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Women Security System Using Mobile Application

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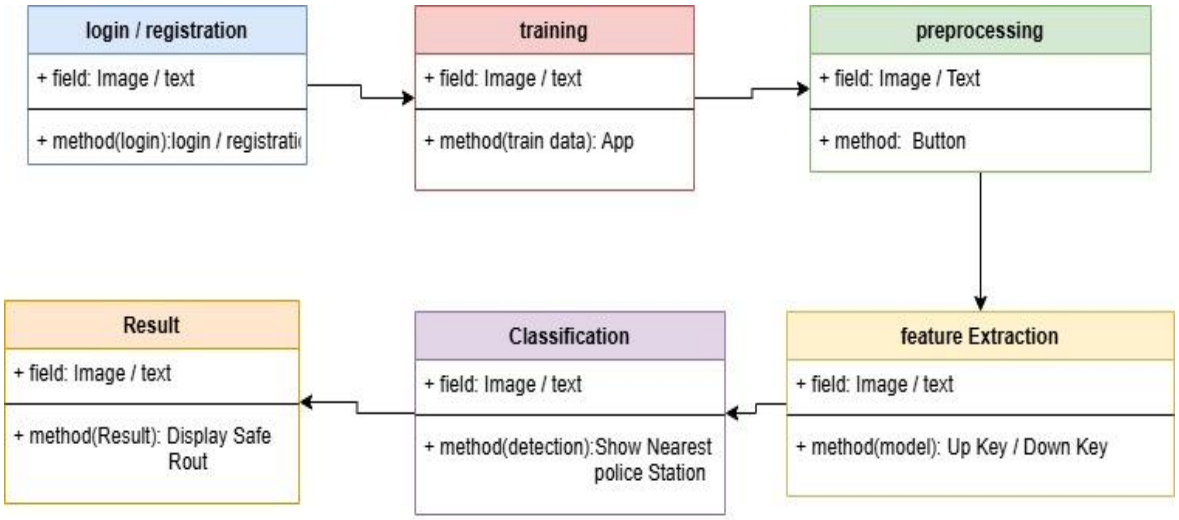
Abstract: *These days Women safety is a concern for Women. Many Women face problems when they are alone at night or in places. This is why we need a system that helps Women get help quickly. Mobile phones can play a role in keeping Women safe. The Women security system we are talking about is an application that helps Women send emergency messages and share their location with people they trust. This application uses mobile phone features like GPS, internet and messaging. When a woman presses the emergency button in the mobile application, the system immediately sends an alert message along with her real-time GPS location to the trusted contacts she has selected. This feature helps ensure that her family members, friends, or guardians are instantly informed about her situation and can take quick action to help her. The system is designed to enhance personal safety by providing fast communication and accurate location tracking during emergencies.*

Keywords: Women safety, mobile application, emergency alert system, GPS location tracking, personal security

I. INTRODUCTION

Ladies security is a significant issue in India just as other isn't safe for ladies to travel forlorn at 12 PM or pondering an obscure spot. There ought to help hand for ladies since they are not physically solid as men. As this time cell phone can be the closest companion of client and client can remain in contact with their cherished one whenever. Anyone needs to make a call or communicate something specific in crisis at whenever from anywhere.

We introduces an app which ensures the safety of women. This helps to identify and sms on resources to help the one out of dangerous situations. This reduce risk and bring assistance when we need it and help us to identify the location of the one in danger. The Android SDK gives the instruments and APIs used to create applications on the Android stage utilizing the java programming language.



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Ladies in crisis use voice-based contact list, they can work the application through voice and make the call when required. It permits sending short instant messages between cell phone gadgets. Voice acknowledgement is the fundamental procedure of this application.

II. LITERATURE SURVEY

Many people have worked on creating safety applications for Women. With more people using phones many safety systems have been introduced. These systems have features like emergency messages, location tracking and communication with people.

Some studies have proposed applications with a panic button. When this button is pressed the application sends a message with the Woman's location. This helps people find the Woman and provide assistance.

