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APAN (Anti-Drugs Youth Alliance) Membership Information System

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Abstract: Anti-Drugs Youth Alliance (APAN) is a non-government organization that is engaged in the scope of prevention of drug abuse in South Kalimantan. Although this organization has existed for more than a year until now it still does not have a system that supports its implementation of activities and information. Besides that, problem, another main problem which was found in this study is about the membership management of South Kalimantan APAN, because the member of APAN is widespread in each district and cities in all over the South Kalimantan Area. Based on that problem, this group project implementation aims to make an information system that can manage the South Kalimantan APAN web-based membership system. In this website making, the South Kalimantan APAN information system uses the prototyping method, so that developers and users can have an interaction between one and another along the system making process. The South Kalimantan APAN membership information system that is made is in a form of a website, so it can be accessed by using a computer, laptop, and smartphone at anytime and anywhere if it is connected to the internet.

Keywords: *South Kalimantan APAN, member, information system, website, organization.*

I. INTRODUCTION

Drugs (or 'Narkoba' in Bahasa Indonesia) stands for narcotics and drugs / hazardous materials. Besides that, "drugs" also has another term introduced especially by the Ministry of Health of the Republic of Indonesia, namely NAPZA which stands for Narcotics, Psychotropic, and addictive substances[1]. The term "drug" or "narcotics" generally refers to a group of compounds that users pose a risk of addiction or dependency[2]. Based on data from the National Narcotics Agency, drug abuse cases are increasing every year. The highest case is the narcotics group. In 2008 there were 10,008 inhabitants. In 2009 it increased to 11,140 people. In 2010 it increased to 17,898 inhabitants. In 2011 it increased to 19,128 people. In 2012 it decreased to 19,081 people[3].

Drug use outside the medical indication, without instructions or doctor's prescription, and its use is pathological (causing abnormalities) and causes obstacles in activities at home, school or campus, workplace, and social environment[4]. Society especially teenagers have high curiosity, the more they are banned, the closer they will get to the ban. When they do not have a strong foundation to avoid drug abuse, they will be trapped[5].

Drugs have bad effects both individually, family, and society. Effects that occur on individuals include mental disorders, dependence, health problems, becoming a criminal, destroying their future, and resulting in death[6]. The more unsettling drug abuse in South Kalimantan, than on a direct mandate by the governor of the province of South Kalimantan, Mr. H. Sahbirin Noor, a youth organization was established which aims to save the younger generation from the dangers of illicit trafficking and drug abuse in South Kalimantan under the name of the Alliance Anti Narcotics Youth (APAN) is a Non-Governmental Organization engaged in the prevention of drug abuse in South Kalimantan[7].

Even though the APAN organization has been in existence for more than two years, up to now there is still minimal use of information systems. This is because APAN does not yet have a system that can support the implementation of activities and information; where this system is useful as a media publication to the wider community. Therefore, we need media in the form of an information system that is easily accessed by anyone to see the activities and performance carried out by APAN.

The information system in an organization plays a very important role, especially as a basis for organizational decision making. The increasing use of information technology has been able to bring everyone able to carry out sharing activities accurately, with quality, and on time[8][9].

Based on observations which are methods or methods of gathering information or data carried out by making observations and recording systematically of the phenomena that are being targeted by observations[10], APAN still uses the media in the form of a Facebook group as a medium for delivering information such as APAN activities, education about the dangers of drug abuse, news of drug abuse cases and others. From observations made on the APAN Facebook group page wall many messages from members of the APAN Facebook group who want to join the APAN organization. Apart from direct observation in determining user needs, there was an interview with Mr. X, as a stakeholder representative who handled the publications and information media of APAN, from his explanation he found problems such as, APAN as a youth organization has an active role in combating drug abuse in South Kalimantan, APAN must have a media in the form of an information system that can educate the public about the dangers of drug abuse and provide information in the form of news, activities from APAN and Entertainment, and has the main function as a media for data collection and management from the community who have become a member or want to become a member of APAN South Kalimantan[11].

