

Web-Based Student Attendance Design At SMP Negeri 2 Baleendah

Asih Sri

STMIK Tulus Cendekia Bandung, Bandung
asihsru457@gmail.com

Informasi Artikel

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Abstract

Schools are also not only a means to seek knowledge, but also to shape the character or attitude of students, for example in terms of attendance or attendance, *schools are also not only a means to seek knowledge, but also to shape characters or attitudes in students, for example in terms of attendance or absence. Attendance is an element of discipline that aims to improve discipline in an institution. Therefore, an online-based attendance system is needed, where the teacher validates students directly using the attendance website through a computer or laptop. The model used for website design is the waterfall method. The results of this study are by designing a student attendance website where the teacher validates students directly using the attendance website so as to facilitate the process of making attendance reports as well as teachers who have validated students can be seen or monitored by the principal or admin as an alternative to solving problems that exist in SMP Negeri 2 Baleendah.*

Keywords:

Students
attendancde
Website

Abstrak

Sekolah tidak hanya sekedar sarana mencari ilmu, tetapi juga sarana pembentukan karakter dan sikap siswa, seperti kehadiran dan ketidakhadiran. Absensi merupakan salah satu unsur kedisiplinan yang bertujuan untuk meningkatkan kedisiplinan dalam lembaga. Oleh karena itu perlu adanya sistem absensi berbasis online dimana guru mencatat kehadiran siswa langsung dari website absensi melalui komputer atau laptop. Model yang digunakan untuk perancangan website adalah metode air terjun. Dari hasil penelitian ini kami dapat merancang sebuah website absensi siswa dimana guru mencatat kehadiran siswa langsung dari website absensi tersebut. Hal ini memudahkan dalam pembuatan laporan kehadiran serta memudahkan kepala sekolah dan pengelola untuk melihat atau memantau data guru yang telah menghadiri siswanya sebagai alternatif solusi permasalahan yang ada di sekolah menengah negeri.

Kata Kunci: Students, attendancde, Website

INTRODUCTION

Technology development and developments in the field of software are progressing very rapidly(Raharja, Setiyono, et al., 2024). In this digital era, the use of technology (Raharja, Pramudianto, et al., 2024) is a field that studies and develops engineering skills with certain steps and techniques (Ramalinda et al., 2024). Attendance refers to a record of one's presence, including at work, school, or a specific event. Attendance systems are used to track individual attendance and provide records that can be used for organizational, payroll, or performance evaluation purposes.(Agung Rachmat Raharja, Jayadi, 2023) Improvement efforts to achieve satisfactory academic performance do not only fulfill the input and output aspects(Rahayu et al., 2021), but more importantly relate to time management, teaching and learning processes, monitoring and evaluation processes, referring to the process aspect(Hariyanti et al., 2024)

Schools are also not only a means to seek knowledge, but also to shape the character or attitude of students, for example in terms of attendance or attendance. Attendance is very necessary as said by who revealed attendance is a way to find out the extent of the level of work discipline, whether people who work are able to obey the applicable regulations.

SMP Negeri 2 Baleendah opened on July 1, 1984, located in Baleendah Village, Ciparay District, Bandung Regency, where the attendance system used is still using a conventional system, namely the teacher takes attendance paper which is then stored and the attendance data will be typed back into the computer which causes a very inefficient process. Therefore, an online-based attendance system is needed, where teachers attend students directly using the attendance website so as to facilitate the process of making attendance reports and also teacher data who attend students will automatically enter the database so that indirectly the teacher has been attended by the student attendance application. Teachers who have attended students, can be seen or monitored by the principal or admin through the admin account.

METHOD

A research methodology is a systematic framework or approach used researchers use to plan, conduct, and analyze research. The purpose of research methodology is to ensure the systematic, reliable and competent conduct of research.(Sutisna et al., 2024)

In this writing there are several methods used to collect data. The methods used are as follows:

Data Collection Techniques

In collecting the data, the techniques used by the author in collecting the data are as follows:

1. Observation

Basically, observation aims to describe activities, individuals, and the meaning of events based on individual perspectives.(Maulinnisaa Tiur R.N, 2024) Data collection at SMP Negeri 2 Baleendah is carried out directly on the object of research, so that the data collected is more accurate.

