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Pitumpanua Community Complaint Service Based on Software Development Life Cycle

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ABSTRACT

Public services generally only provide suggestion box to people who have complaints. In the ongoing complaints, namely the people use written media (suggestion and complaint boxes) and oral media (face to face with employees). The complaint handling system is not stored in the database which causes the unknown number of complaints that have or have not handled so that the handling of complaints is delayed or skipped. Every complaint that is recorded manually will attack the search for data and is not efficient because complaints must be met directly and do not rule out data being damaged or lost because there is no backup. This study aims to develop a Community Complaint Application in the Pitumpanua District and to find out the results of testing the Community Complaint Application in the Pitumpanua District. This study uses a model waterfall development with data collection techniques using techniques interviews, and questionnaires to measure the feasibility of the device software that has been developed with several Respondentts. System testing in this study uses several standards the quality of software development, namely ISO 25010, among others are functional suitability with good category results, very good usability, portability with good category results, Based on the results research is produced a Complaint Application Development Website-Based Society that can be used to make public complaints and manage the administration of public complaint reports.

1. Introduction

A sub-district is part of a district or city that oversees several villages or sub-districts, headed by a sub-district head. The sub-district has the task of carrying out the duties of the district government in its working area, which includes the fields of government, economy, development, people's welfare and the development of people's lives as well as other public service matters delivered by the government. A subdistrict is a division of the administrative area of the Indonesian state under regencies or cities. The definition of sub-district is also stated in the provisions of Article 1 Number 24 of the Law of the Republic of Indonesia Number 23 (Regional Autonomy, 2014).

One of the public services provided is the utilization of public complaints regulated in the Public Service Act. The implementation of community services includes enforcement, complaint management, information, internal monitoring, guidance and counseling. In order for people to get quality public services, the state must be able to provide channels for public complaints. To increase public interest in improving the quality of government services, it is necessary to simplify complaints handling services that are simple, fast, thorough and coordinated so that people can submit complaints

about local government activities in Pitumpanua District. Public complaints are a very important source of information for service providers' efforts to correct errors that may occur while maintaining and improving the services provided so that they always meet the specified standards. Complaint management is a process of activities aimed at adapting, recording, reviewing, sharing, checking, clarifying, offering alternative solutions to complainants, documenting and publishing the results of complaint management.

ISO 25010 software, published by International Standard Organization (ISOs). ISO/IEC 25010 which has been technically revised, becomes the latest and relevant international standards for testing information systems to be developed. ISO/IEC 25010 is the benchmark standard for quality analysis software used by companies, agencies, or organizations. With ISO/IEC 25010 evaluation of the quality of software systems can be carried out specifically based on product quality consisting of 8 characteristics.

public complaint in general only providing a suggestion box to people who have complaints about problems and responses that exist in the District Pitumpanua. In the ongoing complaints, namely the community using written media (complaint boxes) and oral media (face-to-face with employees). In making a complaint using written media, the public must go directly to the location, then fill out a form that has been provided, and then put it in the suggestion box. This is ineffective and will make it difficult for the community, because they have to come directly to the location, just to make a complaint report or report an incident. As well as making it difficult for administrators to process reports because it is still manual so it will take a long time, or even not be responded to. Meanwhile, reports must be handled quickly, or processed as soon as possible. And also, the admin will have difficulty classifying reports or may be inaccurate.

So, need a new system that expected its hoped that it will make it easier for admin in manage complaint report and also assist the community because they do not have to come directly to the location to make a complaint. Besides that, system handling of the complaint is not stored in the database which makes it unknown the number of complaints that have or have not been handled because of complaint handling or omission. Every complaint that is recorded manually will attack the search for data and is not efficient because complaints must be met directly and do not rule out data being damaged or lost because there is no backup. Based on the research above, the researcher is motivated to conduct research in Pitumpanua sub-district with the research title "Pitumpanua Community Complaint Service Based on Software Development Life Cycle".

2. Literature Review

2.1. Web Based Application

Marjito & Tesaria (2016) stated that the application is a program ready to use that is made to perform a function for application service users and the use of other applications that can be used by a target to be addressed. Siregar & Siregar (2018) stated that application, namely implementing or implementing something in the form of data, problems, work becomes a tool or media that can be used to be applied so as to produce a new shape.

A web page is a file written as a text file plain text that is arranged and combined in such a way with instructions on HTML or XHTML, which is often also embedded with other scripting languages like PHP. The file is then translated by the web browser and displayed like a page on a computer monitor. Purnama (2015) states that the website is a systematic system composed of in a document with hypertext format equipped with various information in the form of writing, images, sound and other multimedia that can be accessed via a web browser.

2.2. Public service

Public services are all forms of services both in the form of goods public and public services which in principle are the responsibility of carried out by government agencies at the central, regional and within the Agency State Owned Enterprises or Regional Owned Enterprises, in the framework of implementation provisions of laws and regulations (Hapsari, 2019).

2.3. Community Complaints

Community Complaints are information or notifications submitted by the community, both individuals and or families originating from employees in the government environment and or the general public which contains complaints and or dissatisfaction related to behavior and or implementation of duties and functions members of the Government, carried out by government officials, and or information regarding alleged violations of the code of ethics or employee discipline committed by government employees (Hapsari, 2019).

