

ABSTRAK

Pengelolaan persediaan bahan habis pakai dan inventaris laboratorium di Program Studi Sarjana Kedokteran Fakultas Kedokteran dan Kesehatan Universitas Imelda Medan sebelumnya masih dilakukan secara manual sehingga menimbulkan berbagai kendala, seperti keterlambatan pencatatan, kesalahan administrasi, serta sulitnya memperoleh informasi secara cepat dan akurat. Permasalahan tersebut berdampak pada kurang optimalnya pengelolaan inventaris dan ketersediaan barang di laboratorium.

Penelitian ini bertujuan untuk merancang dan membangun sistem informasi persediaan bahan habis pakai dan inventaris laboratorium berbasis web yang mampu mendukung proses pencatatan, pengendalian, serta penyajian laporan inventaris secara terstruktur. Metode pengembangan sistem yang digunakan adalah *System Development Life Cycle (SDLC)* dengan tahapan perencanaan, analisis, perancangan, implementasi, dan pengujian. Perancangan sistem memanfaatkan *Entity Relationship Diagram (ERD)*, *Data Flow Diagram (DFD)*, serta rancangan antarmuka untuk menggambarkan alur sistem dan kebutuhan pengguna.

Hasil penelitian menunjukkan bahwa sistem informasi inventaris yang dibangun mampu mempermudah proses pencatatan barang masuk dan barang keluar, mengelola data kategori serta pengguna, dan menyajikan laporan stok secara akurat dan real-time. Dengan adanya sistem ini, proses pengelolaan inventaris laboratorium menjadi lebih efektif, efisien, serta mampu mengurangi kesalahan pencatatan yang sebelumnya sering terjadi.

Kata Kunci: Sistem Informasi, Persediaan, Inventaris, Laboratorium, Web.

ABSTRACT

The management of consumable supplies and laboratory inventory at the Bachelor of Medicine Study Program, Faculty of Medicine and Health, Universitas Imelda Medan, was previously carried out manually, which caused various problems such as delays in recording, administrative errors, and difficulties in obtaining information quickly and accurately. These issues resulted in suboptimal inventory management and inadequate availability of laboratory items.

This study aims to design and develop a web-based information system for managing consumable supplies and laboratory inventory that supports structured recording, control, and reporting processes. The system development method used is the System Development Life Cycle (SDLC), which consists of the stages of planning, analysis, design, implementation, and testing. The system design utilizes Entity Relationship Diagram (ERD), Data Flow Diagram (DFD), and user interface design to describe the system workflow and user requirements.

The results of this study indicate that the developed inventory information system can facilitate the recording of incoming and outgoing items, manage category and user data, and generate accurate and real-time stock reports. With this system, laboratory inventory management becomes more effective, efficient, and capable of reducing recording errors that frequently occurred previously.

Keywords: Information System, Inventory, Supplies, Laboratory, Web.