Based on these problems, it is necessary to make a web-based information system that can overcome these problems, this system can do "Create, Read, Update and Delete (CRUD)" APAN membership data, the system is also useful As a media counseling about prevention of drug abuse. Media website was chosen because based on a survey of the Indonesian Internet Service Providers Association (APJII) the number of internet users in Indonesia reached 143.26 million people with a percentage reaching 54.6% of the total population of Indonesia. With the largest percentage of users being young people from the age range of 19-34 years at 49.52%. Based on the area of internet users spread throughout Indonesia, Kalimantan accounted for 7.97% of users[12].

II. METHODOLOGY

The methodology used in establishing the APAN South Kalimantan membership system is the Prototyping methodology. Prototyping is a software development method that is widely used. With this prototyping method developers and customers can interact with each other during the system creation process[13]. The prototyping method will help in finding needs in the early stages of development, especially if the client is not sure where the problem originated. Apart from that this method is also useful as a tool for designing and improving interfaces, and how the system will be seen by the people who use it. So, this method is best used to solve problems if there are misunderstandings between users and analysts arising from users not being able to clearly define their needs[14].The steps in the prototyping methodology are divided into four stages as follows:

Analysis

In determining the user needs of the system, it is necessary to do analysis and direct observation related to the emergence of thoughts or ideas to create and develop an information system. The analysis is performed by members of our group/team who hold the job desk as analysts. Analysts will analyze any problems that occur in the APAN organization related to information technology, such as analysis of weaknesses of the existing system, analyzing system requirements namely hardware used, in the form of computers or laptops, internet connections, storage media (hard disk) and others, also the software used in the form of xampp localhost, HTML, CSS, web, and others. Besides, analysts will also analyze the needs of users, by making observations or direct observations on the object of research, to conduct interviews with stakeholders from APAN South Kalimantan.

System Planning

The design of the system in Indonesian, will be determined how the system can meet the information needs of the user. System design consists of design activities that produce functional specifications of the system created. In extending the system involving analysts and programmers who collaborate in designing the system, such as in the design phase of the process in designing the use case and design the activity diagram of the system that we made, then the analyst will design the database using two methods namely CDM (Conceptual Data Model) with connecting related tables and the PDM (Physical Data Model) method, this method uses several tables to describe the data and the relationship between the data. The next stage the analyst will make a design of the interface design (interface) website pages, home page interfaces, member pages, admin pages, and others, in the form of a sketch or figuring out any elements that will be included in the website components that will be created and then implemented by the program maker for the actual appearance of the South Kalimantan APAN website page.

Testing

The purpose of system testing is to determine the errors that might occur in the system that was made and to revise the system. Tests carried out by the program together with analysts to find out whether there are errors from the system made. During the testing phase, 51 experiments were carried out using the black box testing technique, which consisted of 41 trials for button trials on the APAN South Kalimantan website, 7 trials for basic system functions, and 3 trials for system notification forms. From all these experiments the results were obtained that all were carried out successfully.

Implementation

The implementation phase is the stage of implementing the system that has been created to be used directly by users of the South Kalimantan APAN website. In website manipulation, the super admin will create an account for the South Kalimantan admin and regional admin so that they can access the admin page by first logging into the admin login page to manage and verify members who want to register as APAN members. Also, the admin can also enter news, activities, and entertainment on web pages. For those who want to become a member must first register on the member registration page by filling in the form provided, until later whether it is approved by the admin to join becoming an APAN member. If the registration made by a member is approved by the admin, the member can log in on the member login page, for members who have registered can report drug abuse on the reporting page.

III. Result and Discussion

Analysis Results

The analysis is a very important stage in making a system. It is especially after the designation of topics about the system to be made. This is because a program maker can't be able to directly create a system without prior analysis[11]. The analysis is useful to facilitate the making of the system in determining what are the basic needs and supporters of the system to be made, also what kind of system is needed by the client. In carrying out the analysis carried out by one or several analysts. The analyst is tasked with observing the system to be made based on requests from stakeholders, can be in the form of interviews, observations, and the like before starting the making of the requested system.

