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A Survey Paper on Android App for Women Safety

Kunal Kataria [1], Rushikesh Khade [2], Rohit Kurhade [3], Amit Pende [4], Prof. Sonal Chanderi [5]

[1,2,3,4,5] *Department of Computer Engineering, Dhole Patil College of Engineering, Pune, India*

ABSTRACT –

The popularity of smart phones equipped with GPS navigation features has quickly increased from 3% to 20% during the past five years. Therefore, a used smart phone could be suitable for personal security or other care needs, especially for daughters. When the user believes she is in danger, this app may be activated by an unique click. This is used to send messages informing the recorded contacts of the consumer's location every few seconds. As a result, it operates as a guard, trailing the consumer until she becomes uncertain. This study proposes a novel method for gradually transmitting the notion to the recorded contacts until they press the "HELP" knob. Continuous location tracking information through SMS makes it possible to locate the victim's neighbourhood quickly and maybe with caution. This request aims to ensure the safety of women. This is resolved by talking about the resources that, in the modern world, threaten daughters' security. Through many features offered by our plan, our software ensures that wives are not submerged in the aforementioned positions.

I. INTRODUCTION

Nowadays, it is not cautious for a person to travel unique after dark particularly for women, it will be high period to travel unique cause a girl is not highly forceful as guys to save herself from ruling class. The good way to weaken chances in suitable a martyr of violent violation (stealing, sex crime, rape, household violence) search out recognize and be a guest of money to help you out of dangerous positions. It's the helpful way to minimize chances of getting a victim of violent crime(stealing, sexual assault, rape, domestic violence) is to identify and call on to the musketeers and parents to help you out of dangerous situations. When we're in immediate trouble or get separated from mates during a night out and do not know how to get home, having these apps on your phone can reduce your threat and will he useful to stay safely. Having these apps on your phone can minimize our risk and impact help when we need it, regardless of whether you are in immediate crisis or caught or freed from it friends all while midnight and do not understand to reach home. In this article, we present Security Alert, a request for a robot attack policy for smart phones. In India, 65% of fathers believe that their daughters will be willing to put up with a lot in order to keep the group together, and women routinely outperform expectations.

Women's safety is important, as we all know, but we also need to understand that they need to be adequately safeguarded. Because they are not as physically powerful as men, women might benefit from a helping hand in an emergency. Because it is a widely used mobile OS powered by the Linux kernel and is free to use, Android has gained a lot of popularity. It was specifically created by the Google team, who also used Java to control its operation. The advanced safety software is built on an android platform that makes use of a custom virtual machine's appropriate memory management as well as hardware resources in an android phone. In order to provide consumers access to as many apps and services as possible, each application is created with equal access to a phone's capabilities

II. LITERATURE REVIEW

We looked at various market-ready applications for women's safety as part of our literature review. The goal is to examine how these apps function and determine how they might be enhanced and differentiated. The following Android apps for women's security have been shown to be effective and to provide a reasonably equivalent level of service. A. Women's safety AppSoft India created the app in question. The user must store certain information, which is one of the app's main functions. These specifics include the user's email address and password, the recipient's email address and cell number, and a text message. The app is then loaded as a "widget," so that it alerts the receiver when the user touches it. The app's ability to capture the audio of the environment for around 45 seconds and send the recipient's cell number a text message with the user's location information is another important function.

III. PROPOSED SYSTEM

By including all the capabilities given by those other apps, this system is set up to be distinct from them. The user must register before using the programme. With their registered email address and password, users may log in. The user must manually enter three phone numbers. The user must start the programme each time they use it by pressing the on/off button to activate the service. When the user turns the app off, the app will stop processing.

The programme will activate its emergency service if the user taps the service key or shouts with the voice command. It will also send a message alerting the registered contacts of the user's identity and position. A live streaming system is also available. While moving from one location to another. There is an audio recording system. The system will begin recording the immediate surroundings after receiving the instruction so that the user may use it as evidence in the future.

