

ABSTRACT

The management of clean water payment administration in residential areas that is still conducted manually has the potential to cause various problems, such as data recording errors, delays in information delivery, and less optimal service for customers. The processes of recording customer data, billing, and payments that are still carried out conventionally result in unstructured data management and are prone to errors. This study aims to design and develop a web-based clean water payment administration system application to support computerized data and transaction management. The system development method used is the ICONIX Process, which consists of the requirements, preliminary design, detailed design, implementation, and testing stages. System modeling is carried out using Unified Modeling Language (UML), including use case diagrams, sequence diagrams, and class diagrams. The application is developed using the Laravel framework with MySQL database support and a web-based interface. System testing is conducted using the black box method to ensure that each function operates according to the specified requirements. The testing results indicate that the system features function in accordance with the designed test scenarios.

Keywords : application, water payment, billing management, ICONIX Process.