Development System for Monitoring Project at PT. XYZ

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Abstract— PT XYZ is a company engaged in the service of the service contractor. Effective and efficient service will give you an advantage for the company, by giving the opportunity to client to be able to monitor or supervise the project has directly without having to come into the field directly. The writing of this thesis aims to assist companies in providing information systems effective and efficient oversight or monitor project implementation from the field.

Keywords: Service, monitoring, contractor.

I. INTRODUCTION

Information systems continue to grow along with the rapid technological advances, affecting all aspects of human life as well as the company in running its business. Technology is useful to streamline and all business activities in the company, especially for companies whose business also has a field job whose activities must always be monitored or monitored by the parties concerned. PT. XYZ is a company engaged in contractor services. PT. XYZ will participate in a tender to get a contract on a company or individual who becomes. After a contract between two parties, PT. XYZ will start its work as head of the project implementer according to the agreed contract. In this case, PT. XYZ is the project's chief executor who helps clients to complete development projects. The Contractor is a company selected and approved to carry out the planned construction work in accordance with the wishes of the project owner and fully responsible for the project's physical construction. Usually the determination of the contractor is made through an auction or a tender or it can also be through direct appointment by negotiating a price offer. According to the analysis of the authors do one of the most important things that exist in PT. XYZ is the monitoring of project implementation in the field or monitoring that monitor how far the development of the project over time, the use of resources both human resources as workers and other resources in the form of building materials and building tools. This is because PT. XYZ is fully responsible for the construction activities and project implementation methods in the field, and for the project to be completed as planned. If monitoring is not done it will hurt both sides of the company, the project may be delayed so as to make the client disappointed and the cost needed to swell so that the profits are reduced or even the project losers. Monitoring conducted is used to monitor the implementation of the project from the field to the parties concerned can also be used as an evaluation material when the implementation is not in accordance with the planned planning. PT. XYZ is a service company, not only do or have contract on one client only, must give service and satisfaction at client. By monitoring the projects that are being done and can present an accurate and fast report. During this monitoring conducted by providing

reports from the executing team to the admin via BBM (Black Berry Massager) about the situation in the field, the data or information reported must be typed back by the admin to produce reports according to the format that will take time and have not entered directly to a database. So it will be difficult when searching data, and the resulting report was not fast and accurate. It is, underlying the author to conduct research and system design that can facilitate PT. XYZ to monitor the head of the project implementation, and provide a prompt and quick report that also involves the client as the owner of the project being implemented.

