Journal of Information Technology, computer science and Electrical Engineering (JITCSE)
Vol. 1, No. 3, October 2024, pp. 200~209
ISSN: 3046-4900, DOI: 10.30596/jitcse

Student Internship Admission Information System At Pt Pelabuhan Indonesia I Persero Belawan Branch

Desy Ramatika[1], Darmeli Nasution[2]
[1,2]Magister Teknologi Informasi, Universitas Pembangunan Panca Budi
Email : tikaramadesy@gmail.com

ABSTRACT

PT Pelabuhan Indonesia I or often called Pelindo I is one of the State-Owned Enterprises of Indonesia engaged in the port services sector. The student internship acceptance system at PT Pelabuhan Indonesia Persero 1 Belawan Branch still uses a manual acceptance system and students must come directly to the location to apply for an internship. So that there are often obstacles experienced by students because most likely the company is not currently opening internship acceptance or if the company has run out of quota to accept internships because the quota has been fulfilled. Following up on the problems that occurred, a design for an intern acceptance information system was created. With the hope that this intern acceptance information system can solve existing problems. So that the acceptance of interns can be done easily without having to come directly to the company. This system is made using the PHP programming language which is website-based

Keyword : Student Admissions Information System, UML, Website

Corresponding Author:
Desy Ramatika,
Department of Magister Information Technology
Universitas Pembangunan Panca Budi
Jl. xxx No 3 Jakarta, 20222, Indonesia.
Email : tikaramadesy@gmail.com

Article history:
Received Oct 25, 2024
Revised Oct 29, 2024
Accepted Nov 02, 2024

1. INTRODUCTION

The development of information technology affects human civilization, this can be seen from how humans solve problems and provide solutions to their work. Information technology has been widely used to process, process data, analyze data to produce relevant, fast, clear, and accurate data or information (Siregar & Nasution, 2020). PT Pelabuhan Indonesia Persero (abbreviated as Pelindo) is an Indonesian State-Owned Enterprise engaged in logistics, especially port management and development. In the business managed by PT PELINDO in the internship student acceptance service division, a series of activities are still carried out manually. starting from documentation stored in the form of files and not yet stored digitally, registration and acceptance of internship students which are still carried out directly in the field or via email and also telephone numbers, so that it takes longer and also data recording/storage still uses Ms. Word and Ms. Excel. Data processing that is not well structured and has weaknesses allows for errors in recording and the length of time to obtain information makes the Company less well organized. Therefore, this internship student acceptance system is a solution to existing problems

2. RESEARCH METHOD

Data Collection Methodology
a. Observation

According to Andra (2018) Observation is a study by conducting a comprehensive examination of a certain condition(Sulaiman, 2020). The purpose of this study is to monitor and understand the behavior of groups and individuals in certain circumstances. In this case, the observation or observation carried out was located at PT Pelabuhan Indonesia related to the ongoing acceptance of internship students, so that obtaining information requires the right solution

b. Interview

According to(Andra, 2018) the definition of an interview is one of the studies to obtain information or data by conducting a question and answer process with the subject being studied Interview activities were carried out with junior staff of PT Pelabuhan Indonesia

c. Literature Study

This is one of the applications of this research. The research was conducted by collecting several library sources. After being collected, the library sources were then classified according to the research questions. (Darmalaksana Wahyudin, 2020)

