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Veeros: Stranger to Stranger Help Application

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Abstract

This article aims to address the prevalent issue of individuals, particularly women, facing various unwanted problems and the reluctance to seek help from strangers or emergency helplines. The team's proposed solution involves the creation of a platform that enables individuals to seek help without hesitation and receive assistance from nearby volunteers, thereby fostering a sense of community and support. The project's problem statement emphasizes the serious challenges faced by women, including harassment, teasing, and safety concerns, and highlights the need for a reliable platform to seek help in such situations. The team's motto revolves around creating awareness and promoting mutual assistance among people. The proposed solution is designed to be fast and effective, with the introduction of a concept where individuals can act as both volunteers and help-seekers, thereby fostering a culture of reciprocity and support. The team's solution involves the development of an Android application that leverages the Google Maps API to track the location of individuals. The application incorporates Aadhar verification to ensure the registration of genuine users, a progress bar to track "HERO Points" earned by helping others, and future features such as voice control and subscription-based revenue generation. The technical feasibility of the application is emphasized, along with its potential societal impact, including increased trust, enhanced safety for women, and the potential to challenge negative social norms. The team envisions the application as a means to revive faith, humanity, and respect among people, with the ultimate goal of creating awareness and happiness on a global scale. The article also includes a detailed flowchart depicting the user journey within the application, encompassing the splash screen, login and registration processes, OTP verification, maps and navigation features, leaderboard, profile management, emergency contacts, and rewards. In summary, the project aims to address the societal issue of individuals hesitating to seek help and aims to create a supportive community where individuals can assist each other without hesitation, thereby fostering a sense of pride and positivity.

Keywords: Harassment, teasing, safety concerns, open innovation, OTP verification, emergency contacts, safety and security

INTRODUCTION

The theme is "Open Innovation". The team's focus is on addressing the issue of people, especially women, facing various unwanted problems and the need for a reliable platform to seek help in times of trouble.

The article highlights the prevalent issues faced by both men and women in their day-to-day lives, such as harassment, teasing, and the fear of unsafe situations like rape. It emphasizes the hesitation people feel in seeking help from strangers and the limitations of emergency helplines when it is too late. The team aims to create awareness and address these societal challenges by introducing a concept that encourages people to help each other without hesitation.

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The proposed solution involves the development of an Android application [1] that allows individuals to seek help and offer assistance to others. The application will utilize Google Maps application programming interface (API) to track the location of individuals in need of help. It will also incorporate Aadhar verification to ensure the registration of genuine users. The application will feature a progress bar to track "HERO Points" earned by individuals who provide help, and it will also include a leader board to recognize the top contributors as "SAVIOURs". The team's vision is to revive faith, humanity, trust, and respect among people through their application. They aim to create a platform where individuals, regardless of gender, can freely seek help and contribute to the well-being of others. The application's societal impact is expected to increase trust among people, make girls and women feel safer [2] while traveling, challenge negative social norms, and promote a sense of pride in helping others.

In addition to the technical feasibility of the proposed solution, the team envisions future enhancements such as voice control features, increased map radius, and subscription-based revenue generation. The document also includes a flowchart depicting the various features and functionalities of the proposed application, including the splash screen, login and registration process, one-time password (OTP) verification, maps and navigation, leaderboard, profile, emergency contacts, and rewards ("Goodies").

In summary, the introduction provides a comprehensive overview of the team's mission, the societal problem they aim to address, and the proposed solution through an innovative application. It emphasizes the team's vision to create a safer and more supportive environment for individuals in need and highlights the potential positive impact on society as shown in Table 1.

Table 1. Comparative study.

