JURNAL MEDIA AKADEMIK (JMA)
Vol.3, No.2 Februari 2025
e-ISSN: 3031-5220; DOI: 10.62281, Hal XX-XX
PT. Media Akademik Publisher
AHU-084213.AH.01.30.Tahun 2023

INTERNSHIP MANAGEMENT INFORMATION SYSTEM AT FOUNDATION FOR FOSTERING DISABLED CHILDREN SURAKARTA IN OPTIMIZING SCHOOL DATA

Oleh:

Sophisticated Ajika Pamungkas[1]
Wasis Waluyo[2]
Bardi Pratama[3]
Meylinda Putri Ayu M[4]
Nugraheni Wijayanti [5]
Surya Imam Prasetyo[6]
Keke Dyah Arlita[7]
Muhammad Akbar[8]
Samuel Rahmat Sanjaya[9]
Dhafa Gigih Iskandar[10]
Narendra Rivando Axel S.[11]
Wishnu Wibowo[12]

Politeknik Indonusa Surakarta
Alamat: JL. K.H Samanhudi No.31, Bumi, Kec. Laweyan, Surakarta City, Central Java (57142).
Korespondensi Penulis: canggih@poltekindonusa.ac.id

Abstract. The system running at YPAC School Surakarta still uses a manual method. Students come to the partner's place to submit documents to the partner. In my opinion, this kind of anddata management is less effective and efficient in terms of travel time and costs because many students live far from the internship location. Monitoring students is also not optimal because the Director is often not at home because of her job as a teacher who is required to leave early and return late so that she cannot monitor students optimally.

Received January 28, 2025; Revised February 05, 2025; February 11, 2025
*Corresponding author: *canggih@poltekindonusa.ac.id*

The data collection methods used are observation, interviews, literature studies, and documentation. The development method in the system uses the waterfall method which includes the stages of system analysis, system design, writing program code, program testing, and program implementation. This management information system is website-based using the PHP programming language and MySQL database.

The Internship Management Information System and Internship Monitoring Based on the Website can help Pimpinans and Students to be more efficient in terms of time and energy, optimize costs, and improve the quality of internship programs. The internship registration and monitoring information system can improve the efficiency of energy, time, and costs incurred.

Keywords: Internship Management, Registration, Monitoring.

Abstrak. Sistem yang berjalan di Sekolah YPAC Surakarta masih menggunakan cara manual. Siswa datang ke tempat mitra untuk menyerahkan dokumen kepada mitra. Menurut saya, pengelolaan data seperti ini kurang efektif dan efisien dari segi waktu tempuh dan biaya karena banyak siswa yang bertempat tinggal jauh dari lokasi magang. Pemantauan terhadap mahasiswa juga kurang maksimal karena Direktur sering tidak berada di rumah karena pekerjaannya sebagai pengajar yang diharuskan berangkat lebih awal dan pulang lebih akhir sehingga tidak dapat memantau mahasiswa secara maksimal. Metode pengumpulan data yang digunakan adalah observasi, wawancara, studi pustaka, dan dokumentasi. Metode pengembangan dalam sistem menggunakan metode waterfall yang meliputi tahapan analisis sistem, perancangan sistem, penulisan kode program, pengujian program, dan implementasi program. Sistem informasi manajemen ini berbasis website dengan menggunakan bahasa pemrograman PHP dan database MySQL.

Sistem Informasi Manajemen Kerja Magang dan Monitoring Kerja Magang Berbasis Website ini dapat membantu Pimpinan dan Mahasiswa untuk lebih efisien dalam hal waktu dan tenaga, mengoptimalkan biaya, serta meningkatkan kualitas program kerja magang. Sistem informasi pendaftaran dan monitoring kerja magang dapat meningkatkan efisiensi tenaga, waktu, dan biaya yang dikeluarkan

Kata Kunci: Manajemen Magang, Pendaftaran, Pemantauan.

INTRODUCTION

The Independent Campus Learning Program (MBKM) is a program launched by the Minister of Education and Culture which aims to encourage students to master various sciences to prepare them for entering the world of work. Through this policy, the Merdeka Campus provides students with the opportunity to choose the courses they will take.