Information System Development

SDLC Waterfall

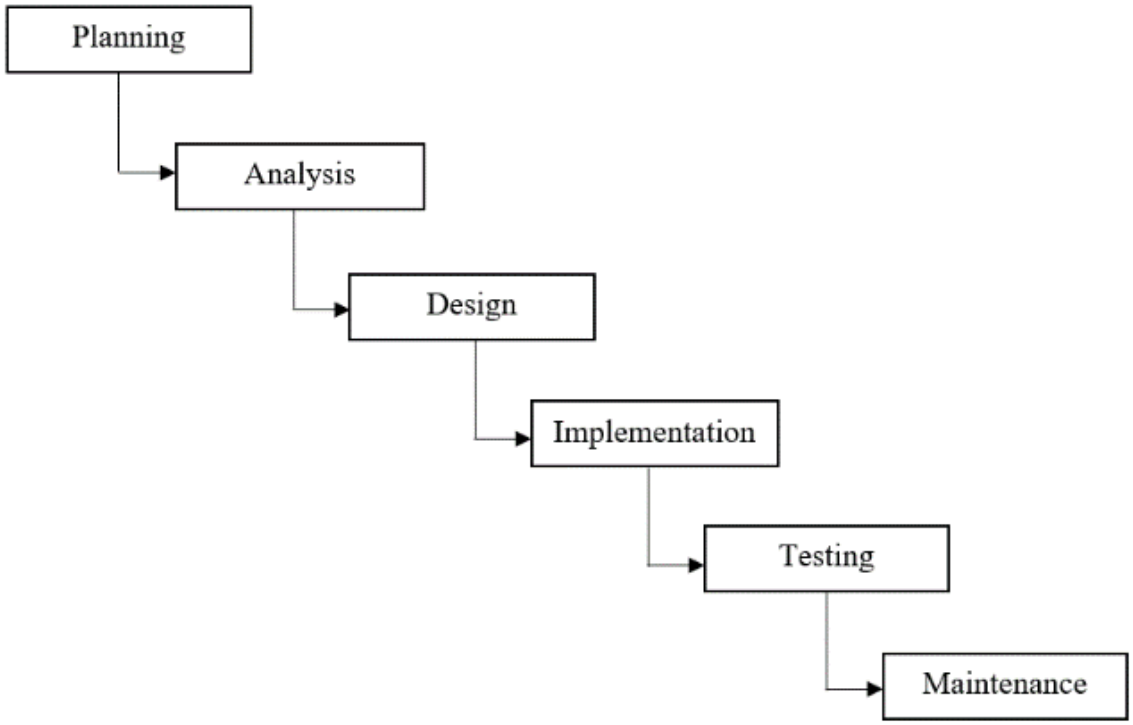

Fig 1. SDLC Waterfall Development

SDLC is a method used to develop a system. According to (Mulyani, 2017) SDLC is a logical process used by a system analyst to develop an information system. This SDLC is the same as the waterfall system development technique, because the waterfall stages are from top to bottom.

The SDLC Waterfall method includes the following stages:

1. Initiation / Planning

To ensure that work is organized from start to finish and completed within the specified time, the researcher will make a detailed plan starting from the data collection stage to what needs to be made into the website that the researcher will create.

2. Requirement Gathering and Analysis

At this stage, the researcher tries to describe the system problems and implement them into several diagrams to implement the ongoing situation, then at this stage the researcher tries to analyze the problem and create solutions that will be available.

3. Design

The author will design how the function is used so that users can understand it better(Andrian, 2021)

4. Implementation

Every design that has been produced so far in the implementation process is converted into program code. After being fully integrated into the system, the resulting program code will remain in the form of a module (Herianto et al., 2023)

5. Testing

Users or testers carry out the trial stage on the system that has been built or developed(Manurung et al., 2023)

6. Maintenance

Carrying out maintenance and maintaining steps on the system created (Suendri et al., 2023)

3. RESULTS AND DISCUSSION

Analysis System

System analysis is the earliest stage of system creation which is the basis for determining the success of the information system produced later. System analysis also identifies the system that is running to find out the problems that occur and make it easier to carry out the next stage, namely the system design stage (Hanif Al Fatta, n.d.)

A. Analysis of the Current System

The system used is still simple and manual, namely students come directly to the company and will be directed to the company's sub-general section and submit an application to be able to do an internship at the company and students will be confirmed in the next few days regarding the continuation of the internship application at the company PT Pelabuhan Indonesia

