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S.S. Bobde[1], Pranali Thopte[2], Neha Shitole[3], Kaveri Khunte[4], Siddhi Borge[5]

[1,2,3,4,5]Compartment of Computer Engineering

ABSTRACT

Nowadays people are very busy and often forget important tasks. Many reminder apps are available but they either focus only on task entry or continuously collect user data. This "Move with me" project introduces a smart mobile application that combines task management with location based on the user's current location and task details, helping them complete activities on time. it collects only necessary information and allows users to control permissions ensuring data security. The system is developed to be simple, efficient, and user friendly so that it can be easily used in real life situations. This project aims to improve productivity while maintaining a strong balance between convenience and privacy protection.

INTRODUCTION

Today, mobile phones have become an important part of everyday life. Almost everyone depends on smartphone applications for communication, shopping, studying, entertainment, and managing daily work. As people's schedules are becoming more busyand fast-paced, it has become difficult to remember all important tasks, meetings, deadlines, and personal activities. Because of this, many individuals face problems like forgetting important work, missing appointments, or not managing time properly. This creates stress and reduces overall productivity.

To solve this problem, many task management and reminder applications are available in the market. These applications allow users to create to-do lists and set time-based reminders. Although these systems are helpful to some extent, they mostly depend only on manual input and fixed time alerts. They do not consider the user's real-time situation, current location, or surrounding environment. For example, a user may set a reminder to buy groceries at 5 PM, but if they are not near a store at that time, the reminder may not be useful. Therefore, traditional reminder systems are limited in providing smart and context-based assistance.

Another important issue related to mobile applications is privacy and data security. Many modern applications continuously collect user information such as exact location, activity patterns, and personal details. In many cases, users are not fully aware of how their data is stored or used. Continuous tracking and unnecessary data storage can create risks such as misuse of information, data leakage, or unauthorized access. Due to these concerns, users may hesitate to use intelligent applications even if they are helpful. Hence, developing a system that balances smart functionality with strong privacy protection has become very important.

Considering these challenges, the "Move with Me" project is proposed as a smart and privacy-aware mobile application. The main aim of this project is to combine task management with location-based reminders in a secure and user-friendly manner. Instead of giving only time-based notifications, the application can send reminders when the user reaches a specific location. This makes the reminders more relevant and practical in real-life situations. At the same time, the system collects only the necessary data required for its operation and gives full control of permissions to the user.

The application is designed with a simple interface so that users can easily create, edit, and manage their tasks without technical difficulty. The system architecture focuses on efficiency, minimal data storage, and secure handling of user information. By integrating smart reminders with privacy-focused design, the project aims to reduce missed tasks, improve time management, and increase overall productivity.

In summary, this project attempts to provide a practical solution for modern lifestyle problems by offering intelligent task assistance while ensuring that user privacy is not compromised. The "Move with Me" application represents a step toward developing secure, reliable, and context-aware mobile systems suitable for everyday use.

LITERATURE REVIEW

Many researchers have worked on improving task management systems and location-based mobile applications to make daily activities easier for users. Traditional task management applications mainly focus on allowing users to create to-do lists and set time-based reminders. These applications help in basic planning, but they do not consider the user's real-time situation or surrounding environment. Because of this limitation, reminders may not always be useful or practical in real-life situations.

With the advancement of mobile technology, location-based services (LBS) have become more popular. Several studies explain how GPS technology can be used to provide location-based notifications and context-aware services. These systems can send alerts when a user reaches a particular place, which makes reminders more relevant and meaningful. Location-based services are also used for navigation, nearby store suggestions, and personalized recommendations. Such systems improve user convenience and efficiency.

However, along with the benefits of location-based systems, researchers have also highlighted serious privacy concerns. Continuous tracking of user location and storing personal data can create security risks. Some studies suggest that collecting excessive data without user awareness may lead to misuse or unauthorized access. Therefore, many researchers emphasize the importance of privacy-preserving techniques such aslimited data collection, secure storage, encrypted communication, and user-controlled permissions.

Recent research also focuses on developing intelligent mobile applications that combine multiple features like task management, personalized suggestions, and smart notifications. While these systems improve user experience, many of them either lack strong privacy protection or become complex for users to operate. This shows that there is still a need for a balanced system that provides smart assistance without compromising simplicity and security.