2.4. Customer Satisfaction

Lupiyoadi (2013) defines a customer as an individual or groups that repeatedly come to the same place to satisfy desire by owning a product or obtaining a service and satisfy the product or service. Widyadinata & Toly (2014) stated that user satisfaction comes from the Latin "satis" which means good enough and facio which means to do or make, so that etymologically the word satisfaction has a definition "effort to fulfill something". Lupiyoadi (2013) defines customer satisfaction as the level of the feeling in which a person expresses a comparison of product or service performance service received as expected. Knowing customer perception satisfaction is very important, so that there is no perception gap between company with customers.

Widyadinata & Toly (2014) stated that the quality of a system greatly affects the success of the system in meeting user needs and greatly determines the satisfaction of users who use the system. Satisfaction has 3 (three) main components. The main components are customer satisfaction is a response (emotional or cognitive), the response concerns a particular focus (product expectations, experience in using and so on), the response occurs at a certain time (after using, after selection, based on accumulated experience).

2.5. Support Software

a. Sublime Textis a feature-rich text and code editor application, cross platform, easy and simple based on Python (Hidayah, 2019).

b. Xampp is a 'packaged' application that can run a web server, PHP and MySQL which is used to learn web programming

c. HTML is a language in the form of tags that can display and set the website structure. (Ayuningtyas, 2019).

d. PHP is a web programming language that can generate HTML code and make the appearance of web applications dynamic (Ayuningtyas, 2019).

e. Javascript is a web programming language whose processing is done on the client side. Because it runs on the client side. Javascript can be executed only by using a browser (Abdulloh, 2016).

f. Codeigniter is a web framework developed by Rick Ellis from Ellis Lab. Codeigniter is a great toolkit for people who want build web applications using PHP. The goal is to create Project development becomes faster than writing code from the start (stretch) (Subagia, 2019).

g. CSS is a script that is used to change the appearance of the page design a website (Ayuningtyas, 2019).

h. MySQL is a database system that can store data in tabular form for web application development (Ayuningtyas, 2019).

i. Unified Modeling Language (UML) is a visual language for modeling and communication about the system using diagrams and supporting texts (Rosa and Salahuddin, 2016).

3. Methods

The type of research used is SDLC (Software Development Life Cycle) research. SDLC is a pattern used to design and modify a system. This type of SDLC research will produce a product namely development of web-based public complaint applications. This research aims to develop applications using the system development model waterfall stage. Rossa & Salahuddin (2013) suggested that SDLC or software the development life cycle is the process of developing or changing a system

software using different models and methodologies people use to develop software systems previously.

Development of a community complaint application using the model waterfalls. The waterfall development model is one of the models in application development. The waterfall model consists of several stages starting from from the stages of analysis, design, coding, testing. Analysis and design to be the stages of finding information on customer needs, then the application developed based on the results of the analysis stage, the design stage in the determine software design. Stages of coding writing codes program in application development process and device testing stage software, the software is ready to be tested.

The SDLC waterfall model is one of the development models software which is also known as linear sequential or classical lifeflow. According to Pressman (2012) The waterfall method or the often called the waterfall method is often called the classical life cycle cycle), the name of this model is actually "Linear Sequential Model" where it It describes a systematic and sequential approach to software development, starting with the specification of user requirements then proceed through the stages of planning, modeling, construction, and delivery of the system to users (deployment), ending with support for the full software generated. Based on some of the opinions above, it can be concluded that. The waterfall model has several stages starting from analysis, design, coding, testing, and maintenance can be seen in Fig. 1.

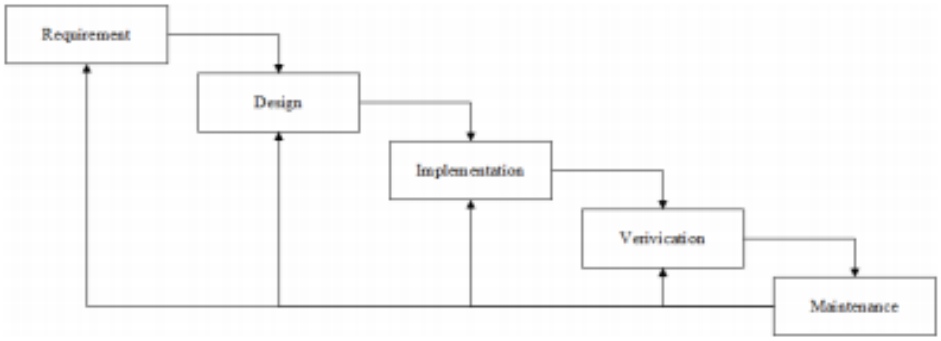

Fig. 1. Waterfall Model Illustration

Analysis requirement and design is the information stage while coding and testing is an advanced stage. Analysis which is the stage of finding initial information for product requirements to be made, then design is the implementation of the results of the analysis that has been carried out in the form of basic design, coding is an advanced stage of the design that has been designed to be coded in the form of an application, and the testing stage to test product as well as fixing errors that were not found in the stages previously.

The coding stage is the stage coding the application based on the design and testing stage is the test stage try the application that has been coded, the maintenance stage is to fix the error which was not found in the previous step. Waterfall development model or the waterfall model has clear stages and can help complete the software. According to Andayani & Dirawan (2015). The advantage of the waterfall model is that it uses a stage structure system development and clear documentation yields and does not exist overlapping stages because each stage is carried out separately sustainable.

