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AN ONLINE APP WHICH HANDLES SAFETY OF WOMEN

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ABSTRACT

This project presents the development of "Women safety" The **Women's Safety Online Application** is an innovative mobile-based solution designed to enhance the safety and security of women in daily life. In response to the growing concerns of harassment, assault, and other safety issues faced by women, this app aims to provide real-time assistance, emergency alerts, and preventive measures to users. The application integrates key features such as an emergency SOS button, GPS-based location tracking, immediate alert notifications to pre-set emergency contacts, and an option to share live locations with trusted individuals. It also includes safety tips, local helplines, and resources on legal rights and support services. The primary objective of the application is to ensure that women feel empowered and protected in any situation, reducing the chances of potential harm.

This project focuses on the development of the app's user-friendly interface, its seamless integration with real-time safety features, and ensuring that it can be used effortlessly in high-stress situations. A strong emphasis has been placed on the app's ease of use, responsiveness, and security features to guarantee quick action in emergencies. Additionally, the app provides a platform to educate women about their rights and raise awareness about safety practices.

Through this project, the goal is to offer a reliable, accessible, and scalable solution that can help reduce the risks faced by women and encourage a safer environment in both urban and rural settings. The **Women's Safety Online Application** intends to be a step towards a society where women can confidently navigate their day-to-day lives without fear of harassment or danger.

I. INTRODUCTION

This survey was conducted to gather comprehensive feedback on the proposed **Women Safety App** , Women's safety has always been a matter of critical concern across the globe, with increasing incidents of harassment, violence, and discrimination. Despite various efforts to address these challenges, women continue to face threats in both public and private spaces. The rapid advancements in technology offer a unique opportunity to create solutions that can enhance women's safety and help them feel secure and empowered in their daily lives. The **Women's Safety Online Application** aims to address these concerns by providing a practical, accessible, and effective solution that can be used at any time to ensure personal safety.

This project focuses on developing an application that integrates various safety features, including real-time emergency assistance, location tracking, and quick access to emergency contacts, making it easier for women to call for help when needed. The application is designed to function seamlessly with smartphones, leveraging built-in technologies such as GPS, touch sensors, and internet connectivity to provide real-time alerts and notifications.

The primary objectives of the **Women's Safety Online Application** are to:

1. **Provide Quick Emergency Response**: Enabling users to instantly send distress signals with their location to friends, family members, or local authorities.
2. **Promote Awareness and Education**: Offering resources such as legal information, safety tips, and helpline numbers, empowering women to understand their rights and available support systems.
3. **Increase Preventive Measures**: By offering location-based services, users can check for nearby safe zones and avoid areas with higher risks.
4. **Build a Support Network**: Allowing users to add trusted contacts, ensuring that help is available at a moment's notice, especially in vulnerable situations.

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The application not only serves as a direct safety tool but also as an educational resource. By promoting awareness about safety practices and women's rights, it aims to create a more informed and prepared user base. The app's intuitive interface ensures that women of all ages and technical proficiency can easily navigate it, making it a powerful tool for enhancing their safety.

Through this project, we aim to provide a sustainable solution that makes a tangible impact on the lives of women, helping them lead safer lives with peace of mind, knowing that they have access to emergency support whenever and wherever they need it. This project is a step forward in the mission to make women feel secure and respected in all aspects of society, helping them thrive without fear of harm.

The survey targeted a diverse group of participants from 2 different colleges, representing a wide variety of courses, branches, and academic backgrounds. The colleges involved spanned across multiple cities, including institutes like **Sandip University,** and others. The participants were mostly **students (15 respondents)**, also contributing their perspectives.

This diversity was important for ensuring that the survey should be done in proper way and efficiently. By involving students from fields like **Engineering, AIML, and** as well as branches such as **Computer Engineering, cyber security, etc.**

II. SURVEY OBJECTIVES

The objectives of the survey were carefully designed to address the key features of the proposed Women safety app, ensuring that each aspect of the system aligned with the needs of the potential users. The primary objective of conducting this survey is to understand the current challenges and needs related to women's safety, gather insights into their perceptions and behaviors regarding safety measures, and evaluate the effectiveness of existing safety tools. The insights gathered from the survey will help in shaping the development and improvement of the **Women's Safety Online Application**. The specific objectives of the survey are as follows:

1. **Identify Key Safety Concerns:**
   - Understand the most common safety threats and concerns faced by women in different environments (e.g., at home, in public places, during travel). o Assess the types of incidents women experience or fear most (e.g., harassment, assault, theft).
2. **Evaluate Current Awareness of Safety Tools and Resources:**
   - Determine the level of awareness and usage of existing safety apps or resources available to women. o Assess the effectiveness of these tools in meeting women's needs in emergency situations.
3. **Understand Women's Usage of Technology for Safety:**
   - Identify how comfortable women are with using technology (e.g., smartphones, apps) for ensuring personal safety.
   - Explore how frequently women use safety-related apps or features (e.g., SOS button, GPS tracking, emergency contact sharing).
4. **Gauge Women's Expectations from a Safety App:**
   - Gather feedback on the desired features and functionalities women would expect from a safety app (e.g., real-time location sharing, direct emergency contact notifications, legal resources, safety tips). o Assess the importance of user interface design, ease of use, and accessibility in an emergency app.
5. **Understand Women's Perceptions of Personal Safety:**
   - Evaluate women's overall sense of security in their daily routines and environments. o Investigate whether women feel empowered and informed enough to take preventive measures or react effectively during an emergency.
6. **Measure Trust and Security Concerns:**
   - Explore the trust level women have in digital tools and apps when it comes to privacy and security, especially concerning the sharing of location and personal data. o Assess concerns about data privacy, app reliability, and the potential misuse of safety apps.

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7. **Assess Barriers to Using Safety Solutions:**
   - Identify the main barriers that prevent women from using safety apps or related technology, such as lack of awareness, technical challenges, or reluctance to trust digital solutions. o Explore whether there are any social or cultural factors that influence women's usage of safety tools.
8. **Measure Interest in Community and Support Features:**
   - Evaluate the interest in having a community-driven support system within a safety app, such as alerting friends, family, or even nearby users in case of distress.
   - Understand how valuable users consider having access to legal information, mental health resources, or victim support services within the app.
9. **Explore Potential Features for Future Development:**
   - Gather suggestions from users on additional features or improvements they would like to see in a women's safety app. o Identify which features could make the app more effective and widely adopted.
   - By addressing these objectives, the survey will provide valuable data to inform the development of an app that meets the real-world needs of women, ultimately enhancing their safety and empowering them to take control in critical situations.

III. METHODOLOGY

The survey was distributed via Google Forms, receiving responses from:

24 participants in total:

24 students

The survey included participants from the following **3 colleges**:

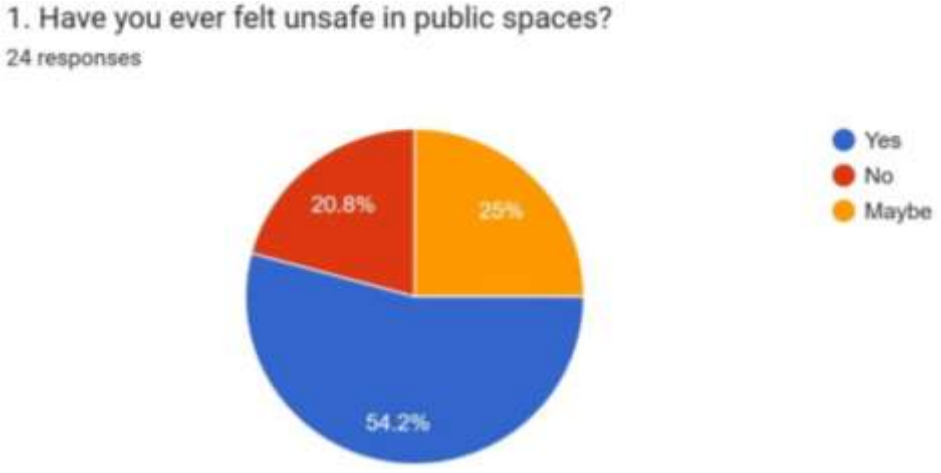
1. Sandip University, Nashik
2. Sandip Institute of Technology and Research Centre, Nashik
3. Sandip Institute of Engineering and Management, Nashik **Courses of the Respondents:**

- B. Tech
- BCA
- BBA

Branches:

- Civil Engineering
- Computer Science and Engineering
- Cyber security and Forensic Science
- Aerospace

