

E-TEKS SYSTEM

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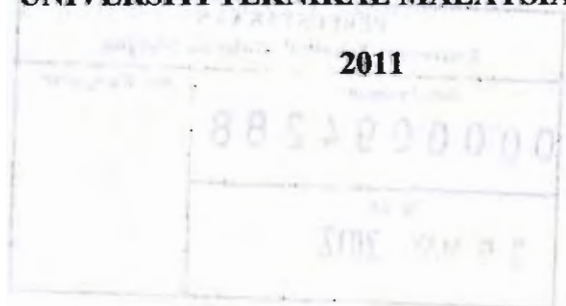
E-TEKS SYSTEM

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**This report is submitted in partial fulfillment of the requirements for the
Bachelor of Computer Science (Software Development)**

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY

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DEDICATION

To my beloved parents, family, supervisor, friends and well-wishers for all of your support and idea...

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First and foremost, I thank God for blessing me and giving me the strength and perseverance to complete this project. I would like to extend my appreciation to Madam Syuria Binti Amirruddin for accepting me as their PSM student and give me many advice during my software development phase.

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ABSTRACT

Sistem Pengurusan Pinjaman Buku Teks Sekolah (E-Teks) is an application that allows school teachers to manage student textbook borrow process more efficient. The system was developed for use by all schools in Malaysia, generally using a programming language developed by hypertext preprocessor (PHP), which is open source and free to use. This system will facilitate teachers' work in which all the records transferred to a computerize. Security features added and ease of managing data. This system also added new functions such as payment of fines, stock of books management , students record fine when borrow the book and many others. By using this system is expected to facilitate the work of teachers in schools and to save more time for students to manage the borrow book process in the near future.

ABSTRAK

Sistem Pengurusan Pinjaman Buku Teks sekolah ini merupakan satu aplikasi yang membolehkan guru-guru sekolah menguruskan proses pinjaman buku teks murid dengan lebih cekap dan efisien. Sistem ini dibangunkan untuk kegunaan semua sekolah di Malaysia amnya dibangunkan dengan menggunakan bahasa pengaturcaraan hypertext preprocessor (PHP) yang merupakan perisian sumber terbuka dan percuma. Sistem ini akan memudahkan lagi kerja guru dimana semua rekod manual ditukarkan kepada bentuk komputer dan ciri-ciri keselamatan serta kemudahan dalam menguruskan data ditambah baik. Sistem ini juga ditambah fungsi-fungsi baru seperti pembayaran denda, pemeriksaan stok buku, pemeriksaan murid, rekod kesalahan murid semasa meminjam buku dan sebagainya. Dengan adanya sistem ini diharap dapat memudahkan lagi kerja-kerja guru di sekolah dan dapat menjimatkan masa untuk menguruskan pinjaman buku pelajar pada masa akan datang.

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CHAPTER I

INTRODUCTION

1.1. Project Background

This project will be use in every school in Malaysia to manage their textbook inventory. As we know, before this no system for textbook and it was done hardly by manually. There is no staff like to do this and offer their self to become textbook staff. From the research I have made, every year the school will change the textbook staff due to they are bored to do this job. By using this system, this will help staff jobs and we will implement by using barcode scanner to make it easy. Staff just needs to scan the textbook when student borrowing or sending the books back. It's will help the jobs done faster and will help the redundancy of data. The lost of text book always happened when student want sending their textbook back. They not send their own textbook due to lost but take textbook from other student to send. By record of textbook serial number, student will have no chance to take the textbook from other students.

1.2. Problem Statement

Now, we know that when session school starts, student will be given 1 set of textbook depends on their level. Some of student will be given more than 10 textbooks every year. When they take the textbooks from school, the school management will just record which subject they take and did not record exactly by using books serial number. The books serial numbers are just useless. Student can change their textbook with other student and will not responsible for the textbook they have borrowed. If we said that student has written their name in the textbooks, we need to think that student also has liquid paper to erase the name and change with their name. So, some student will face the issue of losing the textbook normally done in the end of school session although they have take of the books for 1 year. This case normally happened in every school. They have no responsible for taking care of textbooks because it was easy to them to steal the textbook from others. That's why we seen that textbook sometimes don't have their cover.

1.3. Objective

The objectives of this system are:

- i. To help teacher or staff manage the textbook.
 - a. This system will help teacher or staff to manage process of borrowing text book with more effective and systematic. By using this system, they can record the total of the textbook in schools by subject. They can see either the textbook if enough for student or not. If the textbook not enough, the system will suggest which nearest school has

the extend textbook as the government has decide that the textbook can pass to other school when it was more than student quota.

- ii. To change a file system to computerize system.
 - a. Before this, teacher will record the textbook using file system. Every end of year, teacher must calculate the text book one by one. It takes long time to do that. Using this system, it will be automatically calculate how much text book for every subject by the end of the year. Besides that, it make easy to record and find subject using the barcode of the textbook. Teacher or staff can use barcode scanner to manage the books.

