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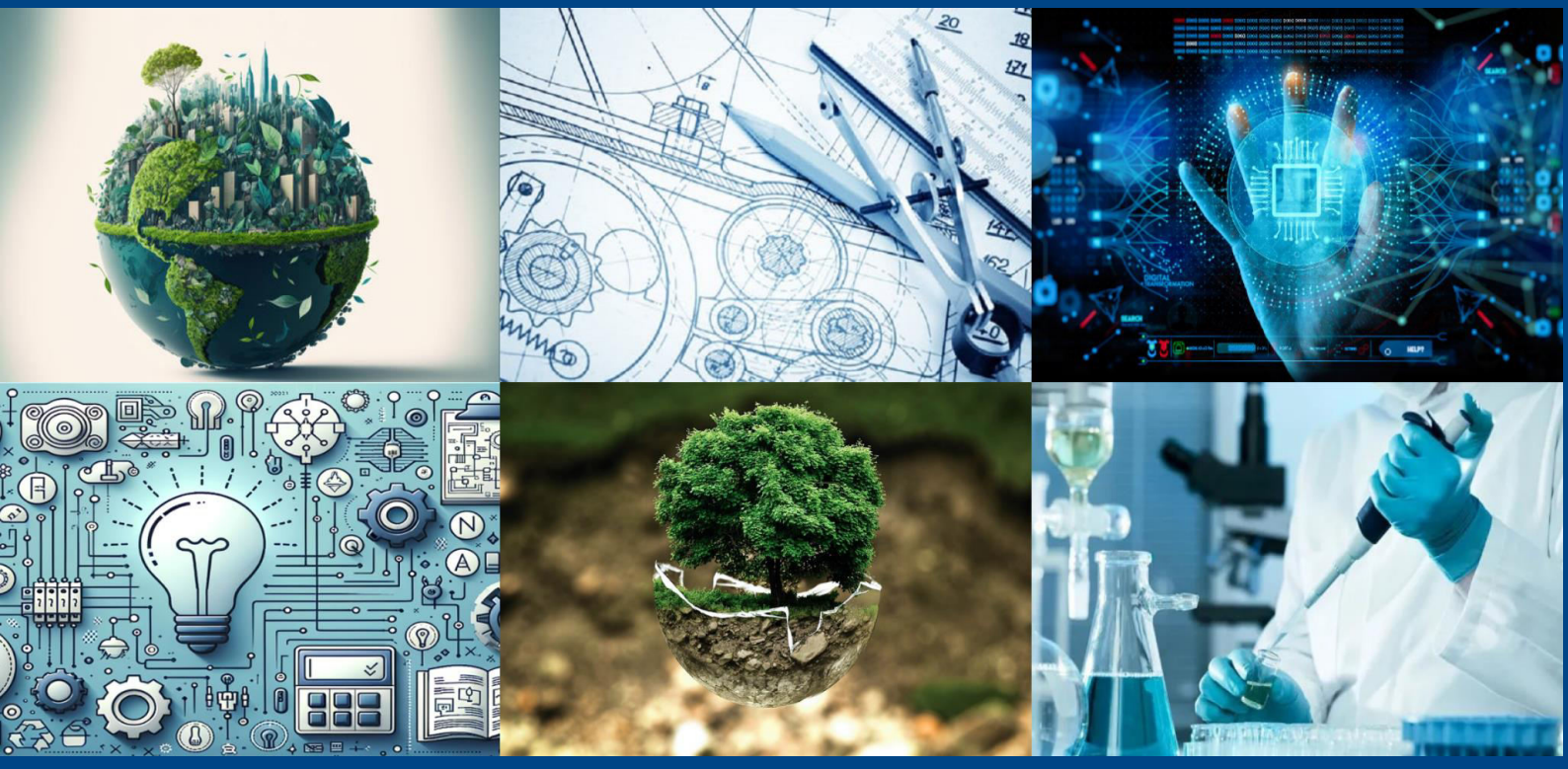