Author name(s)	Methodology	Technology used	Outcome/result
1. Maroš Lacinák, Jozef Ristvej [2]	The methodology involves defining Smart City and Safe City concepts, emphasizing safety and security, proposing ideas for city development, and discussing the use of modeling and simulations to enhance crisis management in the context of sustainable, modern, and safe transport.	One technology used is VR Forces, a simulation program for modeling crisis phenomena in transport and supporting decision-making in emergency situations within the Smart City framework.	The outcome involves the development of a comprehensive Smart City concept, with a focus on safety and security. It includes the proposal of a Safe City system, integration of technology and natural environment, and the use of modeling and simulations to enhance crisis management.
2. S. Sangeetha, P. Radhika [3]	The methodology involves developing an Android-based application for women's safety. It utilizes global positioning system (GPS) and general packet radio service (GPRS) to track the person's location, sends SMS notifications in case of trouble, and employs an alert system activated by shaking the smartphone vigorously.	The technology used includes GPS and GPRS for location tracking, Android operating system for app development, and advanced encryption standard (AES) algorithms for data evaluation. The application is designed to be user-friendly, cost-effective, and efficient for women's safety.	The outcome is an Android application that provides a realizable, cost-effective solution for women's safety. It employs GPS and GPRS for location tracking, AES algorithms for data evaluation, and an alert system activated by shaking the smartphone, ensuring efficient problem detection and notification.
3. Vikas Sharma [4]	The methodology involves analyzing the Aadhaar PDF for insights on benefits, challenges, and implementation strategies. References from the document support the findings on UIDAI's objectives and potential risks.	The Aadhaar project utilizes biometric technology for unique identification, online authentication services, and secure infrastructure with features like fingerprint and iris scanning for residents' verification and benefit distribution.	The Aadhaar project has resulted in unique identification for residents, streamlined benefit distribution, reduced leakages, and improved access to government schemes. Challenges include scalability and privacy concerns.

4. Omar A. Ibrahim, K. J. Mohsen [5]	The methodology involves using Google Maps API, Google Direction API, PHP, JSON, and MySQL to create an online interactive navigation map for Android mobile with client/server architecture.	The technology used includes Google Maps API, Google Direction API, PHP, JSON, and MySQL.	The outcome is an Android application that allows users to add, remove, and review specific locations on an online map, as well as display directions, distance, and driving time between locations.
5. C. W. J. Lindstrm, B. M. Vishkaei, P. De Giovanni [6]	The methodology involves a case study approach, literature review, and semi-structured interviews with tech firm CEOs to examine the transition to subscription-based business models.	The technology used involves qualitative research methods, data analysis, and interview techniques to investigate the implementation of subscription-based business models in tech firms.	The study reveals the importance of capturing value through sustainable revenue transactions, enhancing value proposition, creation, and capture, and implementing an agile operations system for subscription-based business models.

LITERATURE REVIEW

People's concerns about women's safety and security [3] in particular are growing in today's environment. Previous research has given attention to the various challenges that people in general, particularly women, face when navigating public spaces due to the prevalence of threats such as rape and assault [7] as well as harassment and teasing. This has led to a severe lack of trustworthiness and a fear of addressing people for help when things go wrong. Numerous studies show how crucial it is to have a reliable platform that is capable of handling these safety concerns and enable people to ask for assistance without fear or hesitation.

An open innovation platform has been proposed as a solution to these issues. This platform aims to increase awareness and foster a sense of mutual aid among those within the community. The literature reveals that people may regain their humanity, faith, trust, and mutual respect through engaging in this kind of activity. The platform seeks to foster a sense of camaraderie and assistance through enabling people to perform their duties as both givers and seekers of assistance through the use of technology, in particular mobile applications.

The literature also highlights how important technological viability is for implementing such a solution. Important technological components are addressed, such as the use of Aadhar verification [4], GPS monitoring, and potential future advancements like voice control [8]. The literature also emphasizes how the platform might affect society, namely in empowering women to travel freely and criticize traditional norms.

In conclusion, research suggests that the establishment of an open innovation system is an achievable remedy to safety considerations and a means of encouraging a culture of mutual aid, both of which will eventually give rise to a more secure and supportive society.

This literature study makes an effort to pinpoint the main concepts and subjects surrounding the proposed open innovation platform for safety based on the data in the article.

CONTEXT

The team recognized the various unwanted problems that people face on a daily basis, especially women who often experience harassment, teasing, and even assault. To combat this, the team has proposed a mobile application that serves as a platform for individuals to seek help from nearby volunteers in times of trouble.

The application, based on the theme of open innovation, aims to create a community where people can freely ask for and provide help without hesitation. It utilizes the API of Google Maps to track the

location of individuals in need of assistance and incorporates Aadhar verification to ensure the authenticity of registered users. The concept revolves around the idea of individuals being both volunteers and help-seekers, fostering a sense of collective responsibility and support.

The team has categorized the level of problems into three sections, each with its own set of solutions. In the most serious cases, emergency contacts such as hospitals and police will be readily available through the application. This multi-tiered approach ensures that individuals can receive the appropriate level of assistance based on the urgency and severity of their situation.

