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Design Of New Student Admission System at State Vocational School 3 Empat Lawang

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Abstract: The design of the new student admission system (PPDB) at SMK Negeri 3 Empat Lawang aims to improve the efficiency and effectiveness of the selection and registration process for prospective students. This system is designed to overcome frequently encountered obstacles, such as the lengthy data verification process, difficulties in data management, and the lack of transparency in the selection process. The PPDB system prototype was developed with a web-based approach to ensure accuracy, speed, and ease of access for prospective students, parents, and the school. The main features of this system include online registration, automatic data verification, real-time announcement of selection results, and an admin dashboard to monitor the entire process. With the implementation of this system, it is expected to reduce administrative workload, increase transparency, and provide a better experience for all parties involved in the PPDB process at SMK Negeri 3 Empat Lawang

Keywords: PPDB, Prototype, Registration, Verification

Introduction

The new student admissions information system (PPDB) is an application or software used to streamline the new student registration process. The use of this technology is considered to increase efficiency and effectiveness in managing prospective student data, while minimizing errors and the time required in manual processes. In its development, the PPDB system typically refers to stages such as registration, selection, announcement of results, and data management, all of which can be carried out in an integrated manner (Yudahana, Riadi, and Elvina, 2023).

The new student admission system (PPDB) is also an important component in educational management in schools. Along with technological advancements, the previously manual PPDB process is now shifting to a more modern, information technology-based system. Implementing an information system in the PPDB process can provide convenience and efficiency for both schools and prospective students. This allows for a faster, more transparent, and more accessible registration process from various locations (Rosmiati, 2021) .

SMK Negeri 3 Empat Lawang, a vocational high school in Empat Lawang Regency, South Sumatra, currently relies on the conventional PPDB (School Enrollment) system. The manual registration process often faces various challenges, such as time and space constraints, long queues, and data entry errors. Furthermore, the lack of an integrated

information system can also make it difficult for the school to manage prospective student data effectively and efficiently.

Therefore, this research requires the design of an information system that can support the new student admission process. This research will also develop a PPDB system design that will not only simplify the registration process but also improve data accuracy and reliability. This system design is expected to integrate the entire PPDB process, from registration and selection to the announcement of results. This research will develop a design for new student admissions to assist schools in managing PPDB. From the above explanation, this research raises the title Designing a New Student Admissions System at State Vocational School 3 Empat Lawang.

Methodology

Problem Analysis and Program Design

In creating a prototype for designing a system for accepting new students at SMK Negeri 3 Empat Lawang, there are several main problems that need to be analyzed and overcome. One of the main problems is the lack of adequate technological infrastructure, such as unstable internet access and hardware to support digital-based systems, especially in areas with technological limitations. Furthermore, resistance to change from internal stakeholders, such as administrative staff unfamiliar with digital systems, can be a challenge. Another issue is the complexity of determining a selection algorithm that is fair and compliant with educational policies, for example, automatically integrating zoning, achievement, and affirmative action pathways.

Difficulties in ensuring data security are also a concern, particularly regarding the protection of prospective students' personal data. The digital document validation process can be challenging if there is no robust mechanism to verify the authenticity of uploaded documents. Furthermore , budget limitations for system development, staff training, and community outreach can impact the successful implementation of the prototype. Therefore, careful planning, stakeholder engagement, and the adoption of technology tailored to local needs are key to addressing the various challenges faced in developing this prototype.

System Design Method

The most suitable research method for creating a prototype for a new student admissions system is research and development (R&D). This method is highly appropriate because it allows for systematic and iterative user-needs-based system development (Waruwu, 2024) . Here are the steps:

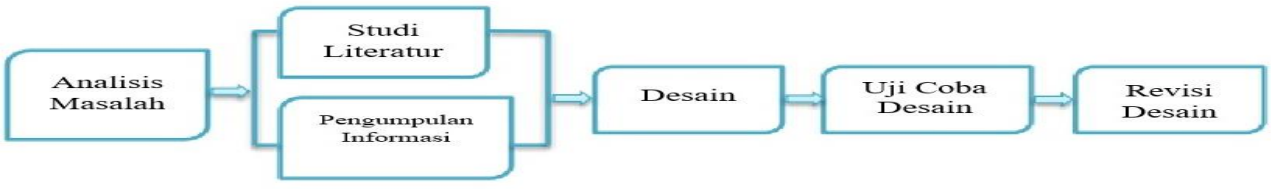

Figure 1. Research method (Research and Development/R&D)

Results and Discussion

Result

The results of this research produced a prototype design for the PPDB (Student Admission) system at SMKN 3 Empat Lawang. This system design will simplify the school's PPDB implementation, streamlining the school's workload, from new student registration to re-registration.

