

PENGEMBANGAN APLIKASI MOBILE UNTUK PENGELOLAAN BISNIS LAUNDRY DENGAN TEKNOLOGI FLUTTER DAN SUPABASE (STUDI KASUS: LAUNDRY LB FRESH, BANTUL)

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INTISARI

Latar Belakang: Laundry LB Fresh di Bantul masih melakukan pencatatan transaksi dan pengelolaan layanan secara manual, yang berpotensi menimbulkan kesalahan, keterlambatan, dan kurangnya efisiensi dalam pengelolaan bisnis. Oleh karena itu, dibutuhkan sebuah sistem digital yang mampu membantu proses operasional harian secara lebih praktis dan akurat.

Tujuan: Penelitian ini bertujuan untuk merancang dan mengembangkan aplikasi *mobile* berbasis Flutter dengan *backend* Supabase untuk membantu manajemen transaksi, layanan, pelanggan, dan pelaporan keuangan secara terintegrasi, khususnya pada skala UMKM *laundry*.

Metode Penelitian: Penelitian dilakukan dengan pendekatan rancang bangun (*design and build*) yang diawali dengan analisis kebutuhan pada Laundry LB Fresh, kemudian dilanjutkan dengan desain antarmuka, struktur basis data PostgreSQL pada Supabase, serta penerapan arsitektur BLoC dan Clean Architecture dalam pengembangan aplikasi. Evaluasi sistem dilakukan melalui uji coba dan kuesioner kepada pemilik dan staf *laundry*.

Hasil: Aplikasi yang dikembangkan berhasil mencakup berbagai fitur utama seperti pencatatan transaksi, manajemen pelanggan dan layanan, ekspor laporan keuangan dalam format PDF/Excel, cetak nota, serta pelacakan status *laundry* oleh pelanggan. Sistem dinilai sangat membantu proses operasional oleh pengguna dengan skor evaluasi rata-rata di atas 4,5 dari skala 5. Desain antarmuka dinilai mudah digunakan, dan sistem bekerja cepat serta stabil dalam menyimpan dan mengelola data.

Kesimpulan: Aplikasi manajemen *laundry* berbasis Flutter dan Supabase ini telah berhasil dibangun dan dinilai sesuai dengan kebutuhan Laundry LB Fresh. Sistem mampu meningkatkan efisiensi, akurasi, dan kenyamanan dalam pengelolaan bisnis *laundry* berbasis digital.

Kata-kunci: *Mobile*, Flutter, *Laundry*

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DEVELOPMENT OF A MOBILE APPLICATION FOR LAUNDRY BUSINESS MANAGEMENT WITH FLUTTER TECHNOLOGY AND SUPABASE (CASE STUDY: LAUNDRY LB FRESH, BANTUL)

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ABSTRACT

Background: Laundry LB Fresh in Bantul still relies on manual recording for transactions and service management, which has the potential to cause errors, delays, and inefficiency in daily operations. Therefore, a digital system is needed to support laundry business processes more practically and accurately.

Objective: This research aims to design and develop a mobile application based on Flutter with Supabase backend to assist in managing transactions, services, customers, and financial reporting in an integrated manner, particularly for small and medium-scale laundry businesses.

Method: The research was conducted using a design and build approach, starting with a requirements analysis at Laundry LB Fresh. It was followed by user interface design, PostgreSQL database structure implementation in Supabase, and the application of BLoC architecture and Clean Architecture principles during development. System evaluation was carried out through testing and questionnaires completed by the business owner and staff.

Result: The developed application successfully provides key features such as transaction recording, customer and service management, financial report export in PDF/Excel formats, receipt printing, and transaction status tracking for customers. The system was rated as highly useful by users, with an average evaluation score above 4.5 out of 5. The user interface was considered easy to use, and the system performed quickly and reliably in storing and managing data.

Conclusion: The mobile laundry management application based on Flutter and Supabase has been successfully developed and proven to meet the needs of Laundry LB Fresh. The system improves efficiency, accuracy, and convenience in digital business management.

Keywords: Mobile, Flutter, Laundry

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