

# **PENGEMBANGAN APLIKASI PENYALURAN BANTUAN BERBASIS *ANDROID* MENGGUNAKAN METODE SCRUM (STUDI KASUS DESA SUKATANI)**

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## **ABSTRAK**

Penyaluran bantuan di Desa Sukatani sebelumnya dilakukan secara manual, yang menimbulkan berbagai kendala seperti proses yang lambat, data tidak akurat, dan keterbatasan transparansi. Penelitian ini bertujuan untuk merancang dan mengembangkan aplikasi DisalurKita berbasis Android menggunakan metode SCRUM, serta menganalisis efektivitas implementasinya. Proses pengembangan dilakukan dalam tiga sprint selama empat bulan, dengan pendekatan iteratif yang memungkinkan penyempurnaan berkelanjutan berdasarkan umpan balik pengguna. Hasil pengujian menggunakan metode black box testing pada 30 skenario menunjukkan tingkat keberhasilan sebesar 94,89%, menandakan bahwa sebagian besar fitur berjalan sesuai harapan. Analisis efektivitas menunjukkan bahwa aplikasi berhasil memangkas waktu siklus penyaluran bantuan hingga 70,7% dan mengurangi biaya operasional pencatatan sebesar 90%. Selain itu, kesalahan input manual menurun sebesar 9%, sementara akurasi dan mutu data meningkat signifikan. Aplikasi ini juga dilengkapi fitur verifikasi donasi, manajemen stok, penjadwalan, pelaporan, dan pengaduan untuk mendukung proses yang transparan dan akuntabel. Penggunaan Flutter dan Supabase memberikan dukungan teknis berupa antarmuka responsif dan backend yang efisien. Dengan demikian, aplikasi DisalurKita terbukti menjadi solusi digital yang efektif dan terukur dalam meningkatkan efisiensi dan transparansi penyaluran bantuan di lingkungan desa.

Kata Kunci : aplikasi mobile, Android, SCRUM, penyaluran bantuan, testing, efektivitas sistem, desa digital.

# ***DEVELOPMENT OF AN ANDROID-BASED AID DISTRIBUTION APPLICATION USING THE SCRUM METHOD (CASE STUDY: SUKATANI VILLAGE)***

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## ***ABSTRACT***

*Aid distribution in Sukatani Village was previously conducted manually, leading to various issues such as slow processes, inaccurate data, and limited transparency. This study aimed to design and develop an Android-based aid distribution application called DisalurKita using the SCRUM method, as well as to analyze its implementation effectiveness. The development process was carried out over three sprints across four months, applying an iterative approach that allowed continuous refinement based on user feedback. Testing was conducted using the black box method on 30 scenarios, achieving a success rate of 94.89%, indicating that most features functioned as expected. Effectiveness analysis showed that the application reduced the aid distribution cycle time by 70.7% and operational recording costs by 90%. Manual data entry errors also decreased by 9%, with a significant improvement in data accuracy and quality. The application includes essential features such as donation verification, stock management, scheduling, reporting, and complaints handling to support transparent and accountable processes. The use of Flutter and Supabase provided technical advantages, including a responsive user interface across Android devices and an efficient, secure backend infrastructure. Overall, DisalurKita has proven to be an effective and measurable digital solution for enhancing efficiency, transparency, and accountability in village-level aid distribution.*

*Keywords: mobile application, android, SCRUM, aid distribution, village information system*