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Intern Placement and Monitoring System at SMK YP Gajah Mada Palembang

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ABSTRACT

In the current technological era, web-based solutions are crucial for optimizing internship placement processes. Traditional manual methods often lead to issues such as delays in placement and challenges in data collection and management. This research aims to address these issues by proposing the development of a web-based system to streamline the internship placement program at SMK YP Gajah Mada Palembang. The focus of this study is on creating an efficient and user-friendly platform that simplifies the placement process and improves overall program management. The objective of this research is to design and implement a web-based system for managing internship placements and monitoring at SMK YP Gajah Mada Palembang. The study utilizes the Rapid Application Development (RAD) methodology, which offers a faster and more flexible approach to system development compared to traditional system life cycles. RAD allows for continuous feedback and iterative improvements, ensuring the final product meets user needs effectively. The implementation of this web-based system is expected to significantly enhance the placement process, improve data management, and provide a structured means of monitoring and supporting interns throughout their internship period. The findings of the research indicate that the system successfully reduces placement delays, streamlines data collection, and provides an organized approach to managing internship activities, ultimately improving the overall efficiency of the internship program at SMK YP Gajah Mada Palembang.

INTRODUCTION

In the current era of rapid technological advancement, the integration of digital solutions has become essential in optimizing various processes, including those in the educational sector. The advent of the internet has revolutionized the way we interact, work, and learn, providing a seamless connection across geographical boundaries and time zones. This technological leap offers significant opportunities to enhance processes, including the management and monitoring of educational activities such as internships (Munthe et al., 2022).

Internships are crucial for practical learning and skill development in vocational education. They provide students with the opportunity to apply theoretical knowledge in real-world settings, encompassing a range of tasks from simple to complex. The primary objective of internships is to enrich students' work experience and enhance their practical skills, preparing them for future employment. This practical exposure not only benefits students directly by equipping them with valuable skills but also helps them transition more effectively into the broader job market upon completing their formal education (Febriani et al., 2022).

SMK YP Gajah Mada Palembang is a vocational high school committed to delivering quality education in specialized fields. The institution focuses on practical skill development aligned with industry needs and job market demands. To support this educational goal, SMK YP Gajah Mada Palembang implements an internship program as part of its curriculum. This program aims to provide students with hands-on experience in the workplace, thereby applying their classroom knowledge in a practical environment (Pradana, 2019).

Currently, the process of placing students into suitable internship positions and monitoring their activities throughout the internship period is handled manually. This traditional approach often leads to various challenges, such as delays in student placement, difficulties in accessing and monitoring internship data, and ineffective coordination between the school, internship sites, and students. For instance, last year, SMK YP Gajah Mada managed 323 students in its internship program, highlighting the need for a more efficient management system to ensure smooth placement and monitoring processes (Bestin et al., 2023).

The emergence of information technology and the internet offers solutions to these challenges by enabling more effective management and monitoring systems. A web-based solution can streamline the placement and monitoring process, reduce errors, and improve coordination among all stakeholders involved. Therefore, the design and implementation of a web-based internship placement and monitoring system at SMK YP Gajah Mada Palembang is a crucial step (Ro'if et al., 2024). Such a system is expected to enhance the efficiency of placement and monitoring

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processes, provide accurate and up-to-date information, and ultimately improve the internship experience for students. By leveraging web technology, the school aims to achieve greater efficiency, better management, and an optimized internship experience for its students (Rokhmawati et al., 2023).

LITERATURE REVIEW

A system is a set of elements or components that interact and work together to achieve a specific goal. In the context of management and technology, a system can be viewed as a structure designed to organize, manage, and process information or resources efficiently (Febriani et al., 2022).

Website is a collection of related web pages, including multimedia content, that is typically identified by a common domain name and published on a web server. Websites can serve various purposes, such as providing information, offering services, or facilitating interactions. They are accessed via the internet using web browsers and can range from simple static pages to complex, dynamic platforms with interactive features (Ayu et al., 2022).

Rapid Application Development (RAD) is a software development methodology that emphasizes speed and efficiency in the software creation process. RAD aims to accelerate the development cycle by employing techniques such as prototyping, iterative development, and active user involvement. This approach seeks to deliver high-quality software in a shorter timeframe compared to traditional development methods (Perdana Sari & Galuh Prihandono, 2022).

