

DEVELOPMENT OF A MOBILE APPLICATION FOR EMERGENCY
ALERT AND RESPONSE

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INTRODUCTION

The study's significance can benefit several groups of people and organizations. It aims to develop a mobile application for emergency alert and response that enhance the process of reporting emergencies. The study is limited to Quiapo, Manila that is composed of different Emergency fields. The system is specified to cover different kinds of emergency situations depending on the severity of its scenario. It is designed to connect with various emergency responders and organizations, which can help them respond more effectively to incidents and emergencies. At the moment, the system will only be tested in the entirety of Quiapa District for easier monitoring and maintenance during the initial stages of the deployment. The majority of the population are hugely unaware of emergency hotlines. Mobile technologies helped in the creation of an informative bubble that easily disseminates data within a large margin of area. The system follows a one-button policy to ensure that a report will be made faster than the traditional phone call report. It aimed to decide different Emergency Alerts when there is an incident, natural disaster, fire and any type of emergency in Quiapo, Manila. It will also be equipped with an autonomous geolocation tracking system for both civilian users and admin users.

METHOD

The system will create a distress call prompt and record it while sending the signal to the end-users. The system will identify and recognize the user's signal location and distribute it. The end-user admin will have viewpoints to return prompt by signaling back the normal user that help is on the way. The developers will constantly receive feedback and Reports from the users and the system logs L0 Data Flow Diagram. The application was evaluated by a total of 35 respondents. The configuration of the panel and the paralleled application is easy to navigate. The users are only directed to their specific account home page or dashboard. The system uses a password hash to encrypt account password when data is passed onto the database. Users send signal from their application to the database controlled by the admin panel. Users are also able to view past made reports. These reviews will be documented as references for future modifications and continuous improvement. The following iterations will be monitored for documentation. The project's goal is to utilize PHP and HTML to develop the application working on desktop as a main control dashboard and an adaptive mobile-designed platform to work on android phones. The system will facilitate user login and change credentials of the user. Only the main admin can add, delete, and modify departments. Users will be able to file a specific report using a specific category and optional info and photo. The application consists of a simple design with direct buttons that emphasizes user-friendly interface for better app usage and navigation.

RESULTS

The RE-PORT app uses fonts and icons that are easy 4.46 Highly Acceptable to read and understand. The application aims to improve emergency response times and coordination in Quiapo, Manila, ultimately enhancing public safety and saving lives. The developers have accumulated a total of 35 respondents to determine if the criteria of the planned system have been met and qualified for general use through the satisfaction standards. The RE-port app handles many users and high 4.28 Highly Accepted traffic without slowing down. The study focused on the design and development of a mobile-based response in Quiapo, Manila (RE: PORT) The RE-PORT app has all the features 4.31 Highly Acceptable needed for emergency reporting. Users can attach photos, videos, and precise location data to their reports to provide more context for the responders. The system uses a password-based database to encrypt account data. The RE: PPORT app is easy to install on 4.14 Acceptable Android mobile devices. Re-Port app works well on Android 4.56 Highly Acceptable mobile devices. Re-Port emergency response and alert perform well despite the limitations currently present in the system. The system enables users to choose appropriate responders like police, fire departments, medical services, and disaster management units based on the nature of the emergency Admins Account Panel is the list of admin users. The Re-PORT app supports reporting for 3.91 Acceptable all types of emergencies. The evaluation yielded a grand weighted mean of 4.18 bipartisan. The RE-PORT app uses resources efficiently and 4.59 Highly Acceptable. The system is limited to users who do not have cellular data and wi-fi. Passwords are also censored during login to prevent unwanted access. Security measures include robust authentication systems to protect user data. The RE-Port app's colors and graphics are appealing. It is easy to navigate, even in stressful situations. It can be accessed using a smartphone with internet connectivity.

DISCUSSION

Re-Port Emergency Alert System is a system developed to efficiently create real-time reports of incident, and emergency events. The system was evaluated by 35 respondents consisting of 20 civilians, 5 fire fighters, 5 police, and 5 first responders. Despite the obvious flaws of the system, it received a high satisfaction rating when it comes to the users' overall experience of using the system. The study's findings and solution, the following recommendations are put forward: Improve interface design for ease of use and appeal.