

ABSTRACT

The advancement of information technology has encouraged digital transformation in operational management across various business sectors, including boarding house management. Kos Putri Mutiara²⁷, a boarding house located in Semarang, still manages room data, tenant records, payment transactions, and financial reports using manual books and simple spreadsheets. This condition results in several issues, including data inaccuracies, difficulties in tracking payment history, limited access to real-time information, and the absence of an online room reservation service. This study aims to design and develop a web-based boarding house management application using the ICONIX Process method. The system development was conducted through the stages of requirements, analysis and preliminary design, detailed design, and implementation. The application is designed to accommodate four types of users, including the boarding house owner, administrator, tenants, and prospective tenants. The developed application provides key features such as room and tenant data management, transaction and cash flow management, online room reservation and lease extension, payment proof upload, payment verification and validation, comprehensive reporting, as well as a feature that assists in obtaining information or simple analysis from operational data to support business monitoring and decision-making. The black-box testing results indicate that all functional and non-functional system requirements operate in accordance with the planned scenarios. Therefore, the proposed system is expected to improve information accuracy, enhance user experience, and provide a solution to operational and room reservation management issues at Kos Putri Mutiara²⁷.

Keywords : Web-Based Application, ICONIX Process, Boarding House, Boarding House Management, Reservation