The design stage is the result of the needs analysis that becomes the material design community complaint application system to get a solution alternative problem that can be used in research. As for the design that used are conceptual design. Conceptual design design made in the form of context diagrams, data flow diagrams, use cases, activity diagrams, and sequence diagrams. design conceptual is used to describe data flow, user activity, flow databases, and interactions between objects in and around the system. As for the design the conceptual design used is context diagram. Context Diagrams are created using notations for describe the data flow of the application without considering the physical environment the data. Context diagram is a diagram consisting of one process in scope of a system or process that is at the central level. Context diagram for community complaint applications can be seen in Fig. 2.

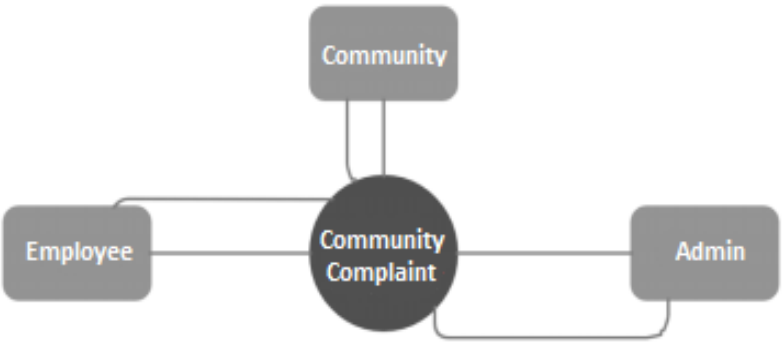

Fig. 2. Context diagram

In this study, the admin, employees (users) and the community (users) have a reciprocal relationship, where the admin before entering the public complaint application must go through login security, which requires entering the correct username and password, so that it performs its function as an application admin or Employee login using the registered account.

4. Analysis and Design

4.1. Current Design Use Case Diagram

Based on the system currently running, the following issues were found that, the follow-up process for a report seems slow because sometimes there is no report info from the Admin known by the officer because it is still manually, Officers do not yet have access to view report info online from report data input by Admin, The data file of the reporter is sometimes invalid so that the truth of the identity of the reporter is doubted, Locations with indications of violations are inaccurate because there was no previous location survey, Complaint reports that come in are sometimes not in accordance with the duties and functions of the sub-district because it was not verified first by the Admin, The reporting community cannot find out online how the follow-up process for reports has been filed can be seen in Fig. 3.

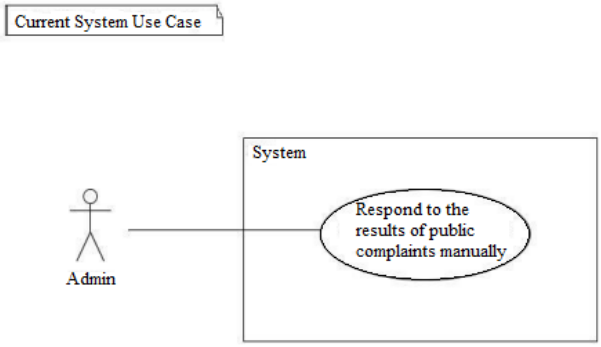

Fig. 3. Current Use Case Diagram

4.2. Proposed System Use Case Diagram

The design of the proposed system is a design that is carried out as a problem solver a public complaint reporting system related to road transport traffic violations that is currently being used. Consists of proposed system architecture, use case diagrams, use case descriptions, activity diagrams, sequence diagrams, classes diagrams, database design and system display structures. With the proposed design of this system, it is expected to be able to fix the obstacles that have been faced so far in the service of complaint systems in the community environment as well as being a performance evaluation for sub-district agencies can be seen in Fig. 4.

Based on the system currently running, the proposed system are Report data that has been verified and approved will be inputted by the Admin and will be visible inside system so that it can make it

easier for Officers to know that there are reports that must be followed up through access to the Officer account user that has been created in the system, The validity of filing the identity data file can be legally justified and the reporting community will be given access to register a user account on the web system if the personal data and the report has been verified by Admin, Locations where violations are indicated will be directly surveyed by the Officer because the Officer can see info and location of violation reports that have been inputted by the Admin through the system. Admin can verify reports of complaints from the public in accordance with the main duties and functions. If a report is found that is not in accordance with the duties and functions, the admin has the right to refuse the report, The public who makes the report can see how the results of the enforcement of the report go through user access to Reporting account that has been created through the registration process in the system.

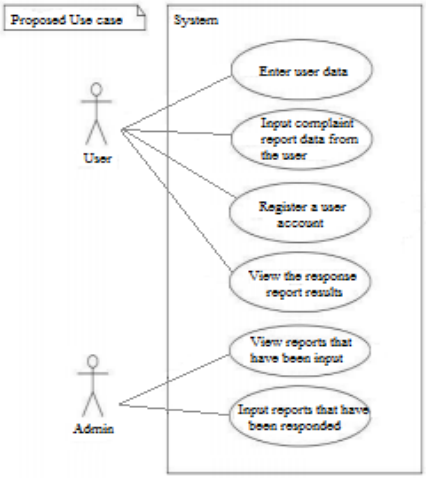

Fig. 4. Proposed system Use Case Diagram

1) Sequence Diagrams

Sequence diagram is a diagram that represents control flow on each object in the use case. The control flow describes the process of interaction between objects in a sequence can be seen in Fig. 5 and Fig. 6.

