HILALRIZQONFAIZUN,22.240.0047

RANCANG BANGUN SISTEM ABSENSI SISWA SMP N 10 PEKALONGAN BERBASIS WEBSITE, di bawah bimbingan Tri Agus Setiawan, M.Kom. dan M. Faizal Kurniawan, M.Kom.
154+xv halaman / 112 gambar / 20 tabel / lampiran / 23 pustaka

ABSTRAK

Penelitian ini bertujuan untuk merancang dan membangun sistem absensi siswa berbasis website di SMP Negeri 10 Pekalongan sebagai solusi terhadap proses pencatatan kehadiran yang masih dilakukan secara manual menggunakan buku presensi. Berdasarkan hasil observasi dan wawancara dengan pihak sekolah, ditemukan beberapa permasalahan, yaitu proses pencatatan dan rekapitulasi data absensi yang membutuhkan waktu, kesulitan dalam pencarian data kehadiran, serta risiko kerusakan atau kehilangan arsip karena data masih tersimpan dalam bentuk dokumen fisik. Selain itu, pihak sekolah membutuhkan sistem yang dapat membantu pengelolaan dan pemantauan data kehadiran secara lebih terstruktur. Metode pengumpulan data yang digunakan adalah observasi dan wawancara dengan kepala sekolah, guru wali kelas, dan guru BK. Metode pengembangan sistem menggunakan Waterfall yang meliputi tahap analisis kebutuhan, perancangan, pembangunan, pengujian, dan pemeliharaan. Sistem dibangun berbasis website menggunakan basis data MySQL dengan empat jenis pengguna, yaitu operator, kepala sekolah, guru, dan siswa, yang memiliki hak akses sesuai dengan kebutuhan masing-masing. Fitur yang tersedia meliputi pengelolaan data siswa, guru, kelas, mata pelajaran, jadwal, pencatatan absensi, riwayat absensi, dan penugasan. Pengujian dilakukan menggunakan Black Box Testing, White Box Testing, dan User Acceptance Test (UAT) untuk mengevaluasi fungsi, alur logika, serta kesesuaian sistem dengan kebutuhan pengguna. Hasil penelitian berupa sistem absensi siswa berbasis website yang telah dibangun berdasarkan hasil analisis kebutuhan dan rancangan sistem serta dapat menjadi alternatif dalam membantu proses pengelolaan data absensi siswa secara lebih terstruktur. Saran pengembangan selanjutnya adalah mengembangkan sistem ke dalam bentuk aplikasi mobile untuk meningkatkan kemudahan akses pengguna serta melakukan pemeliharaan dan pembaruan sistem secara berkala agar sistem tetap optimal, stabil, aman, dan sesuai dengan perkembangan kebutuhan pengguna.

Kata kunci: Rancang Bangun, Sistem Absensi Siswa, Website, Waterfall, Black Box Testing, White Box Testing

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DESIGN AND DEVELOPMENT OF A WEBSITE-BASED STUDENT ATTENDANCE SYSTEM FOR SMP N 10 PEKALONGAN, supervised by Tri Agus Setiawan, M.Kom. and M. Faizal Kurniawan, M.Kom.
154 + xv pages / 112 figures / 20 tables / appendices / 23 references

ABSTRACT

This study aims to design and develop a website-based student attendance system at SMP Negeri 10 Pekalongan as a solution to the attendance recording process, which is still carried out manually using attendance books. Based on observations and interviews with the school, several problems were identified, including the time required for recording and recapitulating attendance data, difficulties in retrieving attendance information, and the risk of damage or loss of records because the data is still stored in physical documents. In addition, the school requires a system that can support the management and monitoring of attendance data in a more structured manner. The data collection methods used in this study were observation and interviews with the principal, homeroom teacher, and guidance and counseling teacher. The system development method used was the Waterfall method, which consists of requirements analysis, system design, development, testing, and maintenance. The system was developed as a website-based application using a MySQL database with four types of users, namely operator, principal, teacher, and student, each having access rights according to their respective needs. The available features include management of student, teacher, class, subject, and schedule data, attendance recording, attendance history, and assignment management. System testing was conducted using Black Box Testing, White Box Testing, and User Acceptance Test (UAT) to evaluate system functions, logical flow, and conformity with user requirements. The result of this study is a website-based student attendance system developed based on the results of requirements analysis and system design, which can serve as an alternative to support more structured student attendance data management. Future development is recommended to transform the system into a mobile application to improve user accessibility and to perform regular system maintenance and updates to ensure optimal, stable, and secure performance while adapting to users' evolving needs.

Keywords: Design and Development, Student Attendance System, Website, Waterfall, Black Box Testing, White Box Testing