

PENGEMBANGAN PLATFORM HOMECARE BERBASIS MOBILE DENGAN *USER CENTERED DESIGN*

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ABSTRAK

Perkembangan teknologi informasi mendorong pemanfaatan aplikasi mobile dalam mendukung layanan kesehatan, termasuk layanan *homecare*. Penelitian ini bertujuan untuk mengembangkan platform *homecare* berbasis mobile yang mampu memfasilitasi proses pemesanan layanan kesehatan secara daring, mulai dari pendaftaran pengguna, pemilihan layanan, hingga pemantauan status pelayanan. Aplikasi dikembangkan menggunakan *framework Flutter* sebagai *frontend* mobile dan *Laravel* sebagai *backend* berbasis *REST API*, dengan basis data *MySQL*. Metode pengembangan sistem menerapkan pendekatan *User Centered Design* (UCD) untuk memastikan aplikasi mudah digunakan oleh pasien, keluarga pasien, serta tenaga medis. Fitur utama yang diimplementasikan meliputi autentikasi pengguna berbasis token, pengelolaan profil dan alamat dengan integrasi lokasi, pemesanan layanan *homecare*, pengelolaan keranjang, proses *checkout*, riwayat pesanan, serta notifikasi status layanan secara *real-time* menggunakan *Firebase Cloud Messaging* (FCM). Pengujian sistem dilakukan melalui *black-box testing* dan *integration testing* untuk memastikan seluruh fungsi berjalan sesuai kebutuhan, serta pengujian *System Usability Scale* (SUS) untuk mengukur tingkat kemudahan penggunaan aplikasi. Hasil pengujian menunjukkan bahwa seluruh fungsi sistem berjalan dengan baik tanpa kesalahan, serta memperoleh tingkat *usability* yang sangat baik. Dengan demikian, aplikasi *Homecare* yang dikembangkan dinilai mampu mendukung proses layanan kesehatan di rumah secara lebih efektif, efisien, dan terstruktur.

Kata kunci: *Homecare, Mobile Application, Flutter, Laravel, User Centered Design, Firebase Cloud Messaging*

DEVELOPMENT OF A MOBILE-BASED HOMECARE PLATFORM USING USER CENTERED DESIGN

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ABSTRACT

The rapid development of information technology has encouraged the use of mobile applications to support healthcare services, including homecare services. This study aims to develop a mobile-based homecare platform that facilitates the online healthcare service process, starting from user registration, service selection, to monitoring service status. The application was developed using the *Flutter* framework as the mobile frontend and *Laravel* as the backend based on *REST API*, with *MySQL* as the database. The system development method applies the *User Centered Design (UCD)* approach to ensure that the application is easy to use for patients, patients' families, and medical personnel. The main features implemented include token-based user authentication, profile and address management with location integration, homecare service ordering, cart management, checkout process, order history, and real-time service status notifications using *Firebase Cloud Messaging (FCM)*. System testing was conducted through *black-box testing* and *integration testing* to ensure that all functions operate according to system requirements, as well as *System Usability Scale (SUS)* testing to measure the usability level of the application. The test results indicate that all system functions run properly without errors and achieve a very good usability score. Therefore, the developed Homecare application is considered capable of supporting home-based healthcare services in a more effective, efficient, and structured manner.

Keywords: Homecare, Mobile Application, Flutter, Laravel, User Centered Design, Firebase Cloud Messaging