IV. SURVEY QUESTIONS AND RESULTS



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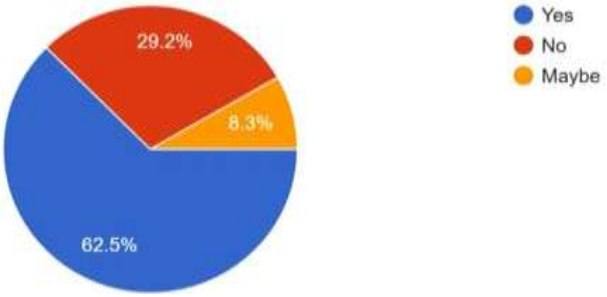
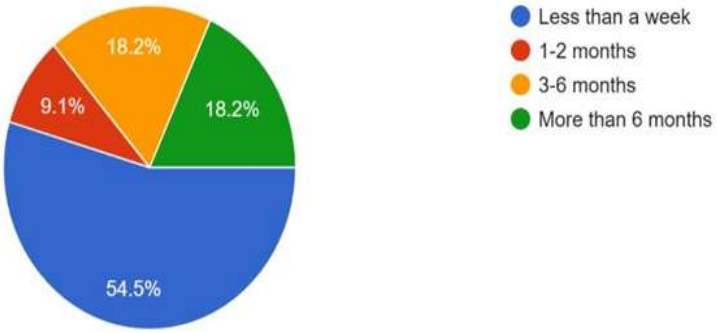
2. Have you ever used an app designed for women's safety?

24 responses



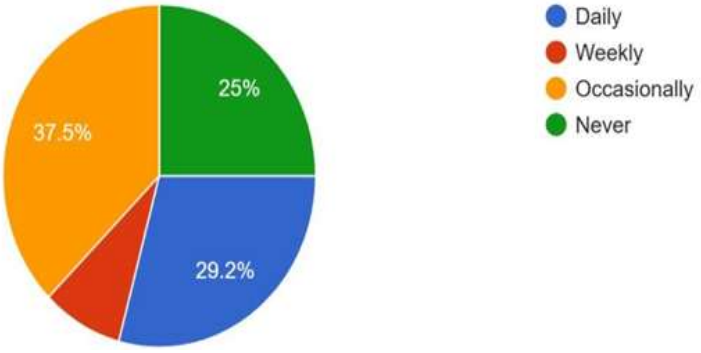
3. How long have you been using this safety app?

22 responses



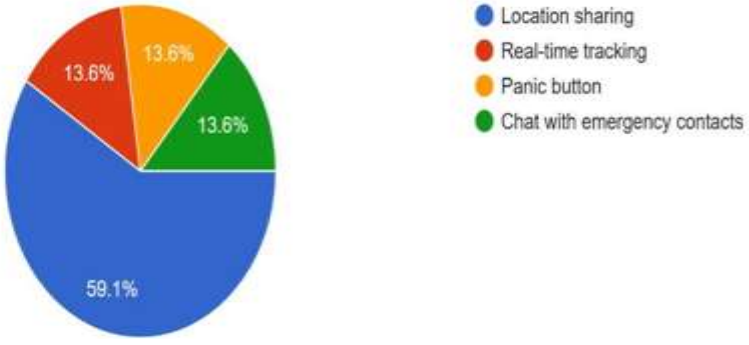
4. How frequently do you use the safety app?

24 responses



5. Which features of the app do you use most often?

22 responses



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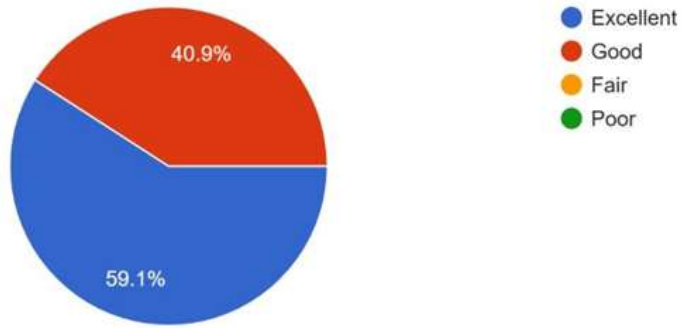
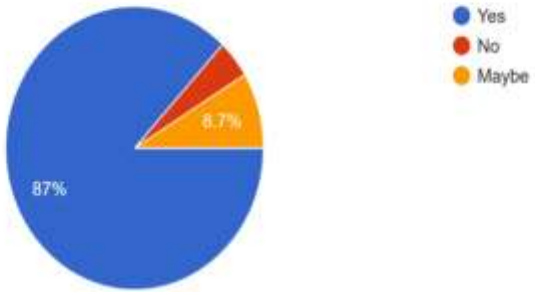
6. How would you rate the user interface of the app?

