

**IMPLEMENTATION OF A MOBILE APPLICATION FOR POSYANDU
HEALTH DATA MANAGEMENT WITH WEB API INTEGRATION: A
CASE STUDY OF POSYANDU SERUNI, MLANDINGAN KULON
VILLAGE, SITUBONDO**

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ABSTRACT

Health data management at Posyandu Seruni is currently conducted conventionally using maternal and child health (KIA) books and manual registers. This method results in low efficiency, risk of document loss, and limited access for parents to monitor their child's growth independently. This study aims to digitalize the posyandu health management system through the development of a mobile-based infant and toddler posyandu data management application integrated with the cadres' web system via Web API. The application was developed using the Flutter framework and Dart programming language with a client-server architecture. Key features implemented include real-time anthropometric growth monitoring charts, access to posyandu schedules, and digital health education materials. Evaluation results from 31 respondents showed a usability rate of 99% and functionality of 96%. The implementation of this technology has successfully increased data transparency and active parental participation in monitoring child development toward a healthier community.

Keywords: Posyandu, Mobile Application, Flutter, Web API, Health Monitoring.

**IMPLEMENTASI APLIKASI MOBILE UNTUK MANAJEMEN DATA
KESEHATAN POSYANDU DENGAN INTEGRASI API WEB STUDI
KASUS POSYANDU SERUNI, DESA MLANDINGAN KULON,
SITUBONDO**

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ABSTRAK

Pengelolaan data kesehatan di Posyandu Seruni saat ini masih dilakukan secara konvensional menggunakan buku KIA dan buku register manual. Metode ini menyebabkan rendahnya efisiensi, risiko kehilangan dokumen, serta keterbatasan akses orang tua dalam memantau pertumbuhan anak secara mandiri. Penelitian ini bertujuan untuk mendigitalisasi sistem manajemen kesehatan posyandu melalui pengembangan aplikasi manajemen data posyandu bayi balita berbasis mobile yang terintegrasi dengan sistem web kader melalui Web API. Aplikasi ini dikembangkan menggunakan kerangka kerja Flutter dan bahasa pemrograman Dart dengan arsitektur client-server. Fitur utama yang diimplementasikan meliputi monitoring grafik antropometri secara real-time, akses jadwal posyandu, dan materi edukasi kesehatan digital. Hasil evaluasi terhadap 31 responden menunjukkan tingkat usability sebesar 99% dan fungsionalitas 96%. Implementasi teknologi ini berhasil meningkatkan transparansi data dan partisipasi aktif orang tua dalam mengawal tumbuh kembang anak menuju masyarakat yang lebih sehat.

Kata Kunci: Posyandu, Aplikasi Mobile, Flutter, Web API, Monitoring Kesehatan.