Independent projects are learning activities carried out by students to complement or replace the curriculum they have taken. This project can be carried out individually or in groups across scientific disciplines.

Internship programs are short-term practical work experiences that offer students the opportunity to gain valuable skills and knowledge in their chosen field. These programs help bridge the gap between classroom learning and the world of work

SLB D/D1YPAC Surakarta is a special and extraordinary school under the YPAC foundation which is located at Jl. Slamet Riyadi No. 364, Penumping, Kec. Laweyan, Surakarta City, Central Java

In internship data management, participants will usually be given a number that the teacher can contact the partner and then the student will contact the partner to register for an internship. If the student has been accepted, the student will come to the partner's place to submit documents to the partner. Data management like this is less effective and efficient in terms of time and travel costs because many students live far from the internship site.

To optimize data management and monitoring of internships, a web-based platform can be implemented. Web-based platforms for internship registration and monitoring offer numerous benefits in terms of efficiency, accuracy, optimization and accessibility. By utilizing a web-based platform, internship data management can be made easier. Students can easily access and fill out the online registration form, eliminating the need for physical documents. In addition, the use of platforms is based website allows partners to monitor the internship process optimally.

THEORETICAL STUDY

Information Systems

An information system is a system that provides information for management decision/policy making and carries out operations from a combination of information

technology people and organized procedures or an information system is defined as a combination of information technology and the activities of people who use technology to support operations and management Meanwhile, in a broad sense, an information system is defined as an information system that is often used to collect and store data and process it into information for use (Ajid et al., 2021).

Optimization

Optimization is the process of searching for optimal solutions for certain interesting problems, and this search process can be carried out using several agents which basically form an attraction system (Styawati et al., 2021).

Management

Management is a design to provide information to support decision making in management activities (planning, driving, organizing and controlling) in an organization (Abdul Kadir, 2019).

Apprenticeship

Internships are learning for students with the aim of preparing students to become professional human resources who are ready to face the world of work (Fikri et al., 2023).

HTML

Hyper Text Markup Language is a method for implementing hypertext concepts in a manuscript or document. HTML itself is not classified as a programming language because it only provides signs (*marking up*) in a text manuscript and not as a program (Ajid et al., 2021)

PHP

PHP Hypertext Preprocessor is a programming language *script server side* which are deliberately designed are more likely to produce and develop the web. This programming language is designed for web developers to be able to create dynamic web pages (Prabowo & Komara, 2021).

MySQL

MySQL is a *software* or software that is open or can be accessed by many people whose function is to create a database. SQL can be called as an abbreviation of *Structured Query Language* (Rahayu et al., 2023).

XAMPP

XAMPP is free software, which supports many operating systems, is a compilation of several programs. Its function is as a stand-alone server (*localhost*), which consists of the Apache HTTP Server program, MySQL database, and a language translator written in the PHP and Perl programming languages. The name XAMPP is an abbreviation of X (any four operating systems), Apache, MySQL, PHP and Perl. This program is available in GNU (*General Public License*) and free, is an easy-to-use web server that can serve dynamic web page displays (Hidayat et al., 2023).

Visual Studio Code

Visual Studio Code is a source code editor developed by Microsoft for Windows, Linux and macOS. This includes support for debugging, embedded git and GitHub controls, syntax highlighting, smart code completion, *snippet*, And *refactoring code*. It is highly customizable, allowing users to change themes, shortcuts *keyboard*, preferences, and installing extensions that add additional functionality (Hidayat et al., 2023).

Waterfall

According to (Susena et al., 2023) *Waterfall* The model is a simple classical model with a linear system flow. Called *Waterfall* (Waterfall) because the process stages are similar to a multi-tiered waterfall. The output of each stage is the input of the next stage. This model offers a more realistic way of creating software. Called *waterfall* (meaning waterfall) because the process stage diagram is similar to a multi-tiered waterfall.

METHOD

The method applied in developing this system is method *waterfall* to understand system development in a structured and systematic manner so that it meets existing needs. The method used in developing the Management Information System for Internship

Participants at SLB D/D1YPAC Surakarta in Optimizing School Data is the method *waterfall*. The Waterfall method is a method with a linear system flow, method *waterfall* functions to help resolve complicated matters that occur due to development projects *software*. Stages of the method *waterfall* These are: Requirements Analysis, System Design, Program Code Writing, Program Testing and Program Implementation.

