

HERMAWAN PRIHATNO : 22.240.0045

IMPLEMENTASI SISTEM INFORMASI *WEBSITE* PENGADUAN BERBASIS WEB PADA DINAS LINGKUNGAN HIDUP KOTA PEKALONGAN

Dibawah bimbingan Much. Rifqi Maulana M.Kom dan Wachid Darmawan M.Kom
95 + xv halaman / 38 gambar / 5 tabel / 19 daftar pustaka

ABSTRAK

Pengaduan masyarakat merupakan salah satu sarana penting bagi pemerintah daerah dalam menampung aspirasi serta laporan permasalahan lingkungan hidup. Dinas Lingkungan Hidup Kota Pekalongan memiliki tanggung jawab dalam mengelola pengaduan masyarakat terkait permasalahan lingkungan. Namun, proses pengelolaan pengaduan yang masih dilakukan secara manual dan terpisah menimbulkan berbagai kendala, seperti keterlambatan penanganan, kesulitan dalam pencatatan data, serta kurang optimalnya monitoring dan pelaporan. Oleh karena itu, penelitian ini bertujuan untuk mengembangkan Sistem Informasi Pengaduan Masyarakat berbasis web guna mendukung proses pengelolaan pengaduan secara lebih efektif dan terstruktur. Sistem ini dirancang untuk membantu pihak Dinas Lingkungan Hidup Kota Pekalongan dalam menerima, mengelola, memverifikasi, dan memantau status pengaduan masyarakat secara terintegrasi. Metode pengembangan sistem yang digunakan adalah Waterfall, yang meliputi tahap analisis kebutuhan, perancangan sistem, implementasi, pengujian, dan pemeliharaan. Pengembangan sistem dilakukan menggunakan bahasa pemrograman PHP dengan framework CodeIgniter 4 serta basis data MySQL. Data penelitian diperoleh melalui observasi, wawancara, dan studi dokumentasi. Pengujian sistem dilakukan menggunakan metode Pilot Project untuk memastikan fungsionalitas sistem berjalan sesuai dengan kebutuhan, serta Stress testing menggunakan tools k6 untuk menguji kestabilan dan kinerja sistem pada kondisi penggunaan berulang. Hasil penelitian menunjukkan bahwa sistem informasi yang dikembangkan mampu berjalan dengan baik, stabil, serta dapat mengelola data pengaduan dan menampilkan informasi laporan secara responsif. Meskipun sistem ini tidak menggantikan peran pengelolaan secara langsung oleh petugas, namun dapat membantu meningkatkan efisiensi, transparansi, dan akurasi dalam pengelolaan pengaduan masyarakat di Dinas Lingkungan Hidup Kota Pekalongan.

Kata Kunci : Sistem Informasi, Pengaduan Masyarakat, Dinas Lingkungan Hidup, Website, Waterfall, Stress testing.

HERMAWAN PRIHATNO : 22.240.0045

DEVELOPMENT OF A WEB-BASED PUBLIC COMPLAINT INFORMATION SYSTEM AT THE ENVIRONMENTAL AGENCY OF PEKALONGAN CITY, *Under the Guidance of Much. Rifqi Maulana M.Kom and Wachid Darmawan M.Kom*

95 + xv pages / 38 images / 5 tables / 19 libraries.

ABSTRACT

Public complaints serve as an important channel for local governments to accommodate public aspirations and reports related to environmental issues. The Environmental Agency of Pekalongan City is responsible for managing public complaints concerning environmental problems. However, the complaint management process that is still conducted manually and in a fragmented manner has resulted in several obstacles, such as delays in handling reports, difficulties in data recording, and suboptimal monitoring and reporting. Therefore, this study aims to develop a web-based Public Complaint Information System to support a more effective and structured complaint management process. The system is designed to assist the Environmental Agency of Pekalongan City in receiving, managing, verifying, and monitoring the status of public complaints in an integrated manner. The system development method used in this study is the Waterfall method, which consists of requirement analysis, system design, implementation, testing, and maintenance stages. The system is developed using PHP with the CodeIgniter 4 framework and MySQL as the database management system. Research data were collected through observation, interviews, and documentation studies. System testing was conducted using Pilot Project Testing to ensure that all system functions operate according to the specified requirements, as well as Stress testing using the k6 tool to evaluate the system's stability and performance under repeated usage conditions. The results of the study indicate that the developed information system operates properly, remains stable, and is capable of managing complaint data and displaying report information responsively. Although the system does not replace direct handling by officers, it can help improve efficiency, transparency, and accuracy in public complaint management at the Environmental Agency of Pekalongan City.

Keywords: *Information System, Public Complaints, Environmental Agency, Web-Based System, Waterfall Method, Stress Testing.*