



WE SAFE WOMEN SAFETY APPLICATION

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ABSTRACT

The phrase “Violence against women” is a technical term used to collectively refer to acts that are primarily or exclusively committed against women to harm them. Woman security is a critical issue and it is much needed for every individual to act over such issue to safeguard them. When safety and security is concerned, a smart phone can become a powerful tool to prevent violence against women. Keeping this in mind, an android app has been developed which is dedicated to provide relief to the person in trouble. By clicking on a button (provided on the app) alert message is sent to the user’s already saved contacts. The application shares the user’s location with the registered contacts in the form of message.

The application has other key features like “Alarming neighbors by loud noise”, “Autodialing”, “Finding location of nearby police station and hospitals” etc. The work is developed in Java Development Kit using Android Studio. Thus, the app acts like a sentinel following behind the person till the user feels she is safe.

1. INTRODUCTION

Swami Vivekananda stated that, “The best thermometer to the progress of a nation is its treatment of its women.” Violence against women is a significant public health problem, as well as a fundamental violation of women’s human rights. The phrase “Violence against women” is a technical term used to collectively refer to violent acts that are primarily or exclusively committed against women. Similar to a hate crime, which it is sometimes considered, this type of violence targets a specific group with the victim's gender as a primary motive. The United Nations General Assembly defines "violence against women" as any act of gender-based violence that results in, or is likely to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life." According to the reports of WHO, NCRB-social government organization 35% Women all over the world are facing a lot of unethical physical harassment in public places such as railway-bus stands, foot paths etc. Years ago on the night of December 16, 2012 the brutal gang rape of a paramedical student by six men on a moving bus in the national capital shook the nation for the sheer brutality and torture inflicted on the hapless girl. Thousands of youngsters protested on the streets of Delhi demanding justice for her. She finally

succumbed to her injuries on December 29, 2012. The family members and colleagues of TCS software engineer Esther Anuhaya found her body with the help of a Vijayawada police team. Her parents spent the entire Thursday looking for her in Bhandup (East) as her last call signal on January 5th was from Bhandupeshwar Kund in Kanjurmarg, which falls under Bhandup (East) jurisdiction. The family had been trying to trace her whereabouts by showing the locals her photographs. Locals said that the spot where her body was found is a hangout for criminals. The body of Anuhaya has been procured by Vijayawada police. Gender-based violence kills and disables as many women, aged 15-44, as cancer, malaria, traffic accidents and war combined. Hence there should be a system to protect them in such times. So, after studying some journals based on women security system and keeping in mind that, a smartphone is one technology which almost every woman carries all the time, an app has been developed (still in developing stage) to help women in such emergency situations. An ‘app’ is a small, specialised software program, easily downloadable and installed onto mobile devices such as smartphones or tablet computers. The use of ‘apps’ has been popularised by Google’s ‘Play Store’. This paper describes a security application called ‘We Safe’ which will work as a helping



hand for women at emergency situations. On pressing a button an alert message will be send to the user's registered contacts along with the user's current location.

2. ANDROID OS: IDEAL PLATFORM FOR MOBILE DEVELOPMENT

Android is a mobile operating system developed by the Open Handset Alliance, led by Google, and other companies. Android is an open source and Linux-based Operating System for mobile devices. Android is designed primarily for touch screen mobile devices such as Smartphone and tablets. Android's user interface is mainly based on direct manipulation, using touch gestures that loosely correspond to real-world actions, such as swiping, tapping and pinching, to manipulate on-screen objects, along with a virtual keyboard for text input. In addition to touch screen devices, Google has further developed Android TV for televisions, Android Auto for cars, and Android Wear for wrist watches, each with a specialized user interface. Variants of Android are also used on notebooks, game consoles, digital cameras, and other electronics. Android offers a unified approach to application development for mobile devices which means developers need only develop for Android, and their applications should be able to run on different devices powered by Android. The source code for Android is available under free and open source software licenses. The few reasons which make android an ideal platform development is: Open source, Larger developer and community reach, Increased marketing, Inter App Integration, Reduce cost of development, Higher success ratio and Rich development environment.