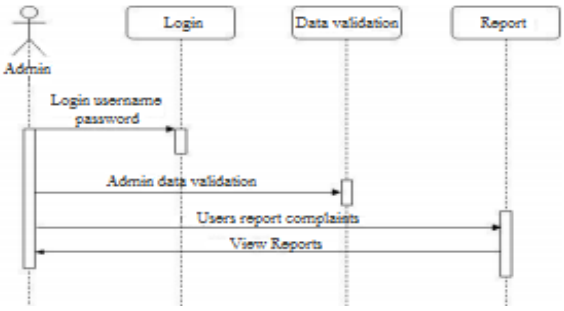

Fig. 5. Admin Login Sequence Diagram

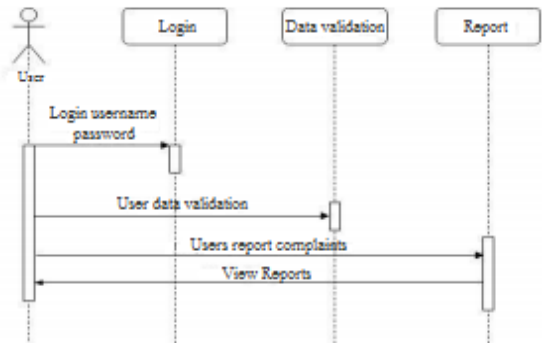

Fig. 6. Sequence Diagram of Public Login

2) Activity Diagrams

Activity diagrams focus on the activities that occur and are related in a single process. This diagram shows how activities are dependent on each other. The following is a picture of an activity diagram can be seen in Fig. 7 to Fig. 9.

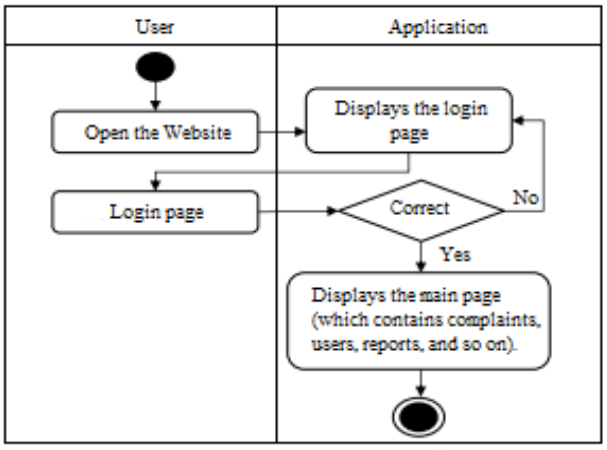

Fig. 7. Activity Diagram of Opening Applications (admin)

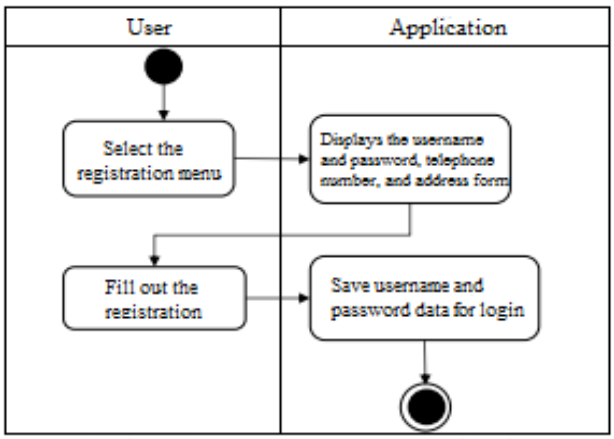

Fig. 8. Activity Diagram Registration Menu

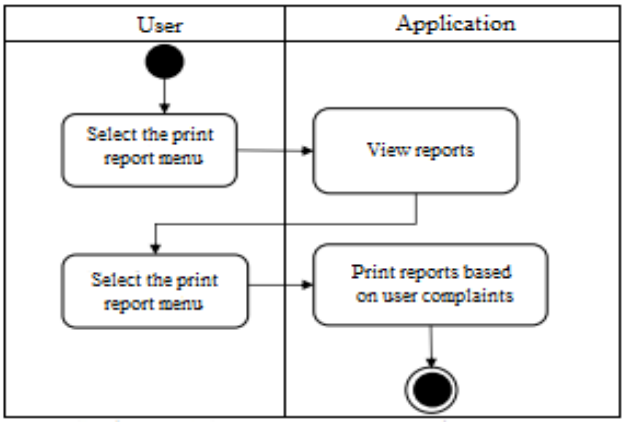

Fig. 9. Activity Diagram Print Report

5. Implementation

System implementation stage by realizing system design into a series of programs using the PHP programming language, JavaScript, HTML (Hypertext Markup Language) and MySQL (My

Structured Query Language) below is the display of the complaint application public. Several feature developments in the community complaint application public.

1. The login page for admin contains a username and password form can be seen in Fig. 10.

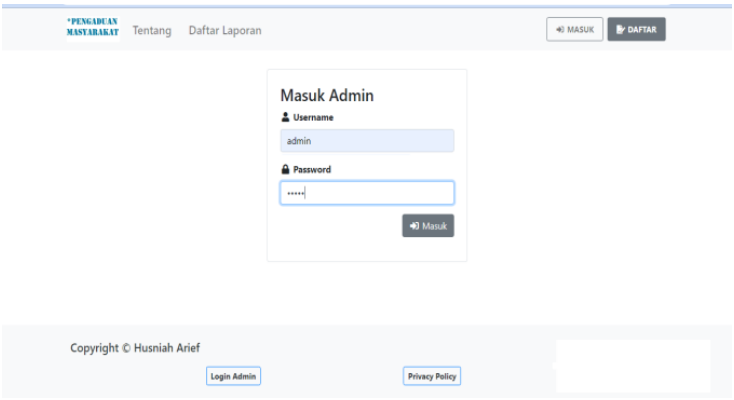

Fig. 10. Admin login page

2. The admin menu page

Admin menu page loads the admin profile and can edit the profile and change the password can be seen in Fig. 11.