To incentivize participation, volunteers who assist help-seekers will earn points, which can be redeemed for specific rewards. The person with the highest points will be recognized as a "Saviour" and featured on a leaderboard, serving as a motivation for others to actively participate in helping those in need. This gamified approach not only encourages active involvement but also fosters a sense of community and recognition for those who contribute to the well-being of others.

The team envisions that the application will not only in-crease trust and revive faith and humanity among people but also make individuals, especially women, feel safer while traveling. They believe that their innovation will challenge negative social norms and uplift the sense of pride for those who help others. Ultimately, their vision is to create awareness and happiness around the world, fostering a culture of mutual support and care.

The proposed solution has the potential to have a significant societal impact by addressing a pressing issue and fostering a community-driven approach to safety and support. By leveraging technology and human empathy, the Cookie Army's initiative represents a powerful example of using open innovation to address real-world challenges.

METHODOLOGY

To guarantee the successful development and implementation of the novel solution, a methodical methodology is used. The process includes a number of crucial actions to guarantee the application's societal impact and technological viability.

The group will first concentrate on the application's technological features, which will include using the Google Maps API [5] to track users' precise locations. To guarantee smooth functionality, extensive testing and integration will be required. Furthermore, the Aadhar verification system will be put into place to verify users' identities, which will improve the platform's dependability and credibility.

To promote volunteers and active engagement, the approach also entails creating a point-based reward system. This will entail creating and deploying an intuitive user interface to monitor and distribute "HERO Points" to people according to their contributions as volunteers or requesters of assistance. The approach also takes into account how the application will be improved in the future, including adding voice control capabilities and implementing a subscription-based business model. For these changes to be seamlessly integrated and to guarantee user happiness, extensive study, development, and testing will be necessary.

The group intends to raise awareness and promote happiness on a global scale while concentrating on the application's social impact. This will entail surveying users, getting their input, and assessing how the program affects people's ability to trust, be human, and respect one another.

In order to ensure the successful development and deployment of the novel solution, the "VEEROS" application implementation methodology takes a comprehensive approach to cover technical, user experience, and societal effect issues as shown in Figure 1.

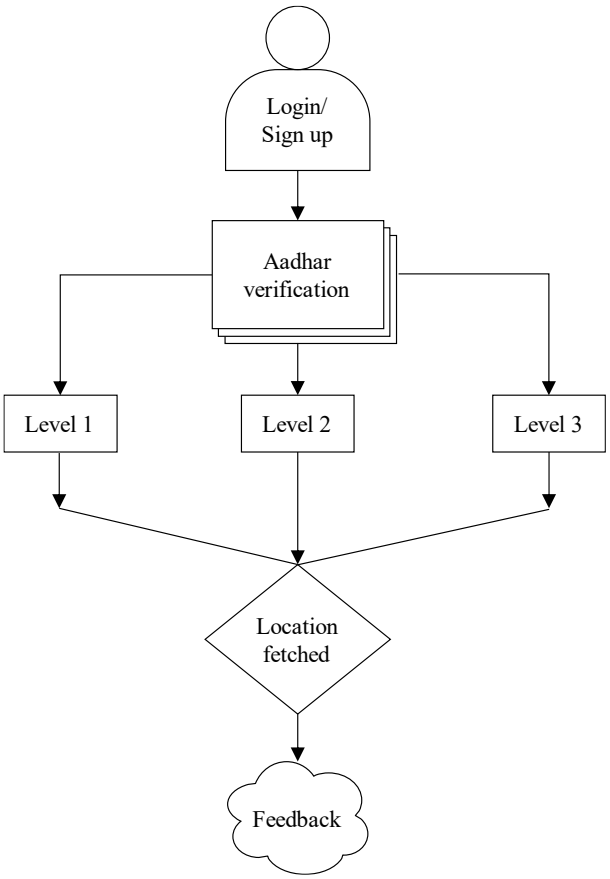

Figure 1. Veeros flowchart.

IMPLEMENTATION

Our team's suggested solution will be put into practice by creating an Android application that tries to address the problem of safety and security in public areas, especially for women. The application will track the position of people in need of assistance and nearby volunteers by using the Google Maps API. The application will include Aadhar verification to guarantee users' validity, improving the platform's dependence. In order to promote motivation and acknowledgement, a progress meter will also be incorporated to measure the "HERO Points" that people who offer assistance have accumulated [9].

The team's recommended approach will not work unless an Android application is created that tackles the issue of safety and security in public areas, particularly for women. The application will track the locations of those in need of help and nearby volunteers using the Google Maps API. The applications would incorporate Aadhar verification to ensure user authenticity, hence enhancing platform reliability. A progress meter measuring the "HERO Points" earned by those who take action to provide aid will be included to further foster a sense of success and incentive.

