

ABSTRAK

Ananda Muhamad Prasetyo. 2026. Rancang Bangun Sistem Manajemen Peminjaman Buku Berbasis Website pada Perpustakaan Paras Cerdas. Skripsi. Program Studi Teknik Informatika, Fakultas Teknik, Universitas PGRI Madiun. Pembimbing (I) Alim Citra Aria Bima, S.Pd., M.Kom. (II) Pratiwi Susanti, S.Kom., M.MT.

Perpustakaan Paras Cerdas belum memiliki sistem pencatatan transaksi peminjaman dan pengembalian buku, baik secara manual maupun digital. Proses peminjaman selama ini hanya mengandalkan rasa percaya antara pengelola dan peminjam tanpa adanya pendataan formal. Kondisi tersebut menyebabkan tidak tersedianya riwayat peminjaman, ketidakjelasan stok dan ketersediaan buku, kesulitan dalam melacak peminjam dan batas waktu pengembalian, meningkatnya risiko kehilangan koleksi, serta tidak tersedianya laporan sirkulasi perpustakaan secara terstruktur. Penelitian ini bertujuan merancang dan membangun Sistem Manajemen Peminjaman Buku berbasis website pada Perpustakaan Paras Cerdas, mengimplementasikan fitur pengelolaan katalog, anggota, peminjaman, pengembalian, denda, riwayat transaksi, dan laporan sirkulasi, serta mengevaluasi kelayakan fungsional dan tingkat kemudahan penggunaan sistem. Penelitian menggunakan metode *Rapid Application Development* (RAD) yang meliputi tahapan *Requirements Planning*, *User Design*, *Construction*, dan *Cutover*. Sistem dikembangkan menggunakan framework Laravel, bahasa pemrograman PHP, dan basis data MySQL. Sistem menyediakan dua hak akses utama, yaitu pustakawan dan anggota, dengan fitur pengelolaan data anggota, katalog dan ketersediaan buku, transaksi peminjaman dan pengembalian, perhitungan denda keterlambatan, riwayat peminjaman, serta rekapitulasi laporan sirkulasi. Hasil *Black Box Testing* terhadap 14 kasus uji menunjukkan tingkat keberhasilan sebesar 100%, dengan seluruh fungsi sistem dinyatakan valid dan berjalan sesuai dengan hasil yang diharapkan. Sementara itu, hasil pengujian *System Usability Scale* (SUS) yang melibatkan 23 responden memperoleh skor rata-rata sebesar 76,41. Skor tersebut termasuk dalam kategori *Acceptable*, memperoleh *Grade B*, dan berada pada *Adjective Rating Good*. Dengan demikian, Sistem Manajemen Peminjaman Buku berbasis website dinyatakan layak secara fungsional, mudah digunakan, dan dapat diterima dengan baik oleh pengguna Perpustakaan Paras Cerdas.

Kata Kunci: Sistem Manajemen Peminjaman Buku, Perpustakaan, Website, Rapid Application Development, Laravel

ABSTRACT

Ananda Muhamad Prasetyo. 2026. Design and Development of a Website-Based Book Lending Management System at Paras Cerdas Library. Undergraduate Thesis. Informatics Engineering Study Program, Faculty of Engineering, Universitas PGRI Madiun. Advisors: (I) Alim Citra Aria Bima, S.Pd., M.Kom. (II) Pratiwi Susanti, S.Kom., M.MT.

Paras Cerdas Library did not have a system for recording book borrowing and return transactions, either manually or digitally. The borrowing process relied solely on trust between the library management and borrowers without any formal recordkeeping. This condition resulted in the absence of borrowing histories, unclear book stock and availability, difficulties in tracking borrowers and return deadlines, an increased risk of book loss, and the unavailability of structured library circulation reports. This study aimed to design and develop a website-based Book Lending Management System for Paras Cerdas Library, implement features for managing book catalogs, members, borrowing, returns, fines, transaction histories, and circulation reports, and evaluate the system's functional feasibility and usability. The system was developed using the Rapid Application Development (RAD) method, consisting of the Requirements Planning, User Design, Construction, and Cutover stages. The system was built using the Laravel framework, the PHP programming language, and a MySQL database. It provides two main access roles, namely librarians and members, and includes features for managing member data, book catalogs and availability, borrowing and return transactions, late-fine calculations, borrowing histories, and circulation report summaries. The Black Box Testing results from 14 test cases showed a 100% success rate, with all system functions declared valid and operating as expected. Meanwhile, the System Usability Scale (SUS) evaluation involving 23 respondents produced an average score of 76.41. This score was categorized as *Acceptable*, received a Grade B, and achieved a *Good* Adjective Rating. Therefore, the website-based Book Lending Management System was considered functionally feasible, easy to use, and well accepted by users of Paras Cerdas Library.

Keywords: Book Lending Management System, Library, Website, Rapid Application Development, Laravel