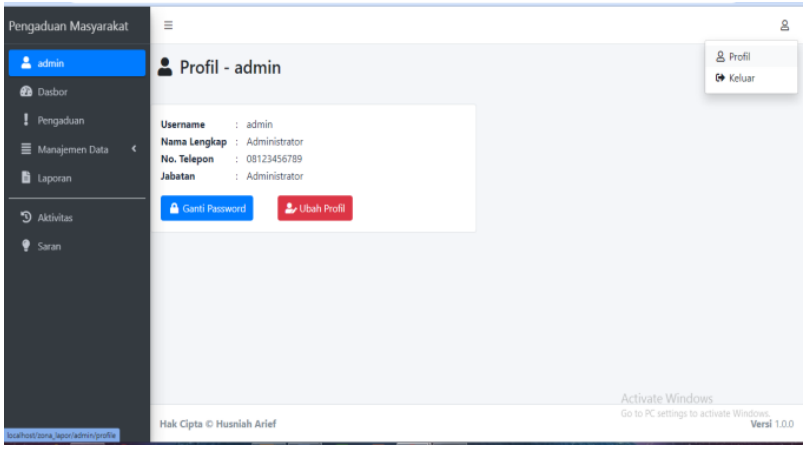

Fig. 11. Admin page menu

3. Dashboard main page

Admin dashboard page which contains the admin menu, “Dashboard”, “Pengaduan”, “Manajemen Data”, “User”, “Kecamatan”, “Kelurahan”, “Masyarakat”, “Laporan”, “Aktivitas”, “Saran”, and also “Logout”. Dashboard page display can be seen on the following Fig. 12:

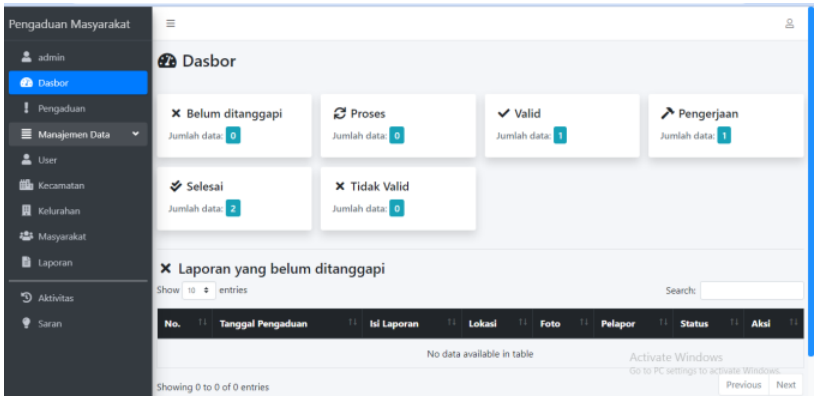

Fig. 12. Admin dashboard page

4. Pengaduan page

The complaints menu which contains all the complaints that have been complained by the public and the admin can provide responses or give feedback to these complaints can be seen in Fig. 13.

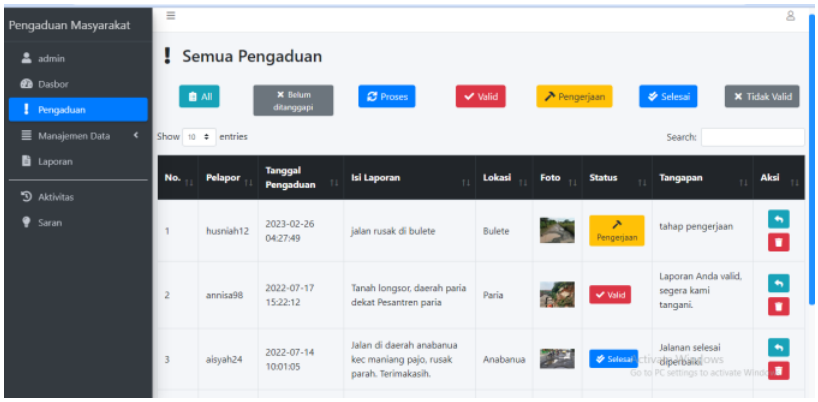

Fig. 13. Pengaduan page menu

5. The user menu

The user menu in data management is to display user data or admin data can be seen in Fig. 14.

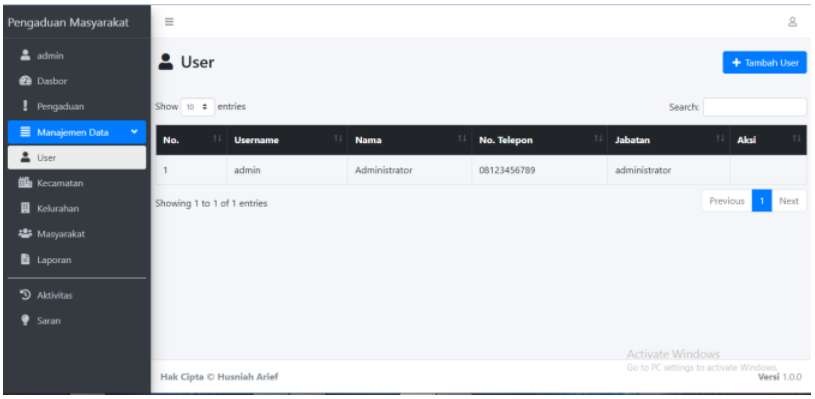

Fig. 14. User page menu

6. Kecamatan menu

Sub-district menu, which is to display sub-district data and can add sub-district data, edit, delete data can be seen in Fig. 15.

