

Implementation of the Android-Based API Payment Gateway in the Dentist Reservation System

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ABSTRACT

Mobile applications have become a common phenomenon in society, especially Android-based applications. Android-based applications are a means of running a business that promises big profits. One business that is possible to run mobile is a dental clinic. The increasing public demand for dental clinics has given rise to new problems in the dental clinic administration system, namely the difficulty of managing administration and payments which are still manual and not yet integrated. A mobile-based dental clinic reservation application is a solution to payment and reservation administration problems at dental clinics. Implementation of the frontend application using Android Studio software with the Kotlin programming language. Implementation of the application backend and Rest API using node.js and the javascript programming language. Payment Gateway implementation using midtrans services. For data storage and management using Firebase Firestore. There are two users, namely patients and admins, each of whom has a different role and user interface appearance. Patients can make new reservations, change reservations, and delete reservations. Meanwhile, admins can add data, change data, delete data, and confirm reservations. Testing was carried out using the black box method and compatibility testing on several different Android versions. The application testing results show that the application's main features and payment features have passed the test. The application passed compatibility testing. This application is quite effective in solving payment and reservation administration problems.

Keywords: Reservation System, Android Application, Payment Gateway, Firebase, Midtrans, Rest API