2. Interview

The data collection instrument used is an interview, the author The author made several questions about the topics and problems in the research being studied[12]. The author makes several questions about the topics and problems in the research being researched. And supporting document studies in the form of written documents(Rahayu et al., 2021) An interview is a process of extracting information between the interviewer and the respondent which aims to obtain the required data(N & Raharja, 2022). Data collection is done by asking questions to the source directly.

3. Literature Study

Data obtained by collecting written sources from books, journals and the internet by reading and recording important things related to the object of research.

System Development Model

This research uses a waterfall model. The waterfall model is one of the SDLC models that is often used or often referred to as a conventional or classic life cycle model. This model uses a systematic and sequential approach starting from the system requirement level and then moving to the analysis, design, coding, testing/verification and maintenance stages. In this study the authors carried out the following stages of system development. In general, the stages in the waterfall method consist of analyzing needs, system design, implementation & unit testing, system testing and maintenance(Raharja, Agung Rachmat, 2024)

1. Analysis of System Needs

The author identifies the problems that exist at SMP Negeri 2 Baleendah including data that is currently running until designing the required data, data processing, to produce output to increase effectiveness and efficiency in attendance at SMP Negeri 2 Baleendah.

2. Design

The author designs based on the needs of the data that has been analyzed by creating a website interface page design that will be created using the Entity Relationship Diagram (ERD) and Logical Record Structure (LRS) for database needs. Using the Unified Modeling Language (UML) diagram for the main functional description and using Hypertext Preprocessor (PHP) as the programming language.

3. Code generation

After doing the design, the author applies it to the program based on the design that has been made using PHP source code, Sublime Text coding software, the server uses XAMPP 3.2.2 while for database design using MYSQL.

4. Testing.

To test the device using the black box testing method with the aim of minimizing errors and ensuring appropriate results.

5. Support

It is possible for a software to experience changes when data has been sent to the user. Changes can occur due to errors that appear and are not detected during testing.

RESULTS AND DISCUSSION

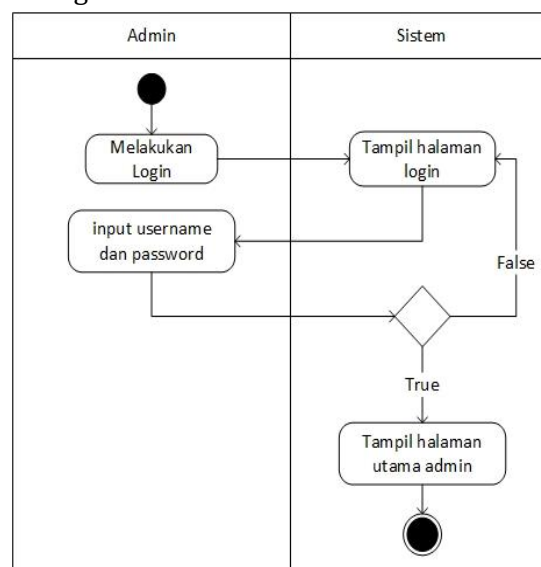
Software Requirements Analysis

The following are the stages of the website system that will be created to prepare the system implementation process and to clearly describe the processes contained in the online attendance application at SMP Negeri 2 Baleendah.

Activity Diagram

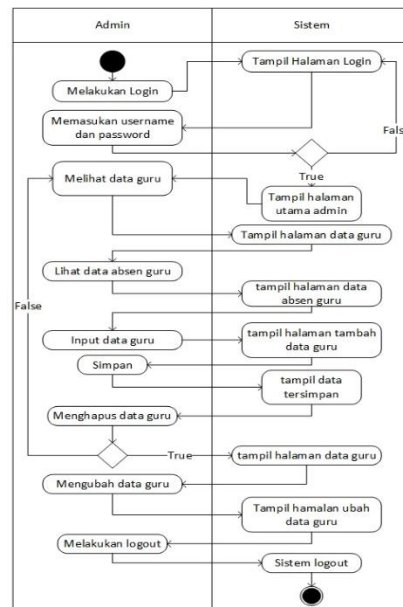
The following is an activity diagram of the work flow of the proposed attendance website system that will be made at SMP Negeri 2 Baleendah.