CodeIgniter is an open-source web application framework used for building dynamic PHP applications. It is a PHP framework based on the MVC (Model, View, Controller) architecture that facilitates the development of dynamic websites using PHP. CodeIgniter is known for its lightweight and fast performance, and it offers comprehensive documentation along with code implementation examples to support developers in creating web applications efficiently (Aiman et al., 2023).

Unified Modelling Language (UML) is a standard for creating models that represent object-oriented software and business systems. UML specifications describe a metamodel that defines the elements of each diagram, how diagrams can be assembled, and how they can be extended. The diagrams to be used in this research are the Use Case Diagram and Activity Diagram (Tandirilambun et al., 2024).

PHP is a language used to generate dynamic output from a server. The output produced can vary each time a browser accesses the page. PHP programs are responsible for returning the appropriate data to be displayed in the browser (Tandirilambun et al., 2024).

SQL, which stands for Structured Query Language, is a language derived from English and used with various databases like Oracle and Microsoft SQL. It is designed to facilitate simple queries to a database. In MySQL databases, data is organized into one or more tables, which contain rows and columns (Yulistiana Potutu et al., 2023).

METHOD

The methods used in this research are data collection methods and the RAD (Rapid Application Development) system development method (Febrianto & Kholis, 2022).

Rapid Application Development (RAD) employs an iterative approach in system development, where a working model of the system is created at an early stage of development to define user requirements. This working model is occasionally used as a foundation for the final system's design and implementation (Azhiman et al., 2023).

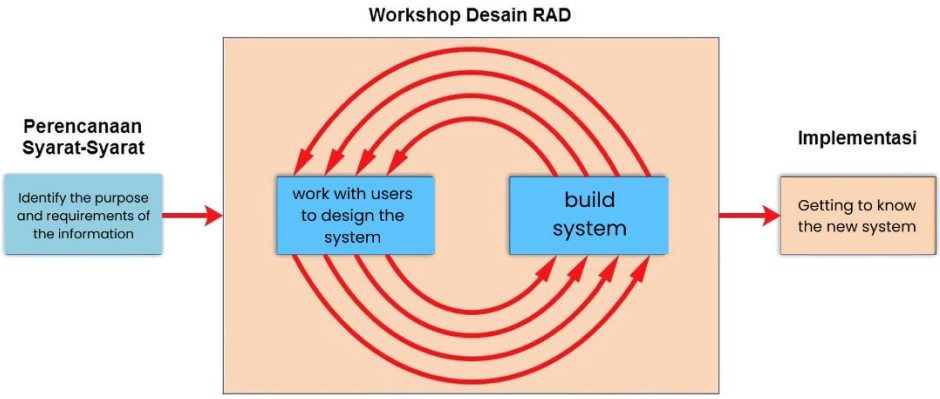


Figure 1. Metode Rapid Application Development (RAD)

The Rapid Application Development (RAD) methodology involves four key stages in the development cycle:

Requirements planning is the process of planning related to the needs of the system being developed. It is closely associated with the data collection process. **Design** The output of the design phase includes the system

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architecture, interface design, and other software components that support the specifications. **Implementation** Based on the previous two stages, this phase involves building the system according to the design and requirements. **Testing** The testing phase involves evaluating the developed system using the Blackbox testing method, where the functionality of all critical system requirements is tested (Wijaya & Azhiman, 2023).

RESULT

This study successfully implemented a web-based internship placement and monitoring system at SMK YP Gajah Mada Palembang. The system is designed to address various challenges arising from the manual process, such as delays in student placements and difficulties in collecting internship data. The following are the results obtained from the development of this system:



Figure 2. Home Page

In Figure 2, the Home Page is designed to provide users with quick and easy access to crucial information regarding the internship program. This page serves as the central hub where students, teachers, and partners can find the most up-to-date announcements and schedules related to internship activities. The home page includes features that highlight recent news, important updates, and upcoming events, ensuring that all users are well-informed about the latest developments in the internship program. Additionally, it provides links to other sections of the system, such as student data, teacher data, partner data, and internship data, facilitating seamless navigation and efficient access to necessary information.

