

Design Model of Information System for Booking Seat on Conference

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Abstract:

The development of information technology today has led to very good conditions. This condition will make the delivery of information faster and more efficient. In an educational institution, it must indeed use information technology, so that in the future it will become superior and become an example for other institutions. University "X" which applies the development of information technology has the desire to create a system that makes it easy for students. Several studies that have been carried out previously internally, found a lack of utilizing information technology media as a whole. Registration for a seminar, students still do it manually, which is to go to university and register. From this, making assumptions in information technology universities must be maximally utilized. For this reason, a system was made to register the seminar online. To make the system, we make use of a very good classical method, SDLC. SDLC generally has five stages, firstly needs analysis, those needs are functionally and functionally biased. Second, system design. Third, testing the system. Fourth, system implementation. And the last is system maintenance. The results obtained from the system design, increase the sense of student satisfaction reaching 65%.

Keywords —Information technology, reservation, conferences, effective.

INTRODUCTION

Information Technology is a technology used to process data, including processing, obtaining, compiling, storing and manipulating data in various ways to produce quality information. With the existence of these technologies increasingly provide convenience in every human activity, starting from the way the system works more practically to the mastery of the logic system contained in it. Likewise, in the field of education, which utilizes information technology requires a reliable system in its use, where the business activities carried out are always related to processing time or commonly known as estimated processing time, the estimated time is used as the estimated time set to build or develop a system owned by the customer (system user). In the field of education, software development, a conferences ticketing reservation is an important thing that supports the success of an institution in meeting customer needs. This happens because all things that

will be monitored are packed with a system that supports all forms of notification or reminder facilities for things that have been predetermined.

The rest of the paper is structured as follows: in section 2, we review the related works. In section 3, the proposed approach is presented. We present experiments and results with discussion in section 4. Finally, we conclude the paper and highlight the future work in section 5.

2. RELATED WORK

Booking tickets is a means that facilitate consumers in making purchases tickets online. By utilizing the so-called IT media as a website, information seekers can find something that is needed such as ticket purchases at university "X". The process done in ordering tickets online is to register first [1],

then consumers get the identity of the buyer such as username and password. After successful registration then the consumer can choose the seat in accordance with his wishes, and after that consumers will get a message into the phone that states to make payment for the ticket [2]. Utilization of internet and website produce good output for its users, because internet and website are communication network without boundary and space, so give facility and ease in completing work [3, 4, 10]. Ease in using internet media to give positive impact to its users and the factor belief between information giver and recipient information. If there is no trust factor, then all activities in the delivery of information will not be easily accepted. Trust is also an important factor in the ongoing sale and purchase of online transactions because trust is essential and is created by direct interaction with the seller personally, or in general the creation of relationships between consumers and vendors [5, 8]. In utilizing the online ticket booking system also by utilizing the application based on the operating system android and iOS, but in this study ticket bookings can still be opened online using mobile devices. By using mobile devices all activities can be easier for consumers in booking tickets online and also without knowing the time and space limits. As in previous research, mobile commerce has emerged as a vital tool for many firms as smart phones continue to evolve and gain in popularity. It offers customers accessibility, enabling them to purchase products or services at any time and from anywhere [6, 7, 9, 11, 12]. In making the model of online conferences ticket reservation using the concept of OOAD (Object Oriented Analysis Design) where the concept of OOAD is to emphasize the interaction made by users against the system [13]. OOAD model can be poured in a model called UML (Unified Modelling Language). Where the UML model to be used in this research is use case diagram.

3. PROPOSED APPROACH

In this section, we present an approach to develop IT-support. The proposed approach has two parts namely: SDLC model and proposed approach.

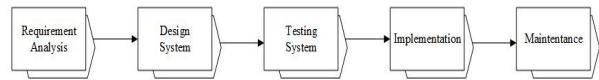


Fig 1. SDCL Model

In the SDLC model section, it is divided into five parts, namely requirement analysis, system design, system testing, implementation, and maintenance. Requirement analysis, the process of analysing and gathering system requirements that are in accordance with the domain of behaviour information, performance, and interface (interface) that are needed. These needs are documented and seen again with customers. Design system, the design process will translate requirements into a software design that can be estimated before coding is made. This process focuses on: data structures, software architectures, interface representations, and procedural details. Testing system, the testing process is carried out on internal logic to ensure all statements have been tested. Functional external testing to find errors and ensure that inputs will provide actual results as needed. Maintenance, software that has been delivered to customers will definitely change. These changes can be due to an error because the software must adjust to the environment (new peripherals or operating systems), or because customers need functional development or performance. As already explained, that this research is done using OOAD method with UML model. In UML modelling there are several steps that must be done in accordance with the concept of waterfall model, namely: 1) planning, 2) design, 3) coding, 4) Testing and Implementation, 5) documentation. At the planning stage of this research will be observed how many users involved in the use of the system, from this study there are 3 users, namely: consumers, admin and leadership. In the activities undertaken by consumers, consumers can perform several activities such as: making a reservation ticket and also do confirmation tickets that have been purchased. In the admin activity, the admin can perform several activities such as: adding a seat, viewing the status of payments and viewing sales reports, bus reports and order reports. In the leadership activity, the leader can only see the sales report. Illustrations at this stage can be seen in Fig. 1, at the design stage, will be divided into 3 views for users and each view will have

different content. In the coding or programming stage, the bus ticket sales design uses PHP programming language and its data base is MySQL. The next step is the testing phase of the program, where the program will be tested whether it is in accordance with the needs of the users or not and the last stage is the documentation of the research that has been done.

