

WEB DESIGN BASED ONLINE MANAGEMENT SYSTEM AT 3 MEDAN JUNIOR HIGH SCHOOL

Siti Aisyah^{*}, Widia Sari Zebua¹, Rupiah Boru Tambunan², Lina Sari Damanik³,
Rut Julianti Hutagalung⁴, Matthew Thompson⁵

^{1,2}Faculty of Technology and Computer Science, Universitas Prima Indonesia 20118, Indonesia
³Jl. Skip Samping Jl. Sikambing, Sei Putih Tim. I, Kota Medan, Sumatra Utara 20111

E-mail: siti_aisyah@unprimdn.ac.id^{*}, widiasarizebua0@gmail.com¹,
rupiahborutambunan@gmail.com², linasaridamanik@gmail.com³,
rutjulyanti@gmail.com⁴, mv6661@yahoo.com⁵

ABSTRACT

Article Info

Received, 01 Mei 2021
Revised, 20 Mei 2021
Accepted, 30 June 2021

This research is entitled Design of Web Based Online Management System at Nasrani 3 Medan Junior High School. The purpose of this research is to design a support system in order to assist prospective students in the re-registration process for Nasrani 3 Medan Junior High School. The method used in this research is a descriptive research method and the waterfall method in the system development methodology used. The result of this research indicate the following conclusions; 1. The system at Nasrani 3 Medan Junior High School is still done manually so that the system built can accelerate academic data processing. 2. The system built can be carried out efficiently on academic performance so that the time required is not too long. 3. All students data, teachers, tuition fees, and student grades are stored in the designed system.

Keywords : Web, Designer, Management

1. Introduction

Rahayu (2012: 2) "Designing a web-based information system as a medium or means of receiving new student information in order to speed up the work process, with online registration information can be received by the public quickly. Can accommodate the need to simplify and speed up the performance of new student registration officers in managing registrant data, thus queuing time for registration in this system can be minimized. Providing fast, precise and real time information, that is prospective new students in registering on computers connected to internet".

One of the methods used in this research is the Waterfall Method. The name of this model is actually "Linear Sequential Model". This model is often referred to as the "classic life cycle" or waterfall model. This model is a model that first appeared around 1970 so it is often considered ancient, but is the most widely used model in Software Engineering (SE). This model takes a systematic and sequential approach starting from the level of system requirements and then moving on to the analysis, design, coding, testing/verification, and maintenance stages. It is called a waterfall because the stages that are passed must wait for the completion of the previous stage and run sequentially.

The Nasrani 3 Medan Junior High School is one of the schools that collects and manages student data and prospective students still use print media such as brochures and banners so that the costs incurred by the school each time the registration period for new students increases. Therefore, the Nasrani 3 Medan Junior High School requires an integrated system. online, namely by making a website to make it easier for both prospective students and all to feel the benefits of the school website being very important and can also give the impression of professionalism for it. Therefore, the author is interested in trying to create a website with the title: " Web Design Based Online Management System AT 3 MEDAN Junior High School ".

2. Research Methods

The research method used to complete this thesis is descriptive research method. While the system development methodology used is the Waterfall method. The waterfall method is a method that is often used by system analysts in general. The essence of the waterfall method is that the work

of a system is carried out sequentially or linearly. The steps taken are as follows: Requirements analysis and definition

Collecting complete requirements then analyzed and defined needs that must be met by the program to be built. This phase must be done completely in order to produce a complete design.

1. System and software design
The design is done after the complete needs are collected.
3. Implementation and unit testing
The program design is translated into codes using a predetermined programming language. Programs that are built are directly tested both on a unit basis.
4. Integration and system testing
The unification of program units is then tested as a whole.
5. Operation and maintenance
Operate the program in its environment and carry out maintenance, such as adjustments or changes due to adaptation to the actual situation.

3. Results and Discussion

3.1 System Analysis

In the information system at Nasrani 3 Medan Junior High School, the teaching staff provides student data, teaching staff data, student achievement data and school facilities to be processed into academic data, then the results of data processing that have been completed are given to the principal, then the principal gives it to the teacher assembly concerned.

3.2 Database Design

Entity Relationship Diagram (ERD) describes the relationship between files in the storage media that are connected by a key field or more. The file and its supporting attributes can be seen in the following image:

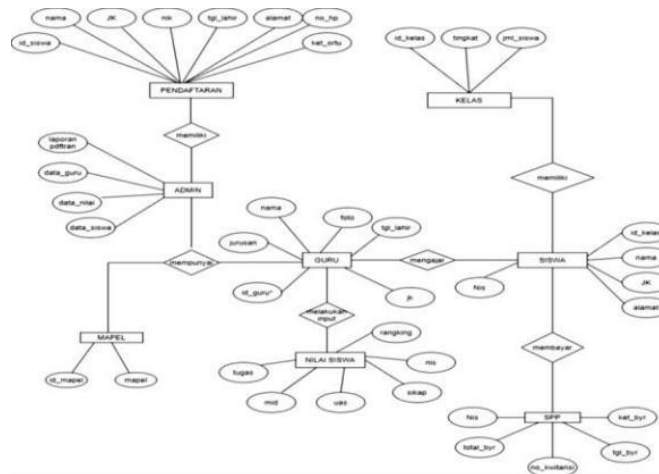


Figure 1. ERD System Design

3.3 Use Case Diagram Design

The following is a web-based online management system use case design:



Figure 2. Use Case Diagram Design

The first process is that students enter personal data in the online registration process, and where the admin is in charge of receiving registration reports from students in the form of student id, name, gender, Nis, date of birth, address, no_hp, description_oru make and send for students so that the data stored in the system database. The second process is inputting teacher data, where the admin is in charge of receiving teacher data in the form of teacher id, name, date of birth, jk, photo, department. The third process is inputting grades, where the teacher is tasked with inputting grades and the admin is in charge of preparing student grade data in the form of grades, assignments, mids, grades, attitudes and rankings.

