



IT-Helpdesk System Design With Waterfall Model (Case Study : Agung Podomoro Group)

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ARTICLE INFO

Article history:
Received: 12/02/2020
Revised: 09/03/2020
Accepted: 01/05/2020

Keywords:
Website,
IT help desk system
PHP, MySQL

ABSTRACT

Agung Security Podomoro Group is a company that uses a lot of electronic inventory, so there are quite a lot of inventory problems that must be dealt with, as long as there is an inventory problem the user or admin of the location submits to Asset Management, by telephone, or other communication tools, then Asset management does and submit to Technical support. Due to the large number of inventory reports that are damaged often the handling of technical support is not handled properly. Therefore it is necessary to have a system that becomes a working benchmark that records damage reports accompanied by a history record so that if there is a similar damage it is easier to handle. In this study a Web-based Help Desk System was designed to deal with existing problems. The website is made based on PHP and uses a MySQL database. The development method that the author uses in designing the web-based Helpdesk System at Agung Podomoro use the Waterfall model.

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1. Introduction

In the development era, humans are able to create programs that can help and sustain human work so that it can be done in a shorter, more efficient and more practical time. In recent years the existence of web-based information systems in Indonesia has increasingly felt its presence in supporting daily activities, both economic and non-economic. Manually processing data certainly cannot keep up with the need for fast, precise and accurate presentation of information. Currently manual data processing is considered less effective for providing reports and information for companies that are developing and have diverse transactions.

Helpdesk is information assistance that handles problems or troubleshooting. Many helpdesk facilities are used by companies or agencies to provide solutions quickly and provide convenience for customers or internal company. The importance of the Helpdesk is to make equalization of the workload that is fair and balanced in addition to that as well as a tool for the assessment of each technician. So with this the author tries to examine the application of web-based technology that can be applied to the problems that exist in one activity so that it can integrate the activities concerned [1].

Agung Podomoro Group Security Is a company engaged in the field of security services that is a security partner of the Agung Podomoro Group Mall and Apartments with a total number of employees currently more than 3000 people spread across 50 locations or work units in the Jakarta and Bogor area, in this company many use electronic inventory, so there are quite a lot of inventory problems that must be





dealt with, so far if there is a problem the inventory of users or admin of the location is conveyed to Asset Management, by telephone, or other communication tools, then Asset management conducts and submits to Technical support. Due to the large number of inventory reports that are damaged often the handling of technical support is not handled properly. system helpdesk is demanded to actively monitor and treat user needs. The helpdesk aims to facilitate all the use of IT equipment within the scope of companies and government agencies that report any problems encountered [2]. In accordance with the description above, an it-helpdesk system design was made to overcome the existing problems at PT. Agung Podomoro Group.

2. Literature Review

Handling problems in terms of delivering customer complaints can be resolved with an online helpdesk application built. The online helpdesk application is built by analyzing business processes first described by activity diagrams, defining relationships between actors and systems in Use Case Diagrams, defining important objects in Class Diagrams, identifying problems and finding solutions to solutions, and designing the model of the helpdesk application designed face to face display which can be developed as a helpdesk application for PT. Mustika Memadata. Solutions using online helpdesk can also be used by medium scale companies that have similar problems [1]

The Helpdesk application can manage the problems that often occur in each Yogya convenience store branch, so that the burden at the head office will be reduced. This application provides print facilities on the repair form, the service finished form, and the item transfer form as a travel document for the items to be repaired. In addition, this application also raises the level from responsive to preventive [2]. Whereas in subsequent studies, the help desk application connects users with technicians in overcoming a problem. In another research, the help desk application connects users with technicians in overcoming a problem. The helpdesk application is implemented based on the analysis and design of the system that has been made. The application is built using postgresQL technology and laravel framework, and uses the Rapid Application Management (RAD) method. (RAD) [3].

In a 2013 study, in carrying out its duties, namely maintenance and handling of problems regarding ICT devices, the SMI division experienced difficulties in terms of assignments, determining priorities of each problem, and information regarding equipment and information on damage that occurred. Based on the existing problems, an IT Helpdesk system was created [4].