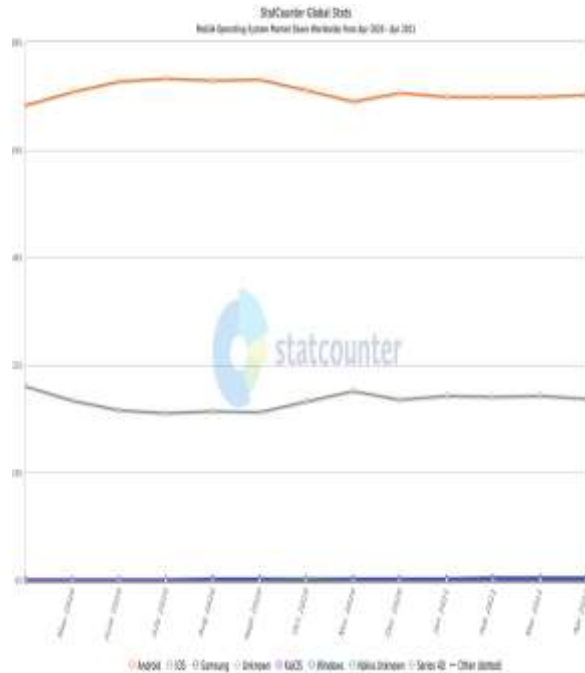


Figure shows current mobile operating market share worldwide by statcounter.

3. FEATURES OF 'We Safe' APP

In this section, the key features of the 'We Safe' App are listed below, which provides an overview of the system as well as explains why it is different from others.

3.1 Register and Verify

- 1). Home page have several features such as register, instructions view registered, register your number.
- 2). The first time users have to register to the app by entering the basic details of the user like Name, Phone no.
- 3). User will be able to manage their Emergency Contacts using the register your mobile numbers.
- 4). User will get help from instructions button for how to use the application.

3.2 At Emergency Situations

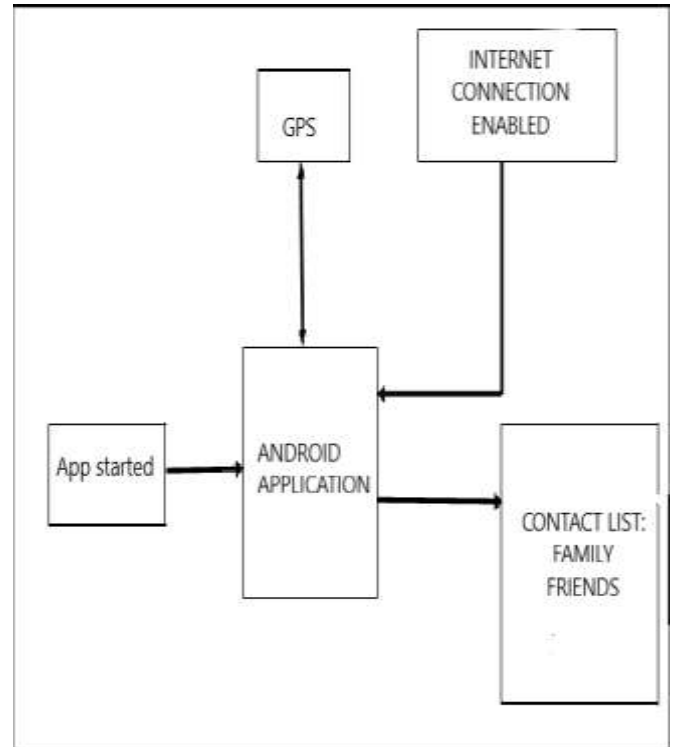
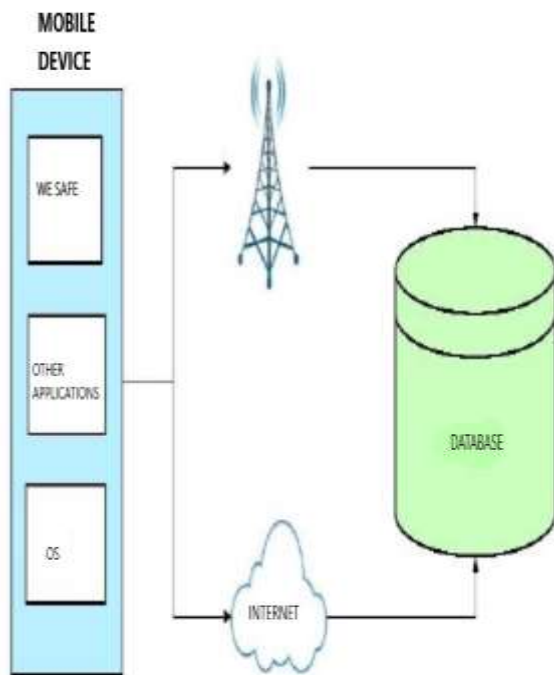
- 1). User will shake the device as per instructions.
- 2). As per application device will automatically sends the user's current location to the registered contacts.
- 3). Trusted contacted will get the user's current location and can get there as soon as possible.