Based on the analysis of existing research and available applications, it can be observed that combining location-based reminders with privacy-focused design is essential. Therefore, the "Move with Me" project aims to develop a secure, easy-to-use, and intelligent task management application that improves productivity while ensuring that user data remains protected.

METHODOLOGY

The development of the "Move with Me" application follows a structured and practical approach to ensure that the system works efficiently and securely. The first step in the process was requirement analysis. In this stage, the main features of the application were identified, such as task creation, location-based reminders, user-friendly interface, and privacy protection. The goal was to design a system that is easy to use while maintaining strong data security.

After identifying the requirements, the overall system architecture was planned. The application consists of different modules including the user interface, task management, location detection, and privacy control components. Each module is designed to perform a specific function while working smoothly with the others. This modular design helps in maintaining simplicity and improving system performance.

The mobile application is developed using the Android platform. Users can create new tasks by entering details such as task name, description, date, time, and location. These task details are stored securely within the application. The location feature uses GPS technology to detect the current position of the user. When the user reaches or comes close to the specified location, the application automatically generates a reminder notification. This makes the reminder more practical and relevant compared to only time-based alerts.

Privacy and security are given high importance in this project. The application collects only the necessary information required for its proper functioning. Continuous tracking of user location is avoided, and location data is accessed only when needed to trigger reminders. Users are provided with permission controls, allowing them to enable or disable location access according to their preference. Secure data handling methods are applied to protect sensitive information from unauthorized access.

Testing is performed after development to ensure that all features operate correctly. Different scenarios are checked, such as task creation, editing, deletion, location-based notification triggering, and permission handling. The performance of the application is also evaluated to confirm smooth operation without excessive battery consumption or delays.

Overall, the methodology focuses on creating a simple, secure, and efficient system that integrates smart task management with privacy-aware location services. This structured development approach ensures reliability and usability in real-world conditions.

RESULT AND DISCUSSION

After completing the development of the "Move with Me" application, testing was carried out to check its performance, usability, and reliability. The application was tested in different real-life situations such as creating tasks, setting location-based reminders, editing task details, and managing permissions. The results showed that users were able to operate the application easily without confusion. The interface was simple and responsive, which helped users quickly understand how to add and manage their tasks.

The location-based reminder feature worked effectively during testing. When the user reached or came near the selected location, the notification was triggered successfully. This helped in completing tasks at the right place and reduced the chances of forgetting important work. Compared to normal time-based reminder applications, this feature provided more practical support because reminders were connected to real-time location. From a performance point of view, the application operated smoothly on Android devices without major lag or crashes. Battery usage remained under control because the system avoided continuous background tracking. Location access was used only when necessary, which also supported privacy protection. Users were able to control location permissions easily through the settings option. During testing, it was observed that reminder accuracy depends on GPS signal strength and internet availability. In areas with weak GPS signals, there was a slight delay in detecting the exact location. However, overall system performance remained stable and reliable in most conditions.

In terms of privacy, the application successfully limited unnecessary data collection. User information was stored securely, and no continuous tracking was performed. This approach increases user trust and makes the system more secure compared to many existing applications that collect excessive personal data.

Overall, the results indicate that the "Move with Me" application provides an effective combination of smart task management and privacy-focused design. It improves daily productivity, reduces missed tasks, and offers a secure and user-friendly experience. The discussion confirms that integrating location-based reminders with controlled data access can create a balanced and practical solution for modern mobile users.

CONCLUSION

The "Move with Me" project presents a practical solution for managing daily tasks in a smarter and more secure way. In today's busy lifestyle, people often struggle to remember important activities and deadlines. Traditional reminder applications provide only time-based alerts, which may not always be helpful in real-life situations. This project improves the reminder system by combining task management with location-based notifications, making reminders more meaningful and useful.

At the same time, strong importance is given to user privacy and data security. The application collects only necessary information and avoids continuous tracking of user location. Users have full control over permissions, which increases transparency and trust. By limiting unnecessary data storage and focusing on secure handling of information, the system ensures better protection of personal data.

