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# **Textbook Tracking System**

by

Aini Fadilah binti Mohd Asridin

Dissertation submitted in partial fulfillment of the requirements for the Bachelor of Technology (Hons) (Business Information System)

**JULY 2007** 

Universiti Teknologi PETRONAS Bandar Seri Iskandar 31750 Tronoh Perak Darul Ridzuan

PUSAT SUMBER MAKLUMAT



IPB208966

# CERTIFICATION OF APPROVAL

# **Textbook Tracking System**

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Aini Fadilah binti Mohd Asridin

A project dissertation submitted to the Business Information System Program Universiti Teknologi PETRONAS In partial fulfillment of the requirement for the BACHELOR OF TECHNOLOGY (Hons) (BUSINESS INFORMATION SYSTEM)

Approved by,

(Epry Elyanee Mustapha)

UNIVERSITI TEKNOLOGI PETRONAS TRONOH, PERAK JULY 2007

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# CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the reference and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

AINI FADILAH BINTI MOHD ASRIDIN

#### ABSTRACT

This report is to elaborate in detail the project title proposed for the Final Year Project for Business Information System program in Universiti Teknologi Petronas. The topic of this project is Textbook Tracking System for Students in Malaysia. The textbook tracking works as a system that informs the users about the availabilities of textbooks around the country. The system is convenient in order to track that the demands of every zones in Malaysia is fulfilled.

This report will start with the introduction of the project, which consist of the problem statement and also objectives and scope of study. Then, the literature review part comes next. The literature review will present the in-depth research part of this report. Later, the methodology used for this project is discussed. After that, the report will discuss the results and findings for the analysis phase of the project. Lastly, a conclusion of this report will be presented.

# ACKNOWLEDGEMENT

First and foremost, I would like to thank Allah Almighty because of His will, I am able to complete my Final Year Project dissertation and also final product. Next I would like to thank my parents for their endless support when it came to the completion of this project. I would like to thank personally my supervisor, Ms Emy Elyanee Mustapha, for the endless support, guidance and building criticism. Without the support and excellent co-operation from Ministry of Education, this project would not exist in the first place. This includes the Principle Assistant Director in Bahagian Buku Teks (BBT) Division of the Ministry of Education of Malaysia for recognizing the efforts in this projects and also endless support. I would also want to express my deepest gratitude to my colleagues and friends at Universiti Teknologi PETRONAS for making this project a memorable experience.

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#### **CHAPTER 1: INTRODUCTION**

# **1 INTRODUCTION**

#### 1.1 Background of study

Textbooks are the essential learning tool for students in schools all around the world. Syllabus for teaching is referred to the textbook. Therefore, it is vital for the supply of the textbooks to be sufficient all year round for the public. Therefore, this project focuses on tracking text books availability all around the country. The idea of this project is to solve the problem that is faced by the Ministry of Education when it comes to supplying textbooks all around the country. The insufficient supply of textbooks around the nation arises especially before a new school year starts.

#### **1.2 Problem Statement**

For the schools in Malaysia, textbooks are distributed into 4 zones for the country. This means that every zone will utilize different textbooks. The textbooks range from Standard 1 to Standard 6 for Primary School students and Form 1 to Form 5 for Secondary School students. However, their syllabuses are still standard according to the guidelines given by the Ministry of Education.

The Education Ministry of Malaysia faces a challenge of knowing the consistency of textbook distributions around the country. This problem occurs when school reopens because this is the time when text book demands are high. The supply to each region in the country differs. The supply to each region is determined according to the volume of school students in the region. However, the forecast amount does not meet the actual demand. This is when the problem arises because the students needs the textbooks as soon as

possible to start their learning process in school but the supply to the region is insufficient. As a result, Education Ministry gets complains from parents that certain textbooks are not available in their district. Even as complains were lodged, it takes quite a while for textbook supplies to arrive at each destination due to communication constraints and also procedures to follow since it is still handled the conventional way that requires a certain amount of time.

Besides that, the Ministry has not much alternatives to inform the parents about the location of text book availabilities in their nearest district. Therefore, the Ministry resorts to inform the parents by word or other medias such as newspapers and radios.

#### 1.3 Objectives and Scope of Study

In the era of technology these days, knowledge has to be available at the end of our fingertips. Therefore, the implementation of this textbook tracking system will utilize the technology that we have the privilege to use in order to fulfill our needs.

The creation of the textbook tracking system is to solve the biggest constraint that is faced by the Text Book Division of the Education Ministry of Malaysia. The textbook tracking system will be able to tell the users which bookstore in their respective division has the book that they want. This will be useful for the users and will be beneficial for the Education Ministry because it will reflect their integrity as a Ministry. Nevertheless, this system will be a response to all the complaints that the Ministry is getting regarding text books availabilities in their respective zones.

As for the scope of study for the Textbook Tracking System, it will cover the textbook availability for secondary schools for all the 4 zones in Malaysia. These textbooks will also be divided according to each level and also subjects.

This involves publishers and also the cooperation from the Ministry of Education.