22 responses



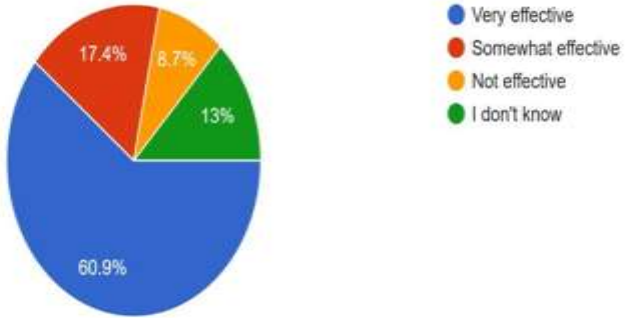
7. Does the app provide you with clear and easy-to-understand instructions for emergency situations?

23 responses



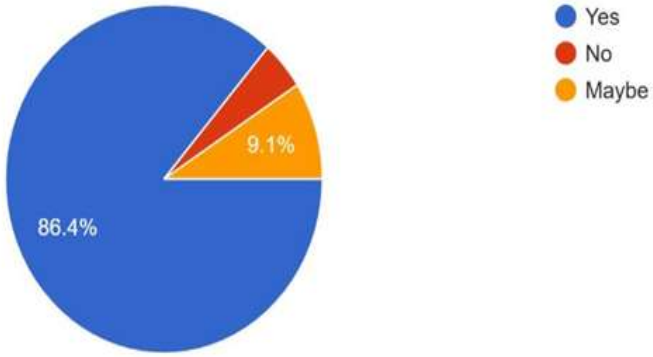
8. How effective do you think the app's emergency alert or SOS feature is in an actual emergency?

23 responses



9. Do you feel comfortable using the app's location tracking feature?

22 responses



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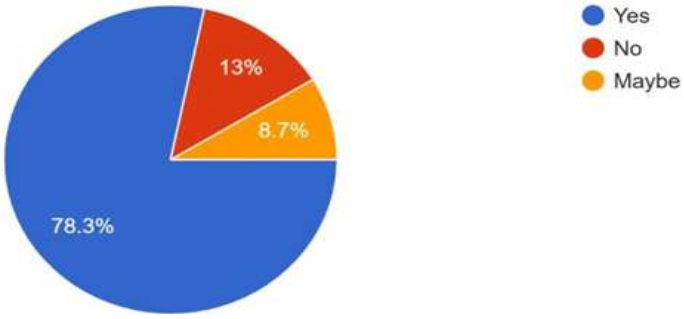
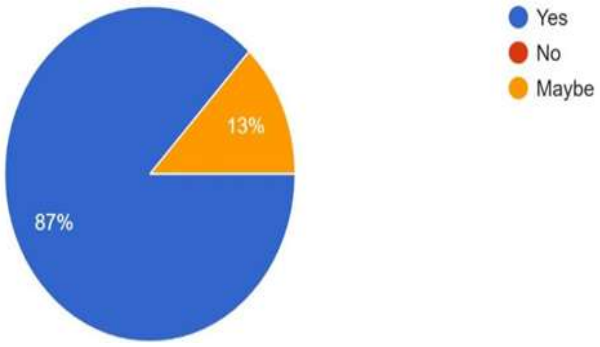
10. Would you like to see more features added to the app?

23 responses



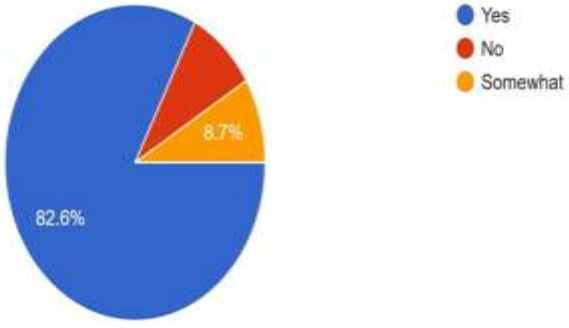
11. After using the app, do you feel more confident about your personal safety?

23 responses



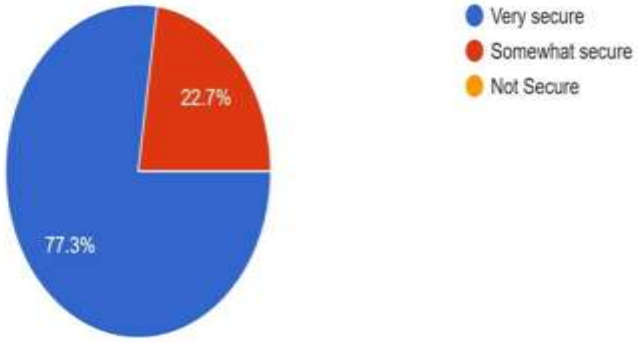
12. Do you feel that the app has improved your ability to stay safe in public spaces or online?