- System Weakness Analysis. For about more than 2 years of APAN existence, it doesn't have the official website as an APAN system and information media. So far, the APAN information distribution only uses the Facebook group.
- System Requirements Analysis. There are some requirements need to create a system. Here we will describe some needed requirements to support the making of a system:
- Hardware Requirements Analysis. The specifications of the computer/laptop needed for making this program are (1) Processor with a speed of 2.9 GHz; (2) 4 GB RAM capacity; (3) 40 GB storage media capacity; (4) Monitor 10 inch and above; (5) Keyboard and Mouse; (6) LAN Card; (7) Connection to the internet network.
- Software Requirements. In carrying out the group project carried out, our team used some software, including: (1) Sublime Text 3 or Notepad ++ or Atom; (2) Xampp v3.2.2; (3) HTML; (4) Jquery; (5) CSS Framework, namely Bootstrap; (6) Web browser, for example, Google Chrome or Mozilla Firefox.
- Information Needed. Obtained from the APAN membership information system in the form of information data on publications from APAN in the form of news, activities, and entertainment, the profile of APAN in the form of vision and mission, history, and organizational structure, then there is an APAN membership which contains a list of members and member registration forms. and also the reporting form for APAN members.
- Users Need Analysis. User needs are determined based on observation or direct observation on the organization and also direct interview (Rosa & Shalahuddin, 2015). Based on observations made, APAN still uses the media in the form of a Facebook group as a medium for delivering information such as APAN activities, education about the dangers of drug abuse, news of drug abuse cases, and others. From observations made on the APAN Facebook group page wall many messages from members of the APAN Facebook group who want to join the APAN organization. Apart from direct observation in determining user needs, there were interviews with Mr X, as representatives of stakeholders who handled the publication and information media section of APAN, following excerpts of our interviews with resource persons[15]:

Author	: "Are there any obstacles facing APAN related to Information Technology?"
Interviewee	*:*"Until now APAN does not have a website, so it is constrained in conveying and disseminating information to the wider community in combating drug abuse"
Author	: "For the members of APAN itself, have they been recorded?"
Interviewee	: "Well, based on that, APAN requires a website. Aside from being a media of information, the website will have the main function of managing and registering members of APAN, which for those who want to register as a member can go directly to the website"

From his explanation, it can be concluded that APAN as a youth organization that has an active role in combating drug abuse in South Kalimantan, must have a media in the form of information systems that can educate the public about the dangers of drug abuse and provide information in the form of news, activities from APAN and Entertainment, and has the main function as media guidance and management of the people who have become members or want to become members of APAN South Kalimantan.

System Design

The design in software development is an effort to construct a system that gives satisfaction to functional requirements specifications, meets targets, and meets implicit or explicit needs in terms of performance and resource use[11] which all design in Indonesian.

- The Process Design. The concept of system modeling is made using a model called UML (Unified Modeling Language). UML is a language based on graphics or images for visualizing, specifying, building, and documenting an object-oriented software development system[16]. It is solving the main problem of object-oriented usually with a depiction in the form of a model. The abstract model (pseudo) is a detailed description of the core problems that exist, generally the same as a reflection of the problems that exist in reality[17].
  - Usecase Diagram Design. The Usecase diagram is an overview of what can be done or accessed by users (actors)[11]. The usecase diagram design in this system consists of 5 (five) users (actors), namely use case Super Admin design, use case Admin KALSEL, Regional Use case Admin, Member usecase, and Visitor usecase as shown in Fig 1 below.It can be seen from Fig 1, each user has relatively similar access rights between Super Admin, South Kalimantan Admin, and Regional Admin.