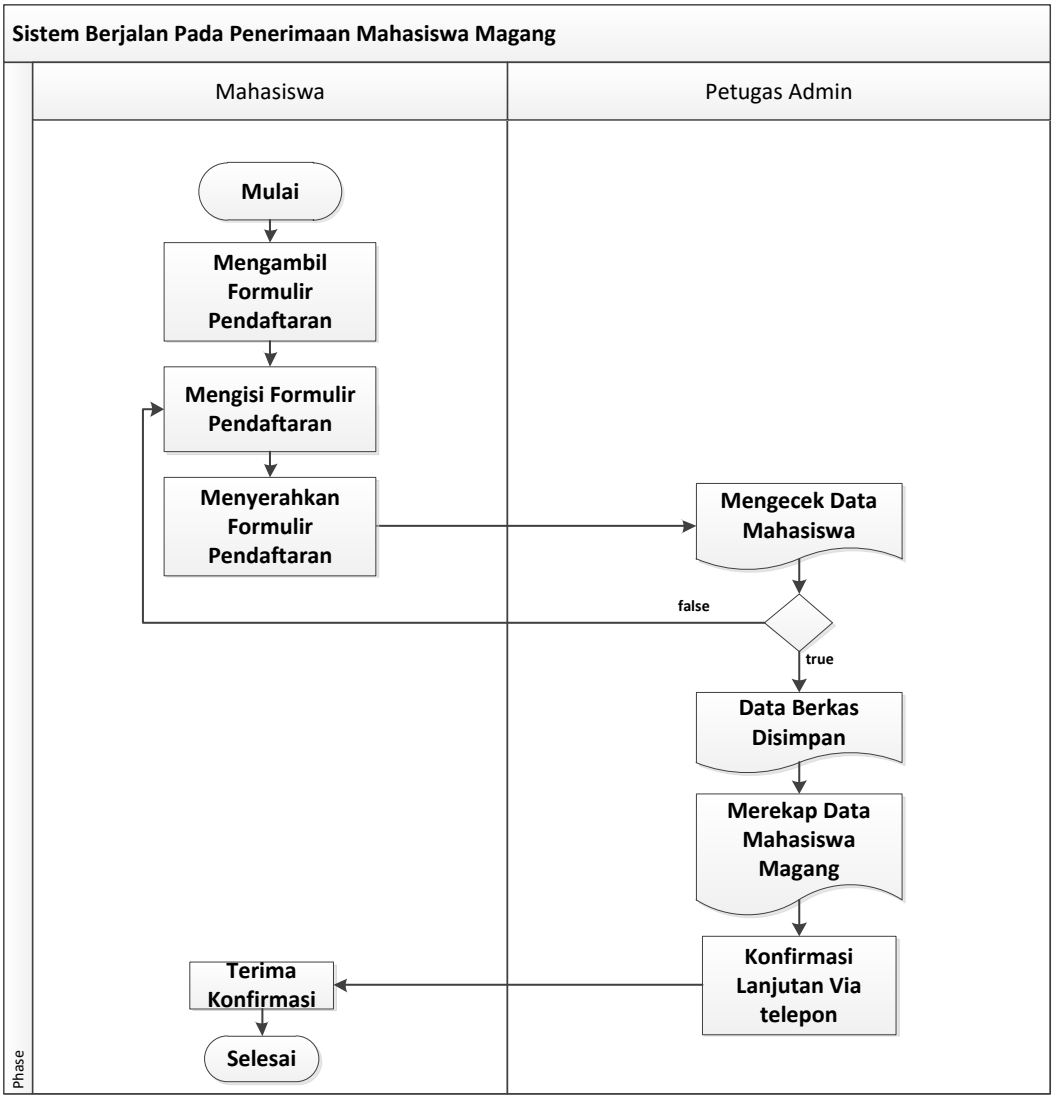

Table 1.1. Legacy Information System Flow

B. Proposed System Analysis

New proposed system analysis, namely students who want to apply for internships can use this proposed system to be more effective and efficient.