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Quiet Timer App

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ABSTRACT: The Quiet Timer App is your go-to solution for managing phone interruptions effortlessly. It allows users to schedule customizable quiet time that automatically mutes notifications while working, in meetings, lectures or sleeping and reverts to normal mode after the timer ends. Its smart detection of emergency calls enables vital calls to cut through silence if the same number continues to dial repeatedly. Callers also receive courteous reminders while in quiet mode to call again later so they aren't left wondering about availability. Users also get alerts on missed calls and messages without unnecessary interruptions. This App is Developed with Android Studio using Kotlin, Java, HTML, CSS, and JavaScript, the app blends a user-friendly interface with full-fledged capabilities. This app is integrated with timer-based muting, emergency call handling, and caller alerts, the Quiet Timer App enhances productivity, focus, and peace of mind. It's the perfect app for anyone looking to minimize distractions while staying informed.

KEYWORDS: Timer-Based Silent Mode - Emergency Call Detection- Caller Notifications.

I. INTRODUCTION

In today's fast-paced digital world, frequent phone calls and notifications can be a major distraction, making it difficult to concentrate on important tasks, attend meetings, or even relax. Effectively managing these interruptions is essential for maintaining productivity and peace of mind. The Quiet Timer App provides an efficient and user-friendly solution by allowing users to schedule quiet periods that automatically mute notifications and restore normal mode once the timer ends. One of its key features is smart emergency call detection, which ensures that important calls are not missed. If the same number calls repeatedly within a short time, the app allows the call to bypass silent mode, ensuring urgent matters receive attention. Additionally, callers receive a polite notification to try again later, keeping them informed of the user's availability. This functionality strikes the perfect balance between staying focused and remaining accessible when needed. To further enhance the user experience, the Quiet Timer App provides real-time updates on missed calls and messages without unnecessary interruptions. Its intuitive design makes setting up and managing quiet time effortless, catering to different schedules and needs. Developed using Android Studio with Kotlin, Java, HTML, CSS, and JavaScript, the app seamlessly integrates functionality with ease of use.

By combining customizable timers, emergency call handling, and caller notifications into one powerful tool, the Quiet Timer App helps users take better control of their time, reduce distractions, and stay focused. Whether for work, study, relaxation, or sleep, it is the ideal companion for a more structured, productive, and peaceful day.

II. LITERATURE SURVEY

1.Jena, L., & Minz, D.P. said that their auto silencer application functions as an automatic sound control system. It schedules and manages the silent mode of the phone according to pre defined time intervals, caller notifications, and user preferences.The concept primarily helps in reducing interruptions, enhancing productivity, and increasing user convenience.

2.Zin, M.S.I.M., Nurji, M.F.M., Isa, A.A.M., & Isa, M.S.M. stated that their auto-silent mode application, which is based on geofencing, "acts as an automatic profile management tool. It devices as they enter predefined locations, thus minimizing disruptions to areas that need silence."

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3.Tabassum, R.A., Priya, V.A., Nagammai, S.P.A., & Gurumurthy, J. informed that their intelligent ignition system "serves as an automatic safety mechanism. It keeps the driver's mobile in silent mode while on the move, and it tries to avoid distractions to ensure road safety."

4. Kumar, V., Eniyamaran, K., Shalom, E.W., & Brabasher, A. stated that their auto-silent system "works as an automatic profile changing program. It utilizes location services to change Android cellular devices to silent mode in specific locations, with the intent of reducing manual interventions and improving userexperience."

5. Lam, D. claimed that their auto silent mode for Android devices "works like an automatic sound management system. It utilizes Bluetooth technology to recognize certain surroundings and automatically switches the phone into silent mode, hence minimizing manual entry and potential intrusions."

6.Kumar, D., & Qadeer, M.A. explained their SMS-based method serves as an automatic controlling and monitoring system. It allows remote controlling of an automatic controlling of Android mobile via SMS, enabling automatic silent mode switching in certain situations.