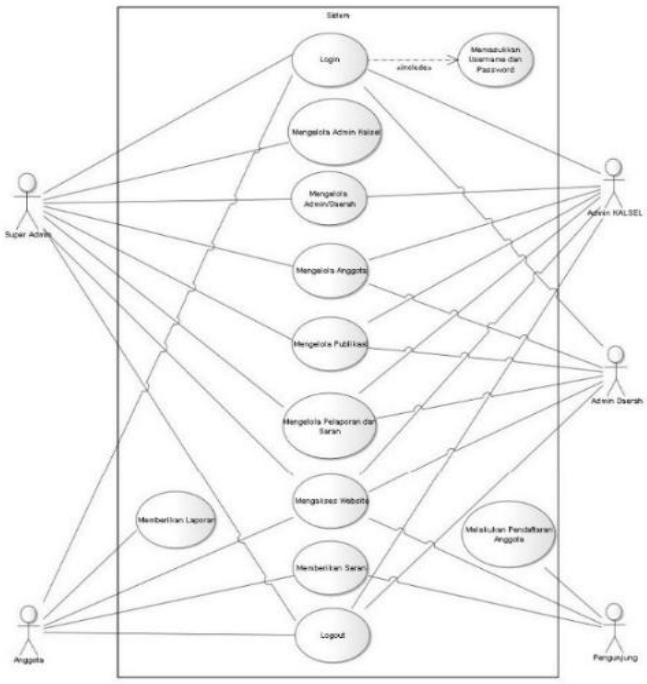

Figure 1 User usecase

  - The diagram Activity design in doing member registration. The design diagram of Visitors activities who want to register to become members of APAN, can register members by going to the member registration menu (see Fig 2).
- Basis Data Planning. Database systems are the computerized systems with the primary purpose of maintaining data that has been processed or the information and making information available when needed[11]. In designing the database used 2 (two) methods, namely CDM (Conceptual Data Model) and PDM (Physical Data Model).Fig 3 is a database that is used in making this information system, in which some tables are interrelated (connected), each table does have to be interconnected or related so that data access to get precise and fast information can be done well[11].