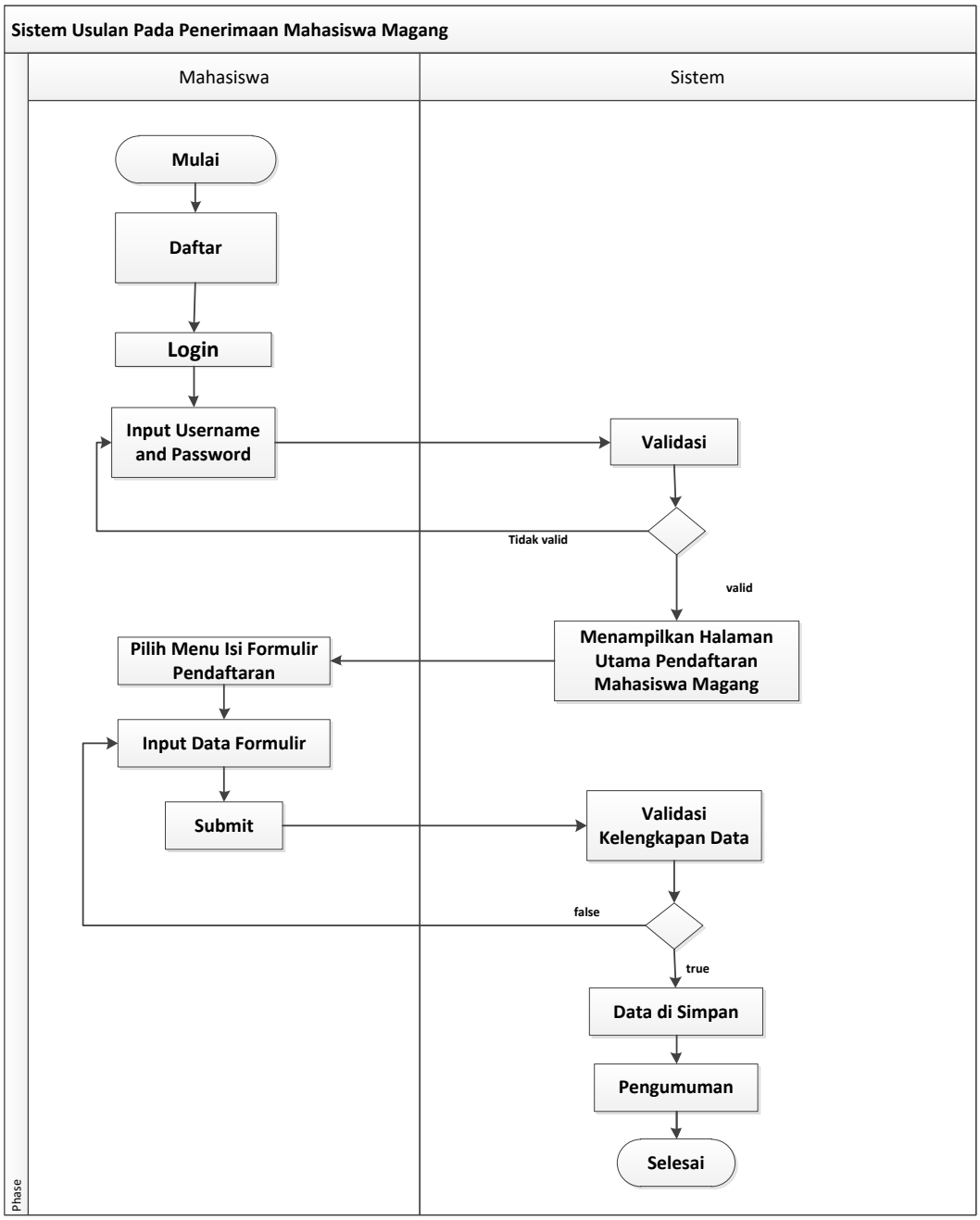

Table 1.2 Proposed New System

System Design

Unified Modeling Language (UML)

Unified Modeling Language (UML) is a language based on graphics or images to visualize, specify, build, and document an OO (Object-Oriented) based software development system. UML itself also provides a standard for writing a blueprint system, which includes business process concepts, writing classes in specific programming languages, database schemas, and components needed in a software system. (Suendri, 2019)

C. Usecase Diagram

A usecase diagram is a diagram that shows the sequence of process activities in sequence in the system(Pahlevi et al., 2018). In conclusion, in the usecase diagram there are actors, where the actors are the ones who will later show the user who will run the system, or can be said to be the person who interacts with the system to be created.

