

ABSTRACT

The rapid development of Information and Communication Technology (ICT) drove the digitalization of services across various sectors, including the rental sector. However, many rental businesses, including Giriwana Adventure, still relied on manual systems in their operations. The rental process, which was conducted through direct customer visits or via messaging applications such as WhatsApp, led to several issues, including delayed responses, difficulties in monitoring equipment availability, and an increased risk of data recording errors. This study developed a web-based outdoor equipment rental application optimized for mobile devices to support more structured data management and rental processes. The application was developed using the Laravel framework with a Model–View–Controller (MVC) architecture, utilized a MySQL database, and applied the ICONIX Process methodology, which consisted of requirements analysis, analysis/preliminary design, detailed design, and implementation stages. System testing was conducted using black box testing to ensure that all application functions operated according to the specified requirements. The results of the study indicated that the application provided features for managing equipment data, rental processes, and transaction records. Thus, the application supported structured management of rental processes, thereby improving service quality and facilitating the operational activities of the outdoor equipment rental business at Giriwana Adventure.

Keywords : Black Box Testing, ICONIX Process Methodology, Laravel Framework, Outdoor Equipment Rental, Web-Based Outdoor Equipment Rental Application.