Design and Implementation of Online Students' Complaint (Case Study of English Study Program at Victory University, Sorong)

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Abstract— An information system is a very famous tool in this digital era. People all over this world use this tool to get and share information. Computer based system is one type of information system that very often to use in this era. It touches over all the sides of life nowadays. It can avoid errors caused by user or staff at the organization itself besides of easy and fast access to deliver new information. Online students' complaint is an information system used to help study program in accepting criticism and suggestions by the students to help it improve the services. This research will reduce paper usage, time and energy. This research used prototype model as development system model to structure, plan and design the system. It used modelling language (UML) to make the abstraction of the program, PHP as the language program and MySQL as the database. The result of this research is the complaint will be known easier and faster as well as its evaluation and responses. Thus, the service quality of English Study Program is increased.

Keywords—Online Students' Complaint, information system

I. INTRODUCTION

An information system (IS) is a very useful tool to enhance organization quality. It can be used to deliver information faster without any redundancy. Briefly, it is a group of components that interact to produce information [1]. Any specific information system aims to support operations, management and decision-making [2]. Computer based system is one type of information system that very often to use in this era. It touches over all the sides of life nowadays. It can avoid errors caused by user or staff at the organization itself besides of easy and fast access to deliver new information. Any information system needs to communicate with external entities, human users or other computers [3] to help the work of human. It also serves people in reducing cost and space allocation where used as archive place of manual system. It exists because of the database included by data collection at the computer. Specifically, it used to collect, filter, create, save and distribute information by people or even organizations. At this time, English Study Program at Victory University of Sorong used information box as media or tool to accept any complaints, information, critics or suggestion about all kinds of service in English Study Program. This kind of method is not optimal and accurate then. Firstly, the students usually forget to put their complete identity. Then, the manual process cannot support privacy complaints of the student and the rule is excessively long and trivial. At last, they are not interested to visit faculty room, write the complaints then fill it to the box. On the other side, English Study Program finds difficulty to accommodate the complaints. This IS will provide a lot of contributions for English Study Program of Victory University for instance it helps English Study Program to manage and accommodate all the complaints easier and safely in the database, it reduces the paper use, it motivates students to give their complaints because this IS has an interesting interface, this online system also will be a flexible tool which will offer the service anytime and anywhere so English Study Program can always get the new critics and suggestion to repair it system continuously as the function to enhance it services. An Effective and Efficient work is an essential index of organization's performance. For this purpose, we use prototype model to design the program. Based on the explanations, this study is conducted an information system entitled "Design and Implementation of Online Students ' Complaint (Case Study of English Study Program at Victory University, Sorong)".

The paper is organized as follows: Section II contains the related work in the area, Section III presents the methodology, Section IV contains the results and discussion, and Section V concludes the paper.

II.   RELATED WORK

Osman and his co-worker [4] proposed Online Complaint Management System**,** Online Complaint Management System provides an online way of solving the problems faced by the public by saving time and eradicate corruption. The objective of the complaints management system is to make complaints easier to coordinate, monitor, track and resolve, and to provide company with an effective tool to identify and target problem areas, monitor complaints handling performance and make business improvements. Esraa and her co-workers [5] proposed A Model for Customer Complaint Management System using SOA. They describe the Complaint Management System oriented by Web-application which will be used by Citizens in order to make complaints about their dissatisfaction on provided services. Their system will be able to handle complaints by recording and giving feedback for each raised complaint. Results of the study can be a good reference to find out users needs from e-complaint and the handling process of this complaint in the body of any organization. Rokhmawati and Pradana [6] proposed an E-complaint at GraPARI Telkomsel Malang, Indonesia. They are interested in making an e-complaint to be easier in handling customer complaints. Acceptance of customer complaints through My GraPARI machine or through the call center is considered not meet the needs, given the limited number of My GraPARI machines available only one unit in the city of Malang. As for the handling of complaints that require further handling, call center is considered not able to handle maximally because every process of handling must be informed directly to the customer. They gave a solution of information system development as one form of application of the concept of Customer Relationship Management (CRM) Operational intended to receive complaints from customers. The method used in system development is using waterfall model which includes several stages of development, including: needs analysis, design, implementation and testing. System testing is done with several types of testing, including: black-box, compatibility, web service testing and system evaluation using the utility system approach. From the overall test results can be concluded that the features on the system have been running with a valid and can run on several types of browsers that have been tested.

