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DEVELOPMENT OF SOFTWARE INFORMATION, COMPLAINT, CRITICISM AND SUGGESTION ABOUT CIMAHI ON ANDROID PLATFORM

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ABSTRACT

Public complaints is some feedback from citizen, and some problem that every city in the world need to deal with, from big cities even little cities. Public complaints aren't just government's problem to deal with, but even other institute and agency. Public complaints aren't always served by opening some 'service counter' but also served by some called 'suggestions box'. Doesn't always public complaints, but even criticism, suggestions and information is a feedback of the policy or the state of the city government. Cimahi which is a small town that only has 3 sub-districts and 15 villages, have a public complaints 'service counter' located at the Cimahi Government's block perceived ineffective. This is due to laziness Cimahi's people to come to the counter.

Based on this, Cimahi required a system that serves as a bridge between the Government and people of Cimahi, with the aim to facilitate people of Cimahi city to give the complaint, information, criticism, and suggestions to the Government of Cimahi, and also facilitate the Government of Cimahi give socialization to people of Cimahi city. PESDUK is an application having concept of citizen journalism with Android operating system that will be built to be the solution of the problems that have been described above. PESDUK will be used by people of Cimahi city, and also the Government of Cimahi, especially the department of NOC (Network Operating Center) Cimahi whose in charge of managing electronic data, with web-based.

Based on the results of tests performed, ie testing using methods balck box, it can be concluded that this application has been functioning properly.

***Keywords**: Public Complaints, Information, Criticism, Suggestions, Android*

1. OPENING

1.1. Background Problem

Department of NOC (NETWORK OPERATING CENTRE) Cimahi, is a branch of KAPPDE Office (Office of Archives, Libraries and Electronic Data Management). This department has a duty as a waiter storage, provision and processing of data / information in the Government Office Cimahi. According to the results interview, the number of public complaints about the problem or just around the neighborhood information related to the town of Cimahi enough, the numbers of complaints and information received by the Office of Government Cimahi within one week to reach 90 complaints. Currently the media is operated in the service of the complaint, information, criticism, suggestions about the city of Cimahi is a counter which is managed by the Department of Public Relations of Cimahi, berletak in Building B, 1st floor Cimahi Government Complex, which is available from 08:00 to 16:00 pm, every day work (Monday-Friday). Problems experienced in the service of the complaint, information, criticism, and suggestions about the city is the lack of cooperation Cimahi Cimahi city community in delivering the report, also limited the time the complaint, and the distance that needs to be taken to make a complaint. For that the data processing complaints, information, criticism, and suggestions are given, converted into digital form by the Department of Public Relations, then the data is sent to the Department of NOC where the Department was disaggregated problem (complaint form of public service, public facilities and other) to then distributed to the parties concerned.

Based on the background described, the public requires the presence of a service supporting media reports, provision of information, comments and suggestions are mempu help people in contributing ideas, ideas and thoughts, as well as public complaints Cimahi city. Cimahi city communities also lack of information about events that occurred in the town of Cimahi is up to date, and given the lack of socialization Cimahi Government.

Complaint service, information, criticism, and advice more accessible if presented in a software that can be taken anywhere. It is also easily accessible for ease of service. Android-based software is a medium that can be accessed from a mobile phone based on Android, which the mobile phone can certainly be taken anywhere and is felt to be a major requirement. So that the complaints process, the provision of information, comments and suggestions that previously were manual, now by utilizing mobile devices, a complaint can be done anywhere and anytime.

Is expected to process complaints, providing information, comments and suggestions can be easier for the community, the community can observe the activities of the Government of Cimahi is up to date, and the processing can be easier also for employees of the Government Office Cimahi. In order to be closer to the public interest in providing reports, information, comments and suggestions, it can be done through software complaints, information, criticism, suggestions about the city of Cimahi on the Android platform, named PESDUK Mobile, with the consideration that the Android mobile phone users in Indonesia is quite a lot and the absence of similar applications for Cimahi city on that platform.

1.2. Intent And Objectives

The intent of this research is to create new media in terms of technology that can help people to be more active Cimahi city report and concerned over the events (accidents or natural disasters or other), complaints, criticisms, suggestions, and information about the city of Cimahi.

While the objectives to be achieved in the development of instructional media are:

a. Helping socialization Cimahi municipal government and the existing regulations in Cimahi city.
b. Make a new technological medium that can facilitate the public to contribute ideas, criticisms and suggestions as well as information about the city of Cimahi anywhere and anytime.
c. Cimahi city allows people to get information on the activities of the Government of Cimahi about what has happened and what is being dealt with.