Discussion

In this chapter, a prototype design for the new student admissions system will be created at SMK Negeri 3 Empat Lawang. This prototype will then incorporate several designs and features required for the PPDB (New Student Admissions). The prototype starts with the homepage and continues until new students receive graduation information and can re-register if they pass. The prototype design is as follows:

Home Page

The homepage is the initial page accessible to new students registering at State Vocational School 3 Empat Lawang. The homepage appears as follows:

Figure 2. Home Page

The homepage features Home, Contact, Guide, Login, and Register buttons. These buttons allow you to access the next form. The Contact button contains contact information for the school administrator, and the Guide button provides information on system usage. The Login button allows you to log in, including new student logins and admin logins. The Registration button is for new students who don't yet have an account.
Guide Page

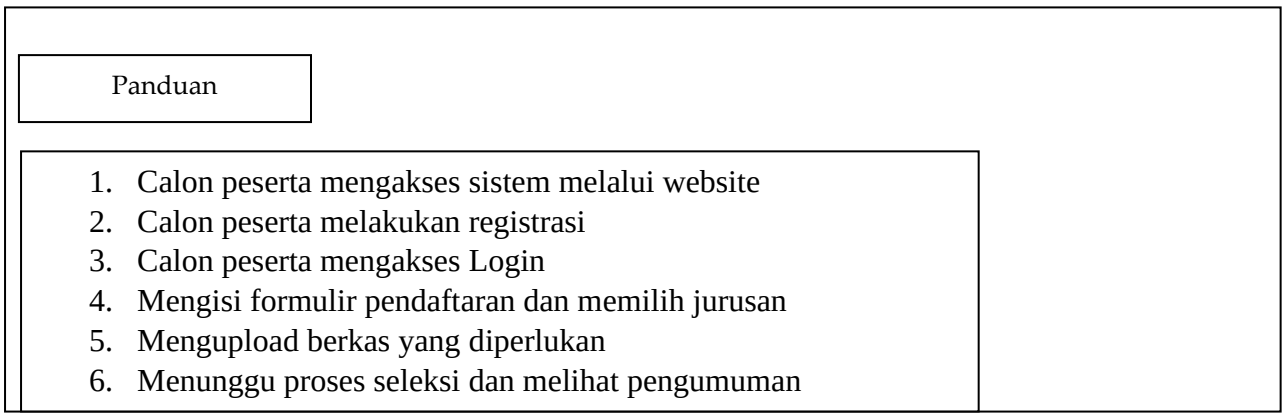

Figure 3. Guide Page

Registration Page

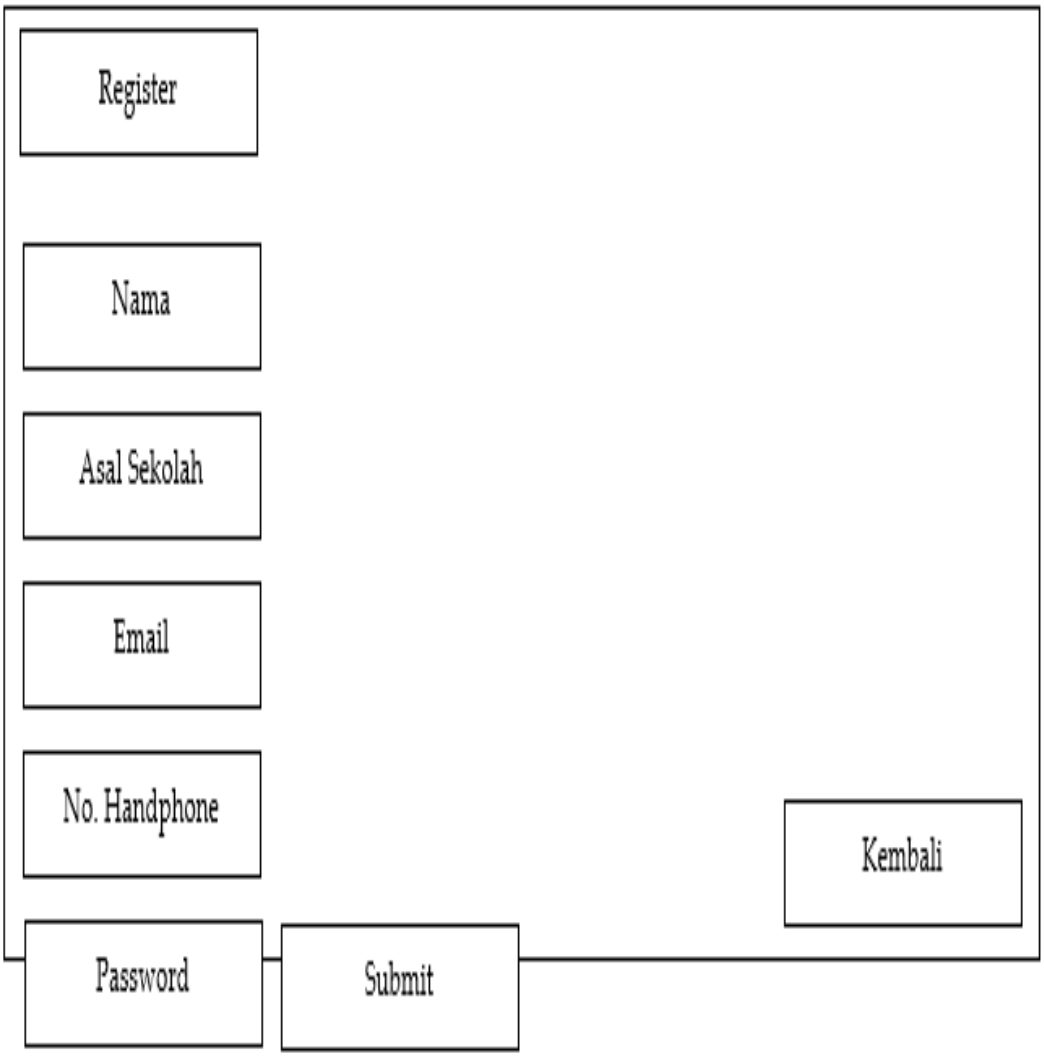

Figure 4. Register Page

New Student Login Page

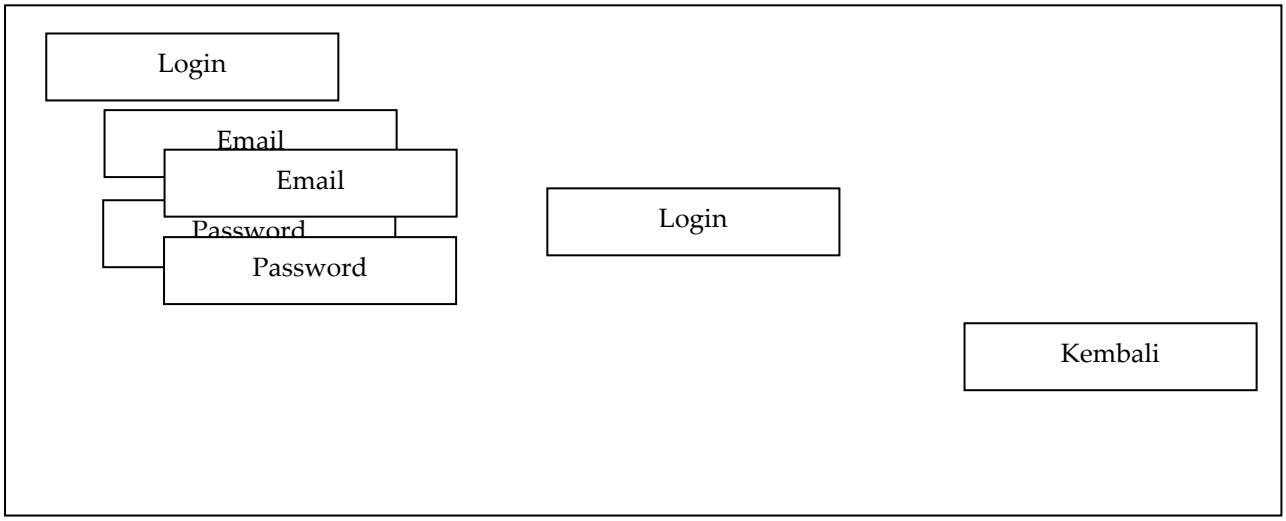