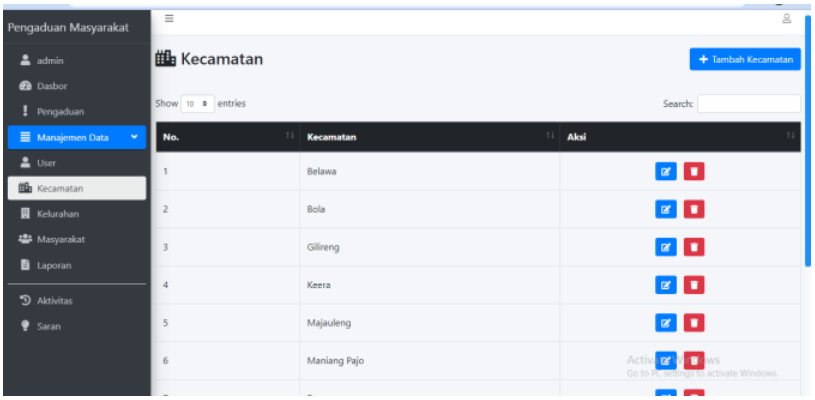

Fig. 15. Kecamatan page menu

7. Kelurahan menu

District menu, which is to display district data and can add district data, edit and delete data can be seen in Fig. 16

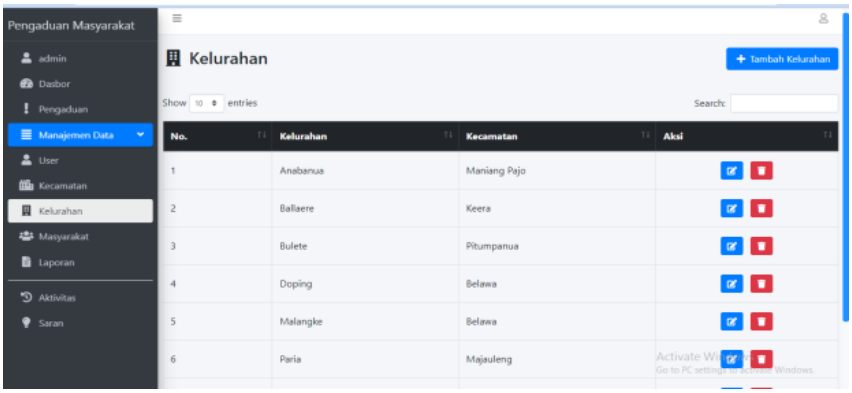

Fig. 16. Kelurahan page menu

6. Result and Discussion

The results of developing a public complaint application are a applications that can help the implementation and management of results community complaints based on user needs in the Pitumpanua District. Data collection techniques used in application development this web-based community complaint consists of interviews, observations and questionnaire.

The feasibility of the application of public complaints in the District of Pitumpanua This is done by testing applications that have been developed using standards ISO 25010 which focuses on the quality characteristics of functional suitability, usability, and portability. These aspects were selected based on the needs of the community complaint application in the District of Pitumpanua.

6.1. Functional Suitability Analysis

In general, what is used in this research is descriptive analysis that uses the results of user responses. This type of data analysis is to determine user responses (users). The questionnaire sheet is made in the form of in the form of a checklist and answers to each question item using the Gutmann skala scale developed by Louis Guttman. This scale wants a firm answer “yes” or “no”, “never” or “never”, “positive” or “negative”, “true” or "wrong", and so on. Answers are made in the form of a checklist with a score high one or low zero can be seen in Table 1.

Table 1. Guttman Scale Conversion

Answer	Score
Yes	1
No	0

The test results are calculated by the formula of the matrix with the formula of feature completeness matrix. The feature completeness matrix is a matrix to measure the extent to which features can be implemented correctly. The following is a formula for calculations that can be used for processing questionnaire data. I is the Number of functions designed and P is the Number of successfully implemented functions.

$$X = \frac{1}{p}$$

In the feature completeness matrix, a value close to 1 indicates the number of features that have been successfully implemented. Results measured on a scale of 0 X 1. The software is said to be good in feature completeness if X is close to or equal to 1.

6.2. Portability Analysis

Testing the portability aspect is done by running the application on several different web browsers. Portability analysis was carried out for know that the community complaint application can perform different functions required when running on different devices. On the questionnaire sheet is made in the form of a checklist and answers to each question item using a Gutmann scale developed by Louis

Guttman. This scale wants unequivocal answers “yes” or “no”, “never” or “never”, “positive” or “negative”, “true” or “false”, and so on. The answer is in the form of checklist with a high score of one or a low of zero can be seen in Table 2.

