JOURNAL OF INFORMATION SYSTEMS & APPLIED COMPUTER SCIENCE || 2614 – 0918

Design of Web-Based Legislative Candidate Application

Akhmada Qadafi Tamjis[1], Achmad Fitro[2]

[1,] Computer Engineering, [2] NSC Polytechnic Surabaya
daffy.ahmad@gmail.com

Abstract

A web-based Legislative Candidate application combined with Hierarchical methods, data processing from various areas of legislative candidate election will be easy and efficient things to be processed. The Legislative Candidates no longer take a long time in the process of determining the campaign strategy, since all data from cadres or volunteers from the village level to district or even at province level will be systematically uploaded in this application. This greatly facilitates the Legislative Candidates to analyze the weaknesses and strengths of each region in a relatively short period of time. This legislative candidate application also completed by pie diagrams and chart diagrams features for a more comprehensive and systematic data view.
Keywords: Legislative Candidate, Web-based Application, Election

I. INTRODUCTION

Technology has made it easier for humans to do their daily work. This can be felt in the presence of a computer that is able to process data processing quickly and efficiently to become an information that is very useful for human life. Unfortunately, the use of technology is still not evenly distributed in all our daily aspect, one example is the recapitulation of vote counting results that in fact still uses a manual system. Manual recapitulation of vote counting results is less efficient because using paper and also successful teams are required to go into the field to record directly supporters who want to vote for their chosen candidates.

The need for efficient and dynamic data processing also triggers several private institutions such as Political Parties to start looking at the use of technology in facilitating them to coordinate with cadres in the regions.

This web-based Legislative Candidate Application is an application that is potential to continue to be developed in the future. This is because Indonesia is a democratic country that will continue to hold elections every five years. Automatically *CALEG* (legislative candidate) will emerge from each party that definitely needs this application for the effectiveness of coordination with cadres in the area. Therefore, the author will make a research entitled " Design of Web-Based Legislative Candidate Application ".

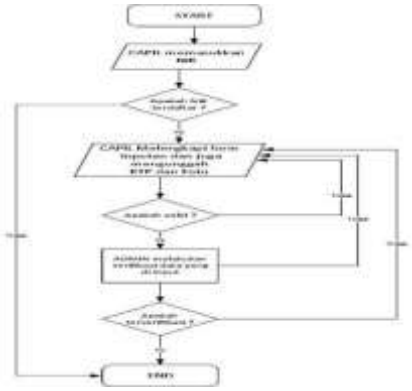
II. DESIGN

The objectives to be achieved from the design stage are as follows:

1. Meet the needs of system usage (user).
2. Provide a clear picture and produce a complete design for computer programming and other technical experts involved in developing or manufacturing systems.

2.1 Flowchart Sistem

This flowchart is a graphical description of combined procedures sequence of a system which will be explained in Figure 3. 1



Picture 3. 1: Support registration flowchart

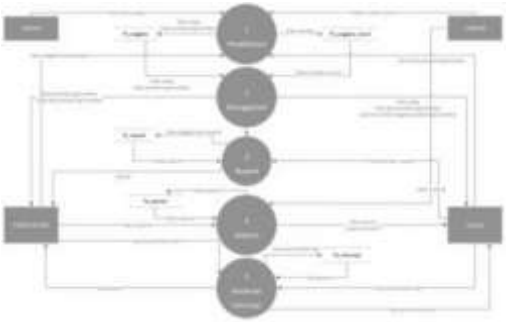
2.2 DFD (Data Flow Diagram)

DFD is a diagram that uses notations to describe the process of reciprocal relations activity on a system. The DFD used here includes:

a. Context Diagram / DFD Level 0

Figure 3. 2 Context Diagram

b. DFD Level 1



Picture 3. 3 DFD Level 1

2.3 Basis Data

a. Table classification

In this application the compilation of tables in the database is classified into two as shown in table 3.1 with the following explanation:

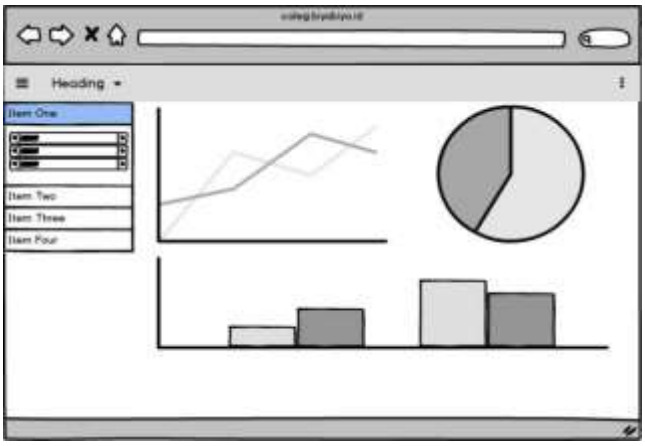
1) Master table
   The data in the master table is the original input data without processing.
2) Transaction table
   The data in the transaction table is the result data with the master data itself.