Figure 5. Login Page

Announcement Page

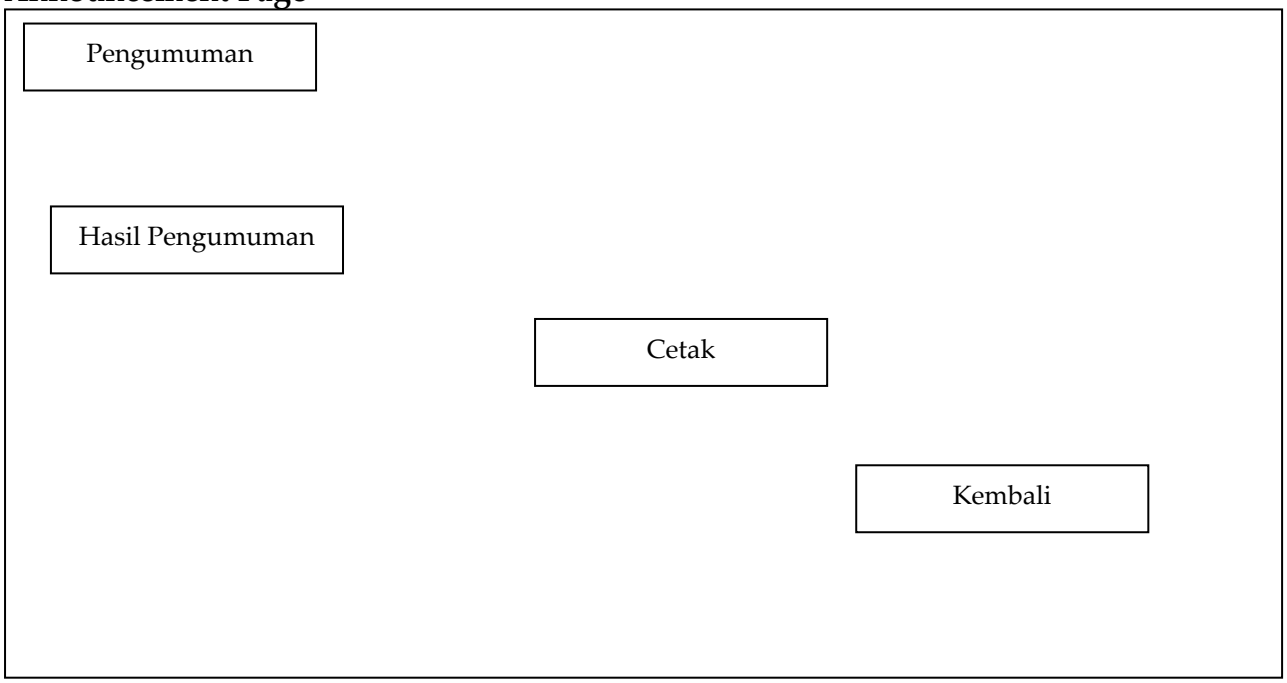

Figure 6. Announcement Page

Admin Login Page

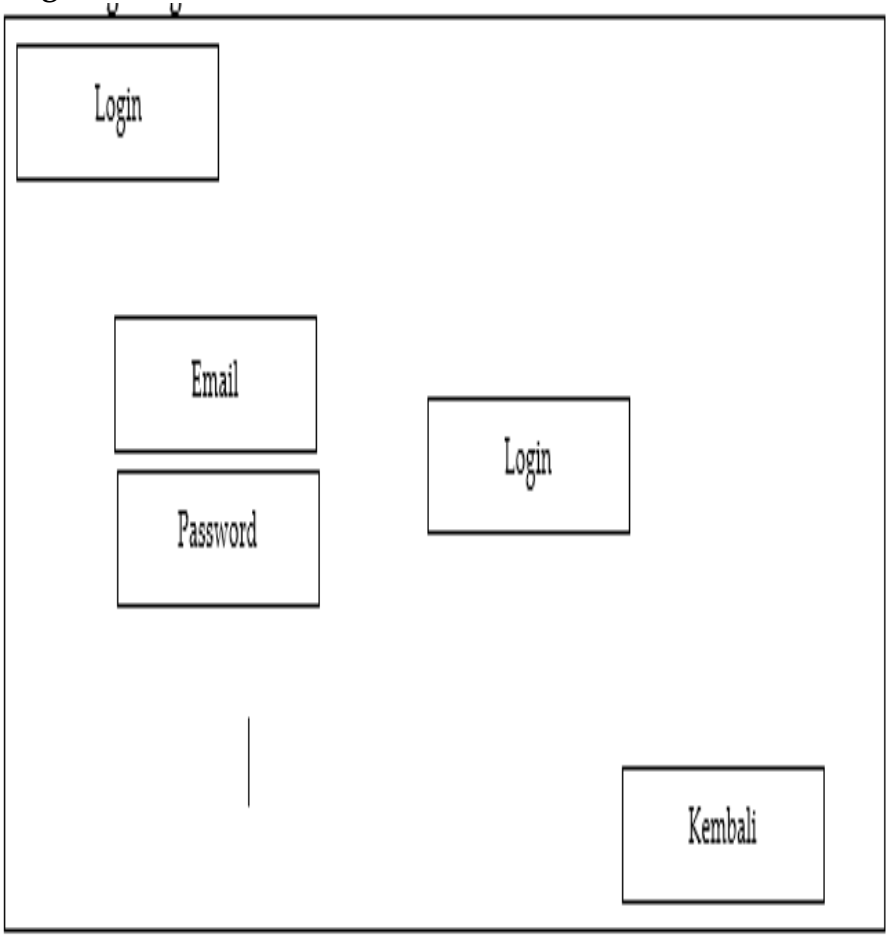

Figure 7. Admin Login Page

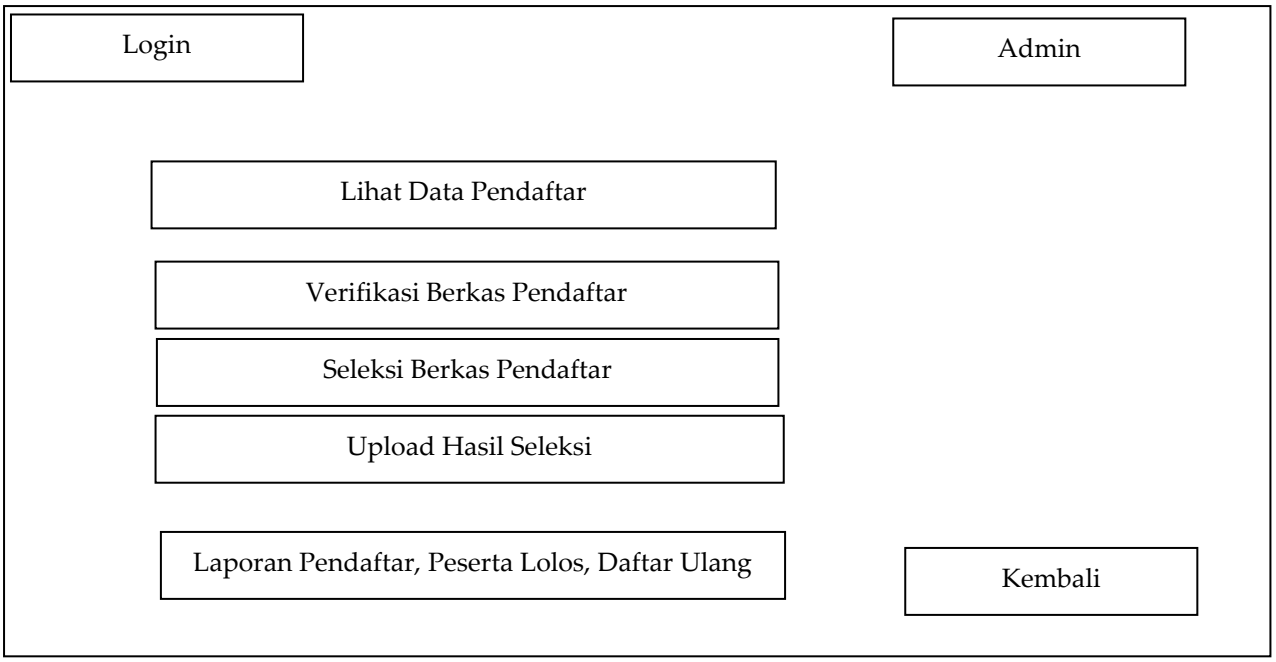

Figure 8. Admin Page

The prototype design is intended to help make it easier for students who will register at SMKN 3 Empat Lawang and simplify the work of the school staff who manage it. This prototype design is also intended to be followed up by the school where this study only discusses the design of the PPDB registration system at SMKN 3 Empat Lawang.

Conclusion

Based on the description of the research conducted, the author concludes that the prototype of the new student admissions design system (PPDB) at SMKN 3 Empat Lawang has been successfully designed to increase efficiency and transparency in the prospective student selection process. This system is designed with features such as online registration, automatic data verification, and real-time reporting. This system is expected to reduce administrative errors, speed up the selection process, and provide convenience for prospective students and the school.

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