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Women Security

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Abstract. Urban environments frequently subject middle-income women to pervasive abuse and security issues when navigating public spaces like streets, bus stops, and parks. This curtails their fundamental rights and erodes their sense of self-worth. This study focuses on a customized mobile application specifically designed to enhance women's security. Guided by a steadfast conviction in the potential of women and motivated by a cooperative endeavor including students and family members, the main objective was to make a concrete contribution to the empowerment of women. The resultant mobile application functions as a specialized tool designed to cater to the unique safety requirements of women. It offers a dependable means of communication, use their pre-established connections in times of need. The software incorporates fast notification systems, live location sharing, and other more features to create a virtual safety network, providing instant assistance with a simple touch on the screen. This project aims to address both urgent safety problems and create an atmosphere that enables women to enjoy their rights without fear. This study aims to enhance women's mobility and personal safety in urban environments by concentrating on the creation and implementation of this app. The goal is to create an environment where harassment no longer hinders their everyday activities.

Keywords: mobile application, instant assistance, safety.

1 Introduction

Women's safety in contemporary metropolitan environments continues to be a persistent worry, especially for middle-class women who often face harassment and safety risks while moving through public areas. Women's freedom of movement and their basic right to safety and dignity are severely restricted by the frequent uneasiness and vulnerabilities they encounter in public spaces such as streets, transit hubs and parks. The ongoing problem of safety concerns is a significant obstacle to women's independence and involvement in society. The primary objective of this project is to directly address these difficulties by delivering a customizedmobile application that has been carefully created to enhance feminine health and autonomy. The decision to create this application originated from a sharedacknowledgment of the widespread

existence of these difficulties and the urgent need to actively confront them. United by a common conviction in the inherent skills of women and a strong dedication to creating a comfortable workplace for them, a coalition consisting of students and family members came together. Their collective objective was to make a significant contribution to the advancement of femininity's liberation by offering a practical support system specifically designed to meet the complexities of safety issues experienced by women in metropolitan environments. The mobile application that has been created as a consequence of this collaborative effort is a clear demonstration of the attention to detail and careful consideration given to addressing the unique safety requirements of women. It is a cutting-edge solution that incorporates technology to establish a strong and dependable virtual support network. The initiatives have essential elements such as fast vigilant systems, instantaneously position sharing capabilities, and more functionality designed to provide prompt help with a simple click on the screen. This innovative application aims to empower women by equipping them with the tools to navigate urban surroundings with more confidence and safety. This study article aims to thoroughly investigate the origin, conception, and development of a specialized mobile application specifically designed for enhancing women's safety. The article seeks to emphasize the application's present relevance in addressing women's security problems, as well as its power to usher about communal reform and elevate women in modern surroundings. This will be achieved via a thorough analysis of the application's functions. Furthermore, this study seeks to explore the intricate ramifications of this undertaking. This study aims to investigate the socio-cultural factors that contribute to women's safety concerns, with a focus on the connections between gender, public places, and social views. The study aims to emphasize the transformational capacity of technology in reconfiguring cultural norms and promoting inclusive and secure environments where women may confidently exercise individual rights to independence of transit and personal privacy without any apprehension or hindrance. Essentially, this study aims to not only demonstrate the creation of a mobile application, but also to promote a cultural transformation that values the welfare and prosperity of women in urbanized settings. The purpose of this research is to illustrate how technology may bring about beneficial cultural change and empower women.

1.1 Problem Statement

"In contemporary society, women's safety remains a persistent concern due to inadequate and limited functionalities of existing safety applications. Current solutions lack real-time accessibility and personalized support during emergencies, hindering swift response and assistance. This research aims to address these shortcomings by developing a Women Security App using Flutter. The project aims to overcome the limitations of traditional safety apps by integrating features like Safe Shake for SOS alerts, a comprehensive database of emergency helplines, personalized contact addition, real-time location sharing, chat functionality with selected guardians, and image sending capabilities. This study seeks to contribute an innovative solution that effectively enhances women's safety in diverse settings."

2 Literature Review

Mourya B D, Mohammed Taheer, Prarthan P, and N Shaik Safi describe the decision to select this initiative in order to empower women to venture out into society fearlessly and joyfully. They want to develop a female-focused application. With its various functions, this software will be able to assist women in peril and maybe result in their being rescued or given quick assistance. [1]

The proposed application by Abhinandan Tripathi, Pinky Sharma, Abhilasha Singh, and Vijay Bharti seeks to protect women by using GPS tracking technology to locate victims so that help can arrive promptly and prevent mishaps.[2]

We will make our "FEMME" one of the numerous helpful applications available on a smartphone. It is a personal safety device meant to provide constant security for you and your companions. It is an all-around essential tool because it is loaded with functions for both actual emergencies and daily safety. Everyone with our device or a smartphone that has the application installed can access this user-friendly program.[3]

The GPS and GSM-based "Women Security System," as described by Kavita Sharma and Anand More, combines GPS devices with an emergency button for warnings and messages. Factor[4]

