School Now, Pay Later

Escuela ahora, pague después

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abstract

Along with the time and technological development those are increasing rapidly, computer is one form of technology that is very rapid development and even the development can be calculated by day. Computer is an electronic media that plays a very important role in the development of technology today, and continues to dominate various work processes in order to be easier, more effective and efficient. MTS Guppi Airnaningan is an educational institution that does not miss information technology. But the student tuition payment service is still using manual method so that the activities related to the administration is still slow and still lining up to make payments. The objective of this research was to overcome tuition fee payment that still use manual systems and make tuition payment information system on computer-based. It will make MTS Guppi Airnaningan tuition payment become more efficient and more accurate. Using the data collection method and direct procedures to obtain accurate data which then continuing the system design step. After analyzing and observing directly the object of research, the researchers can draw the conclusion that the payment information system application can improve payment services for MTS Guppi Airnaningan student.

Keywords: school, payment, tuition, information system, student.

Junto con el tiempo y el desarrollo tecnológico, estos están aumentando rápidamente, la computadora es una forma de tecnología que es un desarrollo muy rápido e incluso el desarrollo puede calcularse por día. La computadora es un medio electrónico que juega un papel muy importante en el desarrollo de la tecnología actual y continúa dominando varios procesos de trabajo para ser más fácil, más efectivo y eficiente. MTS Guppi Airnaningan es una institución educativa que no pierde la tecnología de la información. Pero el servicio de pago de matrícula estudiantil todavía está utilizando el método manual, por lo que las actividades relacionadas con la administración aún son lentas y se alinean para hacer pagos. El objetivo de esta investigación fue superar el pago de la matrícula que todavía usa sistemas manuales y hacer que el sistema de información de pago de la matrícula esté basado en computadora. Hará que el pago de la matrícula de MTS Guppi Airnaningan sea más eficiente y más preciso. Usando el método de recolección de datos y procedimientos directos para obtener datos precisos que luego continúan con el paso de diseño del sistema. Después de analizar y observar directamente el objeto de investigación, los investigadores pueden llegar a la conclusión de que la aplicación del sistema de información de pago puede mejorar los servicios de pago para el estudiante de MTS Guppi Airnaningan.

Palabras clave: escuela, pago, matrícula, sistema de información, estudiante.

Introduction

1.1 Background

Along with the time and technological development those are increasingly rapidly, computer is one form of technology that has very rapid development and even the development can be calculated by days [1][2][3][4]. Computer is an electronic media that plays a very important role in the development of technology today, and continues to dominate various work processes in order to be easier, more effective and more efficient [5][6][7][8]. The development of computer technology gave the point of view in helping the number of work in terms of learning, business, and even interaction [9][10][11][12][13]. In terms of data storage to process data into computerized information, computerization is the right and maximum utilization including the substitute for typewriters [14] [15] [16] [17]. This must be supported by hardware, software, and brain ware namely, the operators or users [18] [19] [20] [21] [22]. As an activity of a technology to run well, so that technology can be used in the industrial world, the business world, to the world of education.
In the educational context, especially schools, it is necessary to have a mutual work commitment to complete the work within the conventional context [23] [24][25][26]. One of them is using the payment method of tuition fees manually through the books to record the student tuition payment data. Tuition fee refers to the attempts of educational development donations [27][28][29][30]. In particular, the wide number of funds donated to ongoing educational activities in an institution was carried out in the conventional way which sometimes has the weakness in data management [31][32][33][34].

The payment transfer is considered as transmitting the transfer of ownership right of the number of money from the payer to the recipient, either directly or through the media of banking services [35][36][37][38]. From the above definition, the author can draw the conclusion that Payment is a mechanism carried out for transferring currency into goods, services or information from the payer to the recipient, either directly or through the media of banking services.

One particular educational institution, MTS Guppi Airnaningan, is an educational institution that does not miss information technology. But the student tuition fee payment service is still using the manual method, so that the activities related to the administration are still slow and still lining up to make payments. The information produced sometimes still encounters error and delay in reporting. Moreover, MTS Guppi Airnaningan is also still performing administrative service for tuition fee manually and the processing is still complicated and even not practical. To optimize the need of tuition fee Payment Information System in MTS Guppi Airnaningan, it is necessary to have the design of new tuition fee in the basis of payment information system to produce more useful and precise information than the old manual Accounting Information System. Based on the background above, the problem can be formulated as follows: How to make an application that can be used to facilitate tuition fee payment in MTS Guppi Airnaningan.

1.2 Problem Formulation

a. How to create tuition fee information system application at MTs Guppi Airnaningan using VB6.

1.3 Research objectives and benefits
As for the objectives from this research were :
a. To overcome tuition fee payment using manual system become more effective and easier.
b. To create VB6-based tuition fee information system at MTs Guppi Airnaningan become more efficient and more accurate.

Literaturer Review

2.1 Definition of Information System

Information system refers to the combination of information technology and the activities of people who use the technology to support management operation [39][40][41][42]. Moreover, it is a point of view for the information system with a regular combination of people, hardware, software, communication networks, and data resources in the attempts to collect, change, and disseminates information in an organization. The identification of information system should bring along with combining the mutual commitment of disseminating information through organizing the data in the online basis in particular [43][44][45][46].

2.2 Definition of Application

Application software is a subclass of computer software that utilizes the ability of the computer directly in performing the task which the user needs [47][48][49]. Compared to the software in integrating the various computer capabilities directly applying this ability to conduct in the basis of human needs, the main examples of application software are word processing,

worksheets, and media players [50][51][52][53]. Moreover, the additional number of applications combined together into the package is sometimes referred as suiting to the technological enhancement with following the procedural context of ethics and professionalism basis [54][55][56][57]. In particular, the examples could be viewed such as Microsoft office and open office in combining the word processing application systems, worksheets, and several other applications [58][59][60][61]. Applications in a package usually have a user interface that has similarities making it is easier for users to learn and use each application [62][63]64][65]. Moreover, this application has the ability to interact with each other to prosper the users [66][67][68][69]. For example, the worksheet can be embedded in a word processing document even if it is made on a separate worksheet application.

