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EAL-ISTIQAMAH: STUDENT REGISTRATION AND MANAGEMENT SYSTEM FOR PASTI AL-ISTIQAMAH

AIDA ATIRAH BINTI ZAIDI



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**FACULTY OF ART, COMPUTING & CREATIVE
INDUSTRY UNIVERSITI PENDIDIKAN SULTAN IDRIS**

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EAL-ISTIQAMAH: STUDENT REGISTRATION AND MANAGEMENT SYSTEM
FOR PASTI AL-ISTIQAMAH

AIDA ATIRAH BINTI ZAIDI



A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE
AWARD OF THE BACHELOR OF SOFTWARE ENGINEERING (EDUCATIONAL
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FACULTY OF ART, COMPUTING & CREATIVE INDUSTRY UNIVERSITI
PENDIDIKAN SULTAN IDRIS

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PASTI Al-Istiqamah

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Tarikh

Tandatangan Penyelia

(Prof. Madya Dr. Hj. Nor Hasbiah Binti Ubaidullah)





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ABSTRAK

Projek ini adalah untuk membangunkan eAL-ISTIQAMAH: Sistem Pendaftaran dan Pengurusan Pelajar untuk PASTI Al-Istiqamah. Matlamat utama projek adalah untuk mewujudkan sistem pengurusan PASTI Al-Istiqamah dan pendaftaran sekolah agar dapat membantu pentadbir dan guru dalam menguruskan maklumat dengan lebih sistematik dengan mengendalikan maklumat berkaitan pelajar. Metodologi pembangunan produk untuk projek ini telah dibangunkan menggunakan model prototaip evolusi. Pembangunan spesifikasi abstrak, pembinaan sistem prototaip, penilaian sistem prototaip, dan penyampaian sistem akhir membentuk empat fasa model ini. Metodologi perlu memastikan penyelidikan dan pembangunan produk dilakukan dengan kerap dan dapat mencapai objektif. Bagi mencapai objektif projek, data akan dikumpul menggunakan pendekatan kuantitatif melalui tinjauan dalam talian untuk menguji dan menilai kesan ke atas pengguna dan objektif kajian. Kesimpulannya, sistem berasaskan web eAL-ISTIQAMAH diharap dapat memudahkan pemantauan pelajar dan menguruskan maklumat pelajar untuk pentadbir, guru, dan ibu bapa.



EAL-ISTIQAMAH: STUDENT REGISTRATION AND MANAGEMENT SYSTEM FOR PASTI AL-ISTIQAMAH

ABSTRACT

This project is to develop an eAL-ISTIQAMAH: Student Registration and Management System for PASTI Al-Istiqamah. The main goal of the project is to create management systems for PASTI Al-Istiqamah and school registration in order to assist administrators and teachers in managing information in a more systematic way by handling information related to students. The product development methodology for this project was developed using the evolutionary prototyping model. The development of abstract specifications, the building of prototype systems, the evaluation of prototype systems, and the delivery of a final system make up the four phases of this model. The methodology needs to ensure that product research and development is done frequently and can achieve the objectives. In order to achieve the project's objectives, data will be gathered using a quantitative approach via an online survey in order to test and evaluate the impact on the user and the study's objectives. In conclusion, it is hoped that the eAL-ISTIQAMAH web-based system will facilitate monitoring students and managing student information for administrator, teachers, and parents.



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LIST OF ABBREVIATIONS

PHP	Hypertext Pre-Processor
HTML	Hypertext Markup Language
RAM	Random Access Memory
SDD	Software Design Document
SRS	Software Requirement Specifications
STD	Software Testing Documentation
SDLC	Software Development Life Cycle
SUS	System Usability Scale
SQL	Structured Query Language
UI	User Interface
VLE	Virtual Learning Environment
MB	Megabyte
HTTPS	Hypertext transfer protocol secure
CIC	Children Islamic Centre





APPENDIX

A	Software Requirements and Specifications (SRS)
B	Software Design Document (SDD)
C	Software Test Documentation (STD)





CHAPTER 1

INTRODUCTION

1.1 Introduction



Information is regarded as a valuable asset for any academic institution in the current technological era of education. The availability of student data and feedback can assist a school in aligning its processes with its students' needs. Effective data management can assist schools in reaching out directly to their students as well as improving their operations. Like any other institution, the school follows the rules and regulations comparable to those in business or industry and deals with enrollment, data analysis, and management reporting. Grepon et al. (2022), mentioned that the majority of the current education systems have already adopted computer-based systems to meet their requirements, particularly with regard to their student and school-related transactions also these processes are made possible by a centralized system in the storage, processing, and retrieval of data and information.





Schools primarily require information systems in order to improve their management processes and become more effective. The majority of schools nowadays do not have online registration. Hence, schools require an information system that can assist with operational and academic management. The school management system is a database system that schools can use to store data about their students' information. The system is a combination of interconnected components with a clearly defined boundary that collaborate to achieve a common set of goals by accepting inputs and producing outputs in an organized transformation process by implementing a management information system that can assist administrators, teachers, and parents with student registration, student reports, and student fee payment. Handling student and academic data is, as we all know, one of the main purposes of information technology in school.