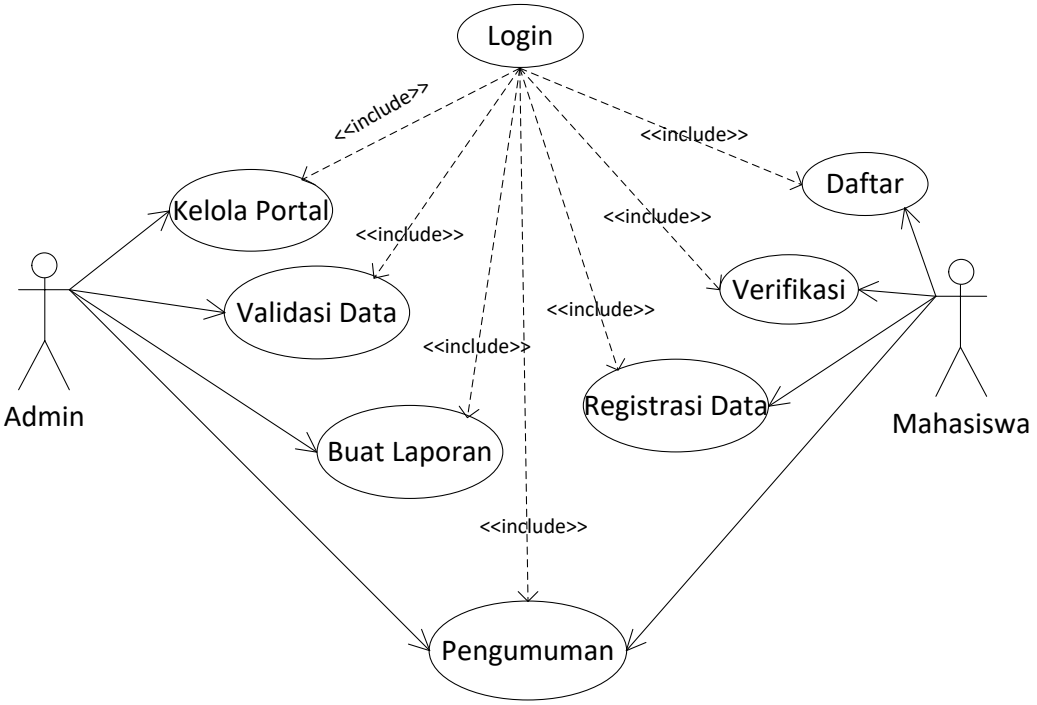

Fig 2.1 *Usecase* Diagram

The image above is a use case diagram of the Internship Student Admissions Information System. There are two actors, namely prospective students and admins. One actor is an officer who runs or operates the entire system and another actor is a newcomer who will register as an intern. From the use case diagram image above, the officer can be described. Officers can log in, manage portals, validate data, create reports on the results of announcements for student admissions while prospective interns can register then verify entry, log in, register data, and view the results of the announcement.

D. System Implementation

System implementation is a stage carried out to complete the design in designing a system that has been approved and testing, installing and starting the use of the system. The purpose of this system implementation is so that before it can be used properly by the user, the system must go through a testing stage first, in order to ensure that there are no obstacles when the user operates the system (Witanto & Solihin, 2017)

The following is the system implementation of the Internship Student Acceptance Information System:

a. Website Display Page

Fig 2.2 home page web view

Fig 2.3 web view of registration guide page

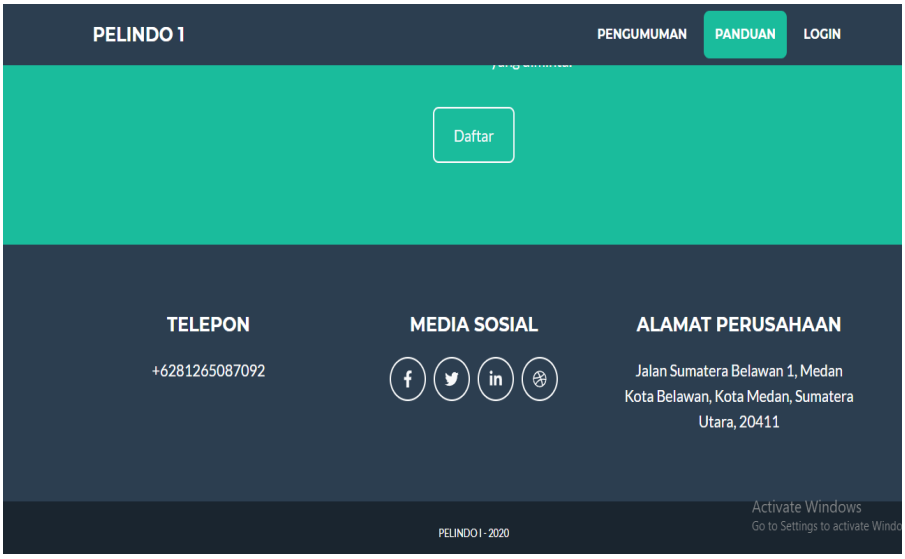

Fig 2.4 web view of registration guide page

Figures above are implementations of the website homepage that will be displayed when students open the Internship Student Admissions system at PT Pelabuhan Indonesia (Persero) Regional 1 Belawan branch. There are registration guides and others.

