

CREATING APPLICATION ON ANDROID FOR WOMEN'S SAFETY

Ms.S.JAYAPRATHA AP\CSE,

¹Assistant Professor, Department of Computer Science and Engineering,

C.SUBASHINI,

²Student, Department of Computer Science and Engineering,

R.VAISHNAVI

³Student, Department of Computer Science and Engineering,

^{1,2,3}Sri Bharathi Engineering College for Women, Pudukkottai-622 303, Tamilnadu, India.

Email: jayapratha340@gmail.com¹

Abstract - The women safety Android application is a mobile application designed to enhance the safety and security of women by providing them with a reliable and easy to use emergency response tool. The application is designed to work by sending the current longitude, latitude, and address name of the user when she presses the help button. This information is sent automatically to the saved emergency contact, ensuring that they can call for help with just one click. Additionally, the application also includes a feature that allows users to save their emergency contacts, including friends, family, and local authorities.

INTRODUCTION

In today's world, it is not safe for a person to travel alone at night especially for women; it will be high time to travel alone because a woman is not highly strong as men to protect herself from them. The good way to reduce chances in becoming a victim of violent crime (robbery, sexual assault, rape, domestic violence) is to identify and call on resources to help you out of unsafe situation. Whether you are in instant to reach home, having these app on your phone can diminish our risk and bring assistance when we required it.

This application created by MIT app inventor is an intuitive, cloud-based platform that enable users to create mobile apps for android devices without the need for the extensive coding skills. It was developed by the Massachusetts Institute of Technology (MIT) as part of an educational initiative introduce computer programming to young people and non-technical users. The platform provides a drag-and-drop interface that simplifies the app-building process and allows user to create functional app in a matter of hours.

MIT app inventor uses block-based programming, which is a visual programming language that enable users to create code by assembling graphical blocks that represent code functions. The platform offers a range of features and components that enable users to create apps social media app, games, and productivity tools. It also includes built-in features for data storage, media playback, and sensor-based inputs such as GPS, accelerometer, and camera inputs. MIT app inventor is open-source and free to use, which make it accessible to anyone who want to create an android app.

The platform has a vibrant community of users to who share their experiences, resources, and knowledge to help other build better apps. It is a powerful tool for promoting digital literacy and innovation, and it has the potential to inspire a new generation of mobile app developer.

This application is created on Android. Android is a mobile operating system developed by Google. It is the most widely used mobile operating system in the world and is used by billions of people on smart phones, tablets, and other mobile devices. Android is based on the Linux kernel and is designed primarily for touch screen mobile devices such as smart phones and tablets. It is open source, meaning that the source code is available for anyone to use and modify. One of the key features, including voice commands, gesture controls, and support for multiple user profiles. Additionally, Android devices can be customized with themes, launchers, and other tools to change the look and feel of the device.

LITERATURE SURVEY

Android app for women safety: In this application the user writes the message content and also selects the contacts to which the message content and also selects the contacts to which the message has to be sent and save it. So, when he is in some danger by just opening the app and pressing the HELP button, the message stored will be sent to those number he has added in this on application. So that he can receive the help in correct time.

Smart safety system for women security: The proposed system describes a safety device that gets automatically triggered when a woman is in danger from anywhere at any time. This device has a transmitter and receiver in which the receiver in which the receiver is placed in a bag, and the transmitter and receiver in which the receiver is placed in a bag, and the transmitter is placed in the slipper. When the RF signal between the receiver and transmitter goes low, the device automatically sends SMS to the emergency contacts and provides alert to the nearby people. Here WIFI module and GPS are used. GPS track the location of the women, and the WIFI module is used to send the tracked location as SMS to the emergency contact.

Women safety device: This project describes about a one touch alarm system for women’s safety using GSM. The device consists of a micro controller, GSM, modules .the system resemble a normal watch which activated, track the place of the women using GPS(global positioning system) and sends emergency messages using GSM(global system for mobile communication) ,to selected contacts and the police control room. The main advantage

Accident detection and alert system: This paper is to is to build an application that makes use of the sensors present in mobile phones like GPS and Accelerometer and detect any collision if there is a sudden external disturbance in the speed with the help of the sensor Fusion based Algorithm .with the help of the data obtained from the accelerometer sensor,when there is a sudden disturbance to the mobile phone,the user is notified with an alert message before sending the request help signal.if no emergency is required they can cancel it within 10 seconds ,the request for help message will be sent to the emergency services as well as the family members,the users provided.

Vehicle accident emergency alert system: ADXL335 MEMS gives the XYZ coordinates of the vehicle and is converted to digital using ADC via SPI protocol and its sent to the Arduino.when the car meets with an accident the Arduino processes the commands and the GPRS system immediately obtains the latitude and the longitude from the user phone.

SYSTEM ARCHITECTURE



Fig.a.Proposed Architecture on creating application on android for women safety

EXISTING SYSTEM

The existing system describes an equipment which consists of a location sensor by which one can get the geographical location via SMS.Any emergency conditions ,she can press a button,the message and location link sent to those numbers she has added in this application.

DISADVANTAGE

- Poor network coverage.
- Continuous internet connectivity.
- It behaves abnormally

PROPOSED SYSTEM

In this proposed system user press the help button long time it ask to save the contact .contact will be stored in Tinydb .so, when he is in some danger by just opening the app and pressing the HELP button once message will be

Generated by location sensor. The generated like latitude, longitude and current address .it send to the saved contact by testing.so that she can receive the help in correct time.

