

ABSTRACT

Residential areas require an efficient information management system, particularly in terms of communication, reporting and fee administration. A case study conducted in Cherry Field Residence reveals that current information recording and dissemination methods are still handled manually through WhatsApp group chats, without a centralized information system. Furthermore, there is no dedicated platform for residents to submit complaints regarding facilities or neighborhood security. This research aims to develop a mobile application that assists both management and residents in delivering information, managing fee payments and submitting reports in a digital and integrated manner. The application was developed using Flutter and the Rapid Application Development (RAD) method, chosen for its flexibility, speed and prototype-based approach that enables direct visual and functional testing with stakeholders. The development process was carried out in a single iteration, starting from planning, design, construction to deployment. The application includes key features such as environmental issue reporting, broadcast information, neighborhood maintenance fee (IPL) payments, guest permission, and a panic button for emergency situations. Testing was conducted using the Black box testing method, which showed that all functions operated according to specifications. Additionally, usability testing using the System Usability Scale (SUS) method was conducted with seven user respondents, resulting in a score of 92.1, categorized as “excellent”. This indicates that the application not only functions well but is also user friendly for a wide range of residents. In conclusion, the application was successfully developed to meet user needs and can serve as an effective solution for improving communication and environmental management among both residents and housing management.

Keywords – Flutter, Mobile application, RAD , Residential management