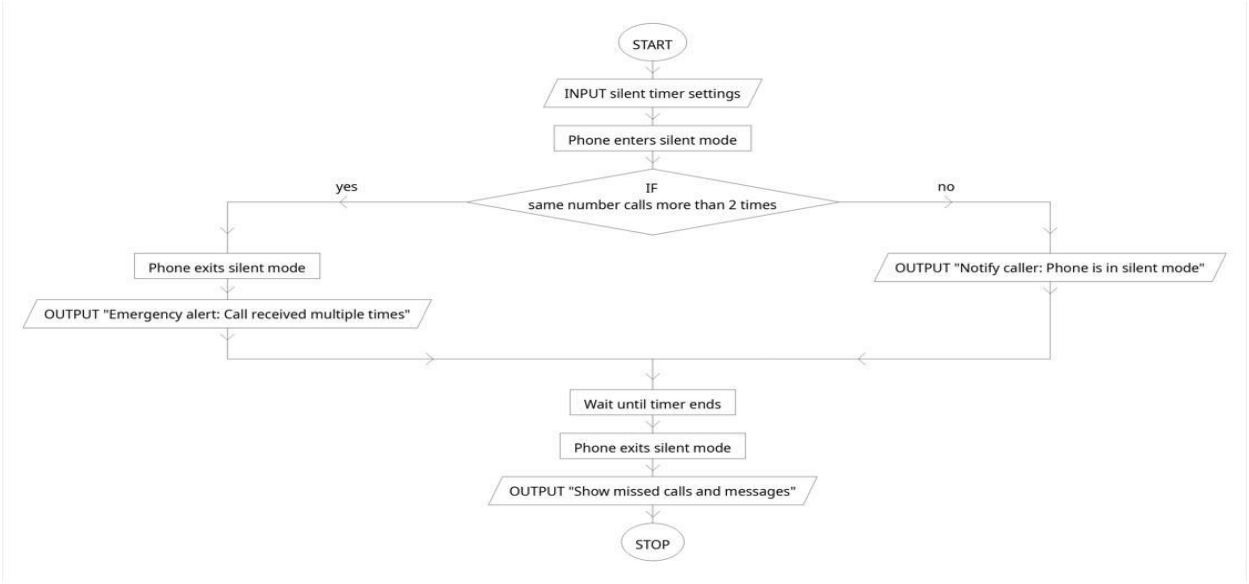

Fig 1.1 Flow chart of Quiet timer app

III. SOFTWARE REQUIREMENTS

The Quiet Timer App runs on Android smartphones with at least 2GB RAM and a 1.5GHz processor for smooth performance. The Quiet Timer App is developed using Android Studio, with Kotlin and Java as core languages. The interface is built with XML, ensuring a smooth user experience. The app is compatible with Android API Level 21 and above for wider usability.

IV. EXISTING SYSTEM

The existing technology for silencing phones is largely based on manual intervention. The users need to remember to silence their phones when attending meetings or classes, which is inconvenient. Some phones come with "Do Not Disturb" modes, but these have to be activated manually or are based on preset schedules.
Certain third-party applications attempt to automate silencing by time or location. They tend to use GPS, though, which wastes battery power. They also cannot handle changed schedules.

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A majority of current solutions do not provide options for customization. The user might require different rules for silencing in different circumstances, but several applications provide only simple settings. This leaves users having to make constant manual changes.

Privacy is a problem with location-based silencing apps as well. Most need access to personal information, so users are loathe to give them permissions. A more intelligent, more responsive, and privacy-aware solution is necessary.

V. PROPOSED SYSTEM

The Quiet timer app will allow users to program a timer for silencing the phone within an interval of time. This way, the phone will automatically switch to silent or vibration mode whenever required.