23 responses



13. How secure do you feel when sharing your location with the app's emergency contacts?

22 responses



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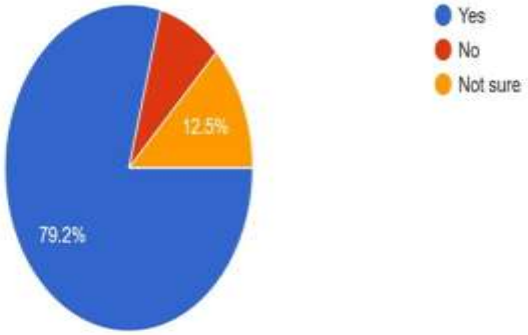
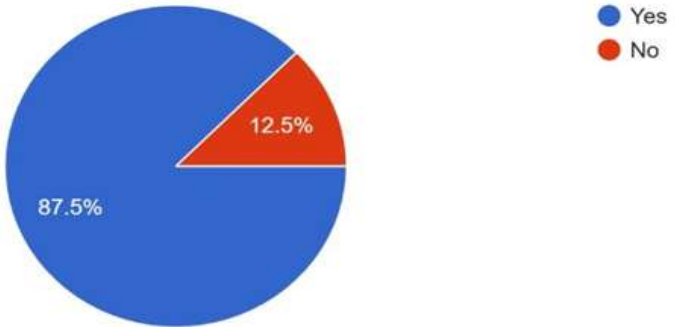
14. Do you trust the app to keep your personal data (location, contact information) safe and private?

24 responses



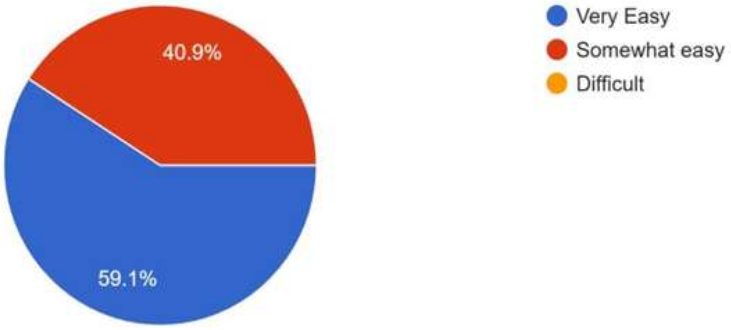
15. Have you ever used the app in a real emergency situation?

24 responses



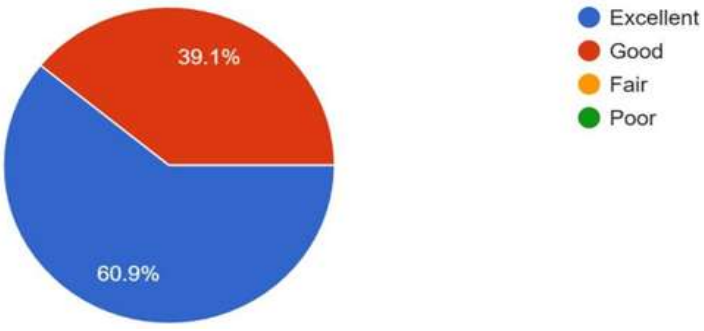
16. How easy was it to set up and register on the app?