One of the characteristics is included in the majority of applications that support women in real time. As an illustration, a message of warning is delivered in an emergency, audio is recorded, and real-time location tracking is available exclusively online. One of the following qualities, but not all of them, are present in either application. Therefore, a complete application is required to safeguard the safety of women. A issue might arise if any of the sophisticated features of an application, which are generally fully supported by the government, fail. The current system does not support a variety of accessing techniques. For instance, the I Go Safety app has a function that transmits a 30-second audio recording and a 30-second video clip to the contacts who have registered, along with an emergency message. If the user shakes or drops the phone, the app gets enabled. However, if someone accidentally shakes the phone, it will start operating, which might cause unneeded issues. Another app with a similar name is Shake to Notify.

The goal of this project is to create a system that incorporates every feature of the current application while also creating a brand-new one. The user may frequently, or under any circumstance, run out of data pack and be unable to utilize data to access all services in an emergency. This project has considered offline mode, where the programme may send alert messages but without location, in light of this. This function has been implemented to reduce issues in any case so that the user may seek assistance at any time. Even though the app cannot provide location using this function, the user's family may be aware of the user's path and be able to contact her for assistance or at the very least be aware that she is in danger. Below is a use case model and flowchart diagram of the proposed system, which will make it simple to comprehend all of the system's operational procedures

IV. DATA FLOW DAIGRAMS

LEVEL 1 :

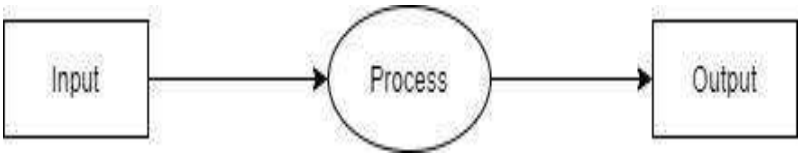


Figure 4.1: DFD Level 1

LEVEL 2:

