

RANCANG BANGUN SISTEM INFORMASI MANAJEMEN PONDOK PESANTREN DARUNNA'IM YAPIA

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ABSTRAK

Pondok Pesantren Darunna'im Yapia masih menghadapi kendala pengelolaan data secara manual, meliputi pendataan santri, kegiatan, layanan, pengaduan, keuangan, hingga proses Penerimaan Peserta Didik Baru (PPDB), yang menyebabkan proses administrasi rentan kesalahan oleh manusia, sulit ditelusuri, dan tidak efisien. Penelitian ini bertujuan merancang dan membangun sistem informasi manajemen berbasis web yang mengintegrasikan modul pendataan santri, kegiatan, layanan, pengaduan, pelaporan, PPDB digital, dan keuangan dalam satu platform. Sistem dikembangkan menggunakan pendekatan Agile dengan kerangka kerja Scrum yang diadaptasi ke dalam konteks pengembang tunggal (Personal Scrum), dengan teknologi React dan Tailwind CSS pada sisi antarmuka serta Node.js dan Express pada sisi server, melalui enam sprint pengembangan. Pengujian sistem dilakukan menggunakan metode Black Box Testing dan User Acceptance Testing (UAT). Hasil pengujian Black Box menunjukkan seluruh skenario pada tujuh peran pengguna dinyatakan "Sesuai" dengan spesifikasi yang dirancang, sedangkan hasil UAT memperoleh skor rata-rata total 4,93 dari skala 5, yang berada pada kategori "Sangat Sesuai". Hasil ini menunjukkan bahwa sistem yang dibangun mampu meningkatkan efisiensi pengelolaan layanan, akurasi pencatatan data, serta aksesibilitas informasi dan administrasi di Pondok Pesantren Darunna'im Yapia.

Kata Kunci: Sistem Informasi Manajemen, Pondok Pesantren, Scrum, Black Box Testing, User Acceptance Testing

DESIGN AND DEVELOPMENT OF A MANAGEMENT INFORMATION SYSTEM FOR PONDOK PESANTREN DARUNNA'IM YAPIA

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ABSTRACT

Pondok Pesantren Darunna'im Yapia still faces challenges in manual data management, covering student records, activities, services, complaints, finance, and the new student admission process, which makes administration prone to human error, difficult to track, and inefficient. This study aims to design and build a web-based management information system that integrates modules for student data, activities, services, complaints, reporting, digital student admission, and finance into a single platform. The system was developed using the Agile approach with the Scrum framework, adapted for a single-developer context (Personal Scrum), using React and Tailwind CSS for the interface and Node.js with Express for the server side, through six development sprints. System testing was carried out using Black Box Testing and User Acceptance Testing (UAT) methods. The Black Box Testing results showed that all test scenarios across seven user roles were declared "Compliant" with the designed specifications, while the UAT results obtained an overall average score of 4.93 out of 5, categorized as "Highly Compliant." These results indicate that the developed system is able to improve service management efficiency, data recording accuracy, and information and administrative accessibility at Pondok Pesantren Darunna'im Yapia.

Keywords: Management Information System, Islamic Boarding School, Scrum, Black Box Testing, User Acceptance Testing