Furthermore, the application's revenue generation approach would be subscription-based [6], indicating that it may be scalable and sustainable. By including voice management capabilities and enlarging the map's radius while showing the most efficient path between volunteers as well as those in need of assistance, the team seeks to enhance response times in the future.

Important results are anticipated from the implementation. The application is expected to increase people's self-esteem and rekindle their basic humanity, respect, and religion. It could render traveling at night more comfortable for girls and women. Moreover, the platform wants to challenge and destroy deleterious cultural conventions while generating a sense of pride and unity. The group's overall goal is to make the world more pleasant by increasing awareness and spreading joy.

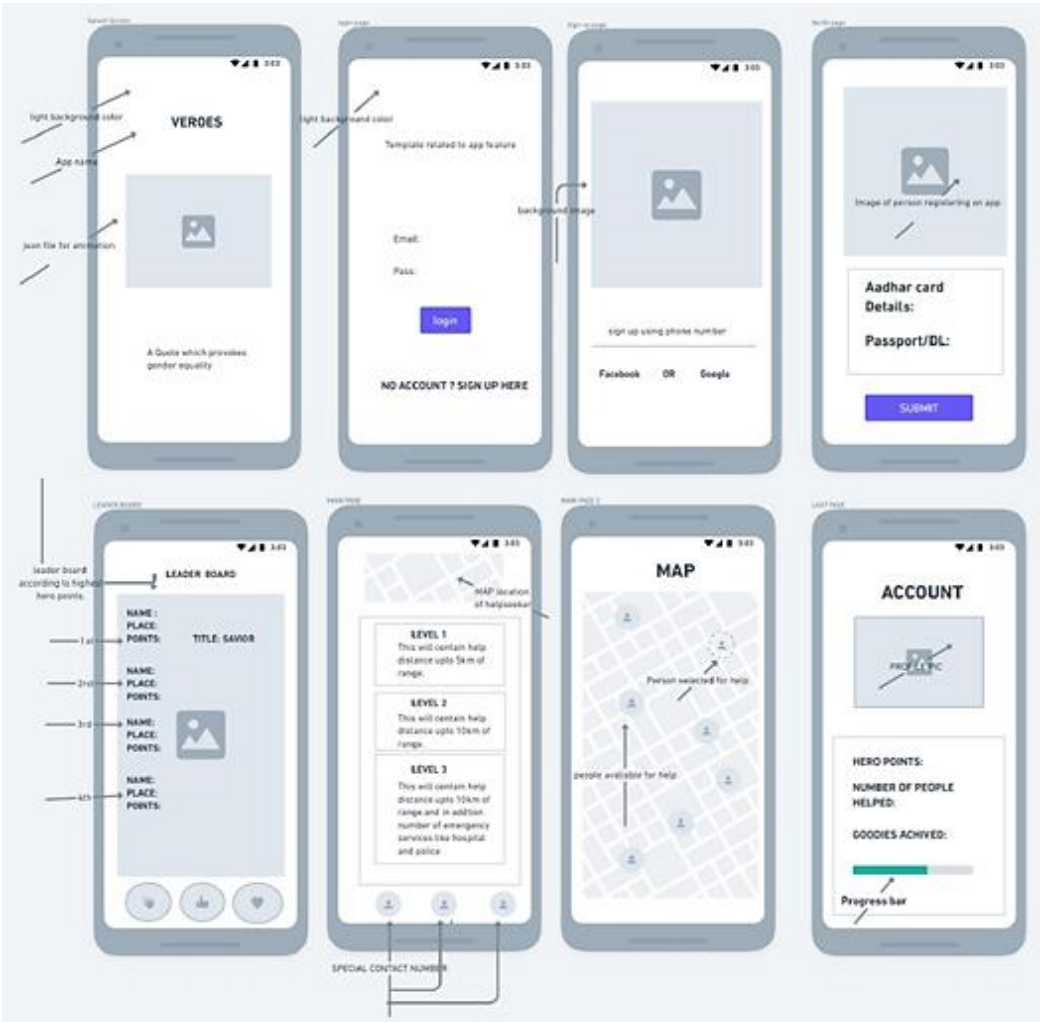

Figure 2. Prototype user interface/user experience (UI/UX).

