Design and Development of a Medical Record Retention and Destruction System at Mangusada Regional Hospital

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ABSTRACT

Mangusada Regional Hospital has implemented the TRANSMEDIC Hospital Information Management System (HIMS) to manage medical records. However, the system has not yet integrated the processes of medical record digitization, retention, and destruction, resulting in separate and predominantly manual document management. This condition leads to difficulties in document management, monitoring medical record status. This study aimed to design and develop a system for medical record digitization, retention, and destruction at Mangusada Regional Hospital. The system was developed using the Extreme Programming (XP) methodology, which consists of the planning, design, coding, and testing phases. Data were collected through interviews, observations, and documentation. The system was implemented using PHP with the Laravel 12 framework, PostgreSQL as the database management system, and Laragon as the local development environment. System testing was conducted using Black Box Testing based on User Story. The testing results showed that all test scenarios were successfully completed, indicating that every system function operated according to user requirements. The developed system is capable of supporting integrated medical record digitization, retention, and destruction processes while improving the effectiveness of medical record management at Mangusada Regional Hospital.

Keywords: *destruction, Extreme Programming, medical record digitization, medical records, retention.*