III.   METHODOLOGY

Research methodology is the systematic way of method applied at the field of study that used to analyze or collect data in a research. In information system field the research methodology called system development methodology. A system development methodology refers to the framework for structuring, planning and controlling the development of an information system. There are several types of system development methodology which is not suitable for use by all development projects. Each of the available methodologies is suited to specific project based on attentive, accurate and selective considerations.

a)   Research Model

We proposed a prototype model to design online students' complaints. This model is very suitable to build this project. Pressmen [7] gives three steps in designing system i.e listen to the customer needs, build/revise mock up and costumer test drives. This model opens to build interaction between system developer and system user. This kind of interaction can be very helpful in avoiding clash. It is majorly a trial-and-error process which works in an iterative fashion.
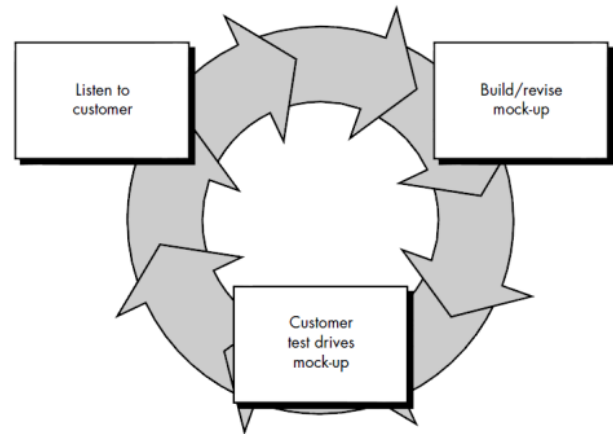

Figure 1. Prototype Model (Pressman, 2012)

b)   Object of Research

The object of this research is an information system of online students' complaint of English Study Program at Victory University, Sorong. The manual steps in delivering complaints: (1) take the complaint card at the faculty (2) write the identity and complaint, then (3) put it into the complaints box. The staff will take all the cards evaluate it together with all stakeholder. By this manual system, the organization will spend a lot of budget for buying paper and also waste a lot of time to evaluate the complaints even the stakeholder has other main job though.

c)   Work System Method

This research used Unified Modeling Language (UML) as the work system method. Sunguk lee [8] stated that UML is considered an industry standard modeling language with a rich graphical notation, and comprehensive set of diagrams and elements and it is used to specify, visualize, modify, construct and document the artifacts of an object-oriented software intensive system under development. In describing the interaction or scenario of actor and use case, we took usecase diagram. Usecase diagram of this system involved student and administrator. These two actors should login

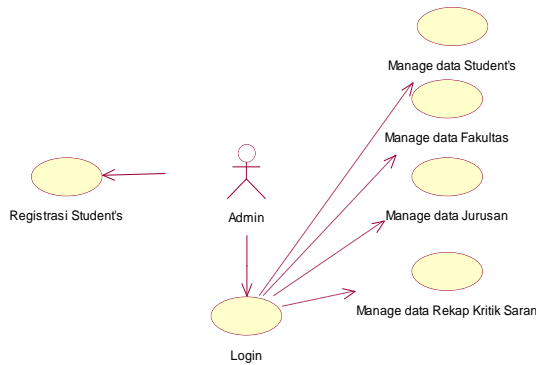before moving to the next process. The pictures below described the use case diagram of this system.

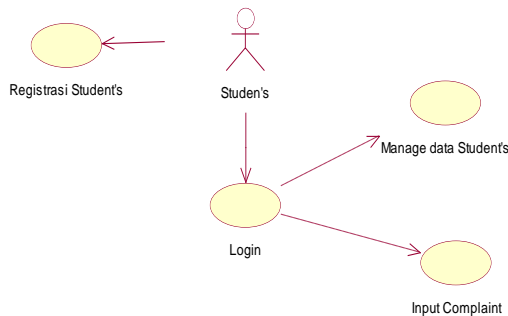**Figure 2. Usecase Diagram of Admin**

Figure 3. Usecase Diagram of Students

IV.   RESULTS AND DISCUSSION

This section presents the results obtained in terms of designing online students' complaint. Specifically, the results divided into several pages. This IS conducted by PHP as program language and MySQL as the database. The result of this research is a information system program. This information system program used to help English Study Program in accepting criticism and suggestion by students. This online students' complaint will reduce use of paper, time and energy.