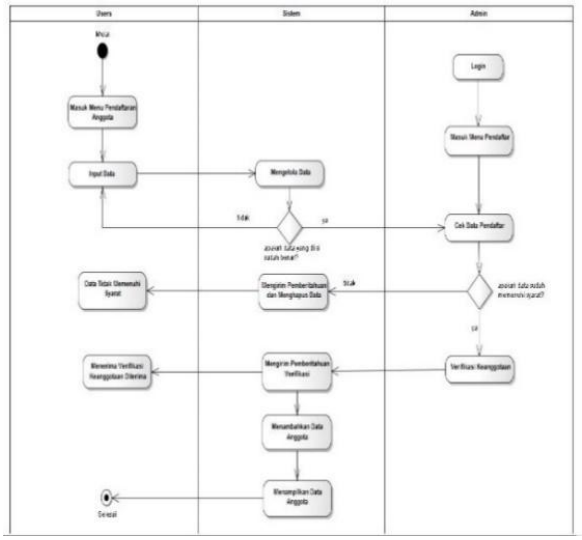

Figure 2. Activity diagram

- ***The CDM Method***

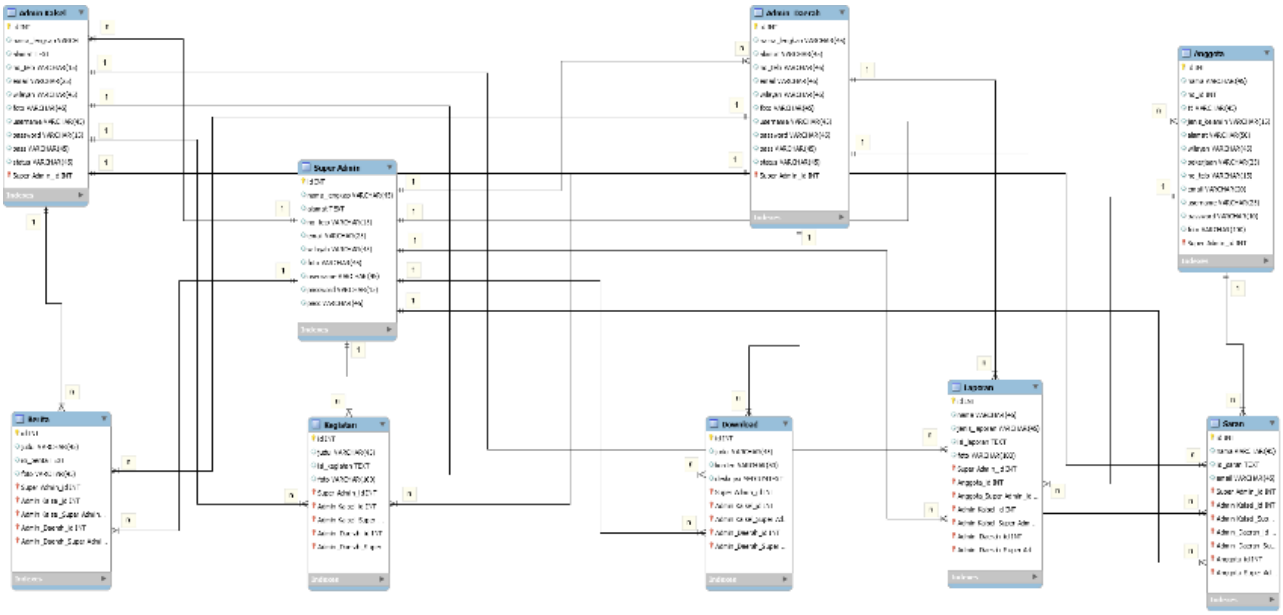

Figure 3.Database andentity-relationship diagram

- The PDM Method.This method uses some tables to overview the data and also the relation between that data[11].

Table 1.Relation table

Field	*Type*	*Length*	*Primary Key*	*Autoincrement*
id	INT		√	√
name	VARCHAR	45		
no_id	INT			
ttl	VARCHAR	45		
gender	VARCHAR	15		
address	VARCHAR	50		
area	VARCHAR	45		
job	VARCHAR	25		
no_telp	VARCHAR	15		
email	VARCHAR	100		
username	VARCHAR	25		
password	VARCHAR	10		
photo	VARCHAR	100		

- Interface Planning. Interface Design is the design of a website that will be created. The following is the design or interface design contained in the system, such as:
  - The Interface in the Home Page Menu. The following Fig 4 is a page menu interface display. The home page is the opening page of the APAN membership information system website. On this page contains search forms, logos, navigation menus, sliders from the latest news, python to the member registration form, publications containing several news recommendations, next there is also a list of publications in the form of news and activities from APAN, then there is a list section containing entertainment recommendations such as videos and music, and the very bottom footer.
  - The Interface Planning of Member Page Menu. The member page menu interface consists of three sub-menus such as the list of members, member registration, and report.
    - The Interface Member's list sub-menu page. In Fig 5 it contains the Sub-menu page interface, listing members. From this view, it will be in the form of a list of APAN members who have registered and there is also a member search form and a dropdown from the member's area.
    - The Interface Design Member Registration Submenu Page. For the interface display of the member registration submenu page as in Fig 6 below, this page interface contains a form to register as a member of APAN.
    - Interface Report Sub-Menu Page Design. The interface page of the reporting submenu contains a reporting form that can only be done by registered members. For more details can be seen in Fig 7 below.