1.3. Public Complaints

Public complaints (and advice) is the means provided for the public to submit entries is an implementation of the participation / oversight in the form of complaints, complaints, contribute thoughts, ideas, and constructive suggestions [4].

Input from the community include:

1. Donations thoughts, ideas, and constructive suggestions.
2. Performance of service.
3. Alleged existence of common crimes.
4. Suspected of corruption, collusion and nepotism (KKN).
5. The problems that could potentially cause social and environmental vulnerability.
6. Irregularities causing losses to the state.

1.4. Citizen Journalism

Citizen journalism or citizen journalism is an activity in which the role of journalists or journalistic activities can be done by people who are formally not a journalist. Activities that do the same with journalists in general, which collects information, writing news, editing and broadcast. In the broadcast information, citizen journalism can be done by sending a writing to the mass media such as newspapers or online media, and the editors decide whether the article is appropriate or not for publication through mass media [5].

The role and function of citizen journalism as the role and function of journalism in general, ie as a source of information, entertainment, social control, to the agents of change. In the presence of citizen journalism network of information and resources will be more extensive. When reporters do not always know all the information then in the presence of citizen journalism, the information can be up to the public through the mass media.

Some of the principles in jurnlisme is accurate, accuracy, honesty, transparency, and freedom.

1.5. Android

Android is an operating system for Linux-based mobile devices that includes an operating system, middleware and applications. Android provides an open operating system for developers to create Android applications launched to the public in the fall of 2008. Android is growing rapidly in the industry because of two main aspects that are opensource and arsitekturya models. As a project that is opensource, allowing Android to be fully understood and analyzed the features, the completion of the program to a hardware bug [6].

1.6. JSON

JSON (JavaScript Object Nation) is a lightweight data interchange format, readable and writable by manusi a, and easily translated and made (generated) by the computer. This format is based on part of the programming language JavaScript, Standard ECMA-262 Edition 3-December 1999. JSON is a text format that is independent of the programming language whatsoever for using a style commonly used by programmers family C including C, C ++, C # , Java, JavaScript, Perl, Python. Because of these properties, making it ideal as a language JSON data exchange [10].

1.7. API

Application programming interface (API) is a documentation which consists of interfaces, functions, classes, structures, and so on to build a

software. With the existence of this API, it allows the programmer to "dismantle" a software, can then be developed or be integrated with other software. API can be regarded as an application liaison with other applications that allows programmers to use the system function. This process is managed through the operating system. The advantage of this API is to allow an application with other applications can be interconnected and interact [11].

1.8. LBS

Location based services is a service that is used to find the technology of Global Positioning Service (GPS) and Google's Cell-based Location. Map and location-based services using latitude and longitude to determine the geographic location, but as our users require the address or real time positioning us not the value of latitude and longitude. Android provides a Geocoder that supports forward and reverse geocoding. Using Geocoder, you can mengkorversi value of latitude and longitude into the real world address or vice versa [12].

1.9. SADT

Structure analysis and design technique or SADT is a method for the development of a structured system that was developed in 1969 and further developed in 1974. SADT divide the system into two things: [13]:

1. As the object (object): objects, documents and data.
2. As the event (event): human activities, software and machinery.

2. RESEARCH

2.1. Analysis Of The System

Systems analysis aims to identify the problems contained in the system to be built and determine the needs of the system to be built. The analysis includes the analysis of problems, analysis of similar applications, system architecture analysis, analysis of non-functional requirements and data analysis.

2.1.1. Analysis Of The Problem

Analysis of the problem is a translation of the problems that existed before the construction of the software complaints, information, criticism and suggestions about this Cimahi city. Analysis of the problem include the following:

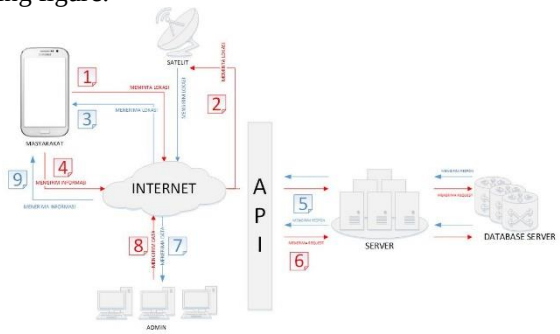
1. People have difficulties when reporting complaints, providing information, advice, and criticism of the Government Cimahi because there is no special media that bridges between the community and the City of Cimahi.
2. The Government of Cimahi experience difficulty will provide socialization on activities, as well as regulations concerning information Cimahi city to the public.
3. The absence of complaints data presentation, information / ideas, criticisms and suggestions specific to Cimahi Government had difficulty in making decisions.