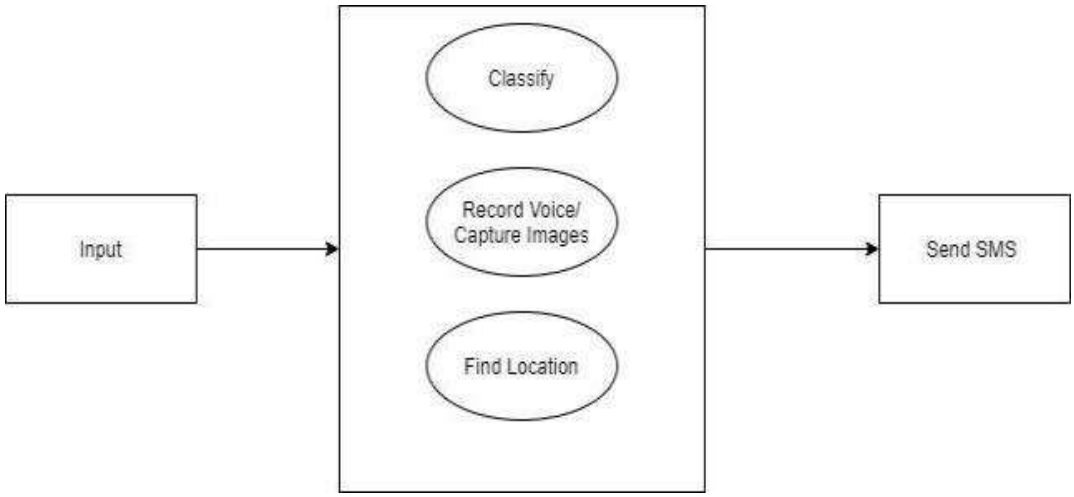


Figure 4.2 : DFD Level 2

V. USE CASE DAIGRAM

Figure : Use Case Diagram

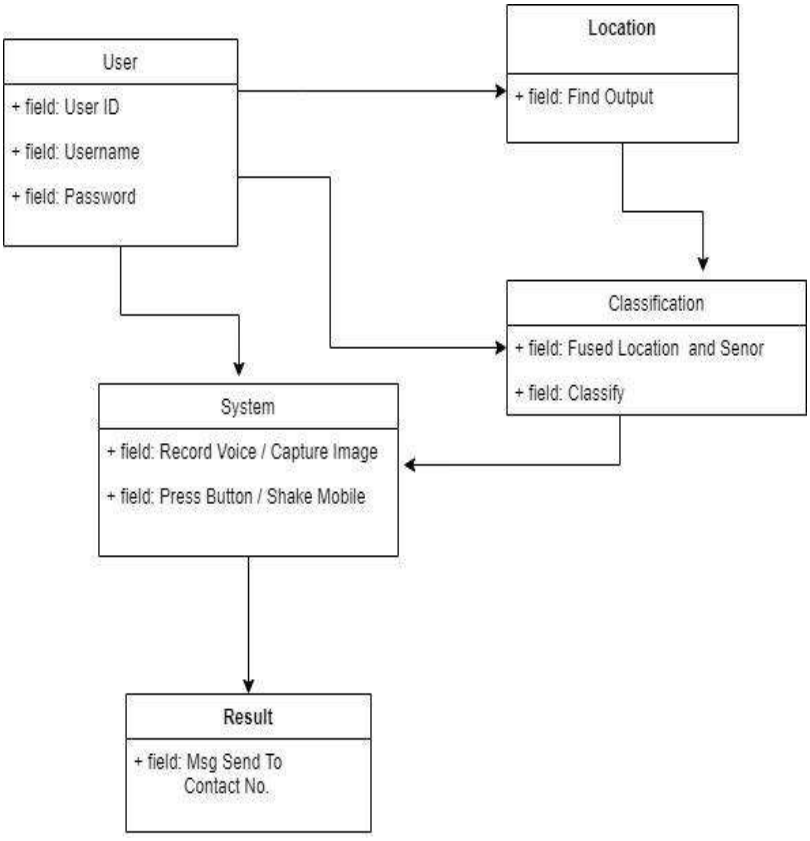


Figure : Class Diagram

VI. ACTIVITY DIAGRAM

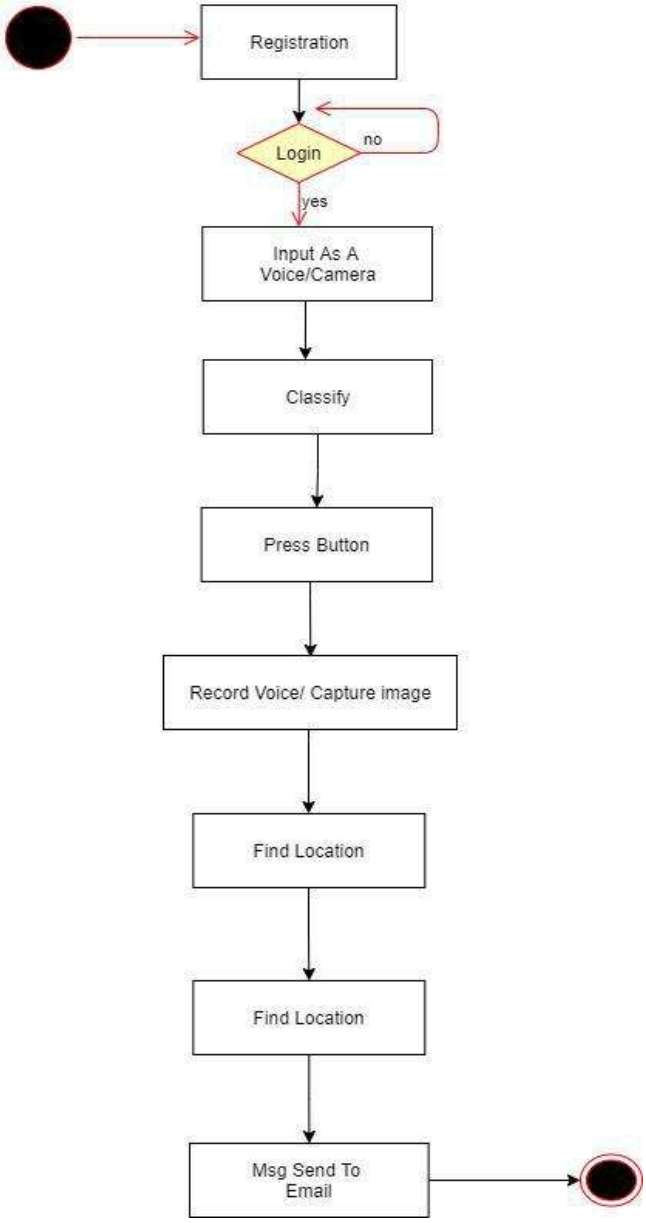


Figure : Activity Diagram

VII. ANALYSIS MODEL

For our project, we are employing the waterfall model.