ADVANTAGE

- Enhance women safety
- This applicationsend, location,longitude and latitude.
- Location is properly detected using location sensor.
- Mobile number can be changed at any time.
- User-friendly interface.
- prevent incident.

MODULES

EMERGENCY BUTTON:

Many women safety applications have a panic button feature that can be used in case of an emergency .The feature is typically designed to used in case of an emergency.This feature is typically designed to quickly alert emergency contacts or authorities in the event of an unsafe situation.when activated the panic button sends out an signal with the users location information,which can help respondents to quickly locate and assist the user.

EMERGENCY CONTACT:

An emergency contact feature in a women safety application is a critical component that allows users to quickly and easily contact a designated person or persons in case of an emergency.This feature can provide an added layer of safety and security for women who may feel vulnerable or unsafe in certain situations.It is important to note that have a reliable safety .It is important to note that the emergency contact feature should be designed and implemented in a way that respects the users privacy and security.

ALERT MESSAGE:

After completion of saving the contact details,help button ,must be clicked to exit from the application and help button must be clicked to start the application immediately .There is no obligation of entering the contact details each and every time when we open the application .once entered and saved they will be registered in application till we change them.Message send immediately after pressing the button in the user phone.

RECEIVING MESSAGE:

Message received by the contact device immediately after starting the application.When we click help button of the application,it starts and the location sensor running over the device and immediately the users location will be sent.

IMPLEMENTATION

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 HELP button. Also, they can store a contact numbers. When the user is in some difficulty or needs any help, they simply need to open the app and click on the "HELP" button. This application sends the message to those contact numbers which she has stored. The total evaluation can be done in 3 major steps which are described individually. Evaluation describes the whole implementation of the application in 3 steps. The first step is to enter the contact details in the application after created. Those contacts can be our friends, relatives of the particular city the person we live in. When the application is installed in the smart phone for the first time the above contact details should be provided. The application will store the location information like latitude, longitude and current address by location sensor to the registered contacts at danger times or when the person is needed to be rescued. This step is followed only when the person is needed to be rescued button is passed in application. This third major steps testing used to sent the text message to receiver when the user clicks the button.

RESULTS

After creating application by MIT app inventor scan the QR code and download via MIT companion app. The Women safety app icon can be placed anywhere on the home screen of the smart phone so that we can immediately touch over the application when we are in danger. Figure 1 depicts the HELP button. When you press long time Figure 2 will appear depicts the Alert contact, save contact button and home button.



Fig .1. Layout of the first screen for emergency button

After pressing the help button long time, the application screen appears as depicted in the Fig.2 depicts the contact blocks, save button and home button.



Fig.2. Layout of the second screen for details

After entering the contact details, the application screen appears as depicted in the Fig .3. After completion of registering the contact details in the application the save contact button must be clicked by the finger else the message and the contacts will not be saved.



Fig.3.Details entered in the application

After completion of saving the contact details, save button must be clicked to exit from the application and HELP button must be clicked to start the application immediately. There is no obligation of entering the contact details each and every time when we open the application. Once entered and saved they will be registered in application till we change them. Message send immediately after pressing the button in the user phone as shown below Fig. 4

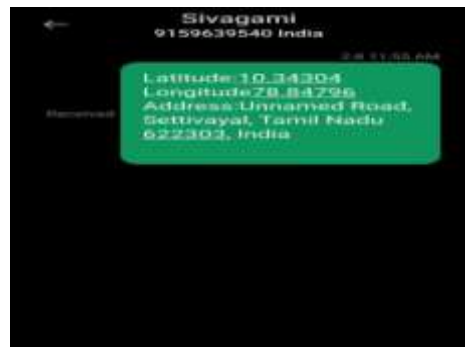


Fig.4.Message sent by the user phone

Message received by the contact device immediately after starting the application. When we click help button of the application, it starts and the location sensor running over the device and immediately the users location will be sent as shown Fig.5.

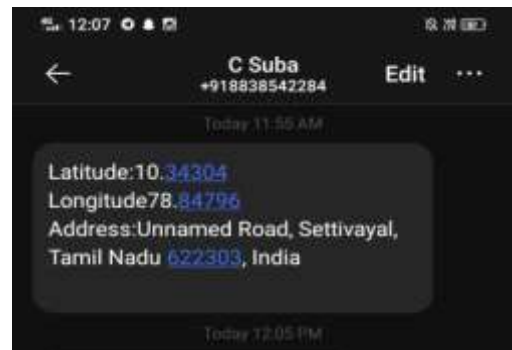


Fig.5.Message received by another contact device immediately after pressing the Help button in the application

CONCLUSION AND FUTURE SCOPE

The development of women safety application has been a significant step towards ensuring the safety of women. Such application can provide a sense of security and protection to women particularly in situations where they feel vulnerable or threatened. However it is essential to recognize that these application alone cannot solve the problem of woman safety entirely. The issues of women's safety is complex and deeply rooted in societal norms and attitudes towards women. This application can be a useful tool in enhancing the safety and security of women they should be considered as part of a broader strategy to tackle the issue of women's safety, and their limitations should also be acknowledged. Some further upgrade can be done adding more contact can help improve accessibility, trust and communication which are all essential for creating safer and more supportive environment for women. Voice assistant can be an effective tool for women's safety providing quick access to safety features and personalized safety tips.

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