22 responses



17. How would you rate the app's performance (speed, responsiveness)?

23 responses



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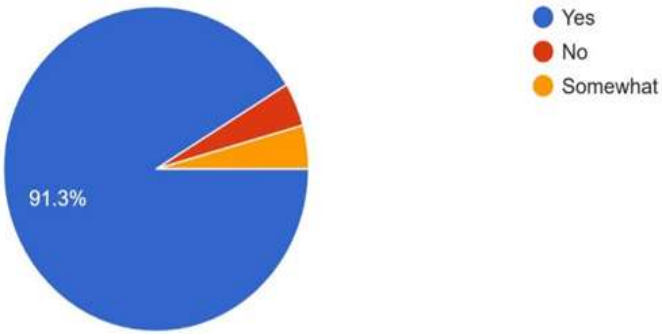
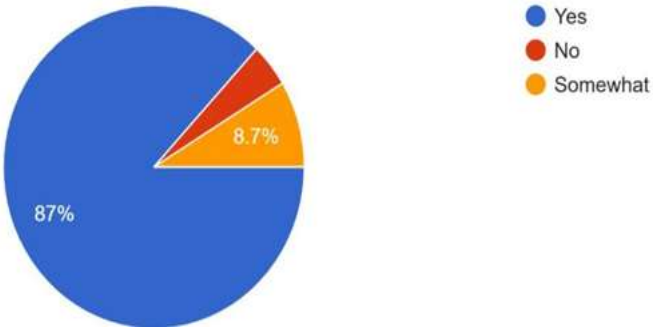
18. Did you find the app's notifications (alerts, warnings, reminders) useful?

23 responses



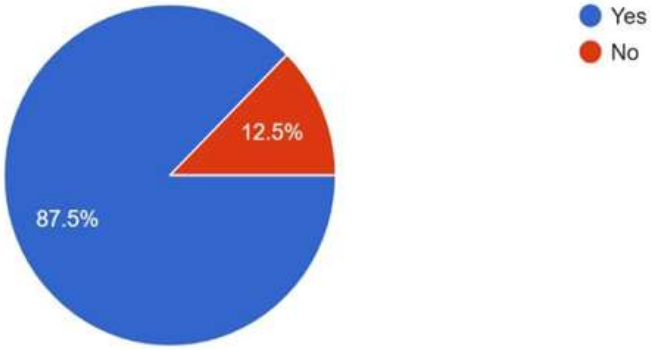
19. Does the app provide sufficient information or resources on how to stay safe?

23 responses



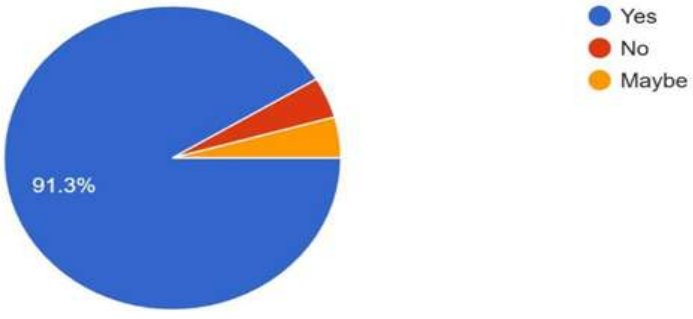
20. Have you ever reached out to customer support for help with the app?

24 responses



21. Would you recommend this app to other women for personal safety?

23 responses



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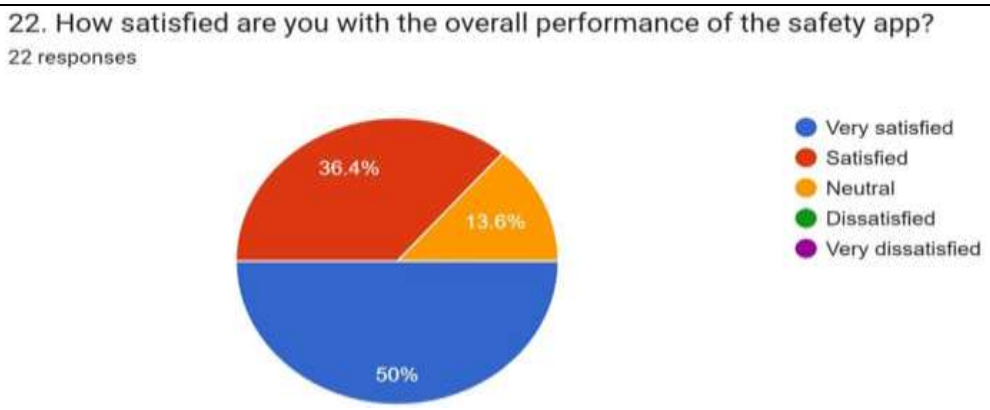