Other studies focus on GPS-based tracking systems. GPS technology enables the application to determine a woman's exact location and share it with her family members or the relevant authorities. This helps ensure that her location can be quickly identified during an emergency.

PROBLEM STATEMENT

Women often face safety risks when they are alone or in unfamiliar places. In many emergency situations, it may not be possible for them to make a phone call or clearly explain their location. This makes it difficult for others to reach them quickly and provide help when it is most needed. This can delay getting help.

Traditional safety methods like calling for help may not always work. This is why we need a system that can send emergency messages and location information quickly.

Existing System

Many Women use phone calls or text messages to get help during emergencies. This method has limitations. Some safety applications are available. They have limited features.

Because of these limitations existing systems may not always work during situations where quick action is necessary.

Limitations

Although mobile safety applications have benefits they also have some limitations. One major challenge is the need for internet connectivity. If the network connection is weak or unavailable the application may not work properly.

Another limitation is related to GPS accuracy. In environments or crowded areas GPS signals may not always provide location information.

Modules

The Women security system has modules that perform functions.

The Main Module allows the user to create an account and store information.

The Emergency Alert module sends messages to selected contacts when the emergency button is pressed.

The GPS Tracking module detects the users location using GPS technology.

The Communication Module sends notifications and messages to emergency contacts.

III. PROPOSED SYSTEM

The proposed women's security system is designed to offer support and assistance during emergency situations. The mobile application allows users to register their personal details and add trusted contacts who will receive alert messages whenever the emergency feature is activated. When the user presses the emergency button, the application automatically retrieves the user's current location using GPS technology. The system then sends an alert message along with the location details to the registered contacts so they can quickly understand the situation and respond

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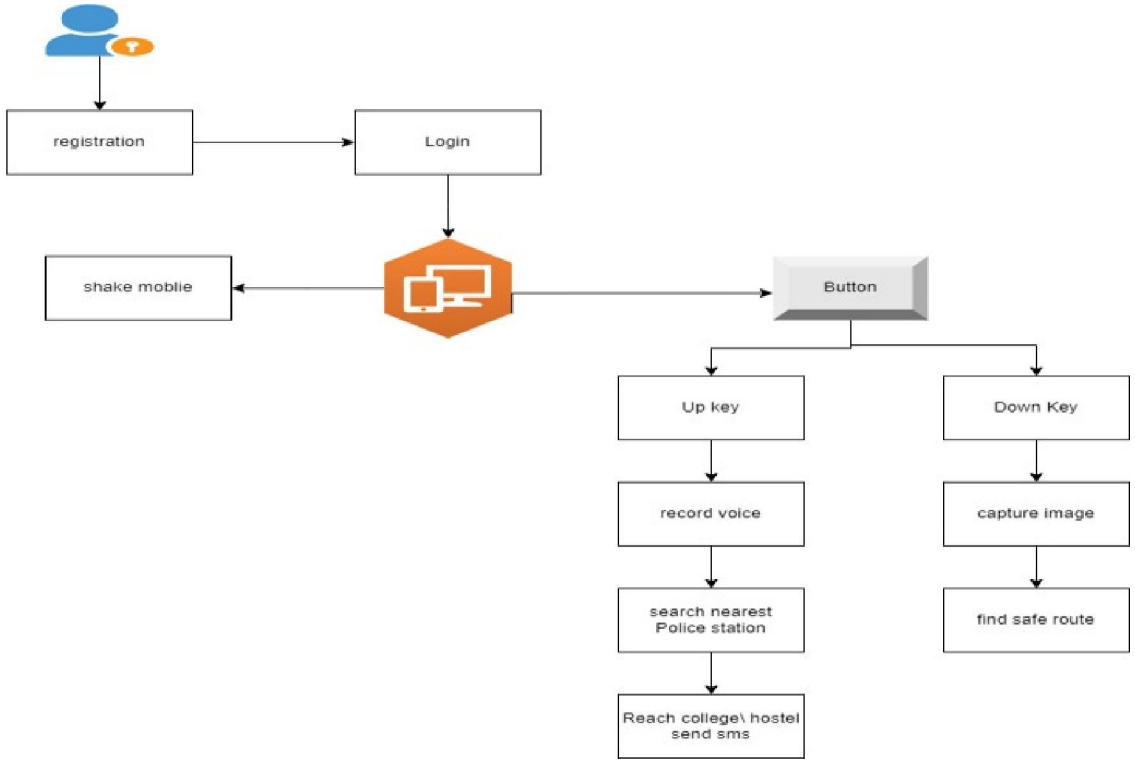
When the user presses the emergency button the application automatically retrieves the users location using GPS technology. The system then sends a message to the registered contacts along with the location details.