RESULT AND DISCUSSION

Systems Analysis

System analysis is an indispensable stage in designing a new system. This is necessary to determine what elements or components are needed to create the system until the system is successfully implemented. Internship data management at the YPAC Surakarta School still uses manual processes, so there is a lot of lost data and inaccurate information, which makes internship registration experience problems and not run smoothly.

From this case, the author will create a registration and monitoring information system for internship students that can be implemented at the YPAC Surakarta School which aims to make it easier for students to register for internships and also make it easier for leaders and admins to monitor the activities and development of students who are undertaking the internship process. At the YPAC Surakarta School, this really helps both leaders and students in carrying out internship activities starting from Data Management, internships, until the internship process is completed.

System Requirements Analysis

System requirements analysis is a process for identifying, documenting, and validating user needs for the information system to be developed. This process aims to ensure that the system created meets the desires and needs of users and functions well in its operational environment.

Functional Requirements

Determining functional requirements makes it easier for writers to determine how many forms will be created and used as a reference *output*, following the needs analysis *input* And *output*:

1. Needs Analysis *Input*

Enter requirements (*input*) for this system are:

a. *Input* admin data: To manage system and admin data

b. *Input* student data: To manage student data

c. *Input* Internship data: To manage internship students accepted, not accepted and conditionally accepted

d. *Input* activity data: To manage student daily activity data

and. *Input* document data: To download and upload documents

2. Needs Analysis *Output*

Output requirements (*output*) for this system are:

a. The system can print student registration data

b. The system can print accepted student data

c. The system can print student data not accepted

d. The system can print conditionally accepted student data

and. The system can print student activity reports

Non-Functional Requirements

Non-Functional Requirements for the system to be designed include the following:

1. Hardware *(Hardware)*

   Hardware *(hardware)* Required in developing this system includes the following:

a. PC *(Personal Computer)* which of course has good enough specifications to support it as *server* among others with *processor* minimal *Core* 2 Duo or above with a minimum of 2GB RAM

b. *Hard drive* minimum 256 GB or more, bigger is better

c. *Keyboard, mouse,* And *monitor* as an operational means *server*

2. Software *(Software)*

   Software *(software)* Required in developing this system includes the following:

a. Minimal operating system *Windows 7*

b. Programming languages use PHP and HTML

c. Database uses *MySQL*

d. Programming applications use *Visual Studio Code*

and. Application *executor* use *Google Chrome*

Running System

Based on observations made by the author, the current system for YPAC Surakarta school internship registration still uses the manual method, namely students can *WhatsApp* first or come directly to the internship location then ask first whether they can do an internship or not. If possible, the participant prepares the documents needed by the partner to do the internship and submits the documents to the Leader or leader at the internship location to follow up on whether the student is accepted or not. No.

Developed System

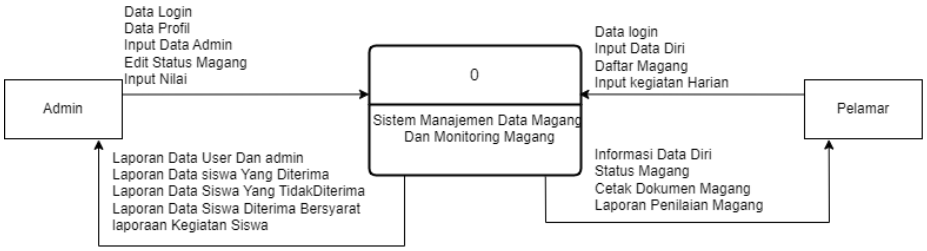
The Information System to be developed is " Internship Information System.". This system uses the waterfall development method and uses PHP and HTML programming languages and uses *software Visual Studio Code* as a text editor, so that in the course of this system it is hoped that it will be able to provide information quickly, practically and informatively.

Design System

System design is the design of a unit that includes components that are connected together to facilitate the flow of information and materials to achieve a desired goal. After carrying out the process of analyzing the needs of the system to be developed, the next step is to create a system design according to what is needed. In making this information system design, the author used an application *draw.io*.

