

RANCANG BANGUN APLIKASI *MOBILE* PORTAL AKADEMIK

BERBASIS *ANDROID*

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ABSTRAK

Penelitian ini melakukan rancang bangun aplikasi *mobile* portal akademik berbasis *Android* dengan metode *Prototyping* yang akan digunakan oleh mahasiswa sebagai media informasi akademik dan mata kuliah. Aplikasi dibangun dengan menggunakan *Android* SDK (*Software Development Kit*) serta membangun sebuah *web service* dengan arsitektur REST (*Representational State Transfer*) sebagai penghubung komunikasi antara aplikasi *mobile* dengan *web server* portal akademik menggunakan bahasa pemrograman PHP. Aplikasi akan mengakses *web service* yang mengambil informasi dari *database web server* dan mengirimkannya kepada aplikasi dalam format JSON (*JavaScript Simple Object Notation*). Aplikasi akan mengolah format data JSON dari *web service* dan menampilkannya pada *User Interface* Aplikasi. Dengan memanfaatkan fitur *SQLite* pada aplikasi, informasi akan dapat dilihat tanpa perlu perangkat terhubung dengan *web server*. Penelitian ini bertujuan untuk memudahkan serta mempercepat proses pencarian dan penerimaan informasi dari sistem portal akademik terkait sistem ini sebagai pusat informasi dan aktivitas para mahasiswa. Dengan memanfaatkan kelebihan sistem *mobile* dan fitur-fitur sistem operasi *Android*, proses penerimaan informasi oleh mahasiswa menjadi lebih efektif.

Kata kunci: *Android*, *Android* SDK, JSON, Portal Akademik, *Prototyping*, REST, *SQLite*, *Web Service*.

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ABSTRACT

This research conducts designing and building Android-based academic portal mobile application using Prototyping method which will be used by college students as an academic and lecture information media. This research builds application using Android SDK (Software Development Kit) and also build a web service with REST (Representational State Transfer) architecture applied as a connector of communication between mobile application and academic portal web server using PHP programming language. This application will access web service that retrieves information stored in web server database and send it to the application in JSON (JavaScript Simple Object Notation) format. Application will process JSON format data from web service and display it into application user interface. By utilizing SQLite feature in this application, information will be able to be displayed without device necessarily connected to the web server. This research purpose is to make easy in searching and receiving information from academic portal system because this system as a central of information and activity of the students. By utilizing mobile system advantages and Android Operating System features, process of information searching and receiving by students will be more effective.

Keywords: Android, Android SDK, Academic Portal, JSON, Prototyping, REST, SQLite, Web Service.

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