Working of the System

The system works in a user- way. After installing the application the user registers their details. Adds emergency contact numbers. Whenever the user feels unsafe, she can press the emergency button in the application. Once the button is activated, the system automatically retrieves the user's current location using GPS technology. A message containing the location information is then immediately sent to the selected contacts so they can quickly know where she is and provide help if needed. A message containing the location information is then sent to the selected contacts. The receiver can open the map link. View the users exact location.

System Architecture : The system architecture is divided into three main layers.

The Presentation Layer handles the interaction between the user and the application allowing users to easily access and use the system features

Business Logic Layer is responsible for processing user actions and managing the core functions of the application.

The Data Layer stores information such as user details and emergency contacts in a database.

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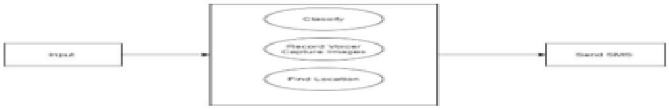
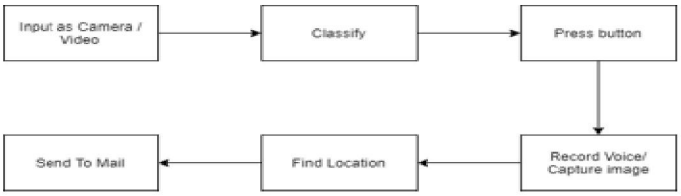
Data Flow Diagram

- DFD0:

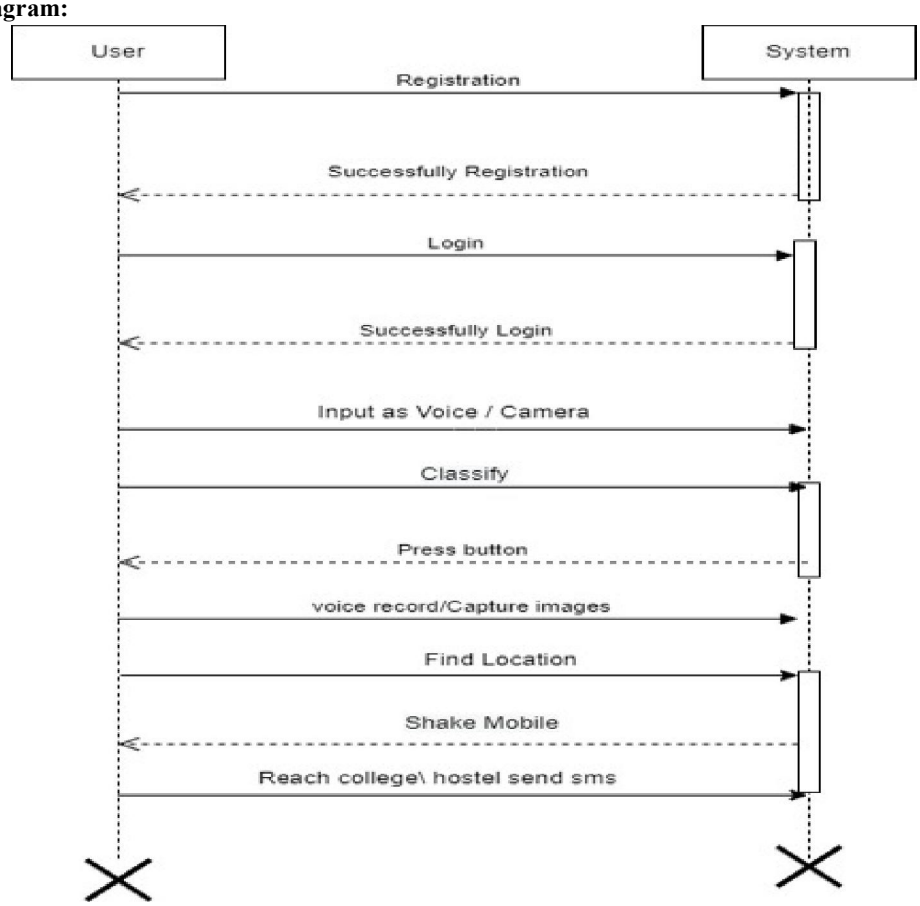
- DFD1:



