

**PRIMCHAT SYSTEM****UNIVERSITI TEKNIKAL MALAYSIA MELAKA**

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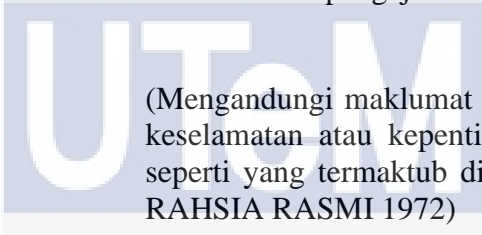
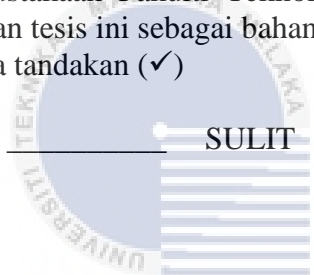
JUDUL: PRIMChat System

SESI PENGAJIAN: [2020 / 2021]

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## PRIMCHAT SYSTEM

AHMAD RAZIQ DANISH BIN AMIRRUDDIN



This report is submitted in partial fulfillment of the requirements for the Bachelor of [Computer Science (Database Management)] with Honours.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY  
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2021

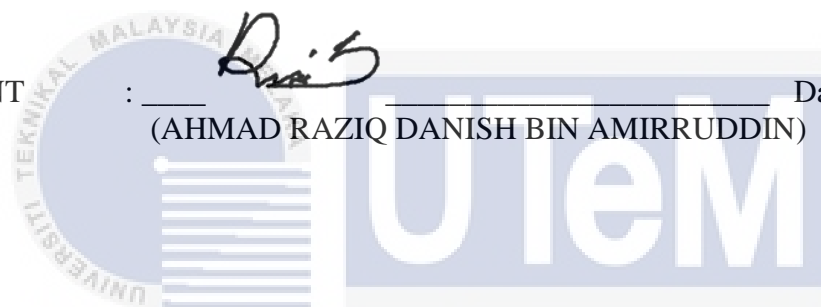
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I hereby declare that this project report entitled

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is written by me and is my own effort and that no part has been plagiarized  
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I hereby declare that I have read this project report and found  
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## DEDICATION

First of all, I would like to dedicate my hard work and passion in this work towards my parents, siblings and every person who non-stop supporting my journey up until right now and made my education a priority in life.



## ACKNOWLEDGEMENTS

Firstly, a praise towards Almighty God, Allah SWT that bless me with good health and life to do and complete the given task, report of Final Year Project 1 & 2 (FYP 1 & FYP 2).

Also, a hundred of appreciations towards my supervisor, Sir Yahya Bin Ibrahim for his guidance, supportive and professionalism throughout this pandemic we are going through currently to complete this task.

A token of appreciation for my parents too for supporting every decision that correcting any mistake that I made.

Lastly, not to forget my dear seniors and course mates who had and are going through their own student's life.



## ABSTRACT

PRIMChat System is a web-based application system that can be surfed via a web browser such as Chrome, Safari, IE, etc. With a proper internet connection, users can access it easily without any inconvenience. PRIMChat System is developed to fulfill the needs of chatting module for the existing system named PRIM (Parent-Teacher Relation Information System), which is currently being used by various schools in Malacca to handle and manage school-related things such as online school fees payment, class management, etc. In my module, it consists of 2 types of users which are the Parent and School Teacher. The teacher can create a class group chat to broadcast messages to all their student's parents. Both the teacher and parent also can create a personal chatroom with each other to inquire about children's progress and status in school.

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## ABSTRAK

PRIMChat System adalah sistem aplikasi berasaskan web yang dapat dilayari melalui pelayar web seperti Chrome, Safari, IE, dan lain-lain. Dengan koneksi internet yang baik, pengguna dapat mengaksesnya dengan mudah tanpa kesulitan. PRIMChat System dibangunkan untuk memenuhi keperluan modul mesej dan chatting untuk sistem yang sedia ada dikenali sebagai PRIM (Parent-Teacher Relation Information System), yang kini digunakan oleh pelbagai sekolah di Melaka untuk menangani dan menguruskan hal-hal yang berkaitan dengan sekolah seperti pembayaran yuran sekolah secara atas talian, pengurusan kelas dan lain-lain. Dalam modul saya, ia terdiri daripada 2 jenis pengguna iaitu Ibu Bapa dan Guru Sekolah. Guru boleh membuat bilik pengumuman bagi kelas mereka untuk menyiarkan mesej kepada semua ibu bapa pelajar mereka. Guru dan ibu bapa juga dapat membuat bilik mesej peribadi antara satu sama lain untuk bertanya tentang kemajuan dan status anak-anak di sekolah.



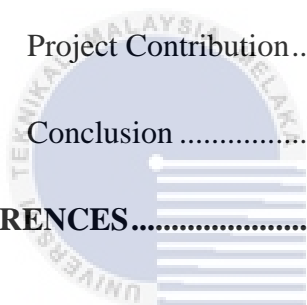
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**LIST OF ABBREVIATIONS**

<b>FYP</b>	-	<b>Final Year Project</b>
<b>PRIM</b>	-	<b>Parent-Teacher Relation Information</b>
<b>IE</b>	-	<b>Internet Explorer</b>
<b>JS</b>	-	<b>Javascript</b>
<b>SQL</b>	-	<b>Structured Query Language</b>
<b>JSON</b>	-	<b>Javascript Object Notation</b>
<b>IDE</b>	-	<b>Integrated Development Environment</b>



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## **CHAPTER 1: INTRODUCTION**

### **1.1 Introduction**

With the pandemic that is happening around us, the demands for an online system that can be used to manage and maintaining schools' data from home are increasing quickly. In this pandemic, people are advised to stay at home and avoid crowded place that can occur physical contact. The consequences of it, it is harder for teacher and parent to communicate with parents, as there are no physical activities being held at school including standard teaching and learning.

