Naari Rakshak App

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Abstract—One major issue influencing society is the safety of women. Every day there are more and more crimes committed against women, including adultery, domestic abuse, and cheating. Getting assistance for security-related problems can be simplified through the use of your smartphone. The goal of this project is to develop an Android application that will assist in protecting women in any circumstance that they could come across in their everyday life. With only a few screen taps, women may swiftly and simply receive help or avoid uncomfortable situations by using our straightforward Android application, which is packed with security features. It makes use of GPS position monitoring to provide users a quick and easy method to know when they're in difficulty and to get in touch with the
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INTRODUCTION

In today's world , women's security has become a major issue. Women face harassment whether they are in educational institutes, at their work or even at home. Many women are afraid of going outside their safezone. As the rate of such crimes against women keeps increasing, the freedom of women is decreasing. Critical situations can arise at anytime, anywhere. At such times , an android application which can help the women in need to get help or escape a situation as easily as possible. The basic problem with the police handling of these occurrences is that they are not always able to respond swiftly to distress calls. These limitations include not knowing the location of the crime and not knowing the crime is occurring at all: it is difficult for the victim to call the police confidently and quietly. To aid in the removal of these prohibitions. This article presents the Women's Safety Application, a smartphone app that provides a reliable way for women to call the police in an emergency. Women who are victims of abuse are often denied basic human rights. Gender-based violence has become a national and global issue as a result of decades of civil society activism, assisted by women's organizations. Despite the fact that each country has an extraordinary number of laws against domestic violence, sexual assault, and other forms of violence to protect its female citizens from such abuse, enforcing these laws is extremely difficult. As a result, society becomes unjust and insecure for women, with the great majority of criminals going unpunished. We should all strive together to make the world a safer place for all women so that they can live in equality and justice.

RELATED WORK

ABHAYA: AN ANDROID APP FOR THE SAFETY OFWOMEN

This paper presents an Android application "ABHAYA" for women safety to prevent situations like the Abhaya case in Delhi from happening again. This application uses 3G/2G data connection for tracking the location of the person in trouble and sends a message with the URL of their location from the device to registered contacts. This message gets sent every five minutes to the registered contacts until the "stop" button is clicked. After the application runs whenever the woman presses the "start" button, the application makes a call to the first registered contact and send a message containing the location URL of the device to all the registered contacts. As it sends location message every five minutes, continuous location tracking of the woman is

- *S-ZONE:A SYSTEM FOR WOMEN SAFETY &SECURITY SYSTEM*

In paper "S-ZONE: A SYSTEM FOR WOMEN
SAFETY & SECURITY SYSTEM", the authors states that "the best way to reduce the chances of becoming a victim of violent crime (robbery, sexual assault, rape, domestic violence) is to identify to help you get out of unsafe situations". This paper describes the program, S- site designed for android platform for women's safety with the help of the latest developments in mobile technology. This program helps to track the root device via GPS which will help emergency services to rescue a vulnerable person as quickly as possible from harmful situations.[2]

- *SHIELD: Personal Safety Application*

    "SHIELD: Application for Personal Security" as the name suggests is an application which shields, protects, saves, guards oneself from danger. It sends an instant message with the device's location to all the registered contacts which helps in live tracking of the location of the woman and provide needed assistance. The main functionality of the system is based on tracking the location. It depends entirely on GPS location tracking and updating on the site in real time. In SHIELD real-time changes in the user area are determined and updated on the website. The update appears on the website within 0.5 seconds depending on the internet connection.[3]

- *Women Safety Android App*

    In the paper [4] "Women Safety Android App", the authors explain the motto of developing this application is to provide a safe conditions for smartphones as today most people carry smartphones with them wherever they go. It is explained that in the system instead of pressing the SOS on the screen, the victim should press the power button twice to send a notification to the police and to selected contacts even if they do not have internet or GPS connection. and the system will send the continuous location of the victim after one minute i.e provides a better location, if user or victim relocated from one place to another. It is said to be a key feature of the program is to provide a control panel to the police, so that they have a system where the police and deportees can see any such case or not. When victim press power button then victim's location will highlight, so police nearby to the victim can easily reach to protect the victim.

- *Women Safety Mobile App*

    This paper [5] the authors illustrate the working of GPS based "Women Safety Mobile App". This system starts when the woman authenticated to the device does a fingerprint scan. The woman then needs to constantly scan her finger print every minute, otherwise the system will send the device's location to the registered number via SMS message and simultaneously sounds a buzzer to alert the nearby people to the situation. The woman does not need to do anything incase of a critical situation except to just stop scanning her fingerprint. The device makes use of GPS, GSM modem, microcontroller based circuit to run the system. This system is very useful in situations where the woman may not be able to press or click the emergency feature. The SMS alert message contains her GPS location

and can be sent directly to a few of her registered contactsso that they can provide her with help needed.