1. Activity Diagram Admin Login



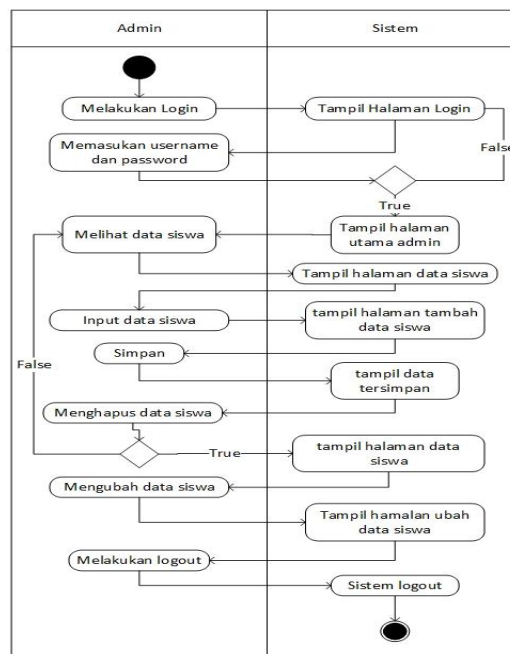
Gambar IV.3
Activity Diagram Login Admin

1. Activity Diagram Admin Manage Teacher Data



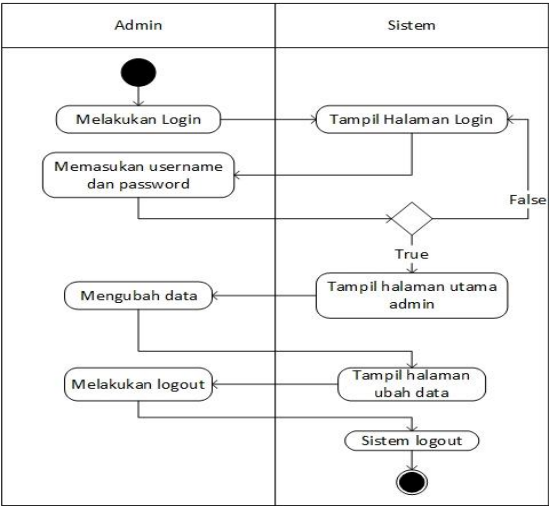
Gambar IV.4
Activity Diagram Admin Kelola Data Guru

2. Activity Diagram Admin Manage Student Data



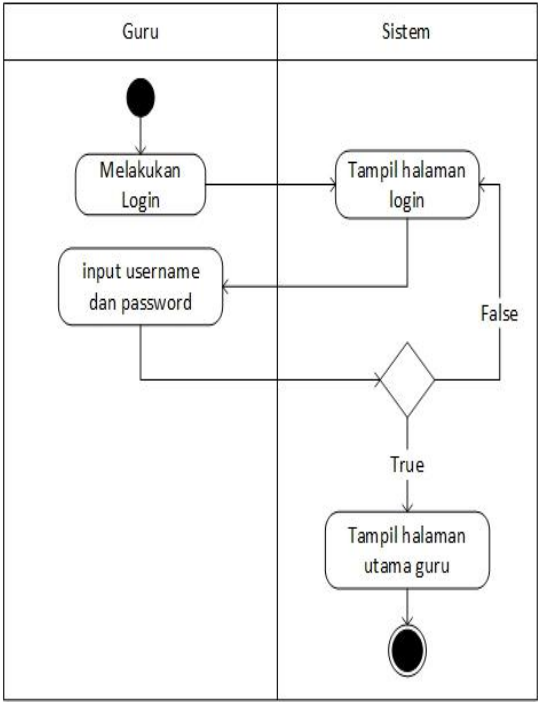
Gambar IV.5
Activity Diagram Admin Kelola Data Siswa

3. Activity Diagram Admin edit



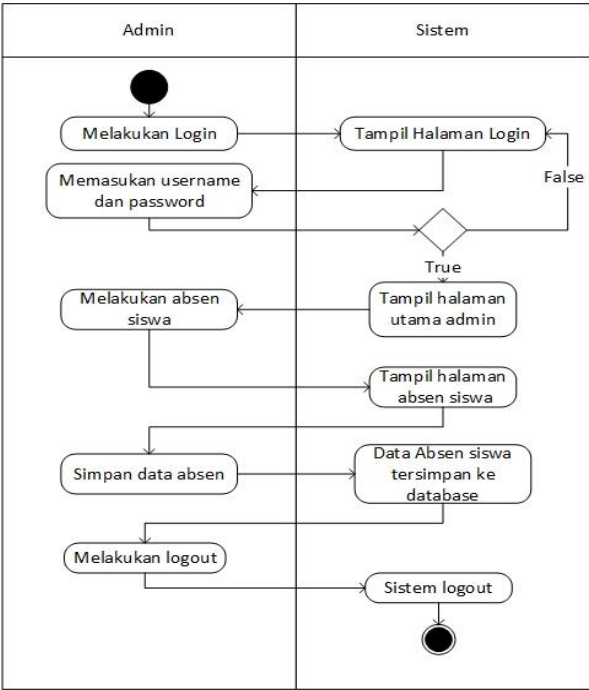
Gambar IV.6
Activity Diagram Admin Ubah Data