## **CHAPTER 2: LITERATURE REVIEW**

#### **2 LITERATURE REVIEW**

First and foremost, there is no existing Textbook Tracking System for the country available on the internet when this paper is written. However, there are several other types of textbook tracking systems that tracks textbook similarly to a library system.

These systems utilize bar codes to mark each textbook and later read a bar code reader. The information embedded with the bar code would be the book title, year book published, author and etcetera. This information later would be linked within the database to the information of the person who rents the book. That is how the textbook tracking system works which is available on the internet now.

These services are available on the internet. There are even source codes for such programs such as from <sup>[3]</sup>.

In the United States of America, textbooks are provided by the government for the usage of school students. Therefore, students need not to purchase textbooks. Therefore, the textbooks that are used by the students needs to be tracked for inventory purposes. Besides that, the target of the system is also to ensure that every student owns a textbook.

"Currently the Department and most SC school districts have no way to verify that every student has a textbook. The textbook management system after fully implemented in a district will enable any user to instantly determine this important information."

The system implemented for this tracking system is very similar to a library system. Books are tagged and the bar codes are entered into the system. Whenever the books are taken out or brought back in, the bar code on the books are read.

However, the journal written by Davidson, G.; Symons, S. entitled Development of a Generic Multi-Sensor Tracking System for Agile Radars<sup>[4]</sup> talks about the similar type of tracking system that the project is about.

"The paper details the recent development of a generic tracking system within the Maritime Weapon Systems Integration team at QinetiQ Portsdown West. The tracker has been used to process multiple colocated radars, remote airborne radars and simulated plots. It has also been integrated with an open loop tracking simulation using a high quality radar simulator."

The article talks about the importance of the tracking system and how it affects the Maritime Weapon System. The journal elaborates on how tracking systems has an impact on an organization or society.

As for the textbook supply problem that the nation has to face time after time, it is in the concern of the Textbook division of MOE. This can be seen as complaints that have been addressed to the newspaper media is published on their website<sup>[5]</sup>. This article mentions that the members of the public is concerned that the school term has started for over three weeks and yet some supplies for certain textbooks are still unavailable,

"Although the school term has already entered its third week, it has been reported that many primary and secondary students around Kuala Lumpur and Selangor do not have textbooks for certain subjects such as Mathematics, Science and English. Secondary school books, including History and Islamic Studies, have apparently also been affected." Besides that, the members of the public also demands that Ministry of Education to solve the problem and also provide updates for the member of the public concerning the insufficient textbook supplies.

"In the present situation, we call on the Education Ministry to issue press notices to update parents on the status of textbook supply, and when the problem can be resolved."

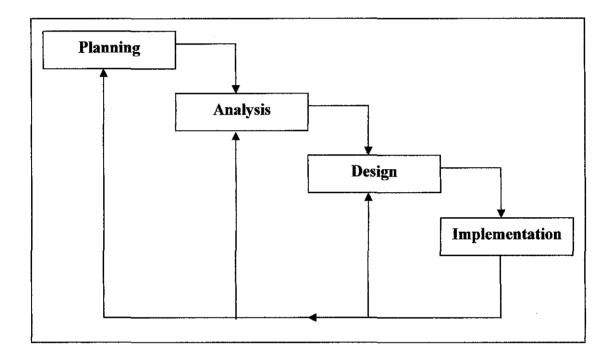
However, there is an existing service that provides textbook tracking system creation over the internet <sup>[6]</sup>. This website provides a service to track textbooks within the district acquired or outside the region, according to the needs of the client. Therefore, some information from this website can be used as a reference for this project.

"Textbook Tracking provides the ability to track every textbook within the district. Once a textbook identification number has been created, all the information about the book can be tracked, including who has been assigned to the book, the book's condition and the number of books not yet assigned."

# **CHAPTER 3: METHODOLOGY**

# **3 METHODOLOGY**

The PADI Model will be used as a base for this project.



## 3.1 Phase 1: Planning

In this phase, the planning for the flow of the project in order this project to kick-off in sequence and smoothly. This involves a lot of communication with the Ministry of Education and the supervisor for this project. This includes the project objectives planning, goal setting and etcetera. The permission to validate this project is also sought from the Ministry of Education at this phase.

#### 3.2 Phase 2: Analysis

In this phase, the study part of the project is done. This involves conducting interview and also a workshop was done in order to obtain feedback from Ministry of Education and also the potential users. Besides that, the requirement for the project is also obtained through the questionnaires and also the interviews. A research on which software and hardware requirements are also done in this phase.

#### 3.3 Phase 3: Design

The design and the functionalities of the system are determined at this stage. This involves the generation of the use-case diagrams, data flow diagrams, and system architecture designs. These elements are done carefully in order to ensure the flow of the system is generated correctly.

### **3.4 Phase 4: Implementation**

The project initialization is done in this phase of the project. The software that is determined earlier will be utilized and manipulated in this phase of the project. The Graphical User Interface (GUI) of the system is constructed, the database is built and the functions are connected to each other.