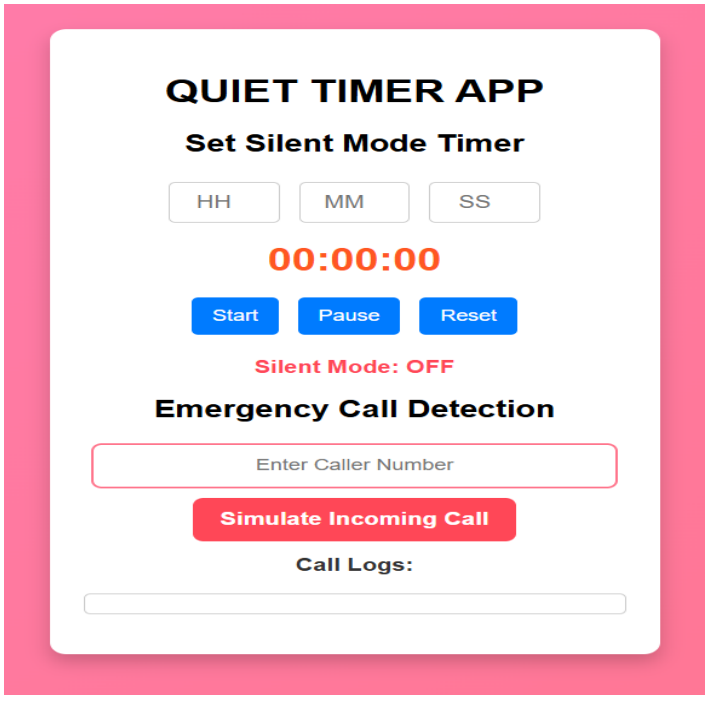
One can program silence for more than two times during the day. This is beneficial for students, professionals, or any individual having several events when they need their phone to remain silent.

The app will also handle caller notifications. Users can permit important calls to ring or receive missed call alerts, so they don't miss important messages.

When silent mode is about to expire, the app will prompt, "Do you want to continue?" This enables users to prolong silence if necessary, avoiding unwanted calls.

VI. ADVANTAGES OF PROPOSED SYSTEM

- Removes the necessity of manual activation by enabling silent mode automatically according to schedules, location, or activity.
- Applies AI to learn user patterns and adjusts silent mode settings based on that.
- Users can set up multiple silent profiles for various occasions (e.g., work, study, sleep).



Output: Quiet Timer App

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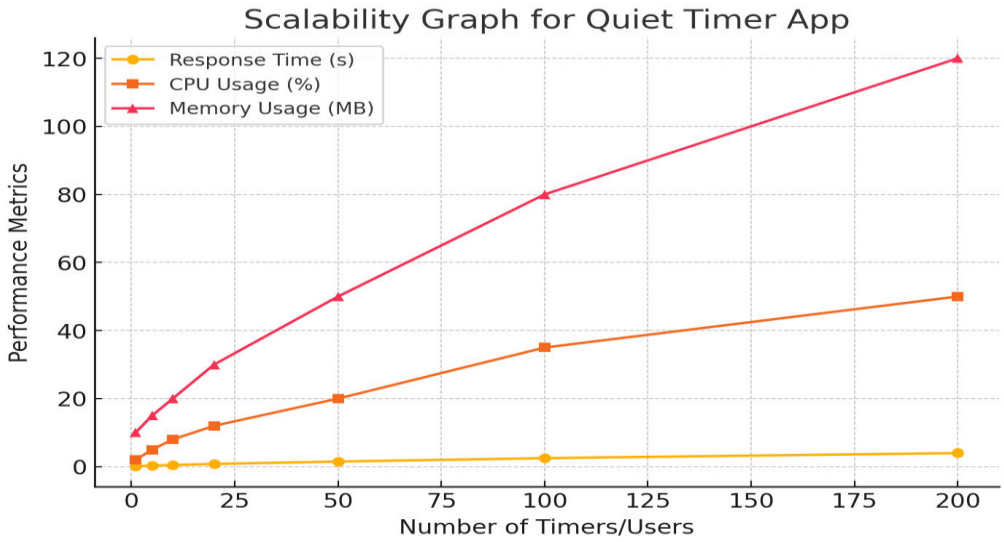

Fig 1.2 Scalability graph of Quiet timer app

A. Architecture Diagram

Architecture diagram is a visual representation of software system components. The below diagram is the architecture of the system.

