Web-Based Student Extracurricular Value Monitoring Application

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Abstract. Extracurricular is a program of activities outside of the regular teaching and learning activity agenda prepared by the school for its students in order to develop the talents and interests of their students. In one of the upper secondary education institutions that provide several extracurricular activities to its students. The current problem is the lack of optimal extracurricular management in one of the educational institutions in Bandung, starting from the registration process, monitoring, to activity reports that still rely on conventional systems. The purpose of this research is to design a website information system to support the management of extracurricular activities at an institution in the city of Bandung by utilizing a database-based application. The research method used is data collection techniques and waterfall software development methods in designing applications. So that this research produces a website information system with several levels of access rights in accordance with the analysis carried out in the early stages of software development. The results of this information system, the parties involved as actors in extracurricular activities in one institution in the city of Bandung are very helpful in managing and monitoring extracurricular activities carried out so that this research produces a website information system with several levels of access rights in accordance with the analysis carried out in the early stages of software development. The results of this information system, the parties involved as actors in extracurricular activities in one institution in the city of Bandung are very helpful in managing and monitoring extracurricular activities carried out.

Keywords: Website, Monitoring Application, Student Extracurricular

1. Introduction

Extracurricular activities are activities carried out in schools as a goal to grow students' skills and abilities in the form of training in accordance with the activities followed.[1] Website
is a system that is interconnected and is used as a medium for text, images and so on by using the internet network.[2] PHP stands for Hypertext Preprocessor which is a server-side script programming language that is inserted by HTML and processed on the server[3].

Parents of students still have difficulty in monitoring their child's extracurricular activities at school. Notification of achievement (grades) is usually only made at the time of receipt of school report cards. Parents can only get the final results from their child's extracurricular activities, without being able to monitor the process of their child's talent[4-5].

Notification for students with problems is done by sending a letter and sometimes the letter is not delivered. In addition, the assessment from the teacher is also still done manually, so that parents or students still have difficulty knowing the value during the teaching and learning process[6-7].

2. Method

The method used in this research is the SDLC (Systems Development Life Cycle) system method. The flow of the SDLC waterfall can be shown in the figure below:

![SDLC Waterfall Diagram](image)

**Figure 1.** System Development Life Cycle Waterfall

In using the waterfall SDLC, the process must be sequential from analysis to implementation and must not skip the previous stage. Even every step can't be done at the same time[8].

3. Results and Discussion

3.1. Analysis

The analysis stage is the stage for studying the data that has been collected previously. This stage functions as a definition of requirements specifications, deepening of some of the problems that occur in schools.

Based on interviews conducted by teachers in schools. In the manual implementation, the author intends to propose a system that can monitor web-based extracurricular activities of students.
3.2. Users
In this section a view of the application of the student monitoring system at the School is presented. In this system access to the system is divided into three parts, namely:

a) Admin
   An admin inputs data into the system and updates if new data is added. An admin has full access rights in managing the student monitoring system.

b) Teacher User
   A teacher is given access rights to input grades and student attendance data into the student monitoring system

c) User students and parents
   In this section, student users and parents can only see information that has been inputted by admins and teachers in this student monitoring system.

3.3. Design
At the implementation stage, the system application program was created using the PHP programming language through Notepad++ and XAMPP (MySQL) media. The following is a design design of the proposed system.

1. Login

![Figure 2. Login](image-url)
2. Home

![Home Screen](image1)

**Figure 3. Home**

3. Attendance

![Attendance Screen](image2)

**Figure 4. Attendance**
3.4. Coding
At this stage, it is used to implement or change the prototype into a programming language or coding that is understood by the machine. This code design uses PHP and MySQL.

3.5. Testing
After coding the system, it is continued at this stage, namely the testing stage. This stage is used to determine whether the programmed system can be run properly and there are no errors. This test uses blackbox testing where this test is tested from the functionality of a software. Blackbox testing serves to find inappropriate functions, lack of prototypes, data errors, and inappropriate performance [9-10].

3.6. Implementation
At this stage, the system has been running well and has met the needs of the parents. This stage is feasible to use and can be a lesson for the system developed and can compare with the old system.
4. Conclusion
This application is able to shorten the time for delivering information and processing information, thus making work more effective. By using this application, parents or guardians of students can monitor their children properly by getting notifications in the form of results of grades, attendance and behavior of their children while at school every day.

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