Concerning the woman, a number of regrettable events have occurred. Women who go alone to the supermarket or stroll down the street after work are examples of individuals who may encounter problems. I Safety (women security applications) is a mobile application that is essential for use and plays a crucial role in Android software to help women overcome the issues they confront.* [5]

Talking about an Android software that was created specifically to help people in need, Tanusri Dey, Upama Bhattacharjee, Sanjana Mukherjee, Tripti Paul, and Rachita Ghoshhal debate the topic. The user can send an alarm message to their pre-saved contacts by clicking on a button on the application. The program provides the same The application shares the user's location with the registered contacts in the form of message. [6]

For many years, mobile technology has been a pillar of society, and the percentage of people using smartphones with GPS navigation has skyrocketed to above 90%. A concentrated focus on women's safety is attempted in this paper. This paper suggests an Android application that is safe and designed for personal safety on smartphones. To be secure is to be protected from troublemakers.[7]

A smartphone software called Women Safety software was created to increase women's safety worldwide. In an emergency, users can use this app to swiftly and simply contact emergency services, notify friends, family, and law enforcement, and more. With this app, users will have a quick and dependable method to protect themselves and their loved ones.[8]

The popularity of smartphones with GPS navigation features has rapidly expanded from 3% to 20% over the previous five years, according to Aatharvan Tripathi, Gopal Amle, Shruti Borge, Prasad Rathod, and Prof. Sumit Mali. For this reason, a used smartphone may be appropriate for personal security or other needs, particularly for daughters. This program may be launched with a single click by the user if she feels threatened.[9]

Women can utilize an Android application that includes a variety of safety precautions with only a few screen taps to quickly and easily contact assistance or to avoid and flee a dangerous situation. In order to give the registered contacts a quick and easy means to contact the user when they're in distress, it leverages GPS position monitoring.[10]

3 Methodology

1. **User Onboarding**:

When the app is opened for the first time, the user is prompted to choose between two modes: Child User or Parent User.

Basic authentication details, including username, password, and email, are required for user registration.

Parent users will have additional features and controls compared to child users

2. **Home Page**:

Upon successful login, users are directed to the home page.

At the top of the page, there will be a section featuring blogs on women's security for users to read and stay informed.

3. **Emergency Helplines**:

In the middle of the home page, prominent icons for emergency services like ambulance, fire brigade, and hospitals are displayed.

Clicking on these icons provides quick access to helpline numbers for immediate assistance.

4. **Live Safe**:

This section provides users with a map interface where they can click on different icons to find the nearest locations of essential services, such as police stations.

Using GPS to find out where the user is and showing them nearby services that are useful..

5. **Send Alert**:

A dedicated button on the home page allows users to quickly send an alert to their selected trusted contacts.

A simple message with the user's current address is sent to contacts that have already been set up when the button is pressed.

6. **Navigation Bar**:

At the bottom of the app, a navigation bar is available for easy access to different features.

7. **Add Trusted Contacts**:**Clicking on the second option in the navigation bar leads the user to a page where they can add trusted contacts from their list of contacts.**

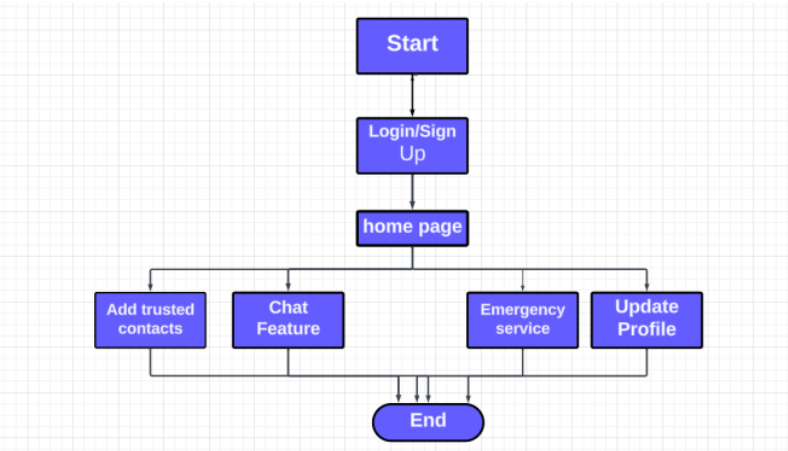
This feature is available for both child and parent users, allowing them to build a network of individuals who can be notified in case of an emergency.

8. **Chat Feature**:

The third option in the navigation bar opens a chat feature that enables communication between the user and their designated parent.

This chat lets users send pictures or information about where they are, which is an extra way to get in touch in an emergency..

3 Design and Implementation



Design of Proposed Methodology

The efficacy and functionality of the developed Women Security App using Flutter were assessed through various screenshots showcasing its key features and user interface components.

3.1 Home Page of the Application

The home page of the application serves as the initial interface upon launching the app. It presents an intuitive and user-friendly layout designed to provide quick access to essential features and functionalities.

