

DESIGN AND CONSTRUCTION OF WEB-BASED APPLICATION FOR PRODUCTION WAREHOUSE MACHINE LOANS

(Case Study: PT Sinar Klaten Makmur, Klaten)

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ABSTRACT

The manual process of borrowing sewing machines in the production warehouse often causes recording errors, data loss, and time inefficiency. This study aims to design a sewing machine borrowing information system based on QR Code technology to improve the efficiency and accuracy of asset management and maintenance. The system development was carried out using the Waterfall model (SDLC) method, which includes needs analysis, design, implementation, and testing. This system has an automatic machine data input feature using QR Code technology, so that sewing machine identification, including serial numbers, conditions, and availability status, can be done quickly and accurately. In addition, the system has a maintenance management module to record and manage scheduled repair needs, ensuring that the machine is in good condition. System testing using the black-box testing method showed that all functions ran according to specifications. The results of the implementation of this system were able to accelerate the borrowing and returning process, as well as improve the efficiency of asset management and maintenance in the production warehouse. Thus, this information system successfully integrated the sewing machine borrowing and maintenance administration process more efficiently and innovatively, thus supporting increased operational productivity in the production warehouse.

Keywords: *Information system, sewing machine borrowing, SDLC Waterfall, QR Code, black-box testing.*