2.3 Definition VB 6.0

Microsoft Visual Basic 6.0 is a programming language used to create graphical Windows applications (GUI-Grapical User Interface). Microsoft Visual Basic is an event-driven programming, meaning the program waits until the user responds to a particular event or event (the button is clicked; the menu is selected, etc.) [50][51][52]. Microsoft Visual Basic 6.0 is very popular in recent years. Microsoft Visual Basic 6.0 is used more as a developer than other programming languages like Pascal, where we have to write programs for everything.

Microsoft Visual Basic 6.0 is able to automatically add part of the program code itself into the program so that the programmers' work becomes easier. Micrososft Visusal Basic 6.0 provides many conveniences for Windows-based program designer in pouring their imagination using objects available in Microsusft Visusal Basic 6.0 with the facilites of click and drag facilities to make the appearance as attractive as possible according to the wishes of the program maker.
Micrososft Visusal Basic 6.0 also provides facilities that are possible to compile a program by installing graphic objects in a form. Besides that Microsoft Visual Basic 6.0 also offers various conveniences in managing a database. In addition to reliable features, Micrososft Visusal Basic 6.0 has the most important features of Object Oriented Programming (OOP) or called object-oriented programming that makes it easier for users to build a complete application module.

2.4 The definition of Access
Microsoft Access is part of Microsoft Office 2003 that is used to process data, especially for databases. Microsoft Access 2003 is the result of the development of an earlier version [37][38][39]. In the basis of database management system (DBMS), the authors conclude that Microsoft Access is a program that processes databases.
The terms must be known if we work using Microsoft Access 2003 are:

1. Field. Is location or data place or information in the same group.
2. Record; is complete data or a collection of files stored in the form of rows in a table. Table; is a collection of data arranged according to certain rules and related to certain topics. Table is organized in two parts, the down section or column, that is called a file and the horizontal part or row is called a record.
3. Database; is a collection of data that interact each other, so that it can be processed and used quickly and easily.
4. Workspace; is the provision of a work area that is intended to use a database of more than one database in an application creation

Research Methodology

3.1 Data Collection Method

3.1.1 Observation Method

Observation is one of data collection technique that not only measures the attitudes of respondents (interviews & questionnaires) [70][71][72], but also can be used to record occurred various phenomena (situation, condition) [73][74][75]. This technique is used when human behavior, work processes, natural symptoms are carried out on respondents who are not too large [76][77].

3.1.2 Interview

Interview is a data collection technique that is carried out through face to face and direct question and answer between data collectors and researchers on data sources.

3.2 Design Step

In performing a study, of course as an author must prepare advance steps or stages of the design that the author does in the design process [78][79][80]. System development method refers to waterfall model or which is often referred as the waterfall model. This model proposes a systematic and sequential software approach that starts at the level and progress of the system in all analysis, design, code, testing and maintenance.
1. Engineering System

At this stage, the author began the work by defining and collecting all the materials such as the theories needed in forming information that will be used at the next stage.

2. Analysis

At this stage it was performed an analysis of the need of the software would be designed and made, including analysis of functions / processes needed, output analysis, input analysis, and needs analysis.

3. Design

At this stage, software design was carried out to provide illustration about what the software should do and how it looks, including output design, input design, data structure design, software structure design and software algorithm design. This stage helped in specifying the need and overall software architecture.

4. Coding

At this stage, the process of coding or making software was carried out. Making software was broken down into several modules which will be combined in the next stage. In addition, this stage was also carried out to find out whether it had fulfilled the desired function or not.

5. Testing

In this stage, a combination of modules that had been made and testing was carried out. This test was done to find out whether the software made was in accordance with the design and whether there were still errors or not.

6. Maintenance

This stage was the final stage in the waterfall model. the finished software was run and maintenance was carried out. This maintenance includes fixing errors that were not found in the previous step. Improvement of system unit implementation and improvement of system services as new needs

4. **Implementation**

The scope of users to work could be viewed into providing the facilities together with the management to enable them access in assisting their tasks. In this form there are facilities to manage data resources. The Main Menu display can be different depending on the status of the user who is logged in. But the application system created only consists of one user, so when it was logged in, the appearance was no different. Figure 1 shows payment form. Payment form is a place to do tuition fee payment for student based on class and name.

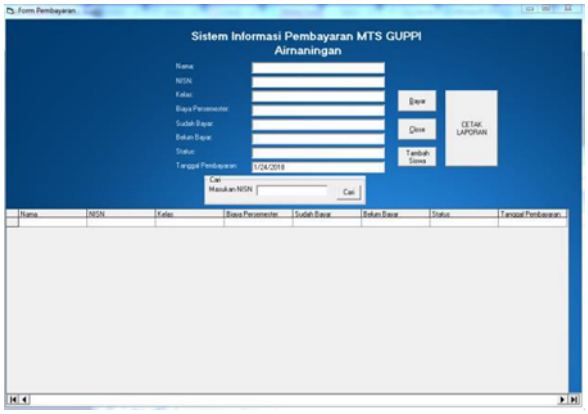

Figure 1. Payment Form

Conclusions

After analyzing and observing directly the object of research, the researchers can draw the conclusion that the payment information system application can improve payment services for MTS Guppi Airnaningan student. Because in the process of creation and planning system there are still weakness and still far.

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