3.4 Interface Display

The following is the profile website for Nasrani 3 Medan Junior High School, namely when new prospective students want to register, the list menu is located at the bottom.

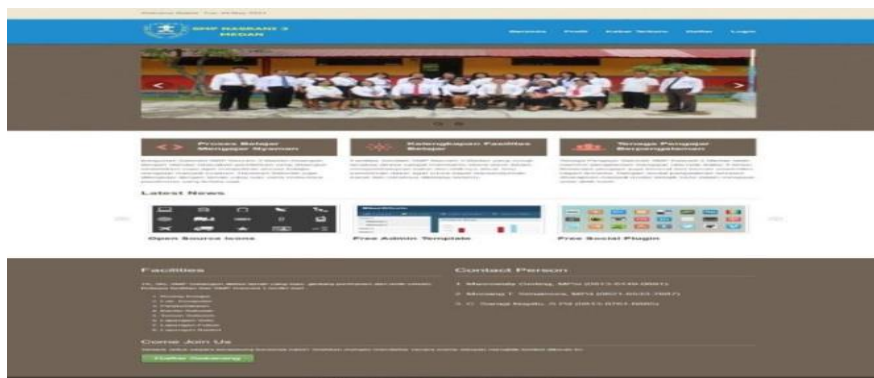


Figure 3. Website Profile of Nasrani 3 Medan Junior High School

3.4.1 Login Display

The login screen is a display that can be accessed with the student's NIS and the NIP for the teacher as well as the password that has been registered in the system.



Figure 4. Login Display

3.4.2 New Students Registration Entry

The registration form is a means for students to carry out the online registration process in fulfilling the registration requirements that have been determined by the school.



Figure 5. Registration Form

3.4.3 Student Data Display

The student data display contains the name, date of birth, class, gender and three actions about viewing, editing and paying for student administration.

Data Siswa Kelas 7 SMP Nasrani 3 Medan

Show 10 entries Search:

NO	NISN	NAMA	TEMPAT, TGL LAHIR	KELAS	JENIS KELAMIN	ACTION
1	2358	Agusmawati Waruwu	Medan, 23 March 2008	7	Perempuan	LIHAT EDIT BAYAR
2	2359	Amelia Tesselonika	Medan, 11 February 2008	7	Perempuan	LIHAT EDIT BAYAR
3	2360	Arina Ramora Patricia	Medan, 05 January 2008	7	Perempuan	LIHAT EDIT BAYAR
4	2361	Ari Suryono Simbolon	Medan, 16 April 2008	7	Laki-Laki	LIHAT EDIT BAYAR
5	2362	Alshohki Halawa	Medan, 18 June 2008	7	Laki-Laki	LIHAT EDIT BAYAR

Figure 6. Student Data Displa

3.4.4 SPP Payment Entry

The SPP payment process is carried out by the admin based on the period and date determined by the student on the condition that the student uses the NIS

3.4.5 Student Scores Display

The display of student scores is a means for students to see the grades uploaded by each teacher in their respective field of study.

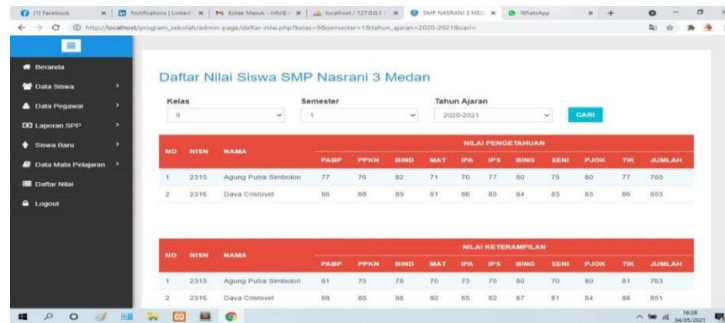


Figure 7. Student Scores Display

3.5 System Analysis Results

The following is the difference between old data and new data based on system analysis:

Table 1. The Differences Between Old and New Data

Old Data	New Data
- Assessment is still a manual written on paper	- Student assessment is carried out with a system and can be accessed directly by teachers and students
- Required to go to school to fill out the registration form	- Registration can be done online
- Proof of tuition payments is only available to students in the form of paper receipts	- Proof of payment is stored in the system and can be opened at any time

4. Conclusions

Based on the research conducted, the conclusion obtained is that the system at Nasrani 3 Medan Junior High School is still done manually so that the system created can speed up academic data processing, the system built works efficiently, and all student data, teachers, tuition fees, and student grades are stored safely in the system. The suggestions that can be given based on the research carried out are the need for further development and the addition of new website functions in the future, the need to build a better system based on Android so that it can be accessed more easily, and it is hoped that institutions will have a complete learning application based on Android.

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