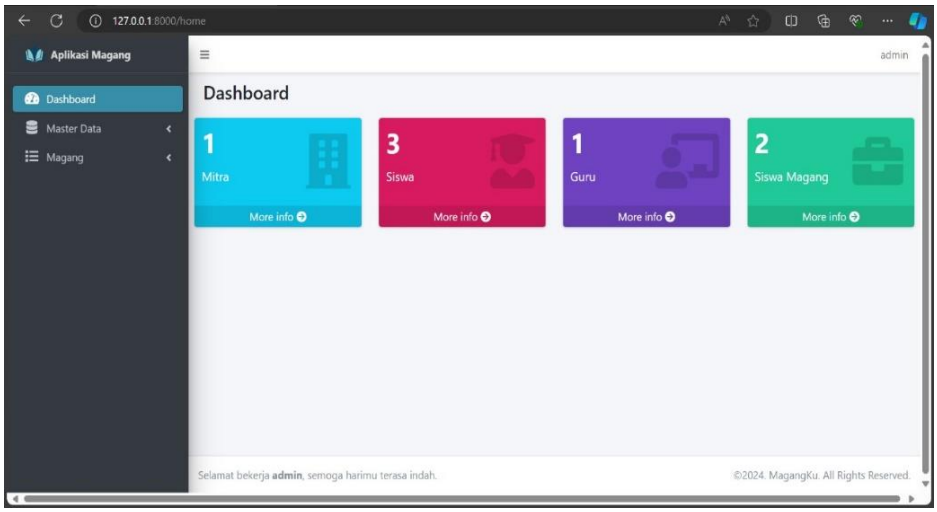


Figure 3. Dashboard Page

In Figure 3, the Dashboard Page provides a comprehensive overview of the internship program. This page includes quick access to important information, such as key performance indicators, recent announcements, and upcoming events related to internships. The dashboard is designed to give users a snapshot of the current status of

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internship placements, student progress, and any alerts or notifications that require attention. It also features intuitive navigation to other sections of the system, making it easy for users to manage and monitor the internship program efficiently at SMK YP Gajah Mada Palembang.

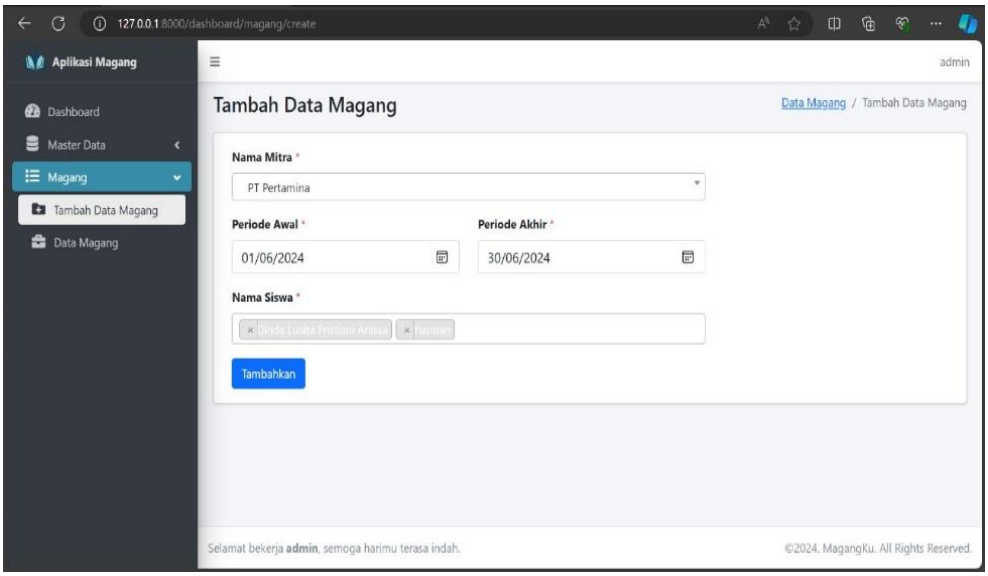


Figure 4. Add Internship Data Page

In Figure 4, the Add Internship Data Page provides a feature that allows users to easily and quickly add information related to internships. This page is designed to collect essential details such as the student's name, internship location, internship period, and internship supervisor. Users can fill out a structured form to ensure that all necessary data is accurately recorded. The page also includes data validation features to prevent input errors and ensure the integrity of the information. With this page, the process of collecting and managing internship data becomes more organized and efficient, supporting the effective monitoring and placement of internship students at SMK YP Gajah Mada Palembang.