Table 2. Guttman Scale Conversion

Answer	Score
Yes	1
No	0

The test results are calculated by the formula of the matrix with the formula of feature completeness matrix. The feature completeness matrix is a matrix to measure the extent to which features can be implemented correctly. The following is a formula for calculations that can be used for processing questionnaire data. I is the number of functions designed and P is the number of successfully implemented functions.

$$X = \frac{1}{p}$$

In the feature completeness matrix, a value close to 1 indicates the number of features that have been successfully implemented. Results measured on a scale of 0 X 1. The software is said to be good in feature completeness if X is close to or equal to 1.

6.3. Usability Analysis

The analysis used for the usability aspect is quantitative analysis, Respondentts will be given five alternative answers using a scale Likert. According to Djaali (Helmi, et al 2016) the Likert scale is a type of scale that can be used to measure a person's attitudes, opinions and perceptions or group. The scoring criteria for the alternative answers for each item are as Table 3.

Table 3. Criteria for Measurement of the Likert Scale

Answer	Score
Totally disagree	1
Disagree	2
Doubtfully	3
Agree	4
Totally agree	5

Calculation formulas that can be used to process validity test data instrument:

$$\text{Percentage of instrument eligibility} = \frac{\text{The score Obtained}}{\text{Maximum score}} \times 100\%$$

According to Sudarsono (Jiyanto, 2017) After getting score data from test results, then the percentage is calculated using the formula. After that the percentage is converted into a statement that corresponds to the following Table 4.

Table 4. Interpretation of Eligibility Percentage

Eligibility Percentage	Category
0% - 20%	Very Unworthy
21% - 40%	Not Worth it
41% - 60%	Quite Worthy
61% - 80%	Worthy
81% - 100%	Very Worth it

Application analysis by testing which aims to see the ability of the software to work under normal circumstances. Using a visitor simulation in certain time simultaneously and shows the performance of the infrastructure when the server is serving the request.

Functional suitability and usability questionnaire instrument in this study tested using the opinion of Respondent. Functional questionnaire instrument validation suitability, usability and portability in this study assess the instrument based on the aspects of instructions, content and language, filling out this validation sheet is carried out by putting a tick on the rating scale that is considered appropriate. On the research instrument validation sheet, the answers to each statement item using a Likert scale. According to Djaali (Helmi, et al 2016) the Likert scale is a type of scale that can be used to measure attitudes, opinions and perception of a person or group.

1. Functional Suitability Testing

Functional Suitability testing is done by testing functionality the application uses test cases by Respondent. Validation was carried out by several people by filling out a questionnaire later. Based on the research results, several people obtained a value of 1 with good criteria. Functional suitability testing assessed using the Gutmann scale. Recapitulation of validation results the system for testing the functional suitability aspect is shown in the Table 5.

Table 5. Recapitulation of Validator Assessment Results

Validators	Number of Features (P)	Number of Features successful tested (I)	Featured Completeness	Category
Validator 1	25	25	1	Good
Validator 2	25	25	1	Good
Average	**25**	**25**	**1**	**Good**

The test results show that the validators stated all the 25 features in the research instrument are declared good with a value of 1. The results are calculated using the feature completeness formula, namely:

$$X = \frac{1}{p}$$

I is the 25 and P is the 25 then feature completeness will be worth 1. Testing the functional suitability aspect is said to be good if X is close to or has a value of 1 so it can be concluded that the system of public complaint application is in the good category and has fulfilled the functional suitability aspect.

2. Portability Testing

Portability testing is carried out by running the public complaint application on various desktop-based web browsers. As for Desktop-based web browsers used are Google Chrome and Mozilla Firefox. The public complaint application is running successfully works well on a number of different types of web browser applications. Testing portability is assessed using the Gutmann scale can be seen in Table 6.

Table 6. Portability Aspect Test Results

Browser	Expected results	Result	
		Yes (1)	No (0)
Mozilla Firefox	Complaint application development web-based communities can be run with either use the Mozilla Firefox browser	✓	-
Google Chrome	Complaint application development web-based communities can be run with either using the Google Chrome browser	✓	-
Total		2	
Conclusion		**Succeed**	

3. Usability Testing

Usability aims to determine the user's response to developed community complaint application. Usability test performed by testing the application directly to the user. And the Respondents were asked to fill out a questionnaire which contains 15 statements. Analysis of the results of the assessment of Respondents' responses (usability) can be seen in the attachment. Usability testing is carried out using user responses from application by introducing the application of public complaints to Respondents were then asked to fill out a validated questionnaire previously by the instrument Respondent.

Based on eligibility percentage it is obtained that the percentage of the usability aspect is 94% if interpreted with a Likert scale included in the very decent category. The lowest point usability results on questionnaire item number 2 which contains that the Respondent expects a more attractive display of the application. Mark the highest in the questionnaire item number 12 contains that the Respondent is satisfied using community complaint application.

The results of developing a public complaint application are a application that can assist in managing and responding to complaints society based on need users in Pitumpanua District, using the model waterfall development with ISO 25010 characteristic testing aspects functional suitability, usability, and portability. Based on the results of the research and development of public complaint applications in the Pitumpanua District, the test results were obtained, namely functional suitability with good category results worth 1, usability with very good total percentage of 94%, and portability with good category results worth 1, so that it can be concluded that this complaint application is suitable for use by the public or users can be seen in Table 7 to Table 15.