1. Gathering and Analyzing Needs: In this waterfall stage, we determine which specific requirements, such as those for the necessary hardware and software, databases, and interfaces, are necessary for our project.
2. System Design: In this system design phase, we create a system that is user-friendly and simple to understand for the end user. In order to comprehend the system flow, system modules, and order of execution, we construct several UML diagrams and data flow diagrams.
3. Implementation: During the project's implementation phase, we successfully implemented the various modules needed to achieve the desired results at the various module levels. The system is initially built as tiny programs known as units with input from the system design, and is then combined in the next phase.Unit testing is the process of developing and evaluating each unit for functionality.

4. Testing: The various test cases are run to see if the project module is producing the desired results in the estimated amount of time. After each of the 21 modules tested during the implementation phase is incorporated into a system. The entire system is tested for errors and failures after integration.
5. Deployment of System: Once the product has undergone functional and non-functional testing, it is either installed in the client environment or made available for purchase.
6. Maintenance: Various problems might arise in a client environment. Patches are published to address certain problems. Additionally, improved versions of the product are issued. To bring about these changes in the surroundings of the consumer, maintenance is performed. The progression is viewed as falling smoothly through the phases like a waterfall as they are all connected to one another. The next phase cannot begin until the preceding phase's established set of objectives have been met and it has been approved, thus the term "waterfall model." Phases do not cross over in this model.

VIII. SEQUENCE DIAGRAM

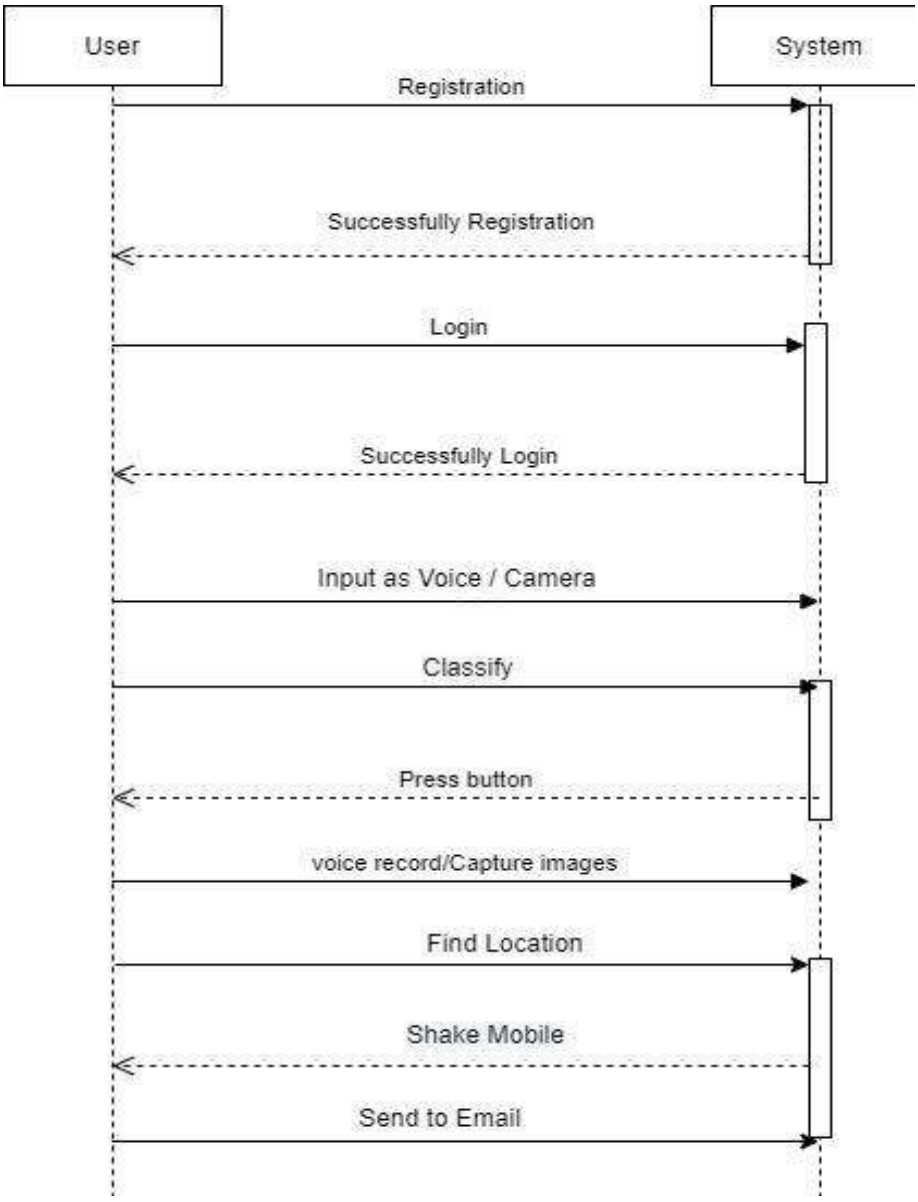
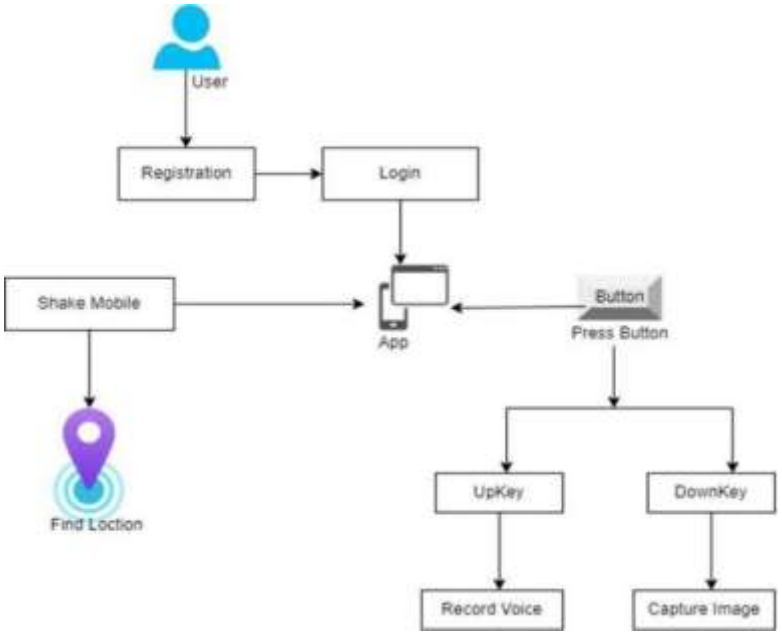