1.2 Research Background

Information technology is used in numerous industries, including academia and the field of education. In research by Hendra, S.Kom., M.T. & Arifin, S.Kom., M.M. (2018), implementing information systems in the classroom, such as those used for grading, school profiles, or new student registration, can increase the standard of student work. According to previous issues about school management, this contribution system to strategic objectives in the organization to increase productivity and performance will help the organization gain a competitive advantage with the implementation of information.





The success of an information system may be measured by the quality of the system, the information provided, the level of use and satisfaction of use, as well as other characteristics that indicate how much influence is achieved by the existence of such an information system according to Sapty Rahayu et al. (2018). Information technology can assist the administrator and teacher in managing information more systematically by handling information related to students. As a result, we can come to the conclusion that information technology is necessary for school management in order to keep up with the always improving advancement for the users.

1.3 Problem Statement



In order to handle student information more systematically these days, online school management is widely used. In research by S. et al. (2017), like other project investments, the development of an information system is a long-term investment. However, there are still a lot of schools that handle all student-related data manually, which has been discovered to have a lot of drawbacks. The insufficient manual registration utility for student registration is one of the issues that develop with the usage of manual techniques for managing student information. Due to the insufficient manual registration utility for student registration to manage the student's registration records, all the information in the book or on paper was making the teachers' job more difficult. When an accident occurs, the record may go missing or be destroyed.





Moreover, parents take too much time to process their children's registration, and this can only be done in person at the school, where they must personally fill out the form. This has been difficult and time-consuming for parents to complete the registration for their children. It also makes it more difficult for teachers and administrators to process the data of recently registered students. The inability of parents to view their children's records remotely, such as student reports and fee payments. Students are afraid to tell their parents if they fail an exam or receive a low grade. Add in some parents who are preoccupied with their own careers and may be unconcerned about their children's decisions. Furthermore, requiring some students to keep their test results hidden from their parents may be considered cheating for a variety of reasons, such as teachers' failing to provide report cards or other reasons preventing their parents from learning the results. As a result, parents are unaware of their children's exams or test results. Furthermore, it is extremely difficult for parents to view the status of their children's fee payment records.



1.4 Research Objectives

The following are the research objectives of this project:

1. To identify the requirements needed by the school management for managing student registration, payment review, and reporting for student management.
2. To develop a management system - eAL-ISTIQAMAH System that gives access to school administrators, teachers, and parents of PASTI Al-Istiqamah to manage students' information, payment review, and student reports.
3. To evaluate the system's ease of use for teachers to manage students' information.

1.5 Research Questions

The following are the research questions for this project:

1. What are the requirements needed in the school management system?
2. How to develop a system that will give access to administrators, teachers, and parents?
3. Does the system easy to use for the teachers to manage the students' information?



1.6 Scope of Project

The main focus of this project is the research on the development of the school management system, which attempts to develop a management system for PASTI Al-Istiqamah and a management system for school registration. The following are the identified scopes of work in order to accomplish the project's objectives:

1. This system will be focusing on school management where they will use the system for student registration and school management.
2. The main objective of this system is to make registration convenient, so using it will make a registration for PASTI Al-Istiqamah students easier.
3. The system will provide a function for parents to check the status of the fee via the system. There's no need to rush to manually and face-to-face verify the status of the children's fees.
4. The system also allows parents to check their children's reports. It can reduce the amount of time spent in meetings with the administrator or teacher.
5. Convenience to school administrators and teachers to update any related documents. This system will allow administrators and teachers to update students' information in the system.
6. This system will be developed using the PHP language and will create a database server using Laragon as the server and Visual Studio Code to create the programming language.



1.7 Significance of Study

The significance of the study are:

1. It will assist the administrator in managing and monitoring all aspects of school management.

It can facilitate the administrator's allocating classes to each teacher and better manage registrations for parents and teachers. Additionally, this method can assist administrators in approving student registration.

2. It may make it easier for teachers to monitor and manage all aspects of student management.

It can make it easier for teachers to keep track of their students' reports and comment on their progress. Teachers can update student reports and update student monthly fee payments using the system.

3. It will enable parents to manage registration and monitor all student information.

Parents can register their children and view the teacher's comments on their children's achievements. Additionally, the system allows parents to view monthly fee payments.



1.8 Conclusion

This system has the potential to save user's time. Nowadays, a lot of people don't have enough time to dedicate to manual labor-intensive tasks or activities. Instead, this web-based system can be used at any time and from any location because it is backed by web-based characteristics. Using this system, we can engage with the eAL-ISTIQAMAH organization. It can enhance the reputation of the planner and all of the staff's efforts on behalf of the system. Organizational tasks like reviewing, updating, storing, and applying can be expedited with the help of this web-based system. Additionally, the system is supported by web-based functionality that does multiple tasks at once. The organization can then prevent a disaster for the environment by limiting its use of paper.

