

Original Article

Transform Android App into a Savior from Crime Against Women

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Abstract - Today, the world is growing fast at a very alarming rate. Each second, new technology is developed. We are becoming advanced day by day, but this advancement is only in terms of goods we are using. Our thinking, beliefs and consciousness are still the same as it was 100 years ago. People still retain narrow-minded thinking regarding women. "Today, I wore a pair of faded old jeans and a plain grey baggy shirt. I hadn't even taken a shower, and I did not put on an ounce of makeup. I grabbed a worn-out black oversized jacket to cover myself with even though it was warm outside. I have made conscious decisions lately to look like less of what I felt a male would want to see ." these lines by Sierra D. Waters shows the pathetic condition of women in society. Do these lines clearly show how crimes against women affect the mental state of women in this world? Thus, it is the need of the hour to take some actions against it. Each individual should take some steps to prevent crimes against women. As technology raises the crime against women, it can also act as very powerful equipment to prevent crimes against women. Smartphones are the gifts given to us by mankind, and our aim is to use them as a bodyguard for women. Keeping this aim of making technology the saviour of women in mind, we have developed an android app that helps women in need. This application sends a dangerous message to all the registered numbers. "Instant identification "is the unique feature of this application which helps the women to ensure that their pickup is totally safe. This feature captures the image of the driver and checks whether he has some criminal record against him. Other features are "Sharing user's location", "Danger-alarm", etc. "Domestic Violence Report" feature connects women to the national women help website where women's can lodge a complaint against domestic violence. This project is developed in Java Development Kit using Android Studio.

Keywords - Android App, Danger-Message, Savior, Smartphone, Women Security, Dowry.

I. INTRODUCTION

In this modern era, each country was becoming democratic and gave rights to each individual in the country. Violence against women is the damage done to the individual's right. This is against the constitution of any democratic country. It is damage to public health and thus needs to be curbed. Female comprises 49.6% of the total population of the world. The phrase, "The best thermometer to the progress of the nation is the treatment of its women", shows the importance of women in society. Violence against women is a significant public health problem, as well as a fundamental violation of women's human rights.

Despite the fact that advocacy groups like NOW have worked for over three decades to halt the epidemic of gender-based violence and sexual assaults, the number is still shocking. In 2005, 1,182 women were murdered by an intimate partner.[9] According to the National Centre for Inquiry Prevention and Control, women experience about 4.8 million intimate partner-related physical assaults and rapes every year.[10]The Centres for Disease Control estimates that the cost of domestic violence in 2003 was more than over \$7.3 billion.[11]Young women, low-income women and some minorities are disproportionately victims of domestic violence and rape. Women ages 19-25 are at greatest risk of nonfatal domestic violence, [12] and women age 23 and under suffer from the highest rates of rape. [13]The Justice Department estimates that one in five women will experience rape or attempted rape during their college years, and less than five percent of these cases were reported. [14] According to the Family Violence Prevention Fund, "growing up in a violent home may be a terrifying and traumatic experience that can affect every aspect of a child's life, growth and development. Children who have been exposed to family violence suffer symptoms of post-traumatic stress disorder, such as bed-wetting or nightmares, and were at greater risk than their peers of having allergies, asthma, gastrointestinal problems, headaches and flu." In addition, women who experience physical abuse as children are at a greater risk of victimization as adults, and men have a far greater (more than double) likelihood of perpetrating abuse. [15] Thus,



women's security is an issue of global concern, and each one of us should take steps to cure this menace. Keeping all this in mind, we are presenting this android application (EyeCop) which will help women in miserable and dangerous situations. This application will help the women when they are far away from their family and comfort zone.

An Android app is a software application running on the Android platform. Because the Android platform is built for mobile devices, a typical Android app is designed for a smartphone or a tablet PC running on the Android OS. Although an Android app can be made available by developers through their websites, most Android apps are uploaded and published on the Android Market, an online store dedicated to these applications. The Android Market features both free and priced apps. Android apps are written in the Java programming language and use Java core libraries. They are first compiled to executable to run on the virtual machine, which is a virtual machine specially designed for mobile devices. Developers may download the Android software development kit (SDK) from the Android website. The SDK includes tools, sample code and relevant documents for creating Android apps. Here, we present an android application that ensures the security and safety of women. Our application will try to reduce the risks and destructive situations that a woman can come across.

The key features of our application that are not equivalent to the underlying applications are as follows: 1) Initially, we have to sign up in the application via filling out the signup page. 2) After signing up, we have to login into the application via using the password set up during the signup phase. 3) Now, we have to enlist the two numbers of our relatives or friends and click on the Save button. 4) While travelling, run the application and use it when something doubtful occurs. Now, click on the send button, which will send the "I am in danger" message to the enlisted contacts. 4) It has a "Danger Alarm" feature that will ring a siren by clicking on the alarming button, and people in the surroundings become aware of the situation and come forward to protect her. 5) There is a "Sharing User's Location" feature that will send your exact location to the enlisted contacts, and in the case of need, it will help to track the person. 6) It has an "Instant Identification" feature that will capture the image of the driver and identify whether he has some kind of criminal record against him. It will help women to ensure a safe drive. 7) It also has a "Complaint Lodge" feature which will connect you to the National Women Cell website, and the women can report any unethical incident that took place with her.