4. EXPERIMENTAL SETUP

The experiments were performed using an Intel(R) Core(TM) i5 9300H CPU @2.4 GHz processor with 8GB RAM, 4GB of available disk space (minimum) and 3.6GB space for Android

SDK. The operating system is Windows 10 64-bit and the screen resolution must be 1280 x 800 (minimum). The software requirements are Java Development Kit 8 or higher and Android Studio 4.2 .

External output device is with google API 29 (Android 10) and has 6 GB RAM and snapdragon 835.



5. RESULT OF THE EXPERIMENTS

1. HOME PAGE





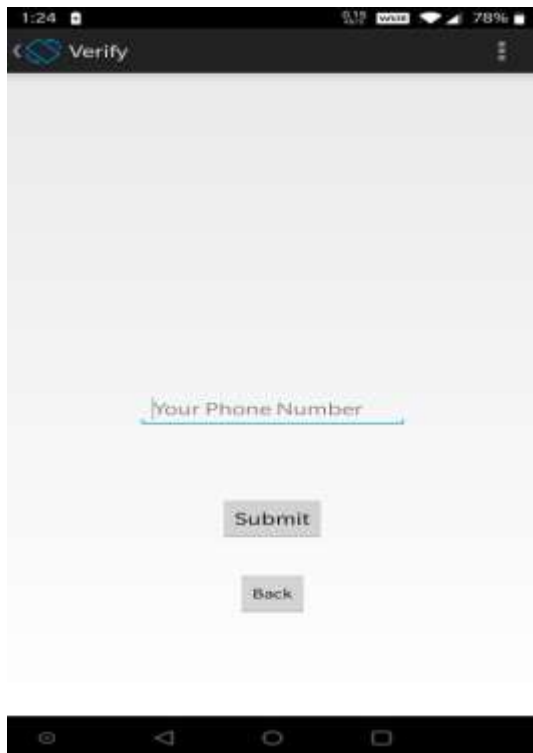
2. VIEW OF REGISTER



4. INSTRUCTIONS



3. REGISTERED CONTACTS



6. CONCLUSION

It can be concluded that our 'WE SAFE' App provides a safe and secure environment to the women in the society, and allows them to work till late nights. Anyone before doing any crime against the women will be deterred and it help reducing the crime rate against the women. This application will act like a weapon for women that will ensure the safety and security which works on the Smartphone with the android operating system. With further research and innovation, our project can be implemented on a small wearable device like watch, pendent, wristband which will be build using GPS and GSM modules. On triggering this system the GPS data will acquired by the GPS module and will encoded into a valid Google maps link and send through text messages to enlisted family, friends.

7. REFERENCES

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