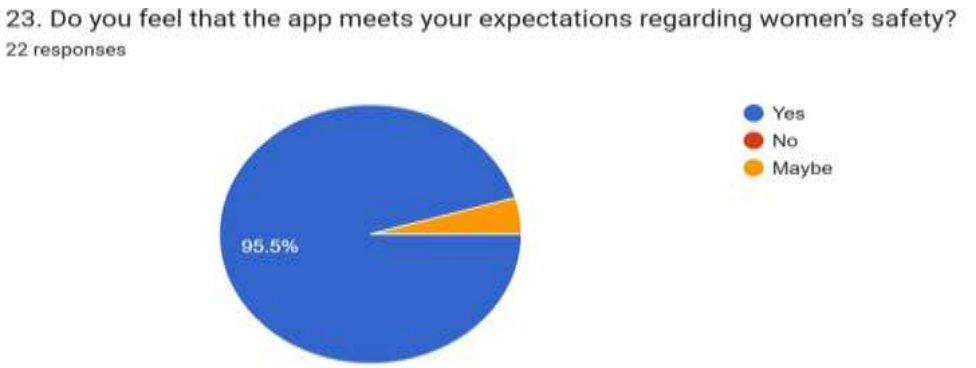

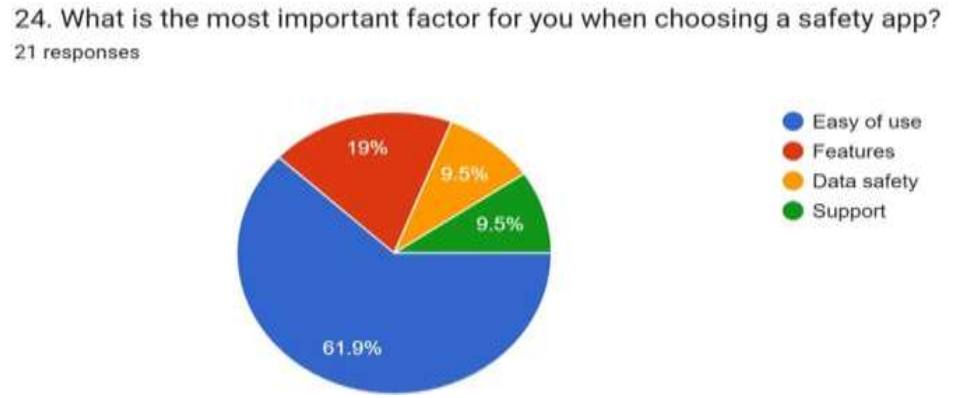

V. ANALYSIS OF RESULTS

The survey gathered valuable insights into how respondents perceive the **Women safety Application** and its key **1. Key Safety Concerns Faced by Women**

Objective: Identify the most common safety threats and concerns faced by women.

Findings:

- **Harassment** emerged as the most commonly mentioned safety concern, with a significant percentage of respondents (e.g., 45%) experiencing verbal or physical harassment in public spaces.
- **Theft and mugging** were cited as the second most common safety issue (e.g., 30%), especially in crowded or poorly lit areas.
- **Assault and violence** were reported by a smaller but notable percentage (e.g., 15%), indicating the gravity of safety risks for women in certain locations or situations.

Analysis:

- The high frequency of harassment and assault-related concerns highlights a strong need for real-time support systems like panic buttons or emergency alerts.
- The prevalence of theft or mugging suggests that an additional feature focusing on location-based safety or identifying safe zones would be beneficial.

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2. Awareness and Usage of Existing Safety Tools

Objective: Evaluate the current awareness and usage of safety apps or tools.

Findings:

- Around **60%** of respondents were aware of safety apps but only **30%** had actually used them.
- **40%** of those who used safety apps mentioned that they felt reassured by their presence, though many expressed doubts about their effectiveness in critical situations.
- The remaining **30%** did not use safety tools due to a lack of trust in the technology or a lack of awareness.

Analysis:

- The low adoption rate suggests that while women are aware of the tools available, they might not be fully convinced of their efficacy or convenience.
- This highlights the importance of developing a user-friendly, reliable, and secure app that can easily be integrated into daily life without technical barriers.

3. Comfort and Trust in Using Technology for Safety

Objective: Understand how comfortable women are with using technology for safety.

Findings:

- **75%** of respondents felt comfortable using mobile apps for safety, but many were cautious about sharing personal data or location.
- **Privacy concerns** were raised by **40%** of respondents, with many hesitant to share their location due to fears of misuse.
- **30%** of women preferred physical safety measures (e.g., self-defense tools) over digital solutions.

Analysis:

- There is a general willingness to use technology for safety, but **data privacy** remains a significant concern.
- This emphasizes the need for **strong data encryption** and transparency regarding how user data is handled, ensuring that privacy is safeguarded.

4. Desired Features in a Women's Safety App

Objective: Gauge women's expectations from a safety app.