Table 7. Research Instrument Validation Results (Functional Suitability)

No	Name	Rated Aspect										Total Score	Percentage	Category
		Instruction			Material			Language						
1	Validators 1	4	4	4	5	4	5	4	4	4	4	42	84%	Very worth it
2	Validators 2	4	4	4	4	5	4	4	4	4	4	41	82%	Very worth it

Table 8. Research Instrument Validation Results (Usability)

No	Name	Rated Aspect										Total Score	Percentage	Category
		Instruction			Material			Language						
1	Validators 1	5	5	4	5	4	4	4	4	4	5	44	88%	Very worth it
2	Validators 2	4	4	4	4	5	4	4	4	4	4	41	82%	Very worth it

Table 9. Research Instrument Validation Results (content/material)

No	Name	Rated Aspect										Total Score	Percentage	Category
		Instruction			Material			Language						
1	Validators 1	5	4	4	4	4	4	4	4	4	5	42	84%	Very worth it
2	Validators 2	4	4	4	4	5	4	4	4	4	4	41	82%	Very worth it

Table 10. Interpretation of Eligibility Percentage

Eligibility Percentage	Category
0% - 20%	Very Unworthy
21% - 40%	Not Worth it
41% - 60%	Quite Worthy
61% - 80%	Worthy
81% - 100%	Very Worth it

Table 11. Application Validation Analysis Results

No	Question Items	Validator	
		Validators 1	Validators 2
1	1	1	1
2	2	1	1
3	3	1	1
4	4	1	1
5	5	1	1
6	6	1	1
7	7	1	1
8	8	1	1
9	9	1	1
10	10	1	1
11	11	1	1
12	12	1	1
13	13	1	1
14	14	1	1
15	15	1	1
16	16	1	1
17	17	1	1
18	18	1	1
19	19	1	1
20	20	1	1
21	21	1	1
22	22	1	1
23	23	1	1
24	24	1	1
25	25	1	1
Total Score		25	25
X		1	1
Category		Worthy	Worthy

Table 12. Scoring Categories in the Feature Completeness Matrix

Score	Category
$0.5 \leq X \leq 1$	Worthy
$0 \leq X \leq 0.4$	Very Unworthy

Table 13. Content Validation Analysis Results

No	Validator	Question Items								Total Score	Percentage	Category
		1	2	3	4	5	6	7	8			
1	Validators 1	5	5	5	5	5	5	5	5	40	100%	Very Worth it
2	Validators 2	5	5	5	5	5	5	5	5	40	100%	Very Worth it

Table 14. Results of Respondent Response Test Analysis

No	Respondent	Usefulness	Easy of Use	Easy of Learning	Satisfaction	Total Score
1	Respondent 1	12	15	16	14	57
2	Respondent 2	15	19	17	17	68
3	Respondent 3	9	14	12	14	49
4	Respondent 4	12	15	16	13	56
5	Respondent 5	15	20	20	20	75
6	Respondent 6	15	19	20	20	74
7	Respondent 7	15	20	20	20	75
8	Respondent 8	15	20	20	20	75
9	Respondent 9	15	20	20	20	75
10	Respondent 10	15	20	20	20	75
11	Respondent 11	15	20	20	20	75
12	Respondent 12	15	20	20	20	75
13	Respondent 13	15	20	20	20	75

No	Respondent	Usefulness	Easy of Use	Easy of Learning	Satisfaction	Total Score
14	Respondent 14	15	20	20	20	75
15	Respondent 15	15	20	20	20	75
16	Respondent 16	15	20	20	20	75
17	Respondent 17	15	20	20	20	75
18	Respondent 18	12	16	16	16	60
19	Respondent 19	13	20	20	20	73
20	Respondent 20	15	20	20	20	75
21	Respondent 21	15	20	20	20	75
22	Respondent 22	15	20	20	20	75
23	Respondent 23	12	17	18	19	66
24	Respondent 24	13	19	18	19	69
25	Respondent 25	15	20	20	20	75
26	Respondent 26	12	16	14	15	57
27	Respondent 27	13	19	20	20	72
28	Respondent 28	15	20	20	20	75
29	Respondent 29	12	20	20	18	70
30	Respondent 30	15	20	20	20	75
31	Respondent 31	15	20	20	20	75
32	Respondent 32	15	20	20	20	75
33	Respondent 33	15	20	20	20	75
34	Respondent 34	15	20	20	20	75
35	Respondent 35	15	20	20	20	75
36	Respondent 36	12	17	18	17	64
37	Respondent 37	12	18	14	19	63
38	Respondent 38	15	20	20	20	75
39	Respondent 39	13	15	16	17	61
40	Respondent 40	12	19	19	18	68
Total Score		559	758	754	756	2827
Percentage (%)		93%	94%	94%	94%	94%
Category		**Very good**	**Very good**	**Very good**	**Very good**	**Very good**

Table 15. Percentage category

Percentage	Category
0% - 20%	Very Not Good
21% - 40%	Not good
41% - 60%	Pretty good
61% - 80%	Well
81% - 100%	Very good

7. Conclusion

Based on research conducted regarding application development public complaints in Pitumpanua District, it can be concluded that. The results of the analysis of the needs of the service complaint information system web-based community that can facilitate the community in making complaints. With the existence of a public complaint system in the District Pitumpanua, very helpful in the previous data collection manual process. Data collection of complaints reports can be done more accurate, fast, and also minimize the error for the process complaint report data. Web-Based Community Service Complaint Information System displays a list of complaints, complaints in the process of improvement, proof of complaint has been repaired, and can download reports community complaints.

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