

Emergency Protection Application For Women

Submitted by,

Shubhangi Chaturvedi (2022595884)

Saurav Kumar (2022007841)

Shirbhate Gaurav (2022570113)

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Dr. Rajneesh Kumar

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DEPARTMENT OF COMPUTER SCIENCE AND APPLICATION

SHARDA UNIVERSITY, GREATER NOIDA

Introduction

A variety of applications that may successfully improve personal security and meet various protection needs have been developed as a result of cellphones' pervasive usage in contemporary culture. Women's safety is now more important than ever in the wake of a horrible tragedy that rocked the whole country. In order to provide women more control over their security, a slew of new applications have been developed that can be accessed via cellphones. This study introduces a single-click, instantaneous Android application that is created exclusively to protect women.

The stability, expansion, and long-term development of nations have depended heavily on women throughout history. The hostility and discrimination they endure, however, prevents them from truly integrating into society. Establishing a comprehensive system that guarantees victims receive prompt aid is crucial as the incidence of heinous crimes against women and children rises. Since cellphones have been rapidly gaining popularity in recent years, there is a chance to use them efficiently for defensive and security objectives. The safety issues must be addressed in view of the increasing tragedies, and our program, "Life raft," intends to help lessen crimes against women. While it is also accessible for males to use, this Android app was created exclusively for women's protection.

Until the system is disabled, the system retains a continual alert mechanism that delivers location-based messages to user-defined contacts every five minutes. This function permits audio recordings to be retained as prospective evidence, which is especially useful in situations when there isn't enough proof. The system's offline mode, ability to specify a safe zone for the user, and real-time location tracking are some of its key features. The user may use the software to immediately establish their position using GPS and send a message to their registered contacts that has a URL with the location information. For rapid assistance in emergencies, the app also dials the first registered contact. This application's noteworthy feature is its continual messaging to registered contacts at regular intervals until the "stop" button is pressed.

The ability of women to inspire various groups to work towards shared objectives is exceptional. They frequently work together to promote peace despite differences in ethnicity, religion, ideology, and thought. Women's security is important, but it is also important to make sure they are properly protected. Women may not have the same physical strength as males in emergency situations, and they may need assistance to get relief. The best way to lessen your chance of being a victim of violent crimes like robbery, sexual assault, rape, or domestic violence is to find and use the tools that can help you leave dangerous circumstances. Having these crucial applications available can come in handy whether you are in a crisis situation or are split up from pals late at night and unsure of how to go home securely, your phone can be extremely helpful.

In order to defend women's human rights and security, which make up half of a country's population, nations must take several steps. According to the United Nations, it is completely forbidden to commit acts of violence that are directed exclusively against women, such as assault, stalking, rape, harassment, and sexual harassment. Women who experience sexual, physical, or psychological pain or suffering, as well as deliberate actions meant to disturb them, are victims of gender-based violence, which is a type of violence that is widely recognized.

On mobile devices like smartphones and tablets, an application—often abbreviated as "an app"—is a special software program that can be quickly downloaded and set up. The problem of public transit is a serious concern given the growing number of situations where women encounter difficulties in their everyday life. A majority of the women polled (94%) reported encountering harassment when using public transit, leading to 20.5% of them choosing to avoid it entirely as more women place greater value on education and career than conventional household obligations. It is imperative to address the problem and put in place the required precautions in light of this circumstance. I have thus developed a strategy that makes use of a device that practically every woman owns, the smartphone, after reading a number of articles.

Literature Review

We looked at Android applications with a comparable interface or functionality as part of our data analysis.

Understanding these programs' functionality and looking for methods to improve them are our main objectives.

Smartphones play a critical role in maintaining women's safety in light of the surge in crimes against them. Women-specific Android applications with a security focus are now available.

In order to establish coercive control over their victims, intimate terrorists often use technology as a tool. This is something we are interested in researching. In addition, we will look into how the legal system is changing as governments try to keep up with the accelerating pace of technological progress. We will examine the latest tracking of intimate terrorists via GPS monitoring in particular. With the use of our study, we want to pinpoint any difficulties brought on by the current legislative developments in this field.

The B-personal security app is an illustration of such application; it enables users to place SOS calls that, in accordance with their choices, link them to emergency operators. A different app called Safetipin makes use of GPS monitoring to distinguish between safe and risky regions and direct users to secure zones.

Overall, our goal is to examine these programs, comprehend how they work, and suggest appropriate revisions to increase the protection of women in the face of rising violence against them.