Context Diagram

A context diagram is a diagram that consists of a process and describes the scope of a system. Context diagrams describe all input to the system or output from the system (Susena et al., 2023). The following is a context diagram for the information system for internship data management and internship monitoring to increase efficiency at the YPAC Surakarta school as follows:

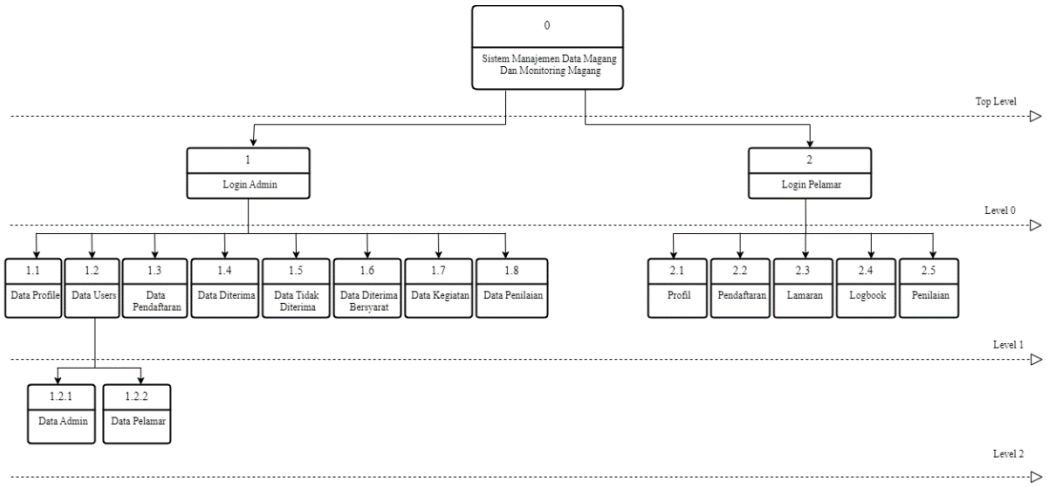


Source: Author

Draw a Context Diagram

Multilevel Diagram

A tiered diagram depicts undefined top level processes (based on existing processes). The following is a tiered diagram of the system created (Susena et al., 2023). The following is a tiered diagram of the system that will be developed at the YPAC Surakarta School:



Source: Author

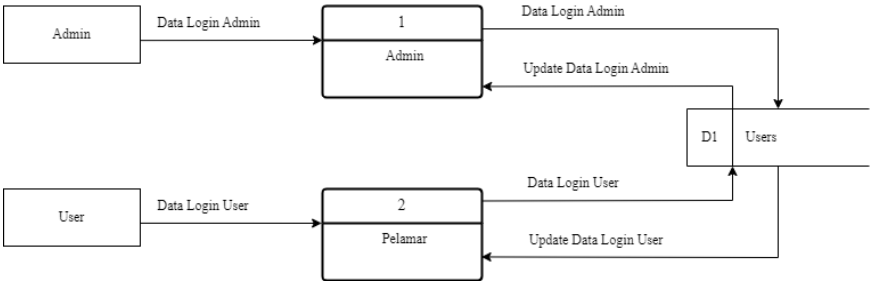
Draw a Tiered Diagram

Data Flow Diagram (DFD)

A data flow diagram is a diagram used to facilitate understanding of data flow in computer application programs. The data flow diagram consists of several symbols, namely external unity (*external entity*), data flow (*data flow*), process (*process*), data storage (*data store*).

Data Flow Diagram (DFD) Level 0

Level 0 data flow diagrams describe the overall data flow. The following is an overview of DFD level 0 of the system being developed:

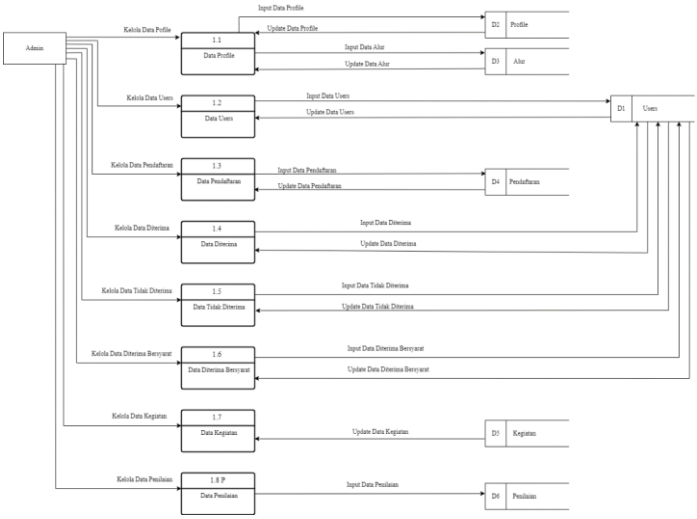


Source: Author

Figure DFD Level 0

Data Flow Diagram (DFD) Level 1 Admin

DFD level 1 detailed input will clarify the processes below DFD level 0. Explains the input flow to the next process data storage.



Source: Author

Image DFD Level 1 Admin

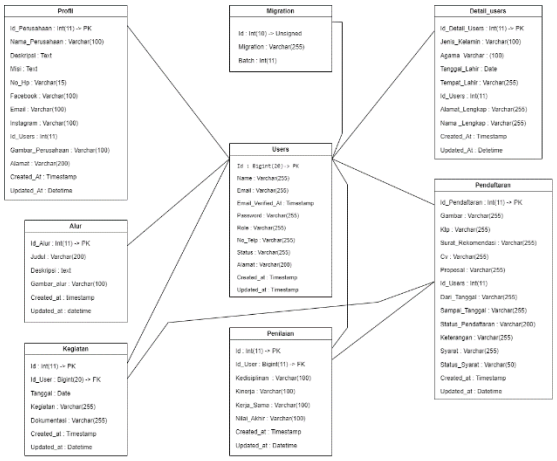
Database Design

Data storage in an application requires a database with several tables, while the database itself is a collection of interrelated files which are indicated by keys.

Entity Relationship Database (ERD)

Entity Relationship Database (ERD) is a description of the relationship between entities that are interconnected and interact with each other. The steps for creating an ERD are first to identify the entities, then describe the connections between entities, if you have already described the connections between entities, then create a sketch of the ERD and then validate it.

Table Relations



Source: Author

Figure Table Relations

Login Page Design

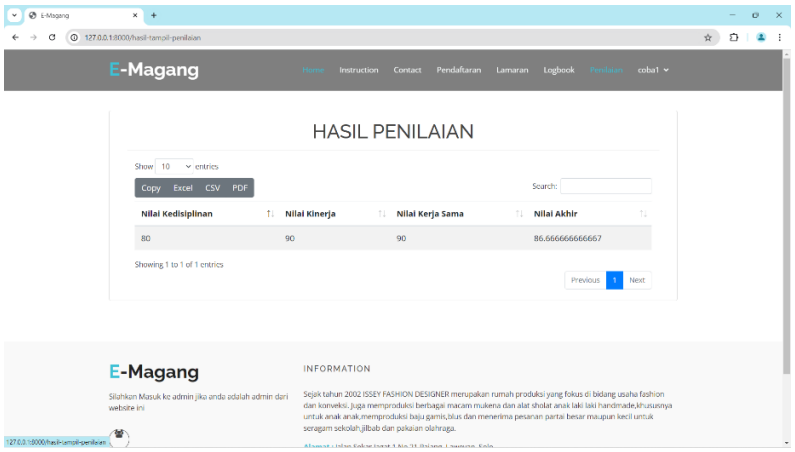
The following is the display design *login* on Information Systems (E-Internship) at YPAC Surakarta School as follows:

Source: Author

Login Design Image

Appraisal View

In the assessment display, students are given the results of their learning during their internship with partners. This page contains discipline scores, performance scores, teamwork scores, and final scores.



Source: Author

Image of Assessment View

Testing Program

Program testing is an important part of creating software. Testing is intended to find errors that occur in the program and ensure that the program being built is in accordance with what was designed. The test design that has been carried out on this website uses the black box method with one test. This black box testing focuses on system function. This method is used to find out whether the system is functioning properly and correctly.