Figure : Activity Diagram

IX. SYSTEM ARCHITECTURE



X. IMPLEMENTATION

This Android app is helpful if the user is having trouble or needs assistance. A HELP button is visible when the user launches the application. They may also save three contact numbers and a message. The user only needs to open the app and click the "HELP" button if they are having trouble or need assistance. His recorded contact numbers are used by this programme to send the message. Three main phases, each of which is discussed in detail, can be taken to complete the overall review. Three key processes are described in the evaluation of the entire application implementation. The creation of the application and entering the contact information is the first significant step. Our friends, family, and the chief cop of the city in which we currently reside are some of these connections. The aforementioned contact information should be given when installing the programme on a smart phone for the first time. The provided information will be saved by the programme. The second important step is to send GPS information to the registered contacts during dangerous situations or when the person needs to be rescued. GPS information can take the form of Coordinates or a URL that points to the person's location on any stock map application in the likes of third-party applications like Google, Nokia, etc. Only when the application's rescue button is hit is this step performed. When the smartphone is linked to the appropriate mobile network and location service is turned on, the entire procedure of this stage may be completed (GPS). The third important phase is the effort put into continually sending the message with the location URL to the registered contacts. Since we have set the time interval in this case to five minutes, an SMS is delivered to the registered contacts after each interval of five minutes.

XI.CONCLUSION

With the assistance of current advancements in mobile technology, this article discusses the Android application Security Alert that is created for women's protection. In this project, you can utilize anything that the user could find helpful if they run into issues or require assistance. The HELP button is visible when the user launches this programme. A message and three phone numbers can also be stored by him. When the user is having trouble or needs assistance, press the button. Therefore, a HELP button is visible when the user launches this programme. To register a user, click that button to send an SMS. Instead of the experimental database used here in the project, this application can be integrated with the law enforcement database in the future (for example, the database used in city police control rooms). Additionally, if the root device is turned off or unavailable for mobile network access, several additional upgrades can still be made. Therefore, this app might be a huge assistance in saving the ladies or men from dangerous situations.

XI. ACKNOWLEDGMENT

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