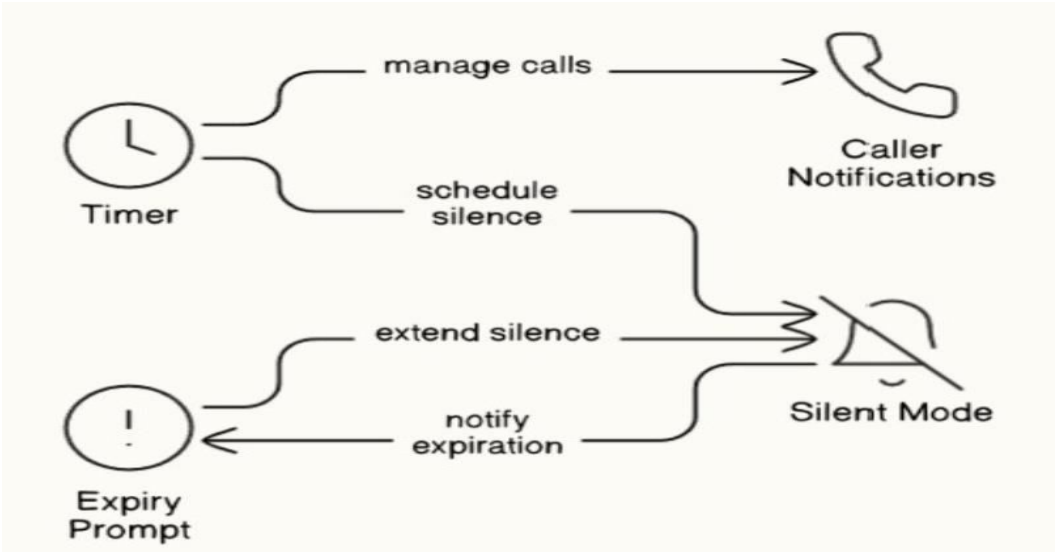

Fig 1.3 Architecture Diagram

This architecture diagram shows the main functions of an auto silencer Application. This system is dependent on a Timer that schedules silent mode according to settings that are specified in advance. Users can define time intervals at which they can silence their phones so that they do not need to do so manually. The timer can also handle calls, issuing Caller notifications to users about missed and incoming calls when the phone is in silent mode.

Another main feature is the Expiry Prompt, which provides more user control over silent mode duration. When the scheduled silent period is nearing expiry, the app reminds the user of expiry. This means the user can either allow the phone to go back to normal mode or prolong the silence if needed. This feature avoids unwanted disturbances and provides more flexibility.

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Silent Mode state is the last system output we are discussing here. It is triggered on the scheduled silence, and users can expand it through expiry warnings. Through integration of automated scheduling, caller warning, and also the user warnings, this system guarantees a smart and an effective method of operating phone silencing without persistent manual intervention.

VII. ADVANATGES

- Automates silent mode activation and reversion based on a preset timer.
- Allows emergency calls to override silent mode after multiple attempts.
- Notifies callers when the user is in silent mode, reducing missed communication.
- Sends alerts for missed calls and messages after silent mode ends.
- Simple and user-friendly interface for easy customization.
- Enhances focus and productivity by minimizing distractions.