Master Table	Transaction Table
Data Supporter	Data Recruiters
Member /User Data	Reward Data
Place Data (Province, City, District, Village)	Message Data (General, Coordination, AspirationMessages)

Table 3. 1 Classification of Table Types

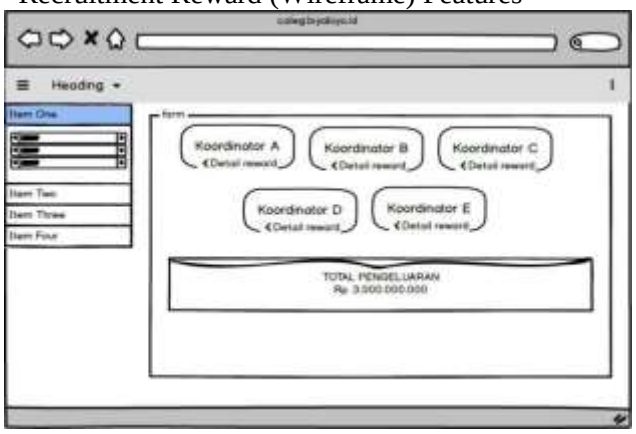
2.4 Design Module

a. Graph Mapping Area / Wireframe Feature



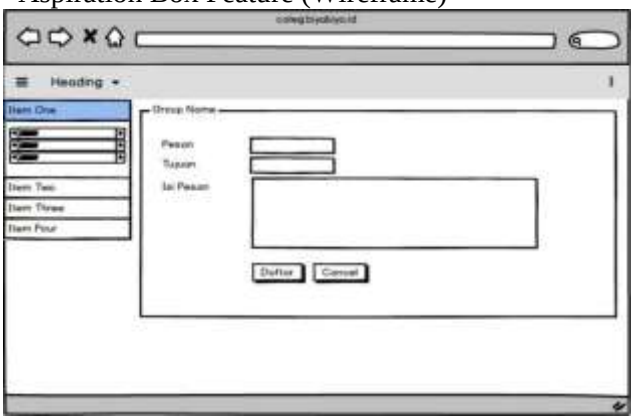
Picture 3. 4 Graph Mapping Area / Voter Map

b. Recruitment Reward (Wireframe) Features



Picture 3. 5 Recruitment Rewards

c. Aspiration Box Feature (Wireframe)



Picture 3. 6 Aspiration Boxes

2.5 ERD (Entity Relational Diagram)

Picture 3. 7 ERD Legislative Candidate Applications (CALEG)

III. IMPLEMENTATION

The next step after designing the system is the implementation of the system. System implementation will change the form of design in the form of materials into programming.

3.1 Web Design

a. Page Member log in

Those who will access the features in this application, must log in according to their roles, and each user has different access rights. Access rights are divided into:

1. MASTER (CALEG / Administrator of CALEG)
2. RING 1 (Registered by MASTER) - MAIN TIMES
3. RING 2 (Registered by RING 1) - City Coordinator
4. RING 3 (Registered by RING 2) - District team coordinator
5. RING 4 (Registered by RING 3) - Village coordinator
6. RING 5 (Registered by RING 4) – Polling Stasion Coordinator (TPS Coordinator)
7. VOLUNTEERS (Registered by Master and RING 1)
8. GENERAL (Register yourself via application / Web)

Picture 3.8 : Login page

b. General Support Registration

This feature is a team / support registration system that is useful for data collection of coordinators from sub-district, and village to prospective voters. The winning team can register through the application if they have *Android* or *IOS-based* Mobile Phone.