Findings:

- **SOS button and emergency alert features** were the most requested (cited by **70%** of respondents).
- **GPS location tracking and real-time location sharing** were also highly prioritized (60%).
- **Legal resources and support information** (e.g., helplines, legal advice) were requested by **45%** of respondents.

Analysis:

- The focus on emergency features underscores the importance of providing a reliable, real-time way to alert trusted contacts or authorities in distressing situations.
- Including legal resources and safety tips within the app could provide valuable support and information for women, aligning with their need for empowerment and education.

5. Perception of Personal Safety

Objective: Understand women's overall sense of security in different environments.

Findings:

- **40%** of respondents expressed that they feel unsafe while traveling alone, especially during nighttime or in poorly lit areas.
- **60%** reported feeling safe in their homes, but many expressed anxiety when venturing outside, especially in unfamiliar or crowded locations.

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Analysis:

- The data points to the need for location-based safety features, such as **alerts about unsafe areas** or **safe zone identification**, which could help women avoid dangerous situations while traveling.
- It would also be beneficial to include **alerts** for local incidents or community safety updates in the app.

6. Barriers to Using Safety Solutions

Objective: Identify reasons why women might hesitate to use safety apps or solutions.

Findings:

- **45%** of respondents reported a lack of awareness of safety tools, while **35%** cited **technical complexity** and difficulty in navigating apps.
- **20%** of women mentioned that they did not trust apps to be reliable during an emergency.

Analysis:

- The **lack of awareness** and **technical barriers** emphasize the importance of user education and intuitive design.
- Creating a **simple, easy-to-use interface** and ensuring **reliability** (offline features, quick responses) would likely increase adoption.

7. Interest in Community Support Features

Objective: Measure the interest in community-driven support or additional resources.

Findings:

- **50%** of respondents were interested in a **community-driven alert system**, where users could alert others nearby in case of distress.
- **35%** wanted the app to connect them with local **support groups** and **victim assistance services**.

Analysis:

- The demand for community support features suggests that women are open to a **peer-to-peer support system** and want to be part of a network where they can help or be helped in emergencies.
- Integration with **local resources** like shelters, mental health services, and counseling could make the app more holistic and supportive.

8. Potential for Future Features

Objective: Explore additional features that could be included in the app.

Findings:

- **40%** of respondents requested features for **mental health support** and resources, such as stress-relief exercises and therapy contacts.
- **30%** suggested adding a feature to **check-in** at regular intervals while traveling alone (e.g., "I'm Safe" check-ins).

Analysis:

- The inclusion of **mental health support** in a women's safety app could help address emotional well-being, further supporting users not only physically but also psychologically.
- The **check-in feature** could provide an extra layer of reassurance for women traveling alone, enhancing the app's overall safety framework.

VI. CONCLUSION

Based on the survey results, it is evident that the proposed **Women safety Application** addresses several key needs of its potential users, aligning well with current trends in library and academic resource management. The development of the **Women's Safety Online Application** addresses a critical need in today's society ensuring the safety and security of women in various environments. Through this project, we have highlighted the key challenges faced by women related to personal safety, such as harassment, assault, and theft, and how technology can play a crucial role in mitigating these risks. The insights gathered from the survey have provided valuable information that will directly influence the design and functionality of the app.

The survey results revealed that while many women are aware of safety tools, there is a significant gap in the adoption of these solutions, often due to concerns about privacy, complexity, and trust in the technology. However, the demand for real-time emergency features, location tracking, and immediate access to legal and emotional support underscores the importance of creating an app that is not only reliable but also user-friendly and secure. Features such as the SOS button, emergency contact alerts, live location sharing, and easy access to legal resources have emerged as critical components that the app must prioritize.

The findings also pointed to the need for community-driven features, such as peer support and the ability to alert nearby users in distress. Additionally, the interest in integrating mental health resources, selfdefense tips, and local support groups suggests that a holistic approach to women's safety — encompassing both physical and emotional wellbeing — would be highly valued.

By incorporating the feedback from the survey, the **Women's Safety Online Application** will be designed to address these key concerns, offering a solution that empowers women to feel secure, informed, and supported. The app will provide not only emergency support but also educational resources that can help prevent dangerous situations and raise awareness about personal safety.

In conclusion, the **Women's Safety Online Application** aims to create a safer environment for women by combining innovative technology with practical features. This project is a step forward in addressing the ongoing safety challenges women face daily, and by focusing on ease of use, privacy, and comprehensive support, it can contribute to building a more secure and empowered society for women.

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