In conclusion, the construction of the Android application and the application's application of the solution suggested have the potential to modify social norms, expand safety, and increase a culture of mutual respect and encouragement, all of which will lead to a more tranquil and safer society.

In summary, the future scope of the project is focused on advancing the application's features, expanding its reach, and ensuring its long-term sustainability. These developments aim to create a more robust and comprehensive platform that fosters a culture of mutual assistance, safety, and trust within communities as shown in Figure 2.

FUTURE SCOPE

The future scope of the project encompasses several significant developments aimed at enhancing the application's functionality and impact. One key aspect of the future scope involves the implementation of advanced features to further improve user experience. This includes the integration of voice control, allowing users to interact with the application using specific voice commands. Voice control will enhance accessibility and convenience, catering to a wider user base.

Expanding the radius of the map coverage and optimizing the application to provide the shortest distance between volunteers and help-seekers is another crucial element of the future scope [10]. This enhancement aims to ensure swift and efficient assistance, thereby increasing the effectiveness of the platform in addressing emergency situations.

Furthermore, the team plans to explore the integration of a subscription-based revenue model. This model will offer additional benefits to subscribers while supporting the sustainability and growth of the platform. By providing premium features or services to subscribers, the application can generate revenue to maintain and expand its operations.

Additionally, the future scope involves the incorporation of emergency contacts such as hospitals and police within the platform. This expansion will broaden the utility of the application, enabling users to access essential emergency services directly through the platform. By integrating these emergency contacts, the application will become a more comprehensive tool for addressing a wide range of emergency situations, further enhancing its societal impact.

PROTOTYPE

Veeros is designed to connect individuals who need help with those willing to provide assistance, leveraging the power of community and the ubiquity of smartphones. This application focuses on creating a safe, reliable, and user-friendly environment for peer-to-peer assistance as shown in Figures 3–6.

Figure 3. Splash screen.

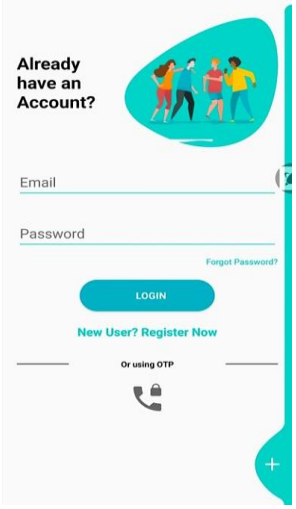

Figure 4. Login screen.

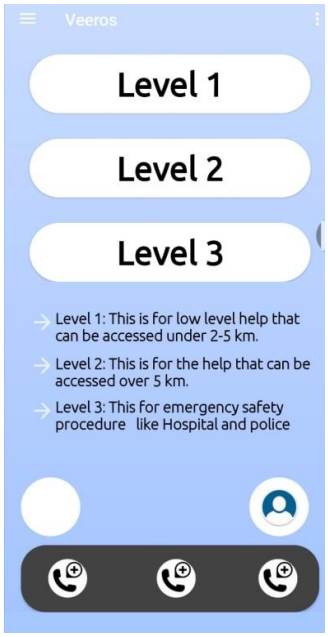

Figure 5. Level-wise help.

Figure 6. Map integration.

CONCLUSION

To sum up, our team's creative solution—which is detailed in this article—offers a viable way to tackle the urgent social problem of safety and security, especially for women. The team's suggested Android application provides a comprehensive solution to the difficulties involved in asking for assistance when in need by combining technology and interpersonal relationships. The focus on developing a platform that allows people to volunteer to assist others and ask for aid when they need it shows a great dedication to developing a culture of empowerment and support for one another.

The integration of Google Maps API for location tracking, Aadhar authentication for user legitimacy, and a progress bar to encourage and recognize acts of aid highlight the technical feasibility of the suggested solution. The team's forward-thinking strategy, which includes integration plans for voice control and a subscription-based business model, shows a strategic vision for the long-term viability and expansion of the application.

We anticipate that our team's solution will have a significant social impact. The software has the power to question and alter harmful societal norms and foster a more accepting and encouraging community by fostering trust, renewing faith, and creating a sense of safety. The desired results, such allowing women to roam freely at night and promoting knowledge and happiness, are in line with the team's larger goal of bringing about a significant and good change on a worldwide level.

All things considered, our team's suggested approach is a big step in the direction of using open innovation to solve social issues. The team's vision for a safer and more helpful society is both fascinating and inspiring, as it uses technology to foster human connection and mutual aid.

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