ANDROID-BASED DISASTER REPORTING APPLICATION AT THE SLEMAN DISTRICT DISASTER MANAGEMENT AGENCY

HIZKIA FERNANDO KUNTORO
Informatics Study Program, Faculty of Science & Technology
Yogyakarta University of Technology
Jl. North Ringroad Jombor Sleman Yogyakarta
E-mail: hfkfernando@gmail.com

ABSTRACT

Natural disasters and emergency incidents can occur anytime in various parts of the world. A prompt and coordinated response is essential to save lives and minimize losses. However, in many cases, the absence of an efficient and structured reporting system serves as a significant barrier to effective disaster management. A disaster reporting application can greatly enhance the process of reporting and responding to such emergencies. This application enables individuals to report disasters or emergency events quickly using their Android devices. The information collected in real-time can be directly forwarded to authorities and rescue teams, allowing them to respond more swiftly and appropriately. Furthermore, the disaster reporting application facilitates coordination among various agencies and volunteers involved in disaster management by enabling direct sharing of information and resources through a digital platform. This application optimizes overall disaster management efforts. The disaster reporting application was developed using the Kotlin programming language and the MySQL database. The resulting application incorporates a feature that enables the submission of reports by filling in photographs, names, telephone numbers, addresses, and dates, along with the report's contents. The efficacy of these features was then subjected to rigorous testing using the black box testing method, resulting in 100% successful outcomes. This innovation offers substantial benefits, particularly in enhancing the efficacy and efficiency of disaster reporting within communities. The development of this application has the potential to improve the capacity and effectiveness of the disaster response system in its entirety.

Keywords: Android, Kotlin, MySQL, Disaster Reporting, User Centered Design Method