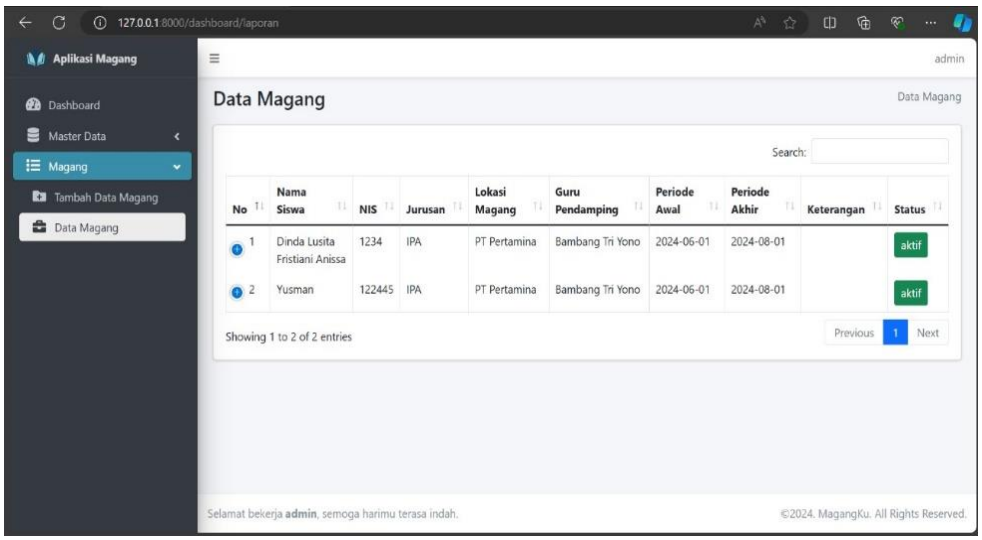


Figure 5. Internship Data Page

In Figure 5, the Internship Data Page offers a detailed view of all the internship records. This page provides comprehensive information on each internship placement, including student details, assigned mentors, partner organizations, and the duration of the internship. Users can easily navigate through the data, search for specific records, and filter information based on various criteria. The Internship Data Page is designed to streamline the process of tracking and managing internship placements, ensuring that all relevant information is accessible and up-to-date for efficient monitoring and reporting.

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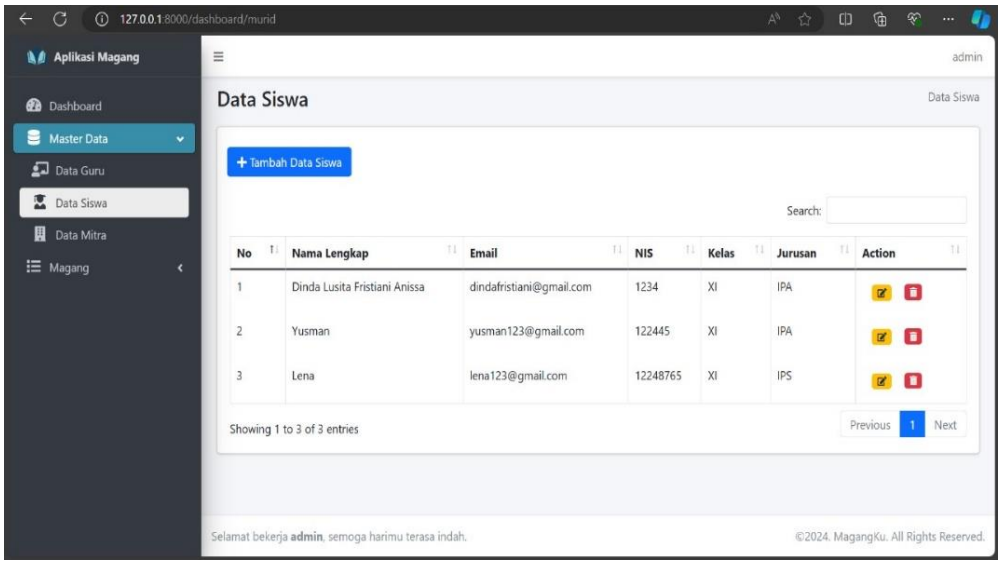