II. RELATED WORK

The system is a set of interrelated or integrated elements intended to achieve a goal. The system is a network of interconnected procedures, gathered together to perform an activity or complete a particular goal. A system has certain characteristics, which explains that it can be said as a system (Murshada, 2011). Adapaun included into the characteristics of the system are as follows: A system consists of a number of interacting components, which work together to form a unity. The system component may be a sub-system or part of the system (Sutabri, 2012). Each subsystem has the properties of the system to perform a certain function and affect the overall system process. A system can have a larger system called a supra system. Limitations of the system is an area that limits the system with other systems or systems with external environment. This system limit allows a system to be viewed as a whole. Limit of a system shows the scope of a system. The external environment of a system is beyond the limits of the system that affect the operation of the system. The external environment can be beneficial and can also be detrimental. Liaison system is a media liaison between a subsystem with other subsystems. Through this interface allows resources to flow from one subsystem to another. With liaison, each subsystem integrates with other subsystems to form a unity. System input is the energy that is incorporated into the system. Input can be maintenance (Maintenance input) and input signal (Input signals). Maintenance input is the energy that is input so that the system can operate. Input signal is energy that is processed to get output. The output is the result of the energy being processed and classified into blended output and residual disposal. Output can be input for other subsystems or for supra system. (Verdi Yasin, 2012). A system can have a process that will convert input to output. (Verdi Yasin, 2012). A system must have goals (goals) and objectives (objectives). The goal of the system is to determine once the input required system and output that will be generated system. Unified Modeling Language (UML) is a "language" that has become the industry standard for visualizing, designing and documenting software systems. Unified Modeling Language (UML) is also fully articulated to create a model visualization of a system. The system contains information and functions but is normally used to model computer systems. Use case diagram is an image of some or all actors and use cases with the aim of recognizing them in a system. Use case diagrams describe the expected functionality of a system, emphasized "what" the system does, and not "how". Activity diagrams describe the flow sequences of activities, used to describe activities formed in an operation so they can also be used for other activities such as use cases or interactions. Activity diagram in the form of flowchart used to show the work flow from. Sequence diagrams describe the dynamic collaboration between a number of objects and to show the sequence of messages sent between objects, something that occurs at a certain point in the execution of the system. Sequence diagrams describe the interaction of objects arranged in order of time. Easily the sequence diagram is a step-by-step description that should be done to produce something according to the use case diagram closely related to the use case diagram where 1 use case would be 1 sequence diagram. Class diagrams describe the structure and description of classes, packages, and objects along with relationships to each other such as containment, inheritance, associations, and others. Class diagram serves to explain the type of system object and its relation to other objects. Objects are the specific values of each attribute of the entity class. Class is a specification which, if instantiated, will produce an object and is the core of object-oriented development. Class describes the state (attribute or property) of a system, while offering services to manipulate the situation (method or function). Software Testing is an element of a topic that has a wide range and is often associated with verification (verification) and validation (V and V). Verification refers to a set of activities that ensure that the software implements properly a specific function. Validation refers to a set of different activities that ensure that the built software can be traced to customer needs (Shalahudin, 2013, Rizky, 2011, Imre al al, 2017)). White box testing is generally a type of testing that concentrates more on the "content" of the software itself. This type focuses more on the source code of the software created so it requires a much longer and more expensive process because it requires precision from the tester as well as technical programming skills for its tester (JR San Cristóbal, 2017, Karen E Papke- Shields, 2017). Black box testing is a type of testing that treats unknown software for its internal performance. So, the terster sees software like a "black box" that is unimportant in its contents, well-known outside testing process (Mladen Radujković, 2017, Nannan Wang et al, 2017, Otávio, 2017). Database (Database) is a collection of information stored in the computer systematically, so it can be used by a computer program to obtain information from the database. According to (Sevilay Demirkesen, 2017, Svetlana Cicmil, 2018) Project management is the application of science, skills and skills, the best technical means and with limited resources, to achieving predetermined goals and objectives to achieve optimal performance cost, quality and time, as well as work (Abrar Husen, 2011, Ariyani, 2017, Nurhayati, 2010, Marija Lj. Todorović et al, 2015). PHP (PHP: Hypertext Preprocessor) is a server-scripting abah that integrates with HTML to create dynamic web pages (Aditya, Alan Nur, 2011, Arief, 2011). Because PHP is server-side scripting, PHP syntax and commands will be executed on the server and then the results are sent to the browser with HTML format. Thus, the program code written in PHP will not be visible to the user so the security of web pages more secure.

PHP diraning to form dynamic web pages, i.e. web pages that can form a display based on recent requests, such as content database to web pages (Andi, 2016, Raka, 2016). SQL stands for "Structured Query Language". SQL is a structured command language. It is said to be structured because of its use, SQL has some rules that have been based on an association named ANSI (Indrajani, 2011).