Both teacher and parent can use this system to communicate with each other to discuss school matters such as children's progress and position in academic. Teacher also can use it to remind parents of important matters or events such as examination week, school fees payment, etc.

### **1.2 Problem Statement**

The problem statements of the existing system are:

- i. No chatting module in the current system that allows user to communicate.
- ii. Difficult for teacher to search for parent's contact information.

- iii. Teacher asks student to remind their parents of important matters such as school fees.
- iv. School fees payment still by cash with no payment gateway integration.

### 1.3 Objectives

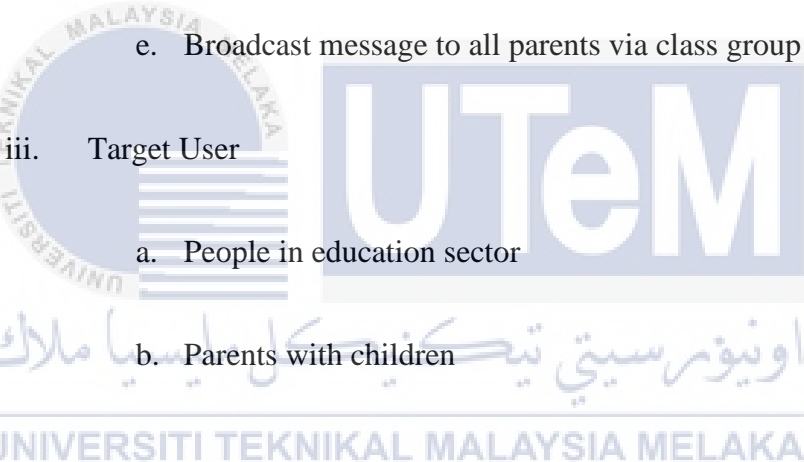
This project embarks on the following objectives:

- i. Provide a medium for users (parent and teacher) to communicate with each other more easily.
- ii. Develop an interface for teacher to easily identify and find parent's information and their children.
- iii. Provide functionality for teacher to broadcast message to all parents that are related to their class students.
- iv. Integrate current system with live payment gateway from PayNet to enable online transaction.

### 1.4 Scope

Module to be developed:

- i. Parent
  - a. Register
  - b. Login
  - c. View children's information

- d. Create chat room with class teacher
  - e. Online payment for school fees
- ii. School Teacher
    - a. Register
    - b. Login
    - c. View parent's information
    - d. Create chat room with parents
    - e. Broadcast message to all parents via class group
  - iii. Target User
    - a. People in education sector
    - b. Parents with children
- 

## 1.5 Project Significance

PRIMChat System is developed to provide chatting and broadcasting module for users (teacher and parent). There are several popular services that was used to develop this system such as Cloud Firebase from google, which provides real-time data management with NoSQL that allows rapid development.

## 1.6 Expected Output

Output 1: Display Children/Student information.

Output 2: Display parent/class teacher contact information.

Output 3: Option to create chat room between the teacher and parent.

Output 4: Option to broadcast message to all parents for teacher.

Output 5: Link current system with live payment gateway environment.

## 1.7 Conclusion

As a conclusion, this chapter is an overview of how and what is the purpose of the system to be developed. It consists of current system problem statements, objectives, and scope of this project.



## **CHAPTER 2: PROJECT METHODOLOGY AND PLANNING**

### **2.1 Introduction**

The methodology approach that is being used is database life cycle. Database life cycle consists of 5 stages which are planning, analysis, database design, implementation, and maintenance.

### **2.2 Project Methodology**

System Development Life Cycle (SDLC) methodology is being used as the approach to develop the web-application system. The database where we used to store and retrieve data is MySQL and Cloud Firestore. Laravel framework is used to develop the back-end of the system while the front end are mostly developed in Vanilla JS, jQuery and Bootstrap 4.

#### **2.2.1 Methodology in Developing Mythology**

The activities carried out in each phase are:

##### **a. Planning**

In planning phase, the first thing to do is always to determine what kind of project to develop and figure out what is the purpose of the proposed

project. The proposal must be created and deliver to supervisor to get approval. All hardware and software requirements must be listed to make sure all of it are ready before starting the project.

#### **b. Analysis**

Analysis phase is where the process of gathering data and information from various sources is initiated. For example, sources from online or interviewing public users to get requirement are the ways to get better understanding about the current problems and ideas on how to bring the solution.

#### **c. Design**

In this phase, blueprint or interface prototyping will be created after several data requirement gathered in analysis phase has been completed. It is used to deliver a design that suitable for requirement given from end users.

#### **d. Implementation**

Development coding process are initiated in this phase. After designing process has been completed and flows of the system are clear, software engineer translates the designing into source code.

#### **e. Maintenance**

Maintenance phase starts after implementation is completed. During this phase, various people like system analysts, testers, several end users will try out the system and give feedback to the developer regarding bugs, adding features etc. before publishing to the internet.