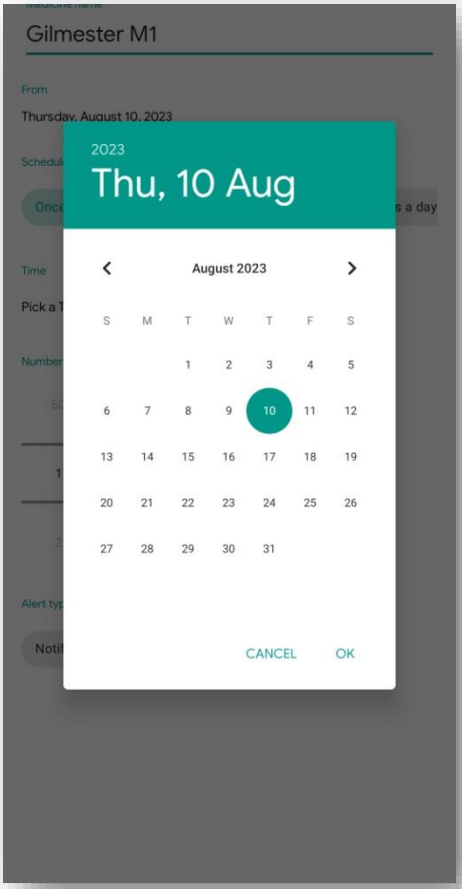


Description :

This is the main component of our application where user has to enter all the medicine details so that he/she can get reminder o that particular time. All fields should be filled before clicking **DONE.**

SETTING DATE AND TIME

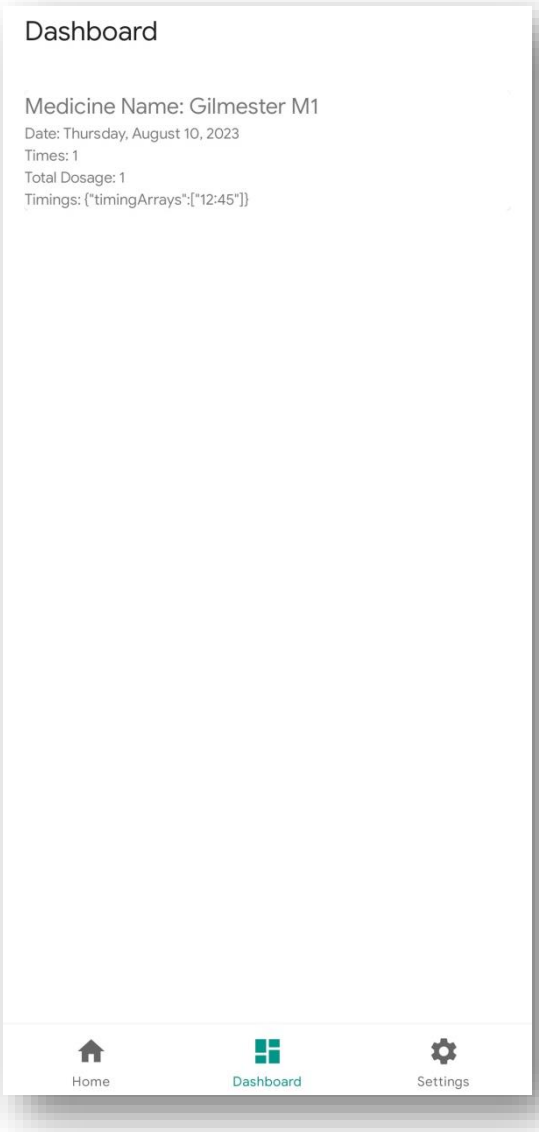




Description :

The Date & Time can be set using the dial and calendar. No need of user to type the date or time. This feature makes our app user friendly.

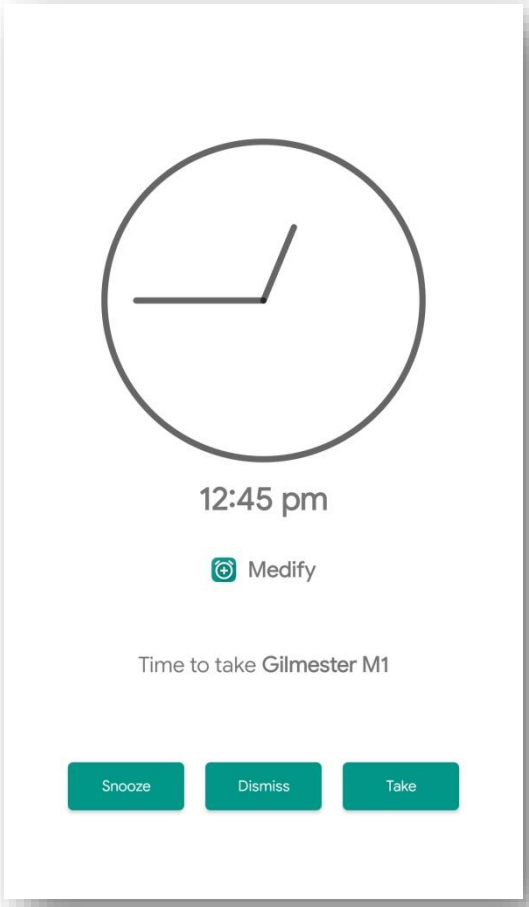
DASHBOARD



Description :

All the active medicine reminders will be stored in the dashboard. Which will help the user to have quick look on their medicine schedules.