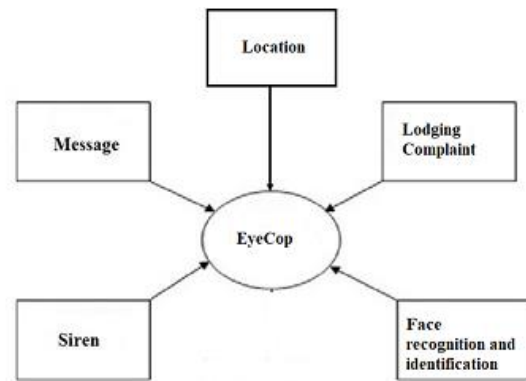


Fig. 1 Proposed System

Overall, this app is a twenty-four-hour bodyguard that will try to shield women to the best of its ability. It is a type of self-defence tool for women. It will also act as a location tracker tool and thus provide you with an all in one solution. As mobile phones have become the fundamental unit of our living, this application is the bliss for women's to safeguard themselves from unethical people of this society. As this application can be operated through our smartphones, it is easy to carry and quite handy. Women's are not supposed to carry some extra stuff to use this application, and they can use it with the means available to them.

As women's constitute a very large part of our total population and also play a vital role in the upbringing of a child, their security is a matter of global concern. Our application is a step to contribute to the noble cause of preventing women from rape, molestation, dowry, domestic violence, prostitution, stalking etc. and empower women in society and support feminism.

II. LITERATURE REVIEW

In [1], This paper presents an Android App for Women safety and security, which can be presented by a single snap. The snap feature of this application differentiates the whole geographical area with the help of GPS and sends some specific detail, including the area's Uniform Resource Locator (URL), to the main enlisted contact saved in the application. The unique property of this application is its ceaseless message sending feature. This application sends the non-stop message to the enlisted contacts ceaselessly until the "Stop" button is clicked by the person in need. These ceaseless messages share the victim's continuous geographical region details. This non-stop detail of area provides a platform for non-stop tracking of the area by using the details of the messages, and the victim can be saved at an appropriate time. This feature makes the rescue operation of the injured woman quicker and more reliable.

In [2], in This paper, the existing women safety system has been audited on the versatile application and discussed various obstacles. A versatile application is somewhat unpleasant as an application, is functional programming expected to run continuously on

smartphones, for instance, a PDA or tablet. Compact applications serve to outfit customers with equivalent organizations and can run on their PCs. Applications are nothing, but they are just some simple programs that are designed to perform some specific functions. Each application as a program has its own limit. This type of programming is supported by Apple Inc. Specifically, its App Store provides numerous uses for iPhone, iPad, iPod Touch.

In [3], in the work environment, females have to face more restrictions as compared to males. A lot of people say that the programming culture and nation desires for restricting ladies from IT. The programming culture dominates the IT industry and consist of long working hours, late evenings, profoundly busy and practical approach over the top conduct. As the IT industry is male dominating, it demands high security and safety for women's working in research centres alone during the evenings and at the end of the week. Our way of life and prevailing thinking assumes delivering man mastery in the advanced programming society is a necessary and significant job. All these problems give an insight into both the capabilities needed and the open doors that exist for ladies to exist in the digital security world.

III. LANGUAGES TO IMPLEMENT

A. Java

Java has always been the undisputed leader of being the most prominent and highly employed mobile app coding language since its birth. Java is mostly used for making desktop applications, Back-end web frameworks and Android applications, which makes it the best platform for making mobile applications for developers. Java uses the JVM, which is platform-independent and runs on every machine. Organizations support Java due to its versatility and provide a flexible and error-free environment for making mobile-based applications. Being the most established language, Java acts as the backbone of a huge community to help users whenever they come across any technical problem. Due to all these reasons, we have built the Android application (EyeCop) in Java using Java Development Kit. It makes our application easily available to ladies in need and economically friendly.

B. PYTHON

In recent years, Python has gained wide popularity. This language is now used by numerous users, including enterprises and large profitable businesses. Python is open source and provides wide support for upcoming streams like Artificial Intelligence, Big Data and Machine Learning. Python syntax is easy to learn and provide a better user experience. That is why now it is also used for making mobile applications.

C. C#

Microsoft development language C# is also known as C Sharp. C# is an object-oriented and component, multi-paradigm language. Almost everything can be developed in this language like web applications, games, back-end

frameworks, mobile applications etc. "Xamarin" platform changes the notion of developers about C# as this tool makes mobile applications uncomplicated to be made in C#.

D. Ruby

Ruby is a programming language used for developing mobile applications. It is like PHP and laid come into the market on the basis of its Rail Structure. Its syntax is clear, and it is widely employed to develop mobile applications. Ruby on Rails is utilized by Twitter, Bloomberg, Airbnb, and Shopify to retain their online presence all over the world.

E. js

Buildfire.js is used by developers to build mobile applications. It uses the Build-fire SDK and JavaScript to develop mobile-based applications. It makes the process quicker reduces frustration as it consists of 70% of the company use cases, and developers are required to build only unique processes for the client as the rest is available.

IV. CONCLUSION

To make feel women safe and secure in a dreadful situation is an important aspect of the ladies security. As we know, India is a country that is well known in the world for its rich culture and diversity. It has granted women a very highly regarded position in its culture. Despite this, people in India treated women miserably. On the one hand, they worship women, while on the other, they support rituals like Sati, Dowry etc. The condition of women has improved over the years, and it is much better as compared to the old times. Our undertaking is a minor step towards ensuring the well-being of women in bad positions. Our undertaking help women to travel fearlessly without any fear or dread from strangers.

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