Figure 6. Student Data Page

In Figure 6, Student Data Page presents a detailed overview of all student records. This page includes essential information such as student names, contact details, academic performance, and assigned internships. Users can effortlessly browse through the data, search for specific students, and filter the information based on various parameters. The Student Data Page is designed to facilitate efficient management of student information, ensuring that all relevant details are readily available for administrators, teachers, and coordinators. This organization helps in maintaining up-to-date records, tracking student progress, and providing support during their internship placements.

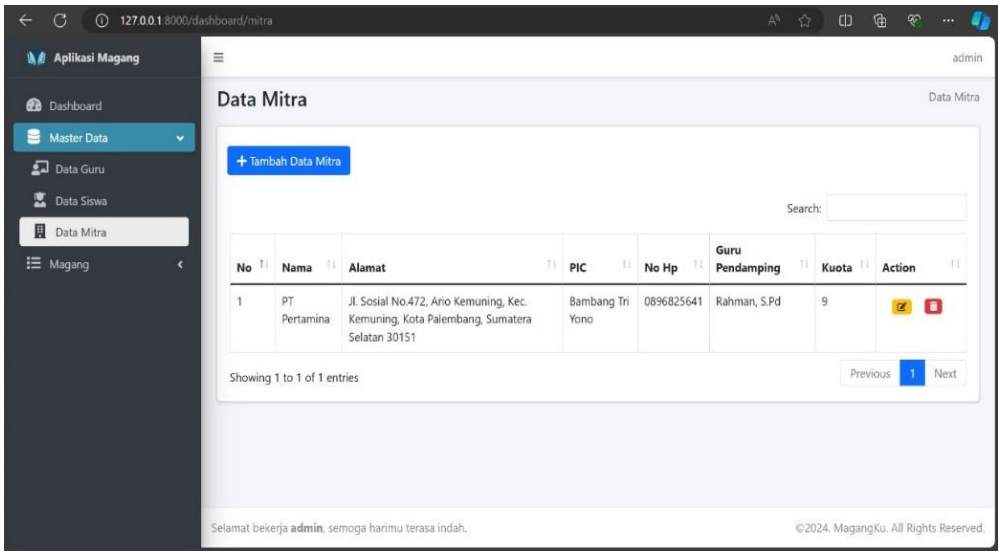


Figure 7. Partner Data Page

In Figure 7, Partner Data Page displays comprehensive information about all internship partners. This page includes crucial details such as partner names, contact information, business sectors, and the types of internships they offer. Users can easily navigate through the list of partners, search for specific entries, and filter the data based on various criteria. The Partner Data Page is designed to streamline the management of internship partners, ensuring that administrators and coordinators have quick access to relevant details. This organization aids in effectively coordinating internship placements, maintaining updated records, and fostering strong relationships with partner organizations.

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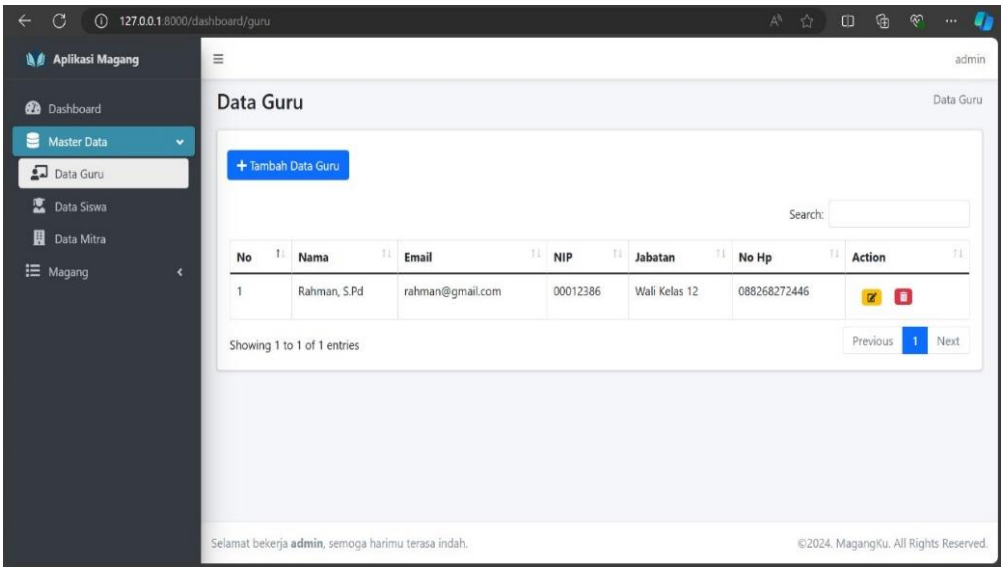