The information reported by the public Cimahi city will be divided into types or categories of reports based on the policy of the city of Cimahi, because each type of report has certain priorities tailored to the vision, mission, and objectives of Cimahi city.

Examples such as high-priority health complaints, complaints infrastructure high priority, medium priority complaints irrigation.

2.1.2. Analysis Of The System Architecture

Analysis of system architecture is the stage to get a general overview of the system to be built. Whether it's a picture the user, admin to process data exchange will occur. Overview of the general architecture of the software system can be seen in the following figure:



Here is an explanation of the architecture of the software system of reporting complaints, information, criticism and suggestions.

1. Users subsystem PESDUK ask for the location where the satellite to users using the internet facilities provided by mobile Android.
2. Satellite receive and process permitaan PESDUK location of the user, and then send the user's location.
3. Users subsystem PESDUK receive the location of the user.
4. Users subsystem PESDUK send complaint reports, information, comments and suggestions about the city of Cimahi, such as photos, description, time and location of the user is located.
5. The server receives and stores the data reports of complaints, information, comments and suggestions about the city of Cimahi from users in the form of photos, description, time and location of the user is located. The server receives and stores data supplied socialization Cimahi Government.
6. The server sends the complaint report data, information, comments and suggestions about the city of Cimahi from users in the form of photos, description, time and location of the user is to the web subsystem that is used by the Department of NOC Cimahi and also to the

subsystem PESDUK. The server also sends data dissemination given Cimahi Government.

7. Admin is a Web user subsystems receive complaints reporting data, information, comments and suggestions about the city of Cimahi from users in the form of photos, description, time and location of the user subsystem PESDUK located. Data can be viewed in detail and removed by the Admin.
8. Admin sent reciprocal complaint reports, information, comments and suggestions about the city of Cimahi of users subsystem PESDUK. Admin can also provide socialization of Cimahi Government.
9. Users subsystem PESDUK receive reciprocal of the reports given, also can see reports from other users, as well as receive socialization provided Cimahi Government.

2.2. Sistem Design

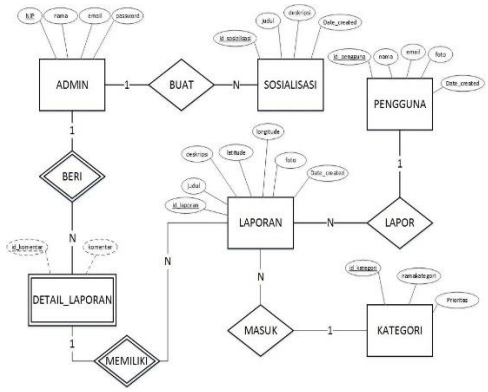
The design of the system is a depiction, planning, and making a sketch or arrangement of several separate elements into a unified whole. This stage covers configuring the software components and hardware of a system. Designing applications that are built to explain about the design of the data, procedural design, architecture menus, interfaces, up to semantic networks.

2.2.1. Data Design

The design of the data on applications to be built in the form of table relationship diagrams and structure of web application sub-system to be built.

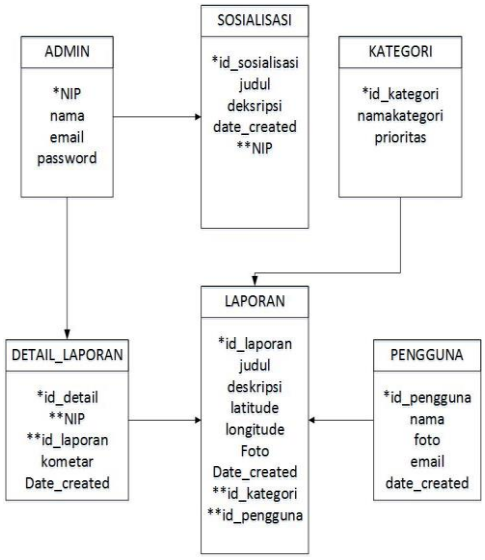
1. Diagram E-R

ER diagram depicts the entities contained in a system or software following relationships that occur in it. The relationship between the entities in this diagram will be a reference in the design stage tables. For ER diagram for the application reports, information, comments and suggestions about the city of Cimahi on the web can be seen in the following figure:



2. Diagram Relationships

Relationship diagrams of subsystems web applications to be built can be seen in Figure:



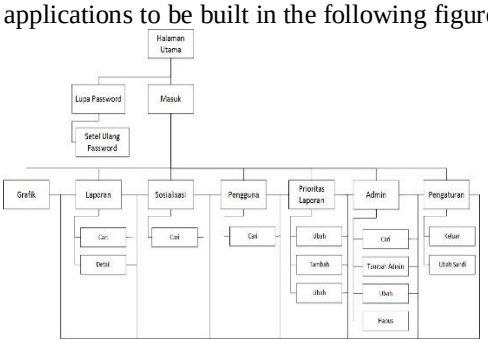
2.2.2. Architectural design

Architectural design menus in the application to be built was made into two parts of the architectural design of the subsystem menu web and mobile menus architectural design:

1. Architectural Design Menu Web

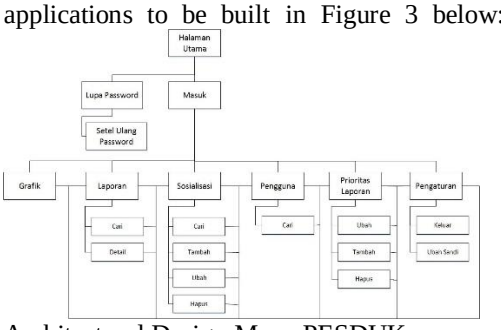
a. Super Admin

Here is the menu architectural design web applications to be built in the following figure:



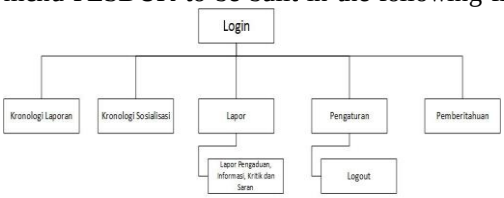
b. Admin

Here is the menu architectural design web applications to be built in Figure 3 below:



c. Architectural Design Menu PESDUK

Here is an architectural design application menu PESDUK to be built in the following figure:

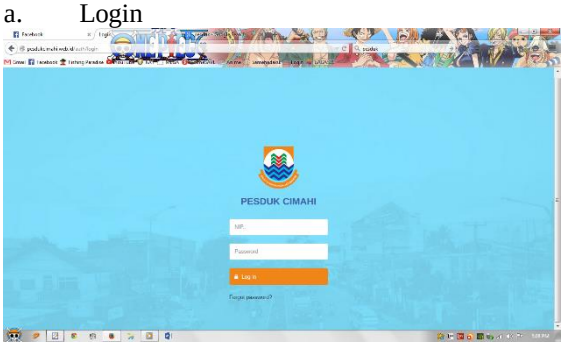


1.3. Interface

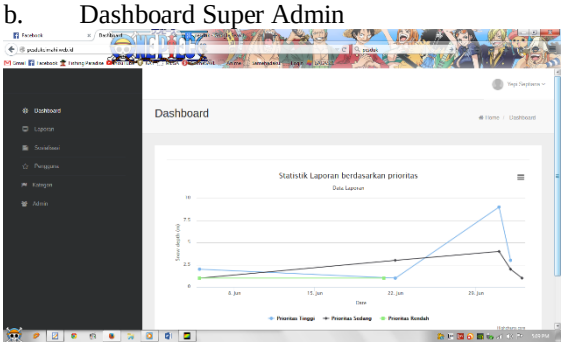
Describes the application interface window display screens on each form that exist in the application. The interface for this application consists of two types, namely web and mobile interfaces. The following picture can be seen:

1. Sistem Web

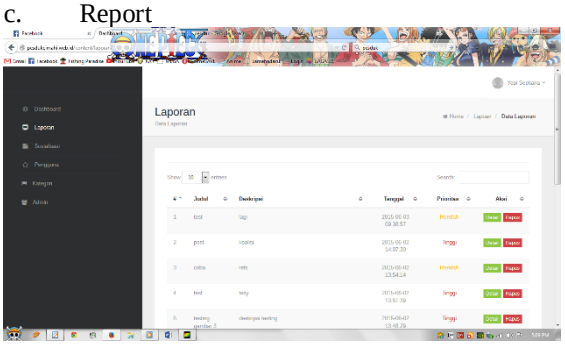
a. Login



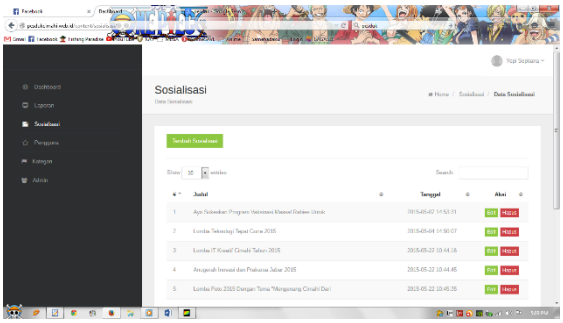
b. Dashboard Super Admin



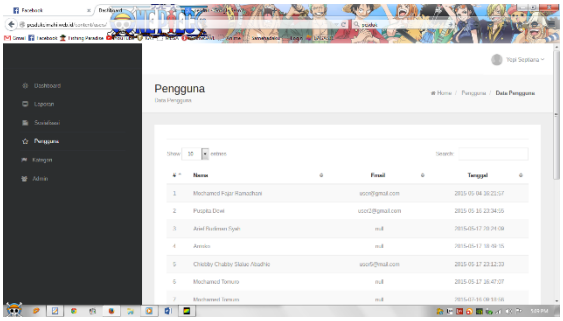
c. Report



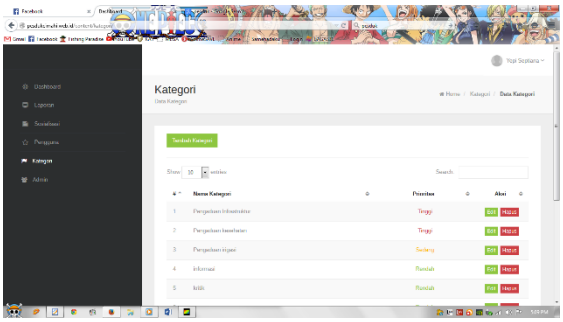
d. Socialization



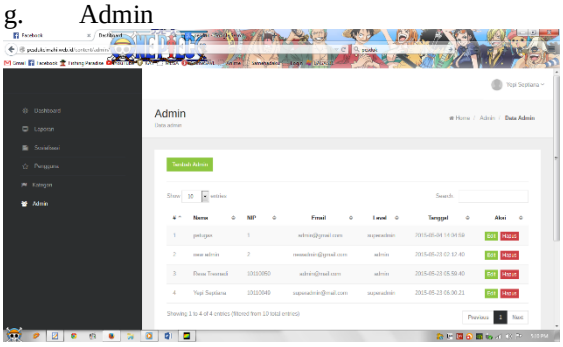
e. User



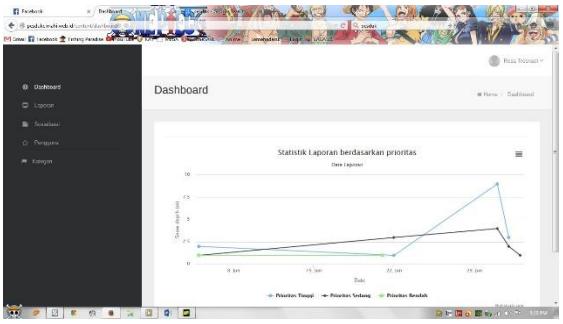
f. Genre



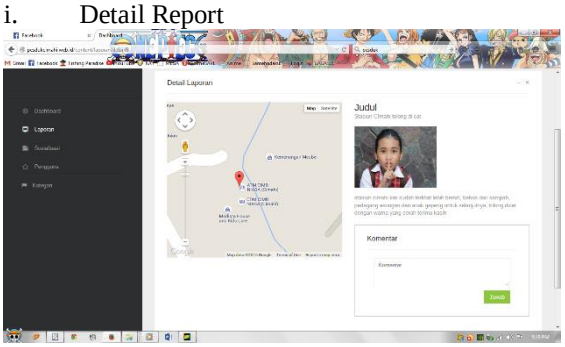
g. Admin



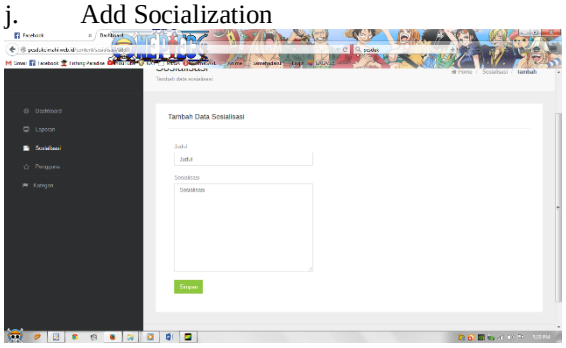
h. *Dashboard* Admin



i. Detail Report



j. Add Socialization



1. Sistem *Mobile*

a. *Login*



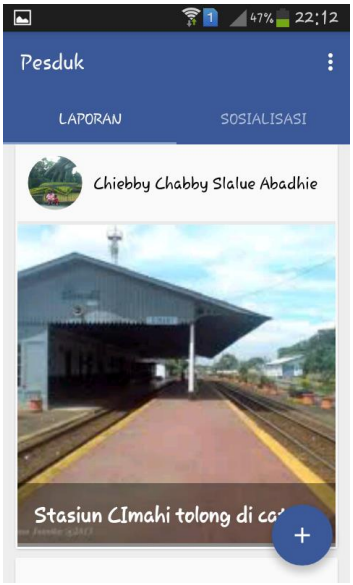
b. *Login Facebook*



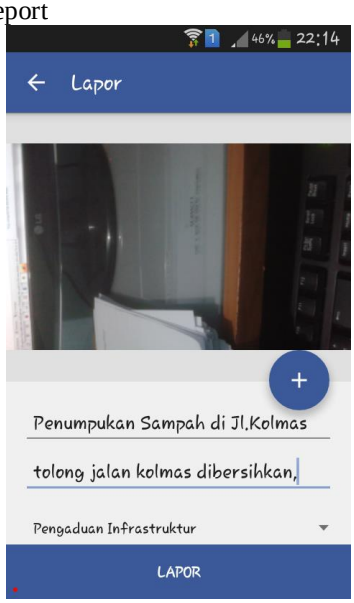
c. *Timeline*



d. *Timeline*



e. Report



1.4. Implementasi Sistem

Phase system implementation is a translation stage design based on the results of the analysis into a particular programming language and application software that is built on a real environment.

1.4.1. Environment Implementation

Implementation environment describes the recommended system requirements in the implementation environment, the need is divided into three, namely hardware, software and servers.

Here is the implementation of a software environment PESDUK.

1. Specifications Hardware Requirements

Here are the specifications of the hardware used to use the system:

Sub sistem web	Sub sistem *mobile*
Processor @2.30 Ghz	Android 4.0 ICS
Harddisk 500 GB	TFT LCD
RAM DDR3 2GB	5 Megapixels Camera Resolution (Rear)
VGA 128 MB	GSM / CDMA
1366x768 Pixel	HSDPA / EVDO
Internet	A-GPS Support

2. Software Requirement Specification

Here are the specifications of the software used to using the system:

Sub sistem web		Sub sistem *mobile*
Windows 7		Android 4.0 ICS
Web Browser	Mozilla Firefox 20.0	