a)   User Interface Design

Graphic design and typography are utilized to support its usability, influencing how the user performs certain interactions and improving the aesthetic appeal of the design; design aesthetics may enhance or detract from the ability of users to use the functions of the interface [9].
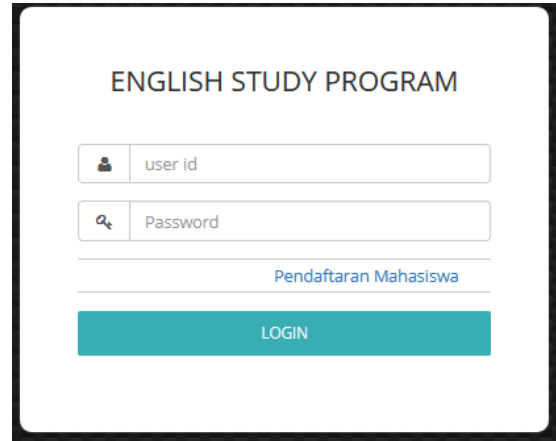
1.   Login Interface

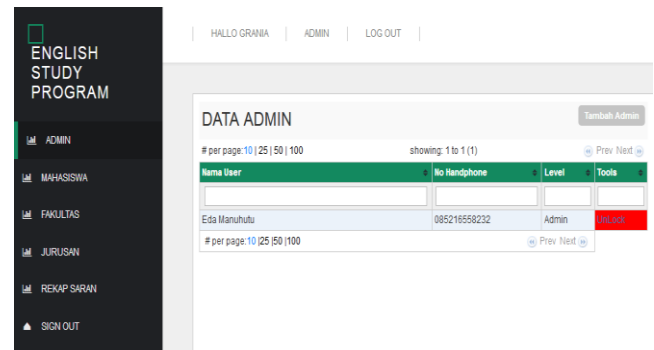

Figure 4. Login Interface

2.   Home Interface of Admin
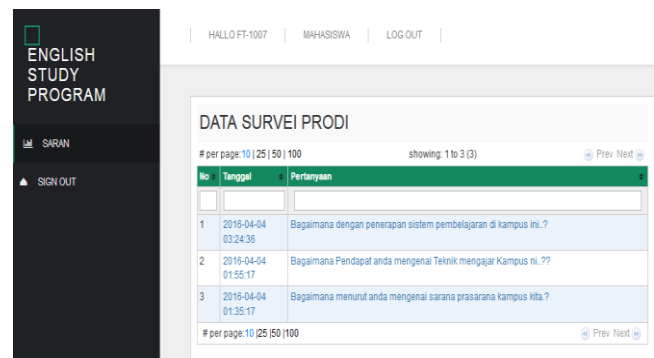

Figure 5. Home Interface

3.   Survey Data Interface

Figure 6. Survey Data Interface

4.   Registration Interface

Figure 5. Registration Interface

5. Questionnaire Interface

Figure 6. Questionnaire Interface

6. Complaints Form Interface

Figure 5. Complaints Form Interface

b) System Program Testing

This information system program testing of students' complaint is using black-box testing method. Black-box testing method was done by giving several inputs to the online complaint program that later processed suitable with the functional needs to produce the needed output. It is sometimes referred to as specification-based testing [10].

V. CONCLUSION

In this paper, we have presented a design of online students' complaints. This IS limited at English Study Program in Victory University of Sorong. By its implementation, we can find that it provided a powerful and flexible system which can use anytime and anywhere by the students. It helped English Study Program to manage and accommodate the complaints fast and easy thus it can know the strengths and weaknesses of its body as the educational service organization then it can deliver a better solution to enhance it service. The prototype model helped us in designing this program by involving the inputs from the customer. The result of practical application as whole is this online complaint able to give information easier, accurate, up to date and faster compared to the use of manual system. This research has limitation in data security. For the further research, the researcher suggests to implement the algorithm system to increase the data security and integrate this system to the other system in the body of English Study Program as educational organization.

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Authors Profile

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L.J. Uktolseja graduated from her Barchelor of Art at Victory University, Sorong, Indonesia in 2014 and Master of Education from Cendrawasih University, Jayapura, Indonesia in 2016. She is now an English Study Program lecturer of Victory University, Sorong, Indonesia.