4. Activity Diagram Login teacher



Gambar IV.7
Activity Diagram Login Guru

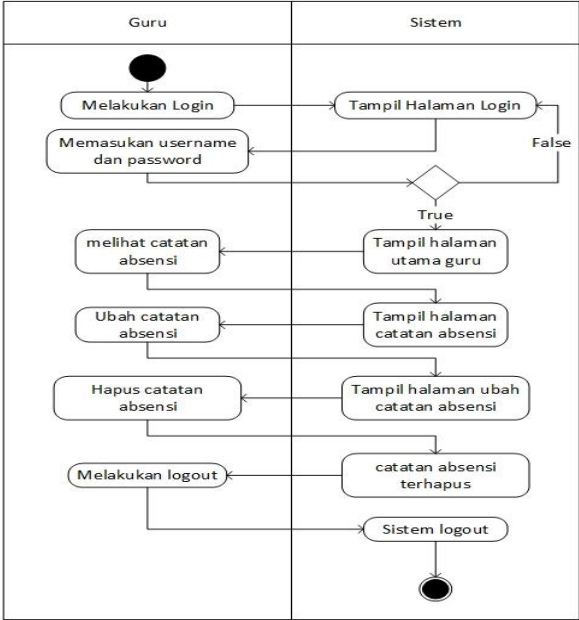
5. Activity Diagram Guru attendende students



Gambar IV.8

Activity Diagram Guru Mengabsen Siswa

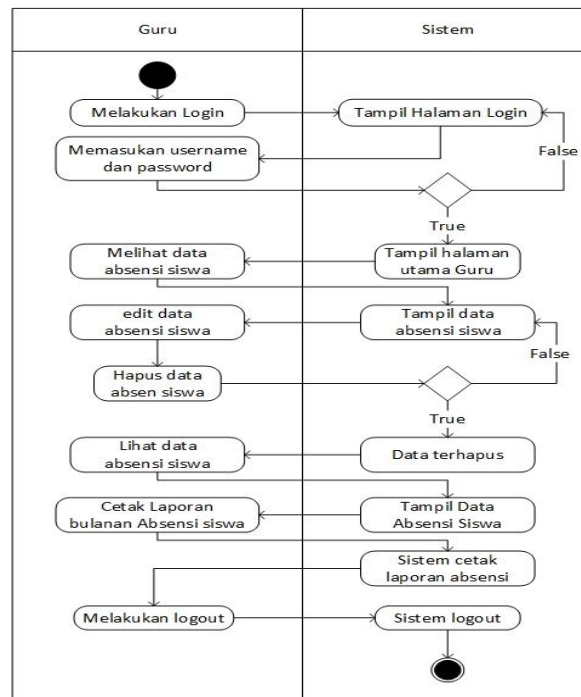
6. Activity Diagram Teachers Manage Attendance Records



Gambar IV.9

Activity Diagram Guru Kelola Catatan Absensi

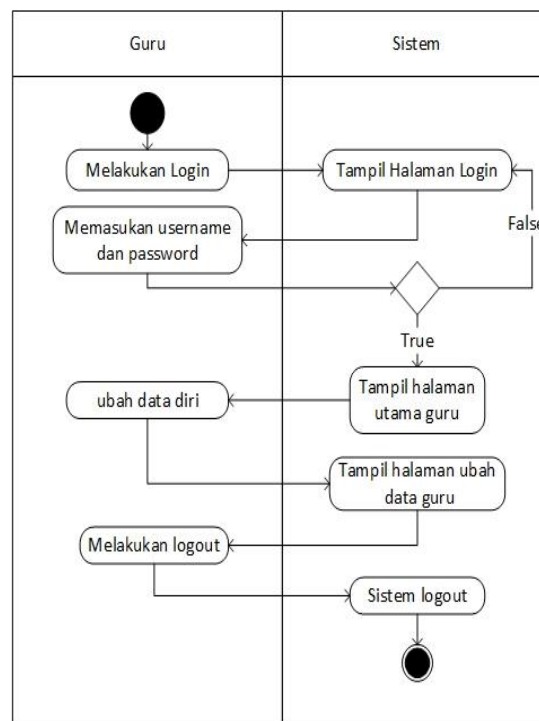
7. Activity Diagram Teacher Manage Student Absence Report