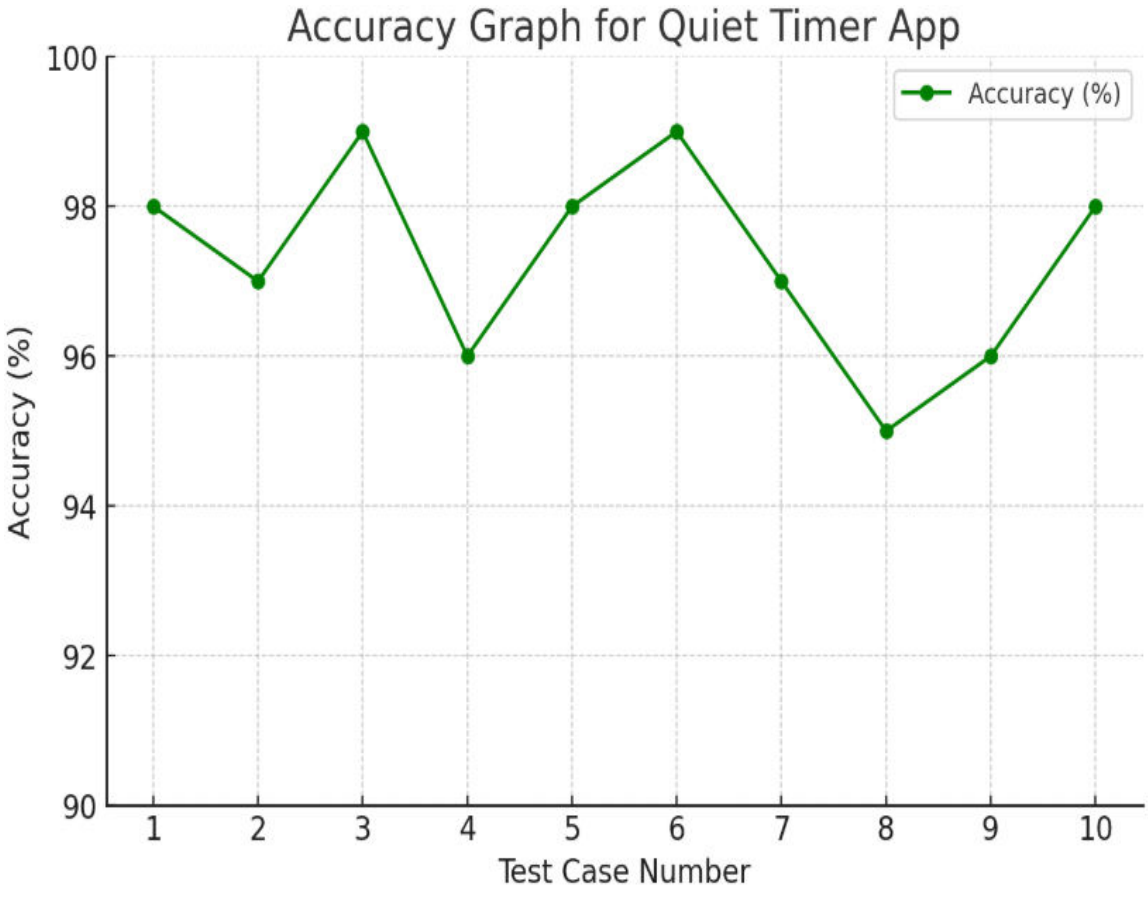

Fig1. Accuracy graph of Quiet timer app

VIII.CONCLUSION

The Quiet Timer App offers an intelligent and effective way of handling silent mode, keeping users undisturbed while remaining available in the event of an emergency. With the combination of automated silent mode, caller notification, and emergency call detection, the app offers greater user convenience and guarantees critical calls are not missed. The system's capability to synchronize across devices, be integrated with calendars, and offer AI-based automation makes it a very flexible and user-friendly application. Additionally, the app ensures digital wellness,

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productivity, and responsible mobile use through allowing the users to concentrate without disturbance but remain available when needed. Its smart call-handling function, seamless automation, and syncing across devices, the Quiet Timer App is an efficient and progressive solution for smart silent mode operation in both workplaces and daily lives.

IX. FUTURE ENHANCEMENTS

- The app can leverage AI to forecast when to put the phone on silent mode based on history and calendar appointments.
- Location-based silencing can be setup by users so that the phone goes into silent mode automatically upon entering particular locations such as offices or schools.
- Custom silent modes can be set up for different situations like work, meetings, or night, with customized settings.
- The application may enable multiple calls from the same number within a specified time frame to override silent mode in situations where emergencies need attention.
- During silent mode, the application may send an automatic response to missed callers stating that the user is not available.
- Smartphone users who use smartwatches can get silent mode notifications and control options on their wearable devices.
- The app can utilize intelligent algorithms in order to minimize battery consumption when utilizing location-based or time-based silencing.
- The app can be integrated with voice assistants such as Google Assistant or Siri for hands-free silent mode activation.

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