

**PARENT-TEACHER RELATION INFORMATION SYSTEM (PRIM)
(REPORTING & FEES)**

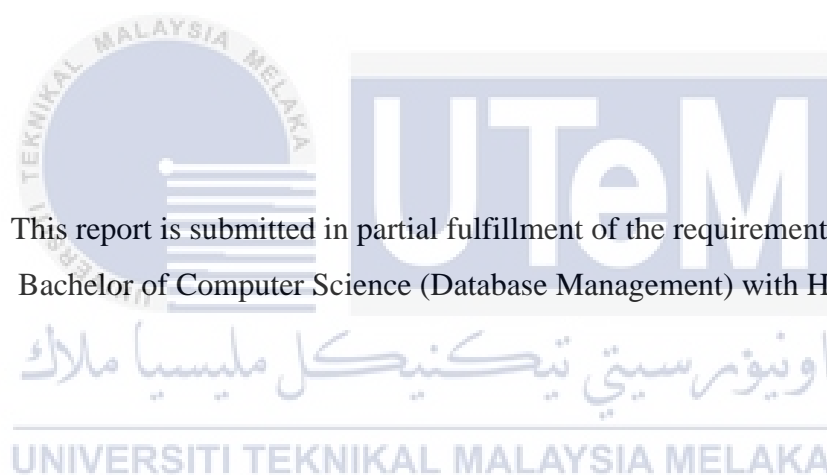
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UNIVERSITI TEKNIKAL MALAYSIA MELAKA

PARENT-TEACHER RELATION INFORMATION SYSTEM (PRIM)
(REPORTING & FEES)

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FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
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2021

DECLARATION

I hereby declare that this project report entitled
**PARENT-TEACHER RELATION INFORMATION SYSTEM (PRIM) (REPORTING
& FEES)**
is written by me and is my own effort and that no part has been plagiarized
without citations.

STUDENT : MUHAMMAD AFIQ ISKANDAR BIN MOHAMAD AZRI
Date : 6 September 2021



I hereby declare that I have read this project report and found
this project report is sufficient in term of the scope and quality for the award of
Bachelor of Computer Science (Database Management) with Honours.

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SUPERVISOR : ENCIK YAHYA BIN IBRAHIM
Date : 6 September 2021

Figure 0.1: Flow Chart of Parent-Teacher Relation Information System

DECLARATION

I hereby declare that this project report entitled
**PARENT-TEACHER RELATION INFORMATION SYSTEM (PRIM) (REPORTING
& FEES)**

DEDICATION

Special thanks to my parents that always giving strong support to finish the report before the due date. I always having a hard time to face all the hardship and hard work. It took a lot of strength, however my parents always giving a great motivation for me to keep going. I also dedicated this project to our almighty God for giving me strength, power of mind, good skills, and a healthy life to complete all my task on time. I will not be here without all these kinds of supports. I appreciate it a lot.



ACKNOWLEDGEMENTS

First, I am so grateful to get an opportunity to do my PSM for this sem. It such a great honor for me as a student final year. So, I would like to thank my faculty for allow me to do this project because I learn and experienced a lot while doing this such as develop new skills in programming and writing.

I would like to thank my supervisor, Encik Yahya bin Ibrahim for his guidance, care, and support during this semester. I also thankful to my parents that always stay beside me whenever I need motivation support. I am fortunate to have a lot of friends that understand my situation and always giving a good advice for me to improve myself but at the same time to stay healthy. Specially to keep my mental health at a good state.

Lastly, I would like to express my deep expression to those that always support whether directly or indirectly. All of these are really matter to me. Thank you for everyone support.

ABSTRACT

This report explained about how the system is develop and work. There are seven chapter in total which is Introduction, Project Methodology and Planning, Analysis, Design, Implementation, Testing and Conclusion. The first chapter will be discussed about the problem statement and objective of the project. For the chapter two, it will be discussed about project methodology and planning. This chapter illustrate the project schedules. Next, the chapter three is analyzing about analysis of the previous system and the system that will be developed. While chapter four describe more detail about the design of the system such as logical design, physical design, entity relational diagram and data dictionary to get a big picture. This chapter can be the guideline for student to develop the system with systematic procedure and steps. Chapter five illustrate on how the system will be implemented such as what kind of tools did the student use to develop the system. Testing section will be demonstrated at chapter six to make sure the project run smoothly without any bugs or error. Finally, the final chapter conclude the overall about the project including the strength of the system and suggestion to improve the project.

ABSTRAK

Laporan ini menjelaskan tentang bagaimana sistem ini dibangun dan bagaimana ia berfungsi. Terdapat tujuh bab secara keseluruhan iaitu pengenalan, metodologi dan perancangan projek, analisis, reka bentuk, Pelaksanaan, pengujian dan kesimpulan. Bab pertama akan dibincangkan mengenai pernyataan masalah dan objektif projek. Untuk bab kedua, ia akan dibincangkan mengenai metodologi dan perancangan projek. Bab ini menggambarkan jadual projek. Seterusnya, bab tiga adalah untuk menganalisis mengenai analisis sistem sebelumnya dan sistem yang akan dibangun. Sementara itu, bab empat menerangkan lebih terperinci mengenai reka bentuk sistem seperti reka bentuk logik, reka bentuk fizikal, rajah hubungan entiti dan kamus data untuk mendapatkan gambaran besar. Bab ini boleh menjadi panduan bagi pelajar untuk mengembangkan sistem dengan prosedur dan langkah yang sistematik. Bab lima menggambarkan bagaimana sistem akan dilaksanakan seperti apa jenis alat yang pelajar akan gunakan untuk membangun sistem tersebut. Bahagian pengujian akan ditunjukkan pada bab enam untuk memastikan projek berjalan dengan lancar tanpa ada kecacatan atau ralat. Akhir sekali, bab terakhir menyimpulkan keseluruhan mengenai projek termasuk kekuatan sistem dan cadangan untuk memperbaiki lagi projek ini.