Gambar IV.10

Activity Diagram Guru Kelola Laporan Absen Siswa

8. Activity Teacher Diagram Change Data



Gambar IV.11

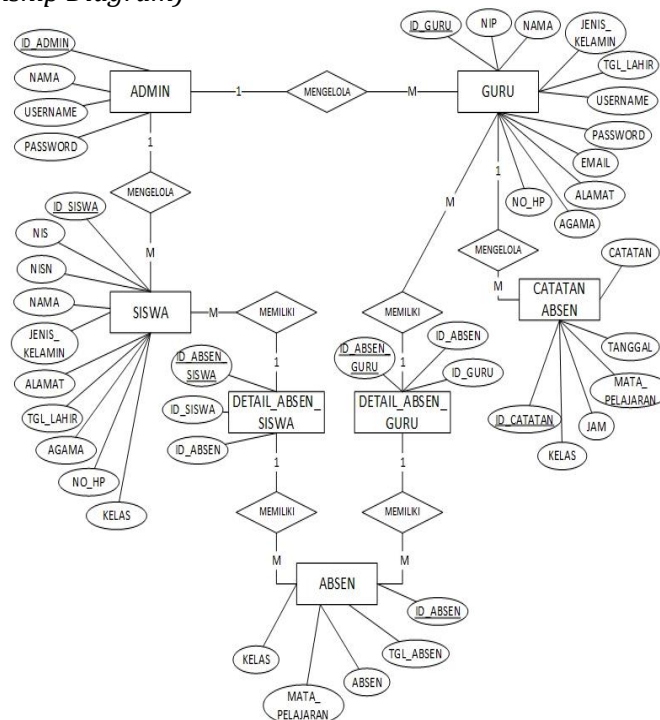
Activity Diagram Guru Ubah Data**Design**

The following are the design stages of designing a student attendance website at SMP Negeri 2 Baleendah.

Database

At this stage will explain the design of the Database, Software Architecture and User Interface.

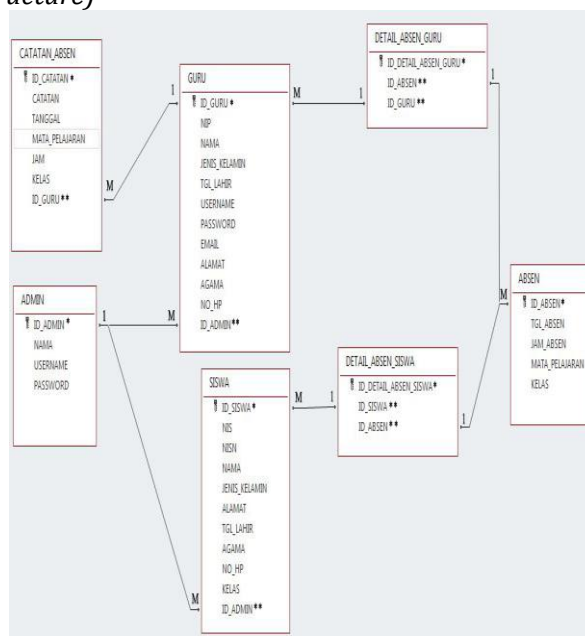
1. ERD (Entity Relationship Diagram)



Gambar IV.12

Entity Relationship Diagram Website Absensi Siswa SMP Negeri 2 Baleendah

2. LRS (Logical Record Structure)



Gambar IV.13

Logical Record Structure Website Absensi Siswa SMP Negeri 2 Baleendah

COMCLUSION

Based on the chapters that have been discussed previously, several conclusions are obtained. The conclusions are as follows:

1. This website-based student attendance application can help teachers to attend students and do not need to prepare student attendance forms in paper form and facilitate the process of reporting student attendance data.
2. The principal or admin can find out whether the teacher goes into the classroom to attend students and carry out the teaching and learning process after being absent in the office.

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