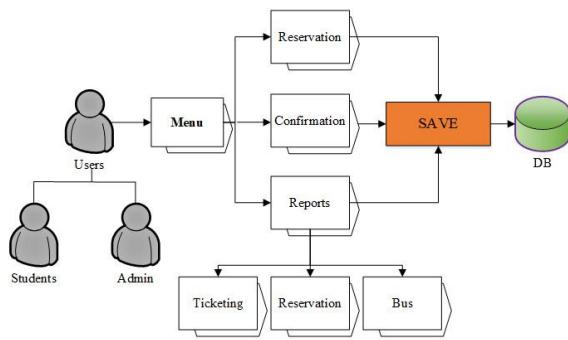


Fig 2. The proposed approach

4. TESTING AND IMPLEMENTATION

In this section, the results of the study will be explained, where the results section of this study is divided into three, system testing, system implementation, and comparison old system and new system.

4.1 System testing

The test conducted is black box testing. In black box testing, testing is only done by executing or executing units or modules, then observing whether the results of the module are in accordance with the desired procedure. Testing is done to determine the steps in conducting the test. Testing is done by running the ticketing application to support the operational part of the web browser. After the application is run, then a series of function tests are performed on each application module, if it is in accordance with the design, the testing is considered valid.

4.2 System implementation

This stage is a continuation of the fifth phase of SDLC activities, namely testing and implementation. This stage applies a system so that it is ready to operate. Things that need to be prepared include hardware and software specifications. After making the conceptual model, then the next step is to see the results of the analysis made that

has been adapted to the needs. In the above view it can be seen that the admin can do some activities such as see who the consumer who has made the purchase ticket confirmation, admin can also see add the number of seats on the conferences, manage the user list and also admin can view reports, such as purchases report, reservation and report the number of seats on the conferences.

The screenshot shows a web page titled 'Welcome Admin'. Below the title is a horizontal menu bar with five items: 'Home' (highlighted in green), 'Confirm', 'Conference', 'Users', and 'Report'. The main content area is currently empty, indicating the user is on the homepage.

Fig 3. Home Admin

The screenshot shows a web page titled 'Welcome Admin'. Below the title is a horizontal menu bar with five items: 'Home', 'Confirm' (highlighted in green), 'Conference', 'Users', and 'Report'. The main content area has a sub-header 'Confirm'. Below the sub-header is a row of input fields labeled: 'No', 'ID', 'Invoice', 'Name', 'Phone', 'Date', 'Total', 'Bank', and 'Information'.

Fig 4. Confirmation of Ticketing

In the above view, it can be seen that the admin can see who the consumer who has made the payment process after making a ticket purchase online. If within 3 hours the consumer does not make the payment process, then the order already done will be deleted automatically in the system. This method is done in order to avoid the accumulation of data orders that are not in accordance with the payment, if this way is not done then the university will suffer losses, many reservations but the amount of the payment process does not match the amount that make reservations.

The screenshot shows a web page titled 'Welcome Admin'. Below the title is a horizontal menu bar with five items: 'Home', 'Confirm', 'Conference' (highlighted in green), 'Users', and 'Report'. The main content area has a sub-header 'Conferences'. Below the sub-header is a form with a header 'Room'. The form contains five input fields: 'No', 'No Seat', 'Position', 'Price', and 'Information'. There is also a small triangular icon above the 'Position' field.

Fig. 5 Manage Seat of Conferences

Admin can also manage the seating of a conferences, here the admin can specify seating no, the area of the seat and also the

availability of seating and the price of each seat, because the seats are in the front row will have a more price high compared to the seat in the middle or the back. Admin and owner can view reports from ticket sales as well as reports from ticket bookings and reports from the availability of the number of seats on the conferences. In the above figure it can be explained that there are 3 statements on the seat status, if the red seat means the seat is already full or already filled by other passengers, if the picture of the blue seat means the seat is still empty or has not been purchased by other passengers and if the colour of the green chair is the seat chosen by the passenger. After the seat is selected then passengers can fill biodata such as, full name, address, email and no tel. For seating positions and ticket prices do not need to be filled because automatically the seating position and the price will appear in accordance with the chosen seat. After ordering and making payment, consumer can enter no invoice, and automatically biodata from consumer will appear, after appearing then consumer asked to upload proof of transfer already done then press order button and order finished.

5. CONCLUSION AND FUTURE WORK

Based on the description that has been explained, that the ticket booking system is based online, with the aim of facilitating consumers in the process of purchasing bus tickets. The system can also easily view reports, both ticket sales reports, the number of seats on the bus and the reservation report. For the future booking bus tickets based on this seat will be based on mobile applications such as android and also iOS, because now many consumers are already using mobile based android and also iOS.

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