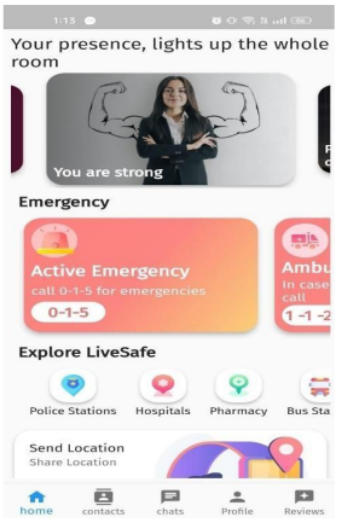


Figure 1: Home Page of the Application

3.2 Get Location and Send Alert Buttons

The screenshot exhibits two major buttons prominently displayed within the app interface - 'Get Location' and 'Send Alert.' These buttons are pivotal in enabling users to swiftly share their current location and send distress alerts to their selected trusted contacts in emergency situations.

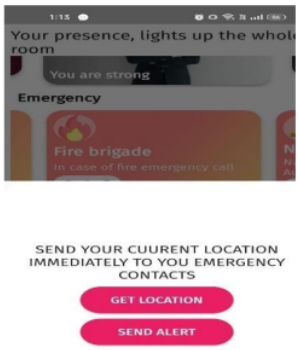


Figure 2: Get Location and Send Alert Buttons

3.3 Add Trusted Contacts Page

This screenshot illustrates the 'Add Trusted Contacts' page, allowing users to manage and add individuals they trust. The feature enables users to personalize their safety network by adding contacts they can reach out to during critical moments.

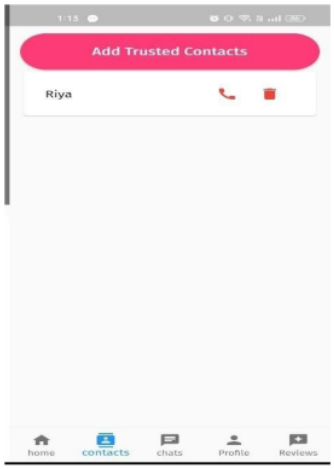


Figure 3: Add Trusted Contacts Page

3.4 Chat Page with Guardian

The 'Chat' interface depicted in this screenshot showcases the communication platform within the app. Users can engage in real-time conversations with their selected guardians, enabling swift and direct communication in urgent situations.

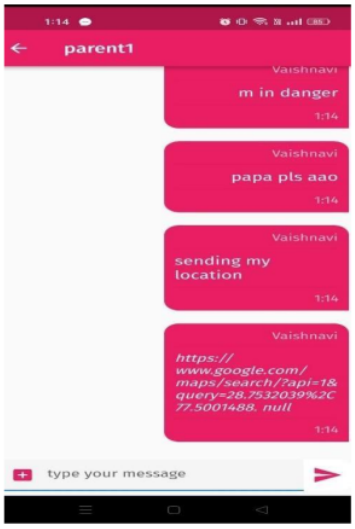


Figure 5: Chat Page with Guardian

4 Conclusion

It's important to make sure urban women are safe, especially middle-class women who often face harassment and safety threats. This project aims to address these issues by creating a mobile application that enhances feminine health and autonomy. A coalition of studentsand family members collaborated to create a practical support system for women in metropolitan environments. The mobile application incorporates technology to create a strong virtual support network, offering features like fast vigilant systems and instantaneous position sharing. The application empowers women by providing them with tools to navigate urban surroundings with confidence and safety. The study aims to investigate the socio-cultural factors contributing to women's safety concerns and the transformative capacity of technology in reconfiguring cultural norms. The goal is to demonstrate the creation of a mobile application and promote cultural transformation that values women's welfare and prosperity in urbanized settings.

5 References

1. Amruta, B., and Mohammed Taheer. "Maximizing Women's Safety with an Effective System."
2. Singh, A., Tripathi, A., Sharma, P., & Bharti, V. Android-based Women Safety Application.
3. Monisha, D. G., Monisha, M., Pavithra, G., & Subhashini, R. (2016). Women safety device and application-FEMME. Indian Journal of Science and Technology, 9(10), 1-6.
4. Sharma, K., & More, A. (2016). Advance woman security system based on android. IJIRST–International Journal for Innovative Research in Science & Technology, 2(12), 2349-6010.
5. Mandapati, Sridhar, Sravya Pamidi, and Sriharitha Ambati. "A mobile based women safety application (I Safe Apps)." IOSR Journal of Computer Engineering (IOSR-JCE) 17.1 (2015): 29-34.
6. Dey, Tanusri, et al. "Advanced women security app: We'RSafe." Int. Inform. Eng. Technol. Assoc 4.2 (2017): 47-51.
7. Pasha, Saleem, et al. "BSecure for women: an android application." (2016).
8. Kolte, R., Tadse, P., Nikhare, P., Randive, V., Raut, S., & Narakhede, G. (2023). An Android App for Empowering Women's Safety and Security. International Research Journal of Modernization in Engineering Technology and Science, 5(4), 2804-2812.
9. ripathi, Aatharvan, et al. "ANDROID APP FOR WOMEN SAFETY."

Sakure, Kishor & Pawale, Purva & Singh, Kamal & Khadakban, Tanvi & Dongre, Deepali. (2022). Women Safety App. YMER Digital. 21. 423 -427. 10.37896/YMER21.04/39.

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