	Chrome 30.0.1750.154	

3. Requirement Specification Server

Here are the specifications of the server used to use the system:

Sub sistem web
Web Space 500 MB
Bandwidth 50 GB Bulan
MySQL Database (5.1 & 5.5)
PHP (5.2 & 5.3)
CPanel 11.x
Apache 2.x mod_deflate

3. CLOSING

3.1. Conclusion

Based on the test results PESDUK applications on the Android platform, eat obtained the following conclusions:

1. PESDUK applications on the Android platform built largely been able to make the reporting of complaints, information, criticism and suggestions by the public to the Government Cimahi become easier than ever before.
2. PESDUK applications on the Android platform built mostly have helped meet the needs of the public for information dissemination regarding Cimahi city.
3. PESDUK applications on the Android platform built helped the Government of Cimahi in disseminating the socialization of Cimahi city.

3.2. Advice

Applications built PESDUK the government's first development helper application on the Android platform that is devoted to the city of Cimahi. Therefore it is necessary to developments towards the better to meet the growing needs of users. As for suggestions for future application development PESDUK are as follows:

1. Adding new features, such as text filtering categories based on the description given by the user, filtering socialization provided by the city of Cimahi, users can comment on the report other users.
2. Develop PESDUK applications to be used not only on the Android platform alone.
3. Developing applications PESDUK to be used not just in the City of Cimahi, but every existing government agencies both in the city and outside the city of Cimahi Cimahi.

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