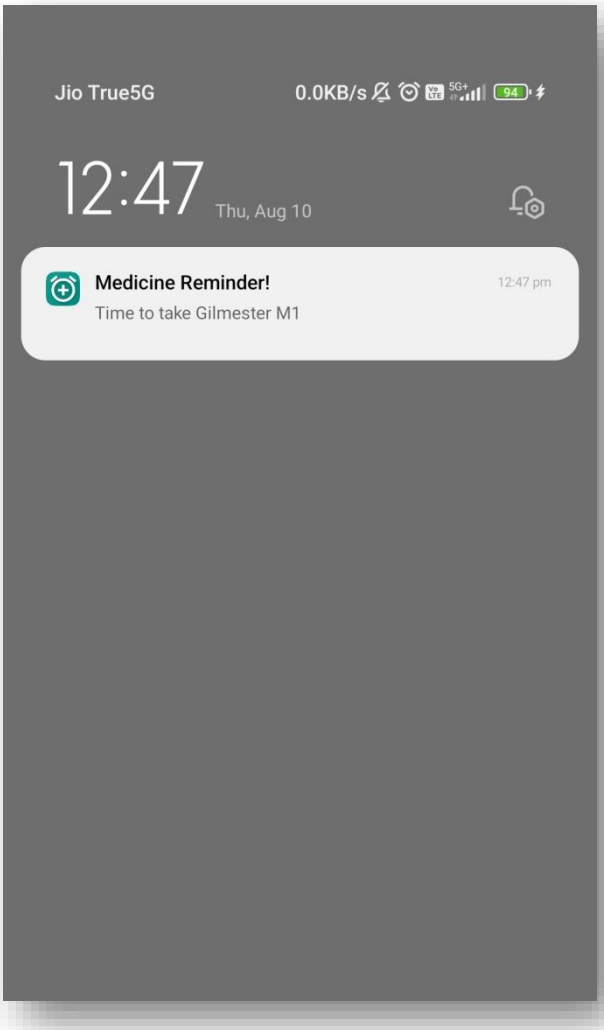
ALARM SCREEN



Description :

This is the alarm pattern which will be displayed on the device once the reminder is activated. The user can either Take it or they can dismiss it if he/she have already taken the medicine or else they can snooze it if they are busy during that time.

REMINDER NOTIFICATION



Description :

Apart from alarm, The user can also get only notification which can be selected while adding medicine type.

TESTING

TESTING

SOFTWARE TESTING

Software testing is a process of executing a program or application with the internet of finding the software bugs.

It can also be started as the process of validating and verifying that a software program or application or product:

- Meets the business and technical requirements that guided is design and development
- Works as expected
- Can be implemented with the same characteristic

UNIT TESTING

Unit testing is the testing of an individual unit or group of related units. It falls under the class of white box testing. It is often done by the programmer to test that the unit he/she has implemented is producing expected output against given input.

FUNCTIONAL TESTING

Functional testing is the testing to ensure that the specified functionality required in the system requirements works.

SYSTEM TESTING

System testing is the testing to ensure that by putting the software in different environment (e.g.. operating system) it still works. System done with full system implementation and environment.

VALIDATION

VALIDATION

Validation testing is mainly done to confirm that each value of different fields are of their specific type and also check whether any fields is left black that is any fields are left without entering any value.

- If we try to save the reminder without adding any details then, the “Select All Fields To Continue” Message Appears.
- While adding medicine details, if the medicine name is blank Then “Enter a Name” Warning appears.
- If Time is left blank then message appears like "Non Selected Item: Time".
- It Takes Date by default From the system. We can change only if we want it on specific day.

FUTURE SCOPE

FUTURE SCOPE

- We will include the edit option so that user can edit his medication if he have committed any mistakes while setting reminder.

- We will also improve setting feature of the app so that the user can set his/her own tones to the alarm and also dark/light theme switch so that they can use the application as per their preference

- We will allow users to keep track of their past usage.

- We will include Emergency Services To the user.

- We will provide Appointment Scheduling with the doctor.

CONCLUSION

CONCLUSION

In conclusion, the **MEDIFY** Medicine Reminder Android application is an essential companion for anyone striving to maintain a consistent and accurate medication routine. Its user-friendly features make it an invaluable tool for promoting health and well-being.

With its intuitive interface, tailored reminders, and comprehensive tracking, it ensures timely and accurate dosing. By seamlessly integrating with calendars and providing medication insights, it empowers users to prioritize their well-being. This app serves as a steadfast companion for maintaining a healthy lifestyle, offering a simple yet effective solution to a crucial aspect of healthcare.

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WEBSITES

https://github.com/

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https://console.firebase.google.com/

YOUTUBE REFERENCE:

- Code With Harry (Android Development Complete Tutorials)

THANK YOU