The testing results show that the application works smoothly and helps users complete tasks more efficiently. The simple interface makes it easy to use for different types of users without technical difficulty. Although performance may slightly depend on GPS accuracy and internet connectivity, the overall system remains stable and reliable. In conclusion, the "Move with Me" application successfully combines smart assistance with privacy-focused design. It improves productivity, reduces missed tasks, and provides a safe and user-friendly experience. The project demonstrates that intelligent mobile systems can be developed in a way that balances convenience and data protection, making them suitable for real-world implementation and future enhancements.

Subsection

1. User Interface Module

The User Interface Module is responsible for providing interaction between the user and the application. It allows users to create, edit, delete, and view their tasks in a simple and organized manner.

The interface is designed to be user-friendly so that users can easily understand and operate the system without technical knowledge. Buttons, input fields, and notification displays are properly arranged to improve usability. This module ensures that users can quickly access features such as adding new reminders, checking task status, and managing settings. A clear and responsive interface improves overall user experience and makes the application more efficient.

2. Task Management Module

The Task Management Module handles all operations related to task creation and management. Users can enter task details such as task name, description, date, time, and location. The system stores this information securely and

continuously monitors the task schedule. When the task time or location condition is met, the system sends a notification to remind the user. This module helps users organize their daily activities, avoid forgetting important work, and improve productivity.

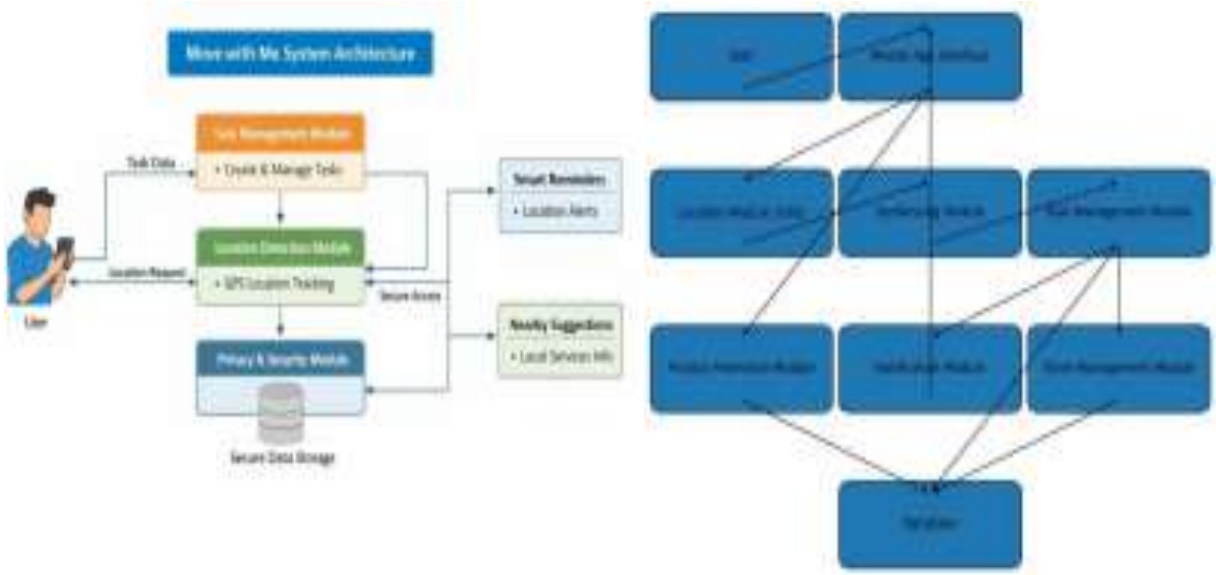
3. Location Detection Module

The Location Detection Module uses GPS technology to identify the user's current location. This module compares the user's real-time location with the saved task location. When the user reaches or comes near the specified location, the system automatically triggers a reminder notification. This feature provides intelligent and context-aware assistance, making reminders more useful and relevant. The module ensures accurate location tracking while minimizing unnecessary location access to protect user privacy and reduce battery consumption.

4. Privacy and Security Module

The Privacy and Security Module ensures that user data is protected from unauthorized access. The system collects only necessary information and stores it securely. Users have full control over location permissions and can enable or disable access at any time. The module prevents continuous tracking and uses data only when required for reminders. This approach improves user trust and ensures safe handling of personal information. Security measures help maintain confidentiality, integrity, and reliability of the system.

Figures



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