

ABSTRAK

Yuli Nur Wahyudha. 2026. Rancang Bangun Sistem Informasi Manajemen pada Toko Sepeda Sedulur Berbasis Web. Program Studi Teknik Informatika, Fakultas Teknik, Universitas PGRI Madiun. Pembimbing (I) Sri Anardani, S.Kom., M.Kom. Pembimbing (II) Fatim Nugrahanti, S.T., M.T.

Toko Sepeda Sedulur masih mengelola data barang, transaksi, stok, keuangan, dan laporan melalui pencatatan pada buku serta perhitungan dan penyusunan laporan tanpa menggunakan sistem informasi berbasis komputer. Proses tersebut sering menyebabkan kesalahan pencatatan, duplikasi data, serta keterlambatan dalam penyusunan laporan. Penelitian ini bertujuan untuk merancang dan membangun Sistem Informasi Manajemen berbasis web guna meningkatkan efektivitas dan efisiensi pengelolaan data. Metode pengembangan sistem yang digunakan adalah Waterfall. Pengumpulan data dilakukan melalui observasi, wawancara, dan studi pustaka. Sistem dikembangkan menggunakan PHP *Native* dan *MySQL* dengan perancangan menggunakan *Data Flow Diagram* (DFD) dan *Entity Relationship Diagram* (ERD), serta diuji menggunakan metode *Black Box Testing* dan *System Usability Scale* (SUS). Hasil penelitian menunjukkan bahwa sistem mampu mengelola data barang, stok, transaksi, pengguna, dan laporan secara terintegrasi sehingga mempercepat proses kerja, mengurangi kesalahan pencatatan, serta meningkatkan efektivitas, efisiensi, dan akurasi pengelolaan data.

Kata kunci: Sistem Informasi Manajemen, *Website*, *Waterfall*, *PHP Native*, *MySQL*, *Black Box Testing*, *System Usability Scale* (SUS).

ABSTRACT

Yuli Nur Wahyudha. 2026. *Design and Development of a Web-Based Management Information System for Sedulur Bicycle Shop*. Informatics Engineering Study Program, Faculty of Engineering, Universitas PGRI Madiun. Supervisor (I) Sri Anardani, S.Kom., M.Kom. Supervisor (II) Fatim Nugrahanti, S.T., M.T.

Sedulur Bicycle Shop currently manages data regarding products, transactions, inventory, finances, and reports through manual record-keeping and calculations, without the use of a computer-based information system. These processes frequently result in recording errors, data duplication, and delays in report generation. This research aims to design and develop a web-based Management Information System to enhance the effectiveness and efficiency of data management. The Waterfall model was employed as the system development methodology. Data collection was conducted through observation, interviews, and a literature review. The system was developed using native PHP and MySQL, designed with Data Flow Diagrams (DFD) and Entity-Relationship Diagrams (ERD), and evaluated using Black Box Testing and the System Usability Scale (SUS). The results indicate that the system is capable of managing product, inventory, transaction, user, and report data in an integrated manner, thereby accelerating workflows, reducing recording errors, and improving the effectiveness, efficiency, and accuracy of data management..

Keywords: Management Information System, Website, Waterfall, Native PHP, MySQL, Black Box Testing, System Usability Scale (SUS).