c. Dashboard

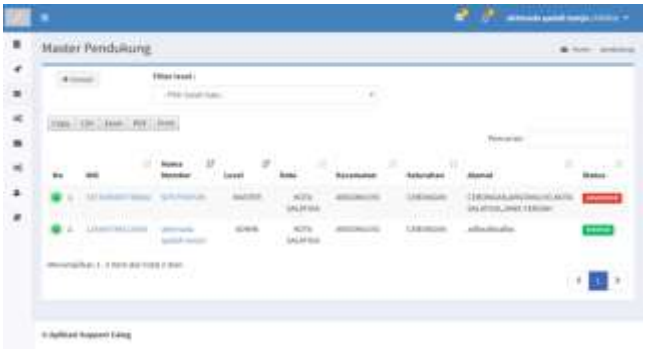
This feature is a report of recruitment team in the form of graphs and can be seen based on:

1. City area consists of sub-districts, villages, polling booths
2. The name of the coordinator consists of cities, sub-districts, villages and TPS (Polling Booth)
3. There is a comparison with the DPT (Final Voter List) chart from KPU (General Elections Commission) with number of recruits

Picture 3. 1 Dashboard

d. Supporting Master

This page presents data about supporters with verified status and also unverified which also serves as information for Administrators to immediately verify.



Gambar 3. 2 Master Pendukung

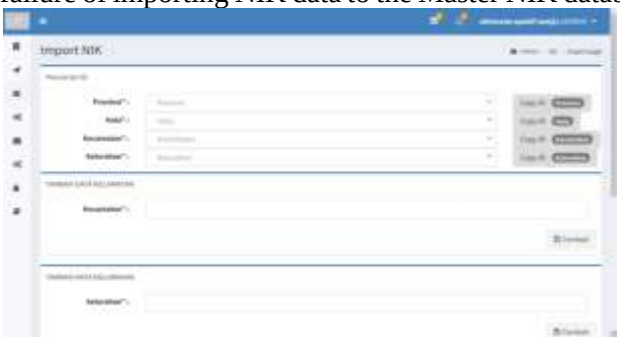
e. Master *NIK*

This page presents data about DPT from KPU that has the potential to choose the CALEG. Some functions of the table are searching and sorting by field.

Picture 3. 3 Master NIK

f. *Import* NIK

This page has a function to check the string / character that corresponds to the database of the place (province, city, sub-district, village) to minimize the failure of importing NIK data to the Master NIK database.



Gambar 3. 4 Master NIK

g. **Setup *Reward***

This page has a feature that functions as a communication medium between CALEG masters and supporters, GENERAL, volunteers. This page also presents a summary of all incoming aspirations.

h. *Report Pendukung*

This page presents data about the acquisition of volunteers, supporters, rewards and the percentage of acquisition of each region. Regional level that can be accessed hierarchically from City -> subdistrict -> kelurahan -> TPS (Polling Booth)

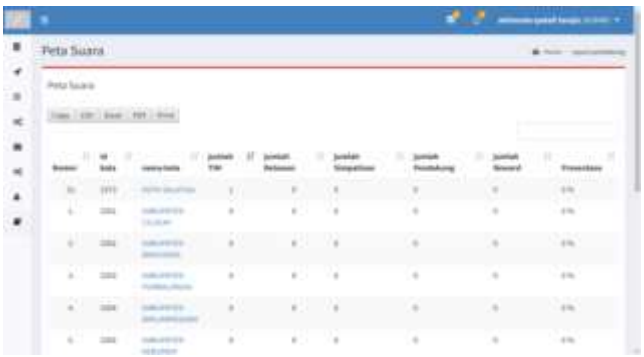


Figure 3. 15 Supporting Reports

i. *Total expenditure*

This feature is to provide reward info on recruitment results. Each level of coordinator per recruit value is different.

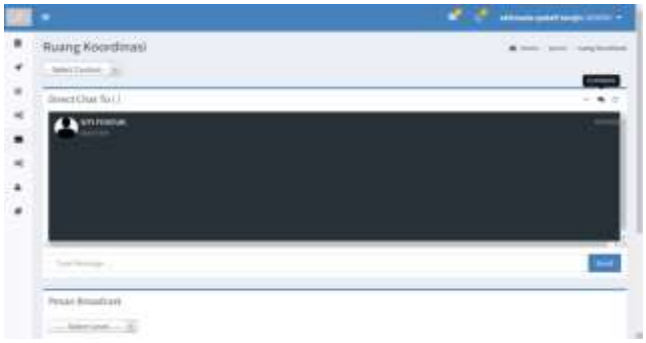
Picture 3. 5 *Total Pengeluaran*

j. ***General Message***

This page displays a general message broadcast by CALEG for all entities. (CALEG module with additional edit and delete data functions)