Figure 8. Teacher Data Page

In Figure 8, Teacher Data Page provides a detailed view of all the educators involved in the internship program. This page includes essential information such as teacher names, contact details, teaching subjects, and associated classes. Users can navigate through the list of teachers, search for specific entries, and filter the data based on different criteria. The Teacher Data Page is designed to facilitate the management of teacher information, allowing administrators to quickly access and update relevant details. This organization helps in efficiently coordinating with educators, managing their roles in the internship program, and ensuring that all necessary information is readily available.

DISCUSSION

In this research, we have successfully implemented a web-based system for the placement and monitoring of internship students at SMK YP Gajah Mada Palembang. This system addresses several challenges associated with manual processes, such as delays in student placement and difficulties in data collection. Homepage (Figure 2): The Homepage offers quick access to critical information regarding the internship program. It displays the latest announcements and schedules related to internships. This feature enhances user engagement by providing up-to-date information in a centralized location, which streamlines communication and ensures that students and administrators are well-informed about program activities. Internship Data Page (Figure 3): This page is designed to manage and display detailed information about the internships available. Users can view, add, and update internship data, including placement details, company information, and the status of each internship. The ability to efficiently manage this data is crucial for ensuring that students are placed in suitable internship positions and that all relevant information is accurately recorded. Student Data Page (Figure 6): The Student Data Page provides a comprehensive view of all students participating in the internship program. It includes details such as student names, contact information, and assigned internships. This page facilitates the monitoring of student progress and ensures that all student-related information is organized and easily accessible. Partner Data Page (Figure 7): This page contains information about the various organizations that serve as internship partners. It includes details such as company names, contact information, and internship opportunities available. By managing this data effectively, the system helps in establishing and maintaining strong relationships with internship partners and ensures that students have access to a diverse range of internship opportunities. Teacher Data Page (Figure 8): The Teacher Data Page provides information about the educators involved in the internship program. It includes details such as teacher names, contact information, subjects taught, and associated classes. This page supports efficient coordination between teachers and the internship program, allowing for easy access and updates of teacher-related information. It ensures that teachers can be effectively involved in overseeing and supporting students during their internships.Overall, the web-based system developed for SMK YP Gajah Mada Palembang significantly improves the efficiency of the internship placement and monitoring process. By transitioning from a manual to an automated system, the institution can now manage internship data more effectively, reduce delays, and streamline communication between students, teachers, and internship partners. The system's user-friendly interface and organized data management contribute to a more effective and responsive internship program, ultimately benefiting all stakeholders involved.

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CONCLUSION

Based on the research conducted, it can be concluded that the implementation of a web-based system for the placement and monitoring of internship students at SMK YP Gajah Mada Palembang was successful. This system effectively addresses various issues associated with manual processes, such as delays in student placement and difficulties in collecting internship data. The success of this system is marked by increased efficiency in managing internship data, reduced delays, and smoother communication between students, teachers, and internship partners. With this system, SMK YP Gajah Mada Palembang can run its internship program in a more structured and responsive manner, ensuring that all stakeholders can easily and quickly access the necessary information. The user-friendly interface and effective data management capabilities make this system an efficient solution for supporting the internship program, providing tangible benefits to students, teachers, and internship partners. The implementation of this system demonstrates the significant role technology can play in enhancing the quality and effectiveness of vocational education programs.

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