

ABSTRAK

PT Aiti Mitra Utama Tanjung Enim menghadapi kendala besar dalam kontrol persediaan akibat pencatatan yang masih manual. Praktik ini memicu ketidakcocokan antara barang fisik dan pembukuan, serta lambatnya pembaruan info stok. Untuk menuntaskan masalah tersebut, dirancanglah sebuah aplikasi web Manajemen Inventory dan Stock Opname terintegrasi. Platform ini berfokus mendongkrak produktivitas, menekan kekeliruan administrasi, dan menampilkan ketersediaan barang secara akurat. Sistem ini membagi wewenang ke dalam empat peran pengguna: Admin, Petugas Gudang, Pimpinan, dan *User*. Fungsi kuncinya mencakup kontrol data induk, pencatatan sirkulasi barang, laporan inventaris, eksekusi *stock opname*, hingga fitur peringatan batas stok. Pengembangannya mengadopsi metode *Rapid Application Development* (RAD) berbekal desain UML, serta dibangun menggunakan kerangka kerja Laravel dan basis data MySQL. Berdasarkan hasil pengujian *Black Box*, seluruh komponen fungsional beroperasi optimal tanpa ditemukannya celah kerusakan atau *bug*. Sistem terbukti mampu memproteksi kerahasiaan data melalui pembatasan hak akses yang ketat sesuai perancangan awal. Transformasi digital ini sukses memangkas waktu operasional dan mereduksi kelalaian manusia (*human error*) yang kerap terjadi pada metode konvensional. Kesimpulannya, aplikasi ini sangat layak dan berhasil diimplementasikan untuk menggantikan sistem kertas di perusahaan. Ketersediaan rekapitulasi data instan dan notifikasi batas minimum stok terbukti krusial dalam membantu pihak manajemen memantau pergerakan logistik, sehingga pengambilan keputusan untuk pengadaan barang menjadi jauh lebih cepat dan terukur.

Kata Kunci: Manajemen *Inventory*, *Stock opname*, *Rapid Application Development*, UML, Laravel

ABSTRACT

PT Aiti Mitra Utama Tanjung Enim faces major challenges in inventory control due to manual record-keeping. This practice causes discrepancies between physical goods and accounting records, as well as delayed stock updates. To resolve this issue, an integrated Inventory Management and Stock Opname web application was designed. The platform focuses on boosting productivity, reducing administrative errors, and accurately displaying item availability. The system divides authority into four user roles: Admin, Warehouse Officer, Manager, and User. Its core features include master data management, goods circulation tracking, inventory reporting, stock opname execution, and minimum stock alerts. The development adopted the Rapid Application Development (RAD) method utilizing UML design, built with the Laravel framework and a MySQL database. Based on Black Box testing results, all functional components operate optimally with no bugs or flaws detected. The system has proven capable of protecting data confidentiality through strict access restrictions as initially designed. This digital transformation successfully cuts operational time and minimizes human errors commonly found in conventional methods. In conclusion, this application is highly viable and successfully implemented to replace the company's paper-based system. The availability of instant data recaps and minimum stock alerts is crucial in assisting management to monitor logistics movements, resulting in much faster and more measurable decision-making for goods procurement.

Keywords: *Inventory Management, Stock opname, Rapid Application Development, UML, Laravel*