- iii. To make sure all school in Malaysia have a good technologies.
 - a. Nowadays, all school in Malaysia doesn't have any ICT technologies to help their teacher and staff life easier. All school in Malaysia mostly still use file system to record data. For example to record data of textbooks. Using this system it can be easier to record and to make a report. It also not takes a long time to record textbooks. Teacher and staff can use barcode scanner to add record of textbooks.

- iv. To ensure student sent back textbooks that was borrowed.
 - a. In the beginning of the school session, teacher or staff will use this system to keep in the student record for borrowing and the process of return textbooks. Teacher or staff can know either student was returned the correct book or not. If the student was return wrong textbook, the system will alert that the textbook is belong to other student and the student must pay a fine according to price of the textbook that had been missing.

1.4. Scope

The scope of this system has divided into three categories. The categories are specific user, modules and technologies.

1.4.1. Scope of Module

There are seven modules in E-Teks system. Below is the detail for every module function:

1. Login Module.

- a. Login module will be used for username and password authentication. This module allows user to remain logged to system as long as they want. Only the authentication users have the permission to access the system.

2. Add Textbook to the System.

- a. This module is to add a new textbook to the system. User can use barcode scanner to add the textbook by scan the code bar behindtextbooks.

3. Set Textbook Status (Borrows, Lost, Reserve and Etc.)

- a. This module will set of status for the textbook either it has been borrowed by student or lost or has been reserved by other school that haven't enough textbook for their student.

4. Search the Textbook.

- a. This module is used speed up the process of searching textbooks. User must enter the number of code bar of book or just scan the code bar behind textbooks or user can enter name of textbook or form that use the textbook.

5. Assign Textbook to Student.

- a. This module used to assign the textbook to student. Each student will get own textbooks. User can detect which textbook belong to the student. So student can't steal a textbook from student friend while returning process at end of the year.

6. Calculate Students For Appropriate Fine Upon Lost Books.

- a. This module is to calculate fine that must be paid by student that has been lost the textbook. Student must pay the fine according to how much price of textbook.

7. Request The Book From Other School.

- a. This module used to request the textbooks from other school if the textbook not enough.

1.4.2. Scope of User

There is only one user that involve in this system. Below is the user:

1. User/staff

- Can manage the textbook.
- Add or delete books.
- Calculate the fine for student.
- Assign books to student.
- Manage the book record.

1.4.3. Scope of Technologies

The technologies of E-Teks have been divided to three which is software, hardware and network. The scopes are listed as below:

1. Software Requirement.

- a. Equipment/development tools.
 - i. Microsoft Project.
 - ii. PHP Language 5.3.1
- b. Operating system/server.
 - i. Window NT 6.1 build 7600
 - ii. Apache 2.0 Handler
- c. Database system.
 - i. MySQL 5.5.10 for window

2. Hardware Requirement.

- a. PCs that use to end user to access the system.
- b. Server that will run the system.
- c. Barcode scanner.

3. Network Requirement.

- a. Modem to be connected to the server.
- b. UTP cable or wireless connection.
- c. Internet Connection.

1.5. Project Significant

This system will give benefit to teacher or staff that manage the textbook and also to student that borrowed the textbooks. This system can help teacher or staff to speed up while process of borrowed and return back the textbooks. Besides that, user can get a report of textbook from this system. The report can be either in graph or pie chart. So using this system, user can know how much textbook that has been broke, lost or reserved. User also can calculate the fine for student that was lost textbook.

Besides that, student also can get their benefit. The benefit that they can get is student can't change their textbook to other student. Every student already has their own code for textbooks that has been borrowed from school. So, if the student has been lost their textbook, they should not steal textbook from other student and return back to school. This system will detect that the textbook is not borrowed from that student. So the student will get the fine because lose of the textbook. This system will calculate the fine that must to pay according to price of textbook.

1.6. Expected Output

The expected output from this system is it can help teacher or staff to manage a process of borrowed and returning textbook. It also can help them to calculate the number of textbooks available in reserve. Besides, user can use barcode scanner to add new textbook into the system. This can make user easier to record the textbook. The expected output that must system does is this system must assign textbook for student. The assign of textbook must be unique to enable system to detect whether when the process of returning, student must return their own textbooks. If student was lost the textbook, the system will give a fine to the student. Student must pay the fine according to price of textbook.

1.7. Conclusion

The project's title has been defined in this chapter based on the problem that has been state. The project objectives also have been described briefly as these objectives will be project's targets. The information from this chapter will be used in next chapter. The next chapter will cover facts and findings, project methodology, project requirement and project schedule.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1. Introduction

According to Cooper (1988), “a literature review uses as its database reports of primary or original scholarship, and does not report new primary scholarship itself. The primary reports use in literature may be verbal, but in the vast majority of cases reports are written documents. The types of scholarship may be empirical, theoretical, critical/analytic, or methodological in nature. Second a literature review seeks to describe, summarize, evaluate, clarify and/or integrate the content of primary report”.

In other words, literature review is a research to the pass system to find and know the theory or concept that developers used in their system or summary of previous research on topic and can be bibliographic essay that can published separately in a scholarly literature relevant to the topic that is being studied. Literature review is a one part of the planning phrase for E-Teks system. There are few case studies of existing system that are collected and have been referred from internet source.