Figure 4.Home Page Menu

Figure 5.The Interface of Member Listing Page Menu

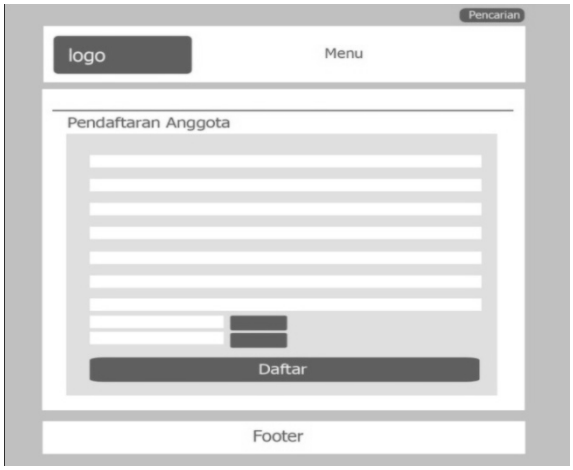

Figure 6. Design Member Registration Submenu Page

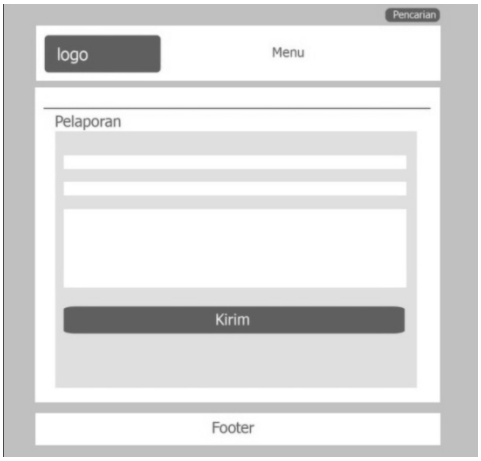

Figure 7. Report Sub-Menu Page Design

Testing Results

Before giving it to the client, the website goes through a trial phase first to find out if the system and functions of the website are correct and running as they should. This testing process is carried out to ascertain whether the systems and programs that have been made are by need[18]. The form of testing carried out is to use black-box testing techniques. Black box testing is done to determine whether all software functions are running properly according to the functional requirements that have been defined[19]. For the examples are finding errors that occur, whether found an incorrect function or missing, interface errors, data structure errors, or performance errors. In this APAN Membership information system, the tester has carried out 3 (three) types of test stages, namely:

- Test the button, which is testing the buttons on the website such as the CRUD button, member registration, login, and others.
- Testing the basic functions of the system, such as displaying data, user access rights, CRUD functions, and display menus are distinguished for each user.
- Test the notification form (notification) system about data input to find out if it is appropriate.

From these activities, 51 experiments were produced with the details of 41 trials for key trials on the South Kalimantan APAN website, 7 trials for basic system functions, and 3 trials for system notification forms. Of all these experiments that were successful to do, the system was declared to have passed the black box testing technique.

Implementation Results

The system implementation that will be discussed in this part is including half of the website and admin page implementation.

- WebsitePage Implementation
  - Homepage. The home page is the opening page of the website[20]. On the Home menu page, visitors can see the latest info displayed by the APAN website. This page displays a slider in the form of photos, and a showcase containing the latest information consisting of news, activities, and entertainment (see Fig 8).
  - Members List Submenu Page. Members are a group of people who are part of or belong to a group or organization[21]. On the submenu page, the member's list displays information about who is officially registered APAN members in the organization.
  - Members Registration Sub-Menu Page. The Members Registration submenu page displays a form that can be filled in by visitors who are interested in becoming members of the APAN membership, by filling in their complete data based on the form displayed.
- Admin Page Implementation
  - Admin Login Page. The Admin login page is a page that must be accessed by the admin before being able to go to the admin page dashboard. Login is used to authenticate the admin, on this page the admin must enter a username and password to access the menu functions menu on the admin page[22] (see Fig 11).
  - DashboardMenu Admin Page. The dashboard is a user interface page[23]. On the home page admin menu, there is the main menu located on the left and arranged vertically from top to bottom, including the homepage menu, publication menu with news submenu, activity submenu, entertainment submenu, and member menu with member list submenu, submenu verification, submenu report. Besides that; there is also a profile and logout menu at the top right (seeFig 6).
  - Member Page Admin Menu and Member List Submenu. The member menu admin page consists of the Members List, Registration and Reporting submenu (see Fig 13 and Fig 14).
  - Admin Submenu Registration Page. On this page, prospective members who have registered will be verified by the admin if it is approved to become a member[24] (see Fig 15).
    - Admin Submenu Report Page. On the admin page of the Reporting submenu there is a table that displays reporting data, such as Name, Report Type, Photos, and Actions (change, delete and view) of the reporting data. Besides, there is also a Search form to facilitate the search for specific reporting (seeFig 16).