There are working models available. Nielsen differentiates five critical factors:

Efficiency: the equipment used is correct and complete in relation to the needs of the consumer.

Satisfied: A positive attitude towards using and adapting to discomfort. The framework should be simple. Enough for everyone to comprehend so that consumers can start using it right away. The framework should be simple enough for users to return to from time to time without having to re-teach everything.

Ease of learning: the framework should be simple enough for anyone to comprehend so that users can start using it right away.

Memorability: the framework should be simple enough for users to return to on a regular basis without having to re-learn everything.

Damage should also be avoided. Nielsen defines utility as a framework's ability to meet client needs, among other things. It is not considered part of the base, yet it effectively isolates the system. If the product is unable to deliver the advantage at this time, it will be unable to provide the blind and functionality that they required The product is simple since it does not allow users to fulfil their objectives.

Methodology

Utilizing this software on a smartphone accomplishes three key goals. Users may first set up their GPS settings to locate themselves and get that information. A module that, if activated, can cause some confusion is the second. Last but not least, the app tries to deliver the specified site's contact details. There may be instances where a person must travel a long distance alone, especially if it is at odd hours or involves taking public transport, which might be dangerous. It might be practical and empowering to have a personal safety app on hand in such circumstances. Imagine, for example, that a woman is involved in an accident at night without any nearby witnesses.

This application can perform important functions. Security app features include:

- Page registration: username Email address, password, username providing emergency number, contact and access rights are required.
- Login page: users can log into their mobile number with their console ID and password.

- Adjust the settings of the quick, alert and update buttons according to the user's request.
- GPS find the recorded call and recalls it. • I pressed SOS to call the nearest police station, the national security number.

Three main functions of this program are listed below. The first benefit is that it enables users to use their cellphones to set up GPS settings and find out where they are right now. Confusion might result from the next module if the setting is enabled. Furthermore, it offers a contact details. When a person needs to travel alone over a long distance, especially at odd hours and maybe utilizing public transit, when there may be hazards involved, this function becomes quite useful. In such circumstances, having a personal safety app on hand is not just sage for simple access but also inspires much-needed confidence. Take a late-night accident involving a lady as an illustration. There are no witnesses in the area.

Problem Statement

Our GPS-based person monitoring system will run on Android. Our method entails developing an Android interface that can collect GPS position information from people all around the world and send it to a server. Using Java and the Android SDK, we will do this.

To accept input from Android devices on the server side, we will rely on Java and java script. We will keep a database of the tracked people's whereabouts using Java instructions. In order to show the person's location on a map, we will then make use of mapping functionality. The system administrator will be able to monitor users in real time thanks to this technology.

Using all available resources is essential to ensuring the security of women travelling alone at night across the world. Using a safety app is a practical solution given that the majority of people use cellphones these days. By taking preventative action in addition to offering emergency aid, this particular program was created with the intention of protecting women. As the adage goes, "prevention is better than cure."

The development of mobile apps that address women's safety requirements is the main emphasis of this study. These applications integrate a QR Code reader and GPS technology to monitor locations in real time and collect vehicle identification numbers. The user's emergency contacts then receive a text message from the app. Our ultimate goal is to reduce the emotions of loneliness and insecurity that our app's users experience. At NAARI, we sincerely care for your welfare.

Features

Snapshots or images recorded at various times provide test scores based on the underlying device's description. By simply touching the program on the mobile screen, alternatives will display, and by selecting the relevant option, the appropriate function will be performed.

User interface

Users can only see, interact with, and connect to an application's user interface, making it an integral part of any application development.

Login Or sign -up

User interface this is where users can log in or register. Here users can enter their name, email address, address, username, password and contact number. If the user is already registered, you can directly enter the username and password to log in.

Features

There are 3 important things: alarm, attention, update. The other five services in the floating button are: National security number lookup, messages, user profile, police protection, and proximity

The notification

The notification is triggered by shaking the device three times or tapping a button once and repeats its loud sound that does not go away even after closing the app.

Attention

Click the Attention button to start browsing the site immediately. There are three options to choose from. View, copy and share. All three options offer three different ways to share location: Google Maps, and GeoURI

Update

The update will give you the option to post pre created messages on the clipboard, saving you the hassles of hitting the update button and thus typing in an emergency. It can also explain why the place was sent to the street. These functions can be used without typing. User engagement and feedback is one of the most important aspects of app development, because our female models remember, research and produce solutions for policies and programs every day, it is good advice for women to follow good practices. Was found and studied in conjunction with other security applications.