III.   METHOD

PT. XYZ is a company engaged in building construction services that include:
1. Work and design of new houses or shop houses
2. Workers and design houses or shophouses
3. Work and interior design of the house or shop or office
4. PT. XYZ is a company engaged in construction services that have experienced in building or renovating the residence. building or renovating the residence. Experienced and ordinary housework
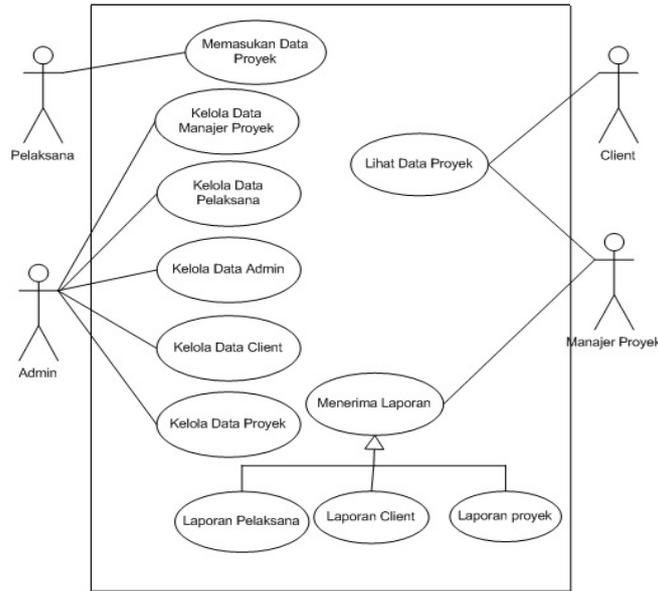

Fig. 1 *Use Case Diagram*

IV.   RESULT

Here is the implementation of the program in accordance with the design of the screen that has been designed previously, among others:

Fig. 2 Login Form

Data Rinci Proyek

No	Kode Rinci Proyek	Uraian Pekerjaan	Jumlah Keseluruhan	Bobot	Jumlah Capai	Bobot Capai
1	RP1001	Pondasi	120	3.585	[50]	[1.49]
2	RP1002	Beton/dinding	120	5.787		
3	RP1003	Kap/atap	125	5.932		
4	RP1004	Loteng	125	4.151		
5	RP1005	Plesteran	120	8.951		
6	RP1006	Lantai	120	37.92		
7	RP1007	Pintu/jendela	50	4.299		
8	RP1008	Pengecatan	120	23.87		
9	RP1009	Perlengkapan	20	5.503		

Jumlah Pekerja	
Jenis Bahan	
Jumlah Bahan	
Jenis Alat	
Jumlah Alat	
Cuaca	

Simpan

Fig. 3 Screen Display Manage Project Data

FORM PROYEK

Kode Proyek	P003
Nama Proyek	
Lokasi Jalan	
No	
Rt	/RW
Kota	Kode Pos
ID Pelaksana	Wildan
ID Manajer Proyek	Anam
ID Client	Luciana

Kd Rinci Proyek	Uraian Pekerjaan	Jumlah Keseluruhan	Bobot	Pilihan
RP003				Hapus
				Tambah
				Simpan

TABEL PROYEK

No	Kode Proyek	Nama Proyek	Lokasi Proyek	ID Pelaksana	ID Manajer Proyek	ID Client	
1	P001	Perumahan ABC	Jl : keadilan No : 02 Rt/Rw : 002 / 003 Kota : jakarta barat Kode Pos : 11720	Wilda	Anam	Lucia	Ubah | Hapus | Rinci
2	P002	Perumahan ABC	Jl : kapuk No : 11 Rt/Rw : 13 / 003 Kota : Tangerang Kode Pos : 12345	Wilda	Anam	Lucia	Ubah | Hapus | Rinci

Fig. 4 Display Screen Enter Project Data

Fig. 5 Display Report Screen

The test scenario is performed to determine the steps in performing the test. Testing is done by running the application from the website design. After the application is executed next is to test the buttons contained in the application interface is in accordance with the design stage. After thorough testing, it can be concluded that the test has shown the output (Output) and the process in accordance with the design of this program application. and the results of this test can be said that this program can work properly and correctly, because it has been proven from the results of test scenarios.

V.   CONCLUSION

Based on the discussion that has been done, it can be taken some conclusions about the Information System Monitoring Implementation Project at PT. XYZ, including as follows:

1. The system is designed to assist in the monitoring process, admin managing the project data being handled, then the implementer provides reports or information on the field implementation done online so that the admin to the client can monitor the project being handled.
2. Monitoring system intended to be used as a reference to the extent to which the implementation in the field in accordance with the planning, by conducting direct reporting process from pelksana then this system can display information how far progress has been achieved in the field
3. Recording or input of information on this monitoring system can document the implementation properly from project implementation data, project manager, client to the project data itself.

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