- DFD2:



Sequence Diagram:



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Use case diagram :

Hardware Requirement:
RAM: 8 GB
Processor: Intel i5 Processor
Hard Disk: 40 GB

Software Requirements
IDE: Android Studio
Coding Language: Kotlin, Android
Operating System: Windows 10

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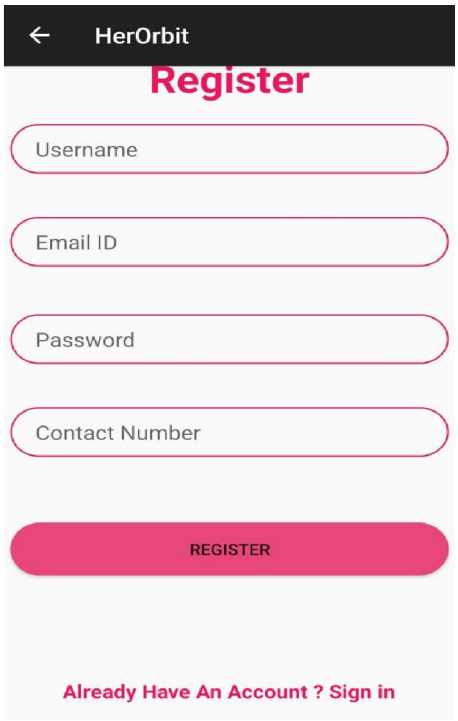