k. *Coordination Room*

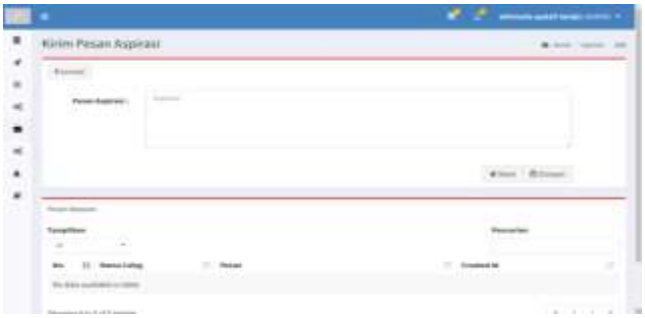
This feature is used to communicate between constituents and CALEG privately, if constituents report any problems or info that needs to be submitted related to the village then they can use this feature.



Picture 3. 6 Ruang Koordinasi

l. ***Aspiration Box***

Messages from constituents enter the MASTER Inbox, only the master rights holder can see the message of aspirations from the aspiration box column constituents displayed in the front view.



Picture 3. 7 *Kotak Aspirasi*

m. ***System Licensing***

This page functions as a menu configuration that can be accessed by each entity.

Picture 3. 8 *Perizinan Sistem*

n. Account

Picture 3. 9 Account

This page is used to edit user / profile data.

IV. CLOSING CHAPTER

A. Conclusions

Based on this final report writing, the writer can get the conclusion that the CALEG application has several advantages;

1. With this application, it will make it easier for users of the CALEG application to support CALEG of their choice.
2. Users no longer need time and effort in the installation process, if previously they still use a desktop-based CALEG application that requires quite a lot of time in the installation process.
3. No need to reinstall the application if there is damage to the application.
4. Multiplatform.

B. Suggestions

This application is certainly still not perfect, we recommend for users to continue to provide suggestions for adding features to adjust. Some shortcomings that can be developed by the next researcher are real time notification features and also a quick count feature that is usually available on the election data presentation based application such as this application.

V. References

Alwi Hasan, dkk. *Kamus Besar Bahasa Indonesia*. 2005. Jakarta: Deapartemen Pendidikan Nasional Balai Pustaka.

Aryanto.2016.*Step By Step Penggabungan AdminLTE Dengan Codeigniter (Membuat Tampilan Form Login): (Codeigniter Tingkat Pemula)*, aryanto165.com

Achmad Solichin.2016. *Pemrograman Web Dengan Php Dan Mysql*. Jakarta:Universitas Budi Luhur

Buyens, Jim. 2001. *Web Database Development*. Elex Media Komputindo. Jakarta

HM Jogiyanto. 2001. *Pengertian Aplikasi dan perkembangannya*. Andi Ofset. Yogyakarta

JUD.2017.*Pemrograman AngularJS untuk Pemula: Teknik Membuat Aplikasi Web Menggunakan AngularJS*. Jubilee Enterprise

Janner, Simarmata. 2010. *Rekayasa Perangkat Lunak*.Yogyakarta: Penerbit Andi

Kristanto, Andri. 2008. *Perancangan Sistem Informasi dan Aplikasinya*. Yogyakarta

Gava Media.Remick, Jarel. (2011). *What Is a Web App? Here's Our Definition*, http://*web*.appstorm.net, dilihat 30 Juni 2018

Miftahul Huda dan Bunafit Nugroho. 2010. *Membuat Aplikasi Database dengan Java, MySQL, dan NetBeans*. Jakarta :Elex Media Komputindo.

Remick.2011.*Definisi Aplikasi Web*,http://Struktur kode.blogspot.com , dilihat 30 Juni 2018

Supono, dan Putratama Vidiandry.2016. *Pemrograman Web dengan menggunakan PHP dan Framework Codeigniter*,Yogyakarta: Deepublish.

Wardana.2010.*Menjadi Master PHP dengan Framework Codeigniter*,Jakarta:Elex Media Komputindo

Wikipedia.2016.*Codeigniter.* https://id.wikipedia.org/wiki/CodeIgniter ,dilihat 30 Juni 201

Yuhefizar.2012.*Cara Mudah Membangun Website Interaktif Menggunakan CMS Joomla Edisi Revisi*. Jakarta : PT. Elex Media Komputindo.