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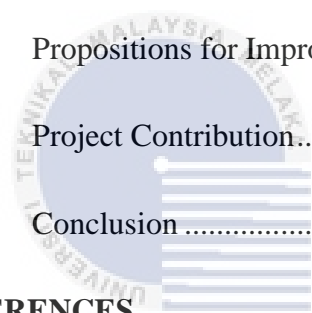
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LIST OF ABBREVIATIONS

- FYP** - **Final Year Project**
- PRIM** - **Parent-Teacher Relationship Information System**



Chapter 1: INTRODUCTION

1.1 Introduction

The project is based on a real-life circumstance, and the concept evolved because of me and my supervisor's observations and interviews with JAIM. After gathering information on how to handle school-related issues, we eventually proposed developing a system that could assure productivity in the management of the Malacca school, such as student/staff management, school fees, canteen, utilities, and so on.

I will focus primarily on school fees for my module, whether elementary, primary, or secondary. I will also handle teacher, and parent reporting, which will reveal all the specifics of the system's reporting procedures. If there are outstanding payments that must be paid, the parent will be notified.

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1.2 Problem Statement

There are a few problems identified. This includes:

- I. It is time consuming for parent to pay student fees to the teacher.
- II. Wasting papers to print receipt.
- III. It is difficult for parent to keep track of their children's school fees.

1.3 Objective

This project embarks on the following objectives

- I. To make it easier for parents to pay their children's school fees because they do not have to take time off work or rely on their children to pay the school fees.
- II. To save environment and reduce the use of papers.
- III. To ease the parent to be inform about their children's school fees.

1.4 Scope

1.4.1 Technology

The system is developed using the following technology:

- I. Laravel – An open-source PHP Framework
- II. Vue.JS
- III. MySQL – a relational database management system

1.4.2 Modules

1. Fees Module

- If there are no fees available, the admin can create new fees.
- If the parents want to view all the pending fees, they can view it in the fees list menu.
- If the parents want to their payment history, they can view it in the payment history menu.

2. Payment Module

- If the parents want to pay their children's school fees, they can do so in pay menu.

3. Reporting Module

- If the parents want to see the report, they can view it in the dashboard which include the total amount of fees paid, the number of fees paid, pending fees, and a fee graph for all or specific children.

1.4.3 Target User

The Parent-Teacher Relation Information System is designed specially for the use of following users:

1. Admin
2. Teacher
3. Parent

1.5 Project Significance

The Parent-Teacher Relationship Information System is designed to make paying student fees more convenient. It is a mobile-friendly web-based application that can be accessed from a PC or a mobile phone. It will assist not only the teachers, but also the parents, because they will no longer have to take time off work or rely on their children to pay the school fees. So, by using this application, parents can pay their children's student fees and be informed of any pending fees that need to be paid.

1.6 Expected Output

- I. Output 1: The parents can pay their children's school fees.
- II. Output 2: Accurate reporting in graph form to show paid fees.
- III. Output 3: Display all pending student fees.
- IV. Output 4: The teacher can check which students have paid their fees.

1.7 Conclusion

This chapter provide an overview of the system that will be developed. It includes problem statements, objective, scope, and project significance of this project. Next chapter, we will be discussed about project methodology and planning.



Chapter 2: **PROJECT METHODOLOGY AND PLANNING**

2.1 Introduction

The Database Life Cycle is being used as a methodological approach in this project. Database initial study, database design, implementation and loading, testing and evaluation, operation and maintenance and evolution are the six phases of the Database Life Cycle (DBLC).

2.2 Project Methodology

Since school fees are collected throughout the year for each school, in the long run, using this methodology will benefit the database life cycle since the database will be optimized and data selection efficiency will be improved. Not only that, but it will ensure that the database can scale if new features are required for the system. This methodology is necessary because the system database will be developed using relational technology.

2.2.1 Stages of Database Life Cycle

1. Database Initial Study

The database development process begins with a general initial study of the organization's business functions, the scope, user groups involved in it, required data, and examples of reports or existing documents. For this reason, it is necessary to collect facts whose sources include interviews, observations, the examination of various documents, such as forms, reports, and other related archives.

2. Database Design

The design process begins with conceptual data modeling and continues to the logical database design and physical database design stages. The conceptual data modeling uses the ER model. In the early ER model, carry out normalization on entities or relationships that have data redundancies. Use the normalization results to obtain a better final ER model.

3. Implementation and Loading

After the database design step is completed, the implementation phase begins. The database design is converted into a database management system (DBMS) setup. After the DBMS has been installed, we can run SQL in the DBMS to implement the database model we designed. After implementing the database model, we need to further study its performance, security, backup and recovery, and integrity and company standards.

4. Testing and Evaluation

Once the data is loaded into the database, the DBA tests and optimizes database performance, integrity, concurrent access, and security constraints. This testing and evaluation phase is conducted in parallel with software development. If the test and evaluation results do not meet the requirements, the system and model need to be adjusted.