

PENGEMBANGAN APLIKASI PEMESANAN AMBULANS BERDASARKAN LAYANAN BERBASIS LOKASI UNTUK ANDROID

(Studi Kasus di Kabupaten Sleman)

ABSTRAK

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Peraturan Menteri Kesehatan No. 19 Tahun 2016 pasal 1 ayat 1 menjelaskan bahwa gawat darurat ialah suatu keadaan klinis pasien yang membutuhkan tindakan medis segera untuk melakukan penyelamatan nyawa dan pencegahan kecacatan. Salah satu bentuk sistem bantuan pelayanan gawat darurat ialah melalui penyediaan ambulans. Pemanfaatan data rumah sakit dengan ketersediaan ambulans dapat digunakan untuk mengembangkan aplikasi berbasis *mobile android*. Tujuan penelitian ini yaitu membangun aplikasi pemesanan ambulans berbasis android berdasarkan penerapan layanan berbasis lokasi (*location based service*) dan pemanfaatan data rumah sakit serta memaparkan evaluasi aplikasi.

Metode yang digunakan dalam penelitian ini ialah metode layanan berbasis lokasi (*location based service*) dan metode dari teknologi firebase. Metode dari teknologi firebase yaitu autentikasi, CRUD (*create, read, update, dan delete*), serta pengiriman juga penerimaan pesan notifikasi dari *firebase cloud messaging*. Pada evaluasi aplikasi yaitu menggunakan metode uji usabilitas (*usability testing*).

Hasil dari penelitian ini adalah aplikasi pemesanan ambulans berbasis android dengan penerapan layanan berbasis lokasi (*location based service*) dan pemanfaatan data rumah sakit, serta hasil evaluasi aplikasi. Aplikasi mampu menyajikan lokasi *user*, lokasi rumah sakit rujukan serta lokasi rumah sakit rujukan terdekat dari *user* berdasarkan penerapan layanan berbasis lokasi. Penerapan layanan berbasis lokasi juga mampu menampilkan titik-titik pesanan dan menampilkan rute. *User* dapat memesan ambulans melalui pemanfaatan pengiriman dan penerimaan pesan layanan *firebase cloud messaging* sehingga admin rumah sakit dapat menerima pesanan *user* dan *user* memperoleh layanan ambulans. Evaluasi aplikasi berdasarkan uji usabilitas terdiri atas lima aspek yaitu *learnability, efficiency, memorability, errors*, serta *satisfaction* dimana pada seluruh pernyataan memiliki hasil sangat setuju sehingga aplikasi disebut *usable*. Persentase skor likert tertinggi sebesar 93,04 % yaitu pada pernyataan bahwa aplikasi pemesanan ambulans mudah dipelajari dan digunakan.

Kata kunci: android, layanan berbasis lokasi, firebase, *user*, rumah sakit rujukan.

***DEVELOPMENT OF LOCATION SERVICE-BASED AMBULANCE
ORDERING APPLICATION FOR ANDROID***

(Case Study in Sleman Regency)

ABSTRACT

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Regulation of Minister Health No.19 of 2016 article 1 section 1 explains that emergency is a clinical condition of a patient that requires immediate medical action to save lives and prevent disability. One of the support systems for emergency services is through the provision of an ambulance. Utilization of hospital data with the availability of an ambulance can be made to develop an applications based mobile android. The purpose of this research is to build an android based ambulance ordering application based on the implementation of location based service and hospital data utilization as well as presenting application evaluation.

This study uses a location based service method and the method of firebase technology. The methods of firebase technology are authentication, CRUD (create, read, update, and delete), as well as sending and receiving notification messages from firebase cloud messaging. In the evaluation of the application, it uses the usability testing method.

The result of this research is an android based ambulance ordering application with the the implementation of location based service and hospital data utilization as well as application evaluation results. The application is able to present the user's location, location of the referral hospital, and location of the closest referral hospital to the user based on implementation of location based service. The implementation of location based service is also able to display order points and display routes. User can order an ambulance through the use of sending and receiving messages from the firebase cloud messaging service so that hospital admin can receive user orders and user get ambulance services. The evaluation of the application based on the usability test consist of five aspects, namely learnability, efficiency, memorability, errors, and satisfaction where all statements have the results strongly agree so that the application is called usable. The highest likert score percentage was 93,04% in the statement that the ambulance ordering application is easy to learn and use.

Keywords: android, location based service, firebase, user, referral hospital