b. Student Registration Page

Fig 2.5 student list page web view

The image above is an implementation of the Student Internship Admissions Information System List page at PT Pelabuhan Indonesia (Persero) Regional 1 Belawan Branch. This page is a page that must be filled in by prospective interns in order to enter the system.

c. Student Login Page

Fig 2.6 Web view of the student login page

The image above is an implementation of the login page of the Internship Student Acceptance Information System at PT Pelabuhan Indonesia (Persero) Regional 1 Belawan branch. This page is a display accessed by students to enter the system. The data requested when logging in is the username and password.

d. Student Home Page

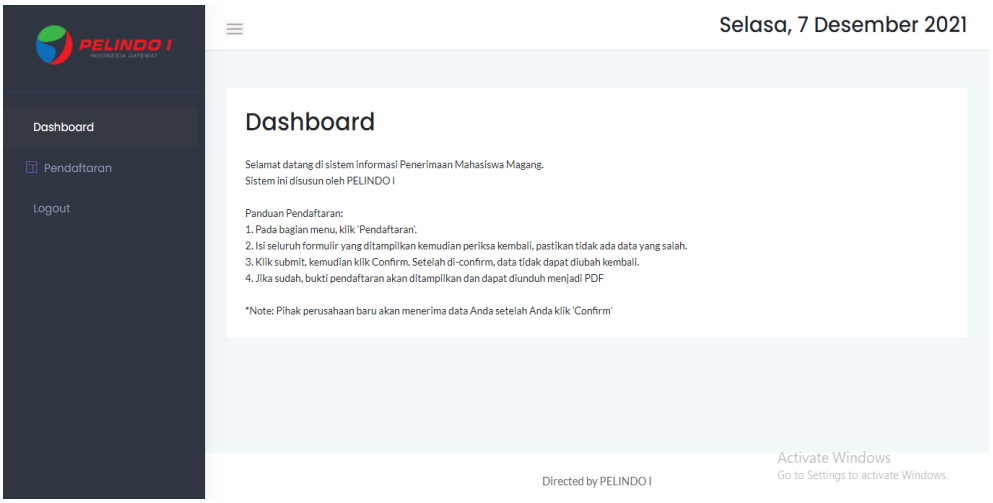

Fig 2.7 displays the student home page web.

The image above is an implementation of the home page, this page will appear after students successfully log in. After successfully logging in, students will be directed to the home page.

e. Announcement Page of Accepted Students

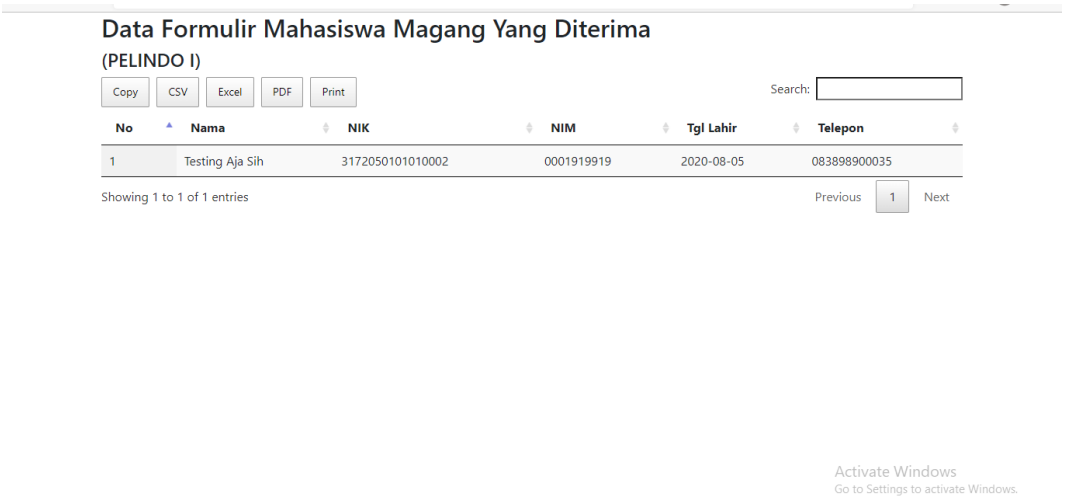

Fig 2.8 Web display of announcement page

The image above is an implementation of the student report page that was accepted to carry out the internship file, which can be printed and printed according to the student's needs when accessing the announcement page at PT Pelabuhan Indonesia (Persero) Regional 1, Belawan