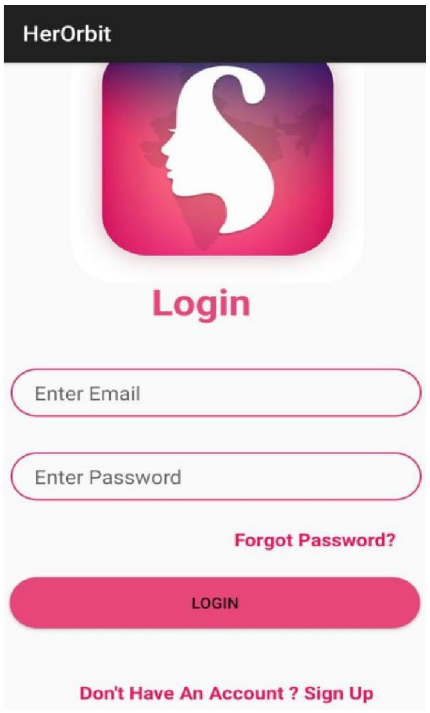

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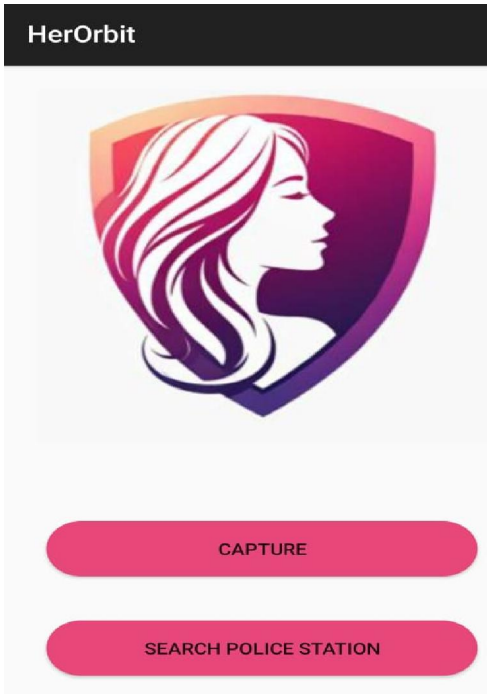

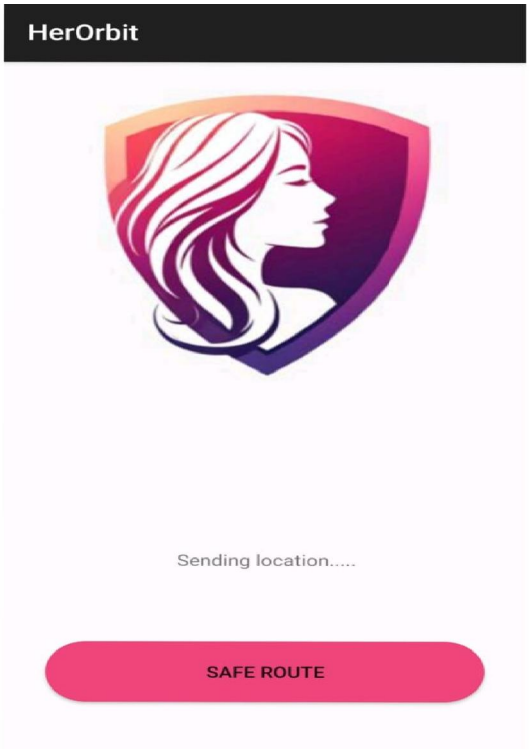

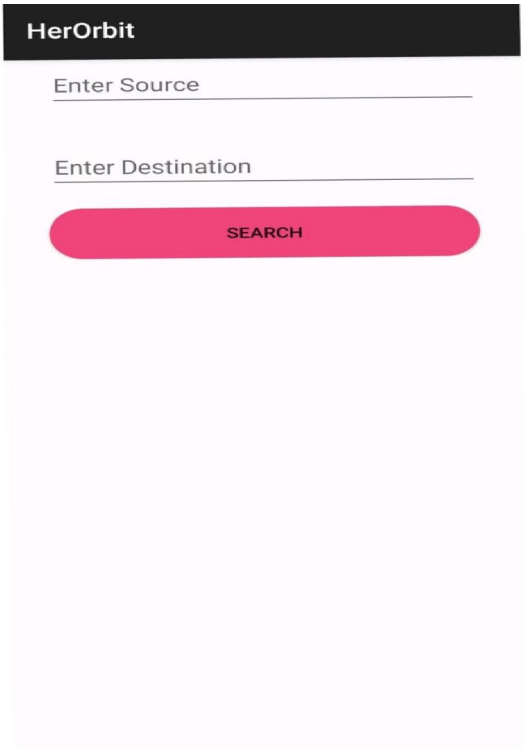

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IV. FUTURE SCOPE

Our Future Scope includes the real time implementation of the proposed system in tiny size with the additional components heartbeat sensor for monitoring the heartbeat of women in every second by measuring variation in blood volume in tissues and analysis of various parameters related to heart beat for individual women.

V. CONCLUSION

Women safety is an issue that requires technological solutions. Mobile applications provide a way to develop systems that help Women communicate quickly during emergency situations.

The proposed Women security system uses an application to send emergency messages and share real-time location information with contacts. By using features like GPS tracking and instant messaging the system enables users to request help

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