A Brief on Feasibility Study of Life Security App

Sushmita Sinha, Gulshan Kumar
Lovely Professional University, Punjab, India.

Abstract: The increasing demand of ease of utility access has urged the development of mobile application in various spheres. Apart from developing mobile shopping, mobile banking and gaming applications, the customers also require some life security alarming app in mobile which will help society in a great way. Here, we have presented a feasibility study for the same.

Keywords: Mobile, Application, Feasibility, Security, Development

INTRODUCTION

NetSet Software Solution Services is private limited company having a vision to deliver their products maintaining the desired quality in everything leading to the client satisfaction. It helps its dedicated professionals with a friendly working atmosphere with efficiency technical ability pertaining the challenges and business goals. Professionals are always in mode of continuous understanding of requirements of the clients.

In 2016, the roads of crime have widened. When we turn the pages of a newspaper, we come across many headlines stated the issue of safety of women, children, old ages and even men. Every age has become the victim of crime these days, which certainly implies that there has been increasing trend of crimes in present generation. The Government of the countries has imposed many laws for the criminals but still the crime prevails. The freedoms of our beloved ones are unsafe.

Looking at the increased security need of one's life, my team decided to work upon an app that can serve every person of every age and gender. This app that not only keep you safe but also aware the concerned persons about your movement and the safety. After a lot of research, our team came across with the fact that there is already an existing system that deals with the person's security and on the other side aware the companion about the location of the person. The students of University of Michigan, for the college bully issue, developed the app. Further, the app seemed to be useful for other citizens in Michigan and it became quite famous there. I, along with my team, studied the whole working of the app and concluded with many improved features that can be enhanced in the existing applications and more user-friendly interfaces.

OBJECTIVE OF THE PROJECT

- A lightweight application for Apple Mobile phones.
- An application that can provide security to every citizen in terms of virtual assistance of the desired companion.
- To provide a user-friendlier interactive interface for easy access and understandability.
- To provide multiple user companion to assist on the journey.
- To provide multiple paths from source to destination, while highlighting the shortest path.
- To provide different alert messages when certain situation arises, like, alert message on both end when battery is about to die.
- To provide the alternative path by the companion, through a tap.
- To provide Touch ID for false detection mis-handling and restrict unauthorized user to provide fake information.
• Less Maintenance required.

BACKGROUND

In today’s world, there’s an app for everything. Similarly one such app has been created by the students of University of Michigan, which lets users send request to their contacts, so that they can keep track of them using GPS. The motive of this app is that friends can monitor friends walking home if they are alone, or just track their location in general.

It works through sending a text message as a companion request with a link that sends you to the app (if it is downloaded), and you can then track your friend. There are sensors in your phone that the app accesses, and if anything seems irregular it sends a notification to the companion who can then confirm if their friend is okay.

Various surveys researched that different mishappening of robbery and others are happening due to the loneliness of the people in their houses and not having an on-spot alerting system. The grandfathers and grandmothers are also not safe now a days in our houses and the mischiefs take a round of their daily routine and attack when they are alone and vulnerable. Therefore, we have come up with this idea of developing this security app.

FEATURES

• **Your companion does not need the app installed:** - When a user takes options of some contacts to be your emergency contacts or companion, they do not require to install the application. Rather, they are able see a live map containing your movement and gets final about the source to destination pathway.

• **No limitation to add companions:** - There are number of companions can added by the user.

• **Set the destination:** - The user set the destination. Then possible path is created from current location to destination with the help of map.

• **Connect to the closet dispatcher in just two taps.**

• **I feel nervous:** - When the user feel nervous then user clicked on “I feel nervous” button then alert show into companion.

• **Call the police:** - When user click on “Call the Police” button then call to the police.

• **Companion can call to User by App:** - There is feature provided to the companion. Companion can call to the user by click on button.

ADDITIONAL FEATURES

• **Add Multiple Paths:** - When the user set the destination then multiple possible paths are show on map. In these user can choose any of them.

• **Show Online Users:** - Those companions are active that are show online.

• **Show Alert on both side during device specific problem:** - There are lot of device related problems can occur like battery low, network problem. If user face these problems then alert message show on companion side otherwise vice-verse.

• **Set alternative path by companion:** - If user face problem then user click on nervous button then alert message show on companion side then companion suggest a new path to the user.

• **Touch id to restrict unauthorized usage:** - This app is unlocked through the user fingerprints so unauthorized user can't use the app.

• **Show alert to companion when Call Police:** - When user calls the police simultaneously alert message show to the companion.
FEASIBILITY ANALYSIS

All the software developments either for mobile or desktop or web based contains a series of technical understanding or the modules, users and the client requirements. Keeping in mind, when a project starts developing, it creates a great risk on development phase if proper feasibility study is not performed. Therefore, before jumping to the development phase analysis is required about what is required and what is not required. In other words, we can say that it is a preliminary understanding and survey for the systems under investigation. It provides information to act upon further steps as required.

Operational Feasibility

A proposed online application can be developed either for desktop mode or mobile mode; however, mobile mode is always beneficial as number of users in present time are accessing those things. The resistibility behavior of users also needed to be accounting for the same as a part of risk management too. Therefore, we need to have concern on the following aspects.

- Feasibility for mobile paradigm
- Barriers to implementation or destructive resistance
- User friendliness in both emotionally and technically with the operations.

Technical Feasibility

Once the requirement analysis and operational feasibility is completely studied, then we should take into consideration for technical feasibility. This aspect not only deals with technical attributes of the project but also involves human resource and other aspects as well. The knowledge acquisition and transfer, technology stability, technology paradigm shift need to be explored in the best way to further process the phases. Depending on the intrinsic modules of system requirements in terms of inputs, outputs, procedures and the technical issues the following features required to be indexed: [1,2,3]

- Existence of the required technology
- Technology stability and paradigm shifting
- Technical capacity to hold the data
- Human-technical dependency and improvement
- Flexibility of expansion
- Assurance model to validate the feasibility

The system developers aim to analyze the needed capabilities comparing with the currently available resources. The present work uses Xcode which is a high-end technology and needs a database maintenance in order to update and backup data whenever required. Web server APIs are used to generate interfaces. Satisfying all the points we can consider the project to be technically feasible.

Economic Feasibility

The budget is one of the prime enablers in any project development and different stakeholders are related with this. No stakeholder will allow for economic loss and therefore while developing a project the project management should clearly take insights about the budget factors. Here, considering the cost only for the
project development we can categorize it as:

- Costs for developing
- Costs for maintenance including human resource cost

For this project we need only licensed Xcode framework for development and internet with high speed data transfer. So, by this we can say that our Project is economically feasible.

RESULTS

After the first hand development of the application, we have distributed a trial version of the same among 100 users ranging in age of 20 to 50 including both male and female. The results are found regarding various aspects as shown in Figure-1. The average ratings are calculated and then drawn accordingly.

![Feedback on Security App](image1.png)

**Figure-1: Parametric feedback**

![Preference](image2.png)

**Figure-1: Preference comparison**

We have extended the results to check about the preferences and suggestions as shown in Figure-2 and Figure-3. Figure-2 shows that female users find more usable. Figure-3 shows that privacy of the location and...
other information has been preferred as the most prime suggestion to be included.

CONCLUSION

We can see that usability of the app is well preferred; however, modularization is required to be improved. The aged people in group more than 40 years require this to have some ease access more or some emergency alerts and contacts with single button on human interaction which will be researched in our second phase of development. Privacy research will also be considered for the same.

REFERENCES