Result

1. Tell your loved ones where you are and what kind of danger you are in right now.
2. after you are in danger, activate an emergency alert; after the threat has passed, disable it.
3. Provide advice on the first-aid measures that should be done in particular dangerous situations.
4. Let your loved ones and friends know where you're going.
5. Make a list of emergency contacts who will be alerted by email or text when you take certain actions in the program. The phone numbers for the police, fire department, hospitals, and other pertinent local agencies should be included in this list.

Future Scope

This smartphone application will be useful in the future if there is an issue when travelling or in any other situation.

- As technology advances, the system can be upgraded and adapted to the required environment.
- Because it is built on object-oriented design, it is easily adaptable to future modifications.
- Security can be improved utilizing developing technology based on future security challenges.

For future expansion, this application can be linked to police information about where police personnel located in each city. Furthermore, artificial intelligence and machine learning can be used to produce artificial intelligence not just for Android, but also for IOS and Windows mobile platforms. So, if that app can be hacked or bullied without fear, tracker manages your GPS and important accesses utilizing the framework. Google Maps URLs and SMS messages are sent to your contacts.

Outcome:

The outcome of the research paper “Android based security application for women”

The most crucial outcome security is to protect people and their property. This includes both their physical safety and their possessions. Good security measures will make it difficult for criminals to target a person or a place. An effective security system comprises of four elements:

- Protection
- Detection
- Verification
- Reaction

The key outcome include:

Program sandboxing: The Android platform uses linux user-based protection to detect and isolate program resources. To do this, android allocates each android program a unique user ID (UID) and runs it in its own process. This UID is used by Android to create a kernel-level app sandbox.

App signing:

App signing enables developers to identify the creator of an app and update it without having to create elaborate interfaces and permissions. The developer must sign every program that runs on the Android platform.

Authentication:

Android users are familiar with the notion of user-authentication gated cryptographic keys, which necessitates the storage of cryptographic keys as well as service providers and user Authenticators.

Keystore:

android provides a hardware-backed keystore with key generation, asymmetric key import and export, raw symmetric key import, asymmetric encryption and decryption with proper padding modes, and more.

Verified Boot: verified Boot makes every effort to guarantee that all run code originates from a trustworthy source (often device OEMs), rather than an attacker or corruption. It builds a chain of trust, beginning with a hardware-protected root of trust and progressing to the bootloader, boot partition, and additional certified partitions.

The problem of women's safety is rapidly increasing in this environment, so I proposed as an effective Android application to prevent such type of suspicious or natural disaster, by alerting the concerned authorities using the android mobile phone, which helps to stop such type of illegal activities and trace the concern.

As a result, the WERSAFE App provides a safe and secure atmosphere for women in society, allowing them to work till late at night. Anyone thinking about committing a crime against a woman will be deterred, and it will help to reduce the crime rate against women, ensuring their protection and security. It works on smartphones with the Android operating system.

With additional study and innovation, our technology could be implemented on small wearable devices such as a watch, pendant, or bracelet that will be built with GPS and GSM modules. When this system is activated, the GPS module will collect GPS data and encode it into a legitimate Google Maps link, which will then be sent by text message to the specified family and friends.

A. Scope

In terms of other tracking systems, the scope of this project is fairly broad. It is both an online and offline system.

This can be employed in the insecure world of women to effectively boost the security and safety of women's.

Conclusion

Unfortunately, women's safety is being called into question, but that is not the issue. Many forms of sexual abuse, harassment, and bullying continue to occur today, and in many ways reflect a continuation of women's ideas. This mobile application is extremely beneficial to any lady. Because if a woman is in danger, she may simply tap this I safety mobile app to warn her guardians that she is in danger. Simply tapping the app sends a call to the first added guardian number, a message indicating she is in danger, and a location message to all saved guardian contacts. We can notify the individuals at home using this mobile app that a woman belonging to their house is safe or not. The tool allows the media and emergency services to track the position of the victim in real time. This app's distinguishing features are many sharing choices for three types of connections (Google Maps, Open Street Maps, and GeoURI).

For instance, simply pressing the confirmation button. Indeed, our app gives the women in our lives hope for safe weather and empowers them to be brave. Anyone considering committing a crime against a woman will think twice about whether the state's security services provide visible and actionable security measures.

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