3. Research Methods

The development method that the author uses in designing a web-based Helpdesk System is use waterfall model with the following framework:

a. Information Systems Requirement Analysis

At this step, the writer analyzes the system that is currently running at the Agung Podomoro Group. After analysis according to the author of the existing system is still less efficient and difficult to control all claims that occur all systems that are done manually. Therefore it is necessary to have a website that is able to provide data input facility damage to inventory that occurs will provide benefits to several parties, including the Technical support, Security Agung Podomoro Group employees.

b. Design

At this stage, the authors design a data base according to the needs of the program to be built and design the forms that are used as communication media with the use of the existing system.

c. Code Generation

The system that has been designed must be implemented to match the expected results at this stage the authors do the coding with the help of Dreamweaver software.

d. Testing

At this stage, the results of the design of the application Helpdesk system on the Agung Podomoro Group Security that had been built before will be tested with the help of localhost to find out if it is in accordance with the desired objectives, where testing is carried out on logical and functional software, such as input data, processes and outputs that are generated and on the system localhost. If the tests carried out there are errors both in the appearance of the website and in the database, the writer will





correct the errors that occur from the system that I built and test the system again until there are no more errors or errors in the program created.

e. Maintenance

At this maintenance stage there are several things that must be considered, including the operator (user) must be able to run the system correctly. If an error occurs in the system, a maintenance must be able to correct errors both on the system or on the connected network. Maintenance must also do an automatic update on the anti-virus so that the computer is not attacked by a virus which can cause slow system use.

4. Discussion

To design the activities in this helpdesk system, user interface is used as follows:

a. User Interface Login



Fig 1. User Interface Form Login

Figure 1 shows the user interface for IT that will log in to the IT-Help Desk System.

b. User Interface home User

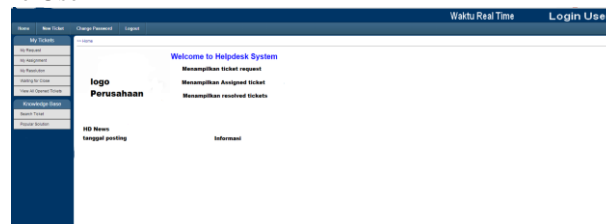


Fig 2. User Interface Home Login User

In Figure 2 is the appearance of home after the user has login.

c. User Interface Form Add New Project

Fig 3. User Interface Form Add New Project



In picture 3 is the display when IT will work on a new project, then the IT must fill in the name of the project and the name of the customer who has a problem. The IT must also fill in the project start date until the project date can be completed and the costs involved.

d. User Interface Form Add New SLA

The screenshot shows a form titled "Add New SLA". It contains the following fields: "SLA Level" with a dropdown menu showing "1"; "SLA Name" with a text input field; "Response Time" with a dropdown menu showing "0" and the unit "Hours"; "Resolution Time" with a dropdown menu showing "0" and the unit "Hours"; and "SLA Warning Time" with a dropdown menu showing "0" and the unit "Hours". At the bottom of the form are two buttons: "Save" and "Reset".

Fig 4. User Interface Form Add New SLA

Figure 4 is a display of the new SLA add form that serves to provide guarantees to customers regarding the level of service the company provides. IT is required to fill in response time, resolution time and SLA warning time.

e. User Interface Form Handling Problems

The screenshot shows a form titled "Ticket Audit Trail". It contains the following fields: "Customer", "Customer Product", "Warranty Period", "Contract Period", "Ticket No.", "Reported Date*", "Reported By*" (with a placeholder "xxxxxxxxxxxxxx"), "Urgency (SLA)*" (dropdown), "Problem Summary*" (with a placeholder "xxxxxxxxxxxxxxxxxxxxxx"), "Problem Detail*" (with a placeholder "xxxxxxxxxxxxxxxxxxxxxx"), "Telephone", "Email", "Assign to*" (dropdown), "Status*" (dropdown), and "Resolution*" (with a placeholder "xxxxxxxxxxxxxxxxxxxxxx"). At the bottom of the form are two buttons: "Submit" and "Reset". Below the form is a table for the Ticket Audit Trail with columns: "Updated On", "Updated By", and "Description".

Fig 5. User Interface Form Handling Problems

The next picture is a form to fill in the actions that have been taken to overcome the problems faced by the customer. In this form IT that handles problems is also required to fill in the time when handling problems and fill the problems that are solved.

5. Conclusions

The conclusion that can be drawn from the design and manufacture of the website of the Helpdesk System is that the web-based Helpdesk System can replace inventory damage reports that have been done manually, and then overcome by technicians who solve the problem. With the construction of the website on Security aims to facilitate all complaints and inventory assessing the work performance of each employee to be balanced and of course the design of user-based information systems so that each user can





understand clearly and easily.

Suggestions that can be submitted for the development of the website IT-Helpdesk System in Agung Podomoro Group is a helpdesk system that is built still using LAN, it will be more efficient and effective if it can be accessed online, so it can be used not only for the company internal but also for external companies and can be used use for handling outside of inventory. In addition, it is necessary to increase the capacity of hardware and software to maximize the performance of this helpdesk system

6. References

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