

ABSTRACT

DESIGN AND DEVELOPMENT OF A WEB-BASED INVENTORY APPLICATION USING THE WATERFALL METHODOLOGY FOR D2D DADAN PRODUCTION FURNITURE BUSINESS

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The rapid development of technology has brought significant changes to various aspects of life, including business management. One of the challenges faced by small and medium enterprises is the efficient management of inventory. This research aims to design and develop a WEB-based inventory application for D2D DADAN PRODUCTION, a furniture business commonly referred to as D2D. The business has been relying on manual methods for inventory management, such as paper records and WhatsApp chat applications. These methods often lead to data loss, difficulties in tracking information, and inefficiencies in operations.

The application was developed using the Software Development Life Cycle (SDLC) methodology with the waterfall model. The development process included requirements analysis, system design, implementation, testing, integration, and maintenance. The main features offered by this application include recording incoming and outgoing stock, searching for product data, and storing distributor data.

The research findings show that this application effectively addresses the issues faced by D2D, such as data loss and the challenges of manual record-keeping. Additionally, the application has improved operational efficiency by up to 40%. Despite its limitations, such as the absence of low-stock alerts and payment system integration, testing results indicate that the system meets the needs of the business owner

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