4. CONCLUSION

From the results of the analysis, design, and results and discussions that have been discussed in the previous chapter, it can be concluded that:

1. The Internship Student Admissions Information System at PT Pelabuhan Indonesia (Persero) Regional 1 Belawan branch is well designed and created based on the results of the analysis of the needs of the Internship Student Admissions system to accept interns effectively and efficiently

2. In managing and presenting the Internship Student Admissions Information System at PT Pelabuhan Indonesia I Persero Medan Belawan Branch, it has been created in a web-based form

with the PHP and MySQL programming languages implemented through Bootstraf so that it can make it easier for admins to do their work.

Suggestions

1. It is hoped that the faculty can provide a list of choices of companies/agencies/institutions where the internship will take place as a reference for students.

2. It is hoped that companies/agencies/institutions should create a special mechanism or program for students who will carry out internships according to the fields and abilities of the students.

REFERENCES

Andra, T. (2018). *Metode Penelitian* (2018th ed.). Anak Hebat Indonesia.

Andrian, D. (2021). Penerapan Metode Waterfall Dalam Perancangan Sistem Informasi Pengawasan Proyek Berbasis Web. *Jurnal Informatika Dan Rekayasa Perangkat Lunak (JATIKA)*, *2*(1), 85–93.

Darmalaksana Wahyudin. (2020). *Cara Menulis Proposal Penelitian* (1st ed.). Fakultas Ushuluddin UIN Sunan Gunung Djati Bandung.

Herianto, A. D., Widya Kayohana, K., Ode, L., & Wahid, A. (2023). Pengembangan Sistem Informasi Manajemen Inventory Barang pada Distro ARJ88 Dengan metode pengembangan sistem Waterfall Development of Goods Inventory Management Information System on ARJ88 Distro Using the Waterfall system development method. *JoMI: Journal of Millennial Informatics*, *1*(1), 35.

Manurung, A., Santoso, H. G., Yustanto, R., Susiani, T., & Afrisawati, A. (2023). Decision Support System Dalam Pemilihan Buah Kelapa Sawit Terbaik Menggunakan Metode Moora. *J-Com (Journal of Computer)*, *3*(2), 78–84. https://doi.org/10.33330/j-com.v3i2.2487

Mulyani, S. (2017). *Metode Analisis dan perancangan sistem*. Abdi Sistematika.

Pahlevi, O., Mulyani, A., & Khoir, M. (2018). SISTEM INFORMASI INVENTORI BARANG MENGGUNAKAN METODE OBJECT ORIENTED DI PT. LIVAZA TEKNOLOGI INDONESIA JAKARTA. *PROSISKO: Jurnal Pengembangan Riset Dan Observasi Sistem Komputer*, *5*(1). https://e-jurnal.lppmunsera.org/index.php/PROSISKO/article/view/587

Suendri, S. (2019). Implementasi Diagram UML (Unified Modelling Language) Pada Perancangan Sistem Informasi Remunerasi Dosen Dengan Database Oracle (Studi Kasus: UIN Sumatera Utara Medan). *ALGORITMA : JURNAL ILMU KOMPUTER DAN INFORMATIKA*, *2*(2), 1. https://doi.org/10.30829/ALGORITMA.V2I2.3148

Sulaiman, M. M. (2020). Perancangan Prototipe Sistem Pakar Diagnosa Kerusakan Mobil Toyota Tipe Mpv Menggunakan Metode Forward Dan Backward Chaining Berbasis Android. *Journal Of Artificial Intelligence And Innovative Applications*, *1*(1), 6–11.

Witanto, R., & Solihin, H. H. (2017). PERANCANGAN SISTEM INFORMASI PENERIMAAN SISWA BARU BERBASIS WEB (STUDI KASUS : SMP PLUS BABUSSALAM BANDUNG). *Infotronik : Jurnal Teknologi Informasi Dan Elektronika*, *1*(1), 54–63. https://doi.org/10.32897/INFOTRONIK.2016.1.1.9