Table *Black Box*

No	Interface	Testing	Results
1	Page *Login*	Fill in *login username* with *Password* And	Success
2	Page *Dashboard*	Displays the number of students who are doing internships	Success
3	Profile Data Page	Display profile data on the website and use it*update* data profile	Success

.

CONCLUSION AND SUGGESTION

Conclusion

The internship registration and monitoring information system can increase the efficiency of energy, time and also the costs incurred. This system is designed using the waterfall method so that it allows information system developers to carry out system requirements analysis, system design, writing program code, program testing, and program implementation. The programming language used in developing this information system is HTML and PHP, the programming application used is Visual Studio Code, and the database uses MySQL. Based on the information system that the author designed, the following conclusions can be drawn:

1. The internship registration information system makes data management easier for students. With a website-based system, students can register for internships online more easily and quickly, and can access information related to internships anytime and anywhere.
2. This system ensures that registration data submitted by students is stored safely and accurately. In addition, the system minimizes errors that may occur in manual data management.
3. This system also helps in managing internship data, including attendance data, progress reports, and student performance evaluations. This gives internships better tools to manage and evaluate internship programs.

Suggestion

Suggestions that the author can give based on the conclusions above are as follows:

1. Implementing the system for users with the aim that users can understand the new system that will be implemented at the YPAC Surakarta School.
2. One method of education that can be implemented is by providing clear and easy-to-understand guidance so that users can utilize the system according to procedures that are carried out correctly.

REFERENCES

Abdul Kadir. (2019). The role of brainware in management information systems, economic journals and management information systems. *Information Systems*, *1*(September), 60–69. https://doi.org/10.31933/JEMSI

Ajid, S. N., Rismayadi, A. A., Sanjaya, A. R., Adhirajasa, U., & Sanjaya, R. (2021). Online Registration Application for the Bahana Bina Pakuan Volleyball Club, Bandung City, Website Based. *eProceedings of Informatics Engineering (PROTECTIVE)*, *2*(1), 175–181.

Amari, R. O. (2023). Monitoring Update Device (Router) Maintenance with Cnr.Telin Web at Pt. Telkom Indonesia International (PT. TELIN). *Jakarta State Polytechnic Journal*, *1903421046*, 31–41.

Aryanto, Y., Setyorini, D., Bina, U., Informatics, S., Correspondence, P., Waterfall, M., Database, P., & Language, U. M. (2023). Designing a Website-Based Health Training Registration System at PT. Pro Emergency Bogor. *Computer Information Management E-Journal*, *7*, 1795–1812.

Fikri, M. A., Primajaya, A., Si, S., Kom, M., Jajuli, M., Si, M., Informatics, P. S., Computer, F. I., & Karawang, U. S. (2023). Application of Progressive Web App in Creating Internship Website Case Study of UNSIKA Informatics Study Program. *Infotech Journal*, *1861*(9), 563–578.

Hidayat, A., Mulyana, A., & Pd, S. I. (2023). Creating a Website and Mobile Based New Student Registration Application at Ra Alhidayah Logam Bandung. *E-Proceeding of Applied Science*, *9*(3), 1064–1074.

Journal, I. I. (2021). Design of a Design Internship Monitoring Information System. *Indonesian Journal on Information System*, *6*(September), 130–136.

Prabowo, W., & Komara, E. (2021). Management of Information System for New Student Registration at Pendawa Pebayuran High School Based on Website. *JUSTIFI Journal*, *1*(1), 23–30.

Rahayu, W. I., Bintang, J. M., Pramana, D. A., Studi, P., Informatika, D. T., Code, V. S., Php, B. P., & Laravel, F. (2023). Implementation of the Laravel Framework in Designing the Roblox Programming Course Registration System Application. *Journal of Information Engineering*, *15*(1), 18–25.

Simatupang, A. R., & Nafisah, S. (2020). Process analysis in the Senayan library information management system (SLIMS) Cendana based on data flow diagrams (DFD) at the Duta Wicana Christian University library in Yogyakarta Syifaun Nafisah. *Journal of Library and Information Science*, *5*(1), 1–15. https://jurnal.uinsu.ac.id/index.php/jipi/article/view/7217/3279