Figure 8.Home page display

Figure 9. Members List Submenu Page

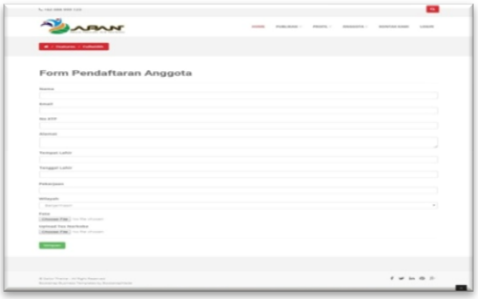

Figure 10. Members Registration submenu page

Figure 11. Admin Login Page

Figure 12.Dashboard admin menu page

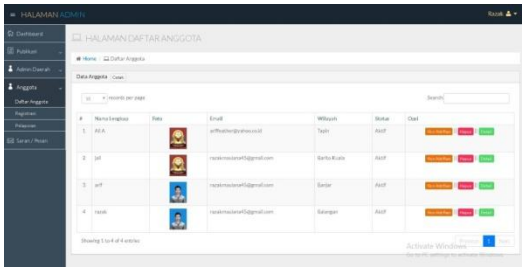

Figure 13. Admin Page Submenu Member List

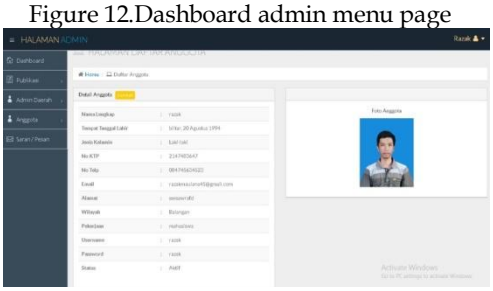

Figure 14. Admin Page Submenu Detail Member List

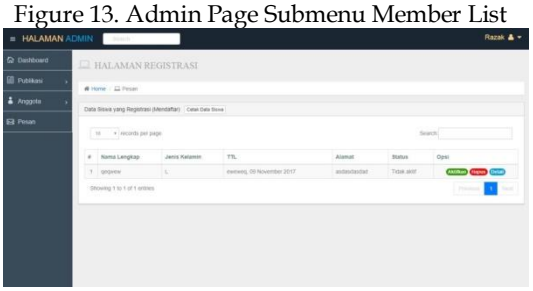

Figure 15. Admin registration page

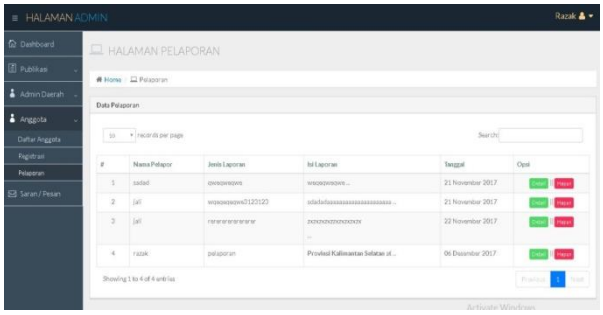

Figure 16.Admin Submenu Report Page

IV. Conclusion And Recommendation

This study concludes that a container (media) has been built in the form of an information system that can manage membership that is widespread in all districts and cities in South Kalimantan. The system is made based on the website at APAN South Kalimantan. In addition to being able to manage membership, the system is also useful as a medium of publication to the wider community.

The recommendations for the APAN South Kalimantan membership information system to be even better going forward areas (1) The appearance and security need to be enhanced since this website making was not using a framework, (2) If there is a notification for the members, that notification can be sent directly to the email address of every member, and (3) This South Kalimantan APAN website membership information system needs to be developed again to make it is better.

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