- EXIXTING SYSTEM

Women's safety solutions that are now being developed exist in an array of forms, such security systems, trendy daily wearables, and smartphone apps. One approach proposes to notify the authorities or certain contacts as soon as the victim pushes the power button. One minute later, the system transmits the victim's current position. hence offers a more convenient position for the user or victim to navigate between A woman who has been authenticated to the device can take a fingerprint scan using certain technologies. Subsequently, the woman has to consistently scan her fingerprint every minute. If not, the system will send an SMS with the woman's location to the registered phone. If something severe happens, the lady doesn't have to do anything.

- PROPOSED SYSTEM

    • This proposed system contains all the specific capabilities inclusive of live location of tracking and combines all of the functions present in the existing system including GPS tracking and other features which can help in case there is no data connection available. The lady can also make use of any feature based on her evaluation of the current situation. The aim of this project is to create a software tool for women's safety that isportable and able to perform the following tasks:

    • *SOS*: SOS sends an alert message to emergency registered contact containing the GPS location of the userevery thirty seconds.

    • *Siren:* A Siren which sounds a loud police siren. This can alert the nearby people of the situation and in some cases

may deter the assailant from proceeding with his malicious intentions.

•   *Helpline Numbers:* The woman can directly call emergency services through the feature Helpline Numbersin the application.

• DESIGN AND IMPLEMENTATION

This system uses native type of Mobile Application. At the backend MongoDb is used as a database for storage of information. The proposed layout shown in Fig. 1, shows the direct functioning of the android app. The database information such as the user's personal information, registered contacts and helpline numbers. Location links are sent to the registered user contact in the database.
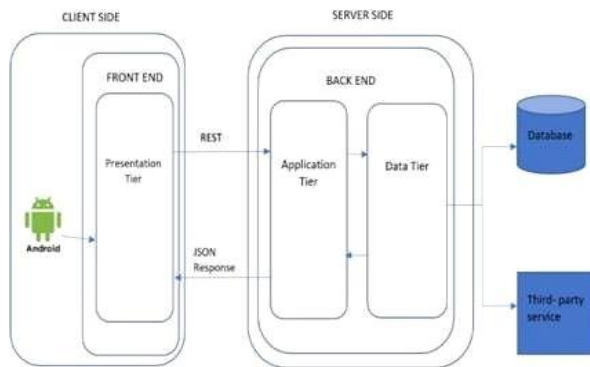
Fig. 1.   Architecture of N a a r i R a k s h a k A P P

This android application is useful when the user is in some problem or needs any help. When the user opens this application, can see a registration of user. When user creates the profile then the main activity of application will be visible. There are four modules which we have added in the application for the safety purposes of the user.

Upon installation of the application we can see a shortcut of the application on the device home screen.

Fig. 2.   Home Screen of Device

After opening the application the user first needs to create an account by completing the registration process.

Once the registration process is completed we come upon the Home Page . Here the user can see all the features offeredby our app and can use them according to the situationrequirements.

Fig. 3.   SOS Alert

Fig. 4.   Message containing URL

Fig. 5.   Google map

Second feature of the application is Siren. In these module there are two buttons i.e. "start" to start the siren and "stop" to stop the siren. When we click on "start" then a siren which sounds like a loud police siren will start . This can alert the nearby people of the situation and in some cases may deter the assailant from proceeding with his malicious intentions.
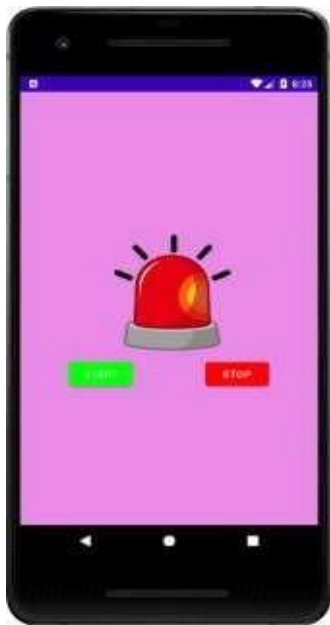
Fig. 6.Siren

Fourth feature of the application is Helpline Numbers. In these we have provided the helpline numbers of Ambulance, Police, Fire Brigade and Women Safety Department. After single click on any of the helpline numbers which are

provided in these module, the call will be sent and the victimwill get the help which is required.

Fig. 7.   Helpline Numbers

Fig. 10.   Direct dialing of call after a single click on number

CONCLUSION

In this study, we proposed the design and implementation of a women's safety system in the form of an application. The objectives were successfully achieved by creating a location tracking subsystem, and pertinent results were given. The future scope will direct the system's growth in order fulfill the goals set forth. The study also discusses GPS technology, which may be used to monitor the victim's whereabouts using latitudes and longitudes. To summarize, our software provides a safe and secure environment for women in society, allowing them to work late into the evening. Anyone thinking about committing a crime against a woman will be stopped, and the rate of crime against women will drop. This app, that can be used on any Android smartphone, will protect women's safety and security by acting as a weapon. Our idea could be used on a tiny wearable devices, such as a watch, necklace, or bracelet, that is made with GPS and GSM modules with more study and development. When this system is engaged, the GPS module collects GPS data and encodes it into a valid Google maps link, which is subsequently texted to the recruited family and friends.

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