SAFETY NET

AN ANDROID APPLICATION

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Abstract

Problem: Both coordination of human activities and security have been continuously present topics that have propelled many innovations. This project seeks to address both of these issues by tapping into developments in mobile technology that made geolocation technology accessible to the masses. The zenith of said technology (commercially-wise) is powered by Android technology; therefore for this project it was decided that these tasks would be tackled by using an Android application.

Objectives: This project's intent is to provide an additional resource that could help individuals improve their security by increasing their perception regarding their environment and by allowing the user to share their current location with others. Technological advances have made the provision of solely the destination obsolete; instead constant contact became common in order to make one's whereabouts known. This quasi-permanent contact increases one's security and equips individuals with micro coordinating capability. Thus, the goal was to create an application that would increase individuals' awareness by situating their position in a map via geolocation technology, by making use of Android resources. The application also grants the user the ability to broadcast coordinates to his/her desired receivers – this allows the user to either ask for help or simply to better coordinate a social event. The application was named SAFETYNET since it allows the user to create a number of contacts that are inserted and pre-loaded every time the application starts, composing the user's safety net.

Methodology: A focus group composed by five university students was used to generate requirements. An AGILE method designated by *Feature-driven development* was employed *in conjunction with prototyping. Additionally, t*o create the Android application, ECLIPSE IDE was used.

Achievements: This project satisfied the great majority of the requirements that emerged out of the focus group. The application managed to do what was expected and provided two additional features that were not common in the many applications reviewed: the use of JAVA MAIL API to send an email (bypassing the inbuilt email application, thus quicken the process of transmission) and the possibility for users to select a position in the map that they recognize as their position - this minimizes error and provides other options, such as an expected destination instead of just the current position. SAFETYNET was tested on NEXUS 7.