## 3.5 Software

The software that is used for this system is Macromedia Dreamweaver. This software is utilized as the main software because it supports web programming and also because this software was taught in Internet Programming course in the university. As for the database for the project, the Apache Server is selected. The application of MySQL database will be applied. This is due to the fact that the database is easier to utilize and also

easier accessibility. Besides that, the database is efficient due to the large size of the database that will be needed.

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# **CHAPTER 4: RESULTS AND FINDINGS**

#### **4 RESULTS AND FINDINGS**

#### 4.1 Findings

An interview was conducted in order to understand the constraints faced by the Ministry of Education. Since this project focuses on textbooks issues, the Textbook Division of Ministry of Education was contacted for the research to be done.

Firstly, an interview was conducted with the Higher Management level of the Textbook Division. During the interview, a few findings were observed. This problem is handled by the Planning and Research Department in the division. The department is responsible for handling the supply of textbooks around the country.

This problem arises normally before a new school year starts. This is due to demand of textbooks are high. The Ministry normally estimates the number of books that needs to be allocated to each state. However, sometimes the forecasted number of books needed is not accurate and the demand gets high.

A few parents were interviewed as well in order to get feedback. The parents mentioned that insufficient textbooks supply is always an issue before a new school year starts. This is caused by the high demand of textbooks at the time.

The parents also complaints that the new batch of books normally takes quit a long time to arrive at their respective bookstores. Sometimes the school session has already started and yet the textbooks are still not available. This would be setback for the students as learning has become difficult as their essential tool is unavailable.

#### 4.2 Data Gathering and Analysis

Besides the interviews, a questionnaire has been provided to the members of the Textbook Division of Ministry of Education and also parents. The objective of this questionnaire is to acquire information from the people about the upcoming system.

The questionnaire is divided into 2 sections, which consists of a Yes and No questions and also ranking questions. The questionnaire is also aimed to get the functionality of the system and also how important it is to the community.

The total feedback gathered was from 34 individuals who are the members of the Textbook Division of Ministry of Education and also members of public. The questionnaire consists of 18 simple questions.

After all the questionnaires are answered and filled accordingly, the data are entered into a spreadsheet using Microsoft Excel to calculate the results. The results as for Section A are:

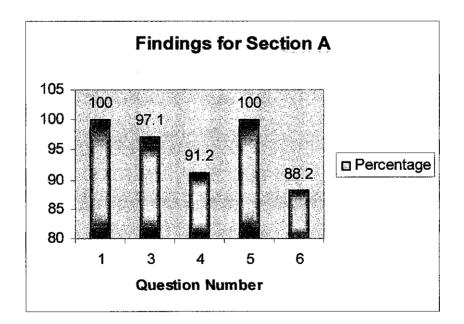


Figure 1: Percentage for Section A

From the questionnaires, 100% of the people are familiar with the internet. This indicates that the parties involved are very familiar to the internet technology. Besides that, from the questionnaire it is found that the internet is utilized at least once a week. This is to indicate the frequency of the internet is above average. This also shows the computer literacy of the people. This indicates that most of the respondents are computer literate. With this said, it reflects that the technology will be recognized right away and would be easier to be identified.

A percentage of 97.1% of the people agrees that the textbook tracking system is needed for the community. However, only a 91.2% people agree that this system will be convenient for the students and parents, as a medium of communication between the community and Ministry of Education. Even though the percentage is not a perfect 100% for both these questions, it is still a percentage that is more than 90%, which is relatively high. Therefore, this reflects that the respondents agree that the system is needed by the community and the system will be a medium of communication between the students and parents.

Most of the respondents agree that if the system is up and ready on the internet, they would definitely consider using the system to check out the availability prior heading to the bookstore. This is indicated by a 100% percentage. However, only 88.2% people agree that the system is able to solve the problem of insufficient textbook supplies before the new school year starts. This also can be seen in Figure 1.

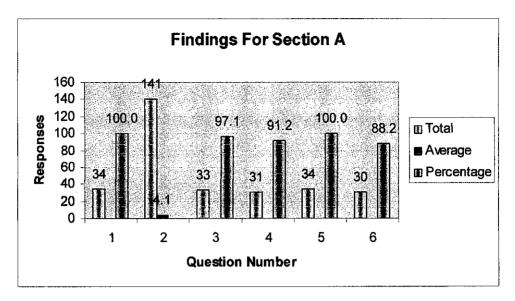


Figure 2: Chart of Findings for Section A.

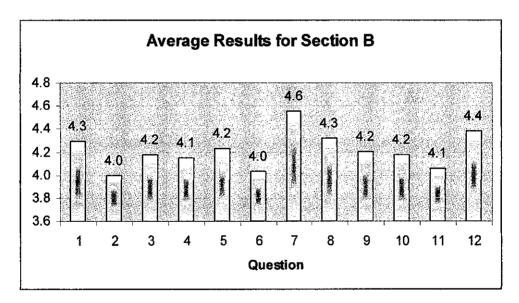


Figure 2: Chart of Responses for Section B

Figure 3 shows the findings for Section B of the questionnaire. There are 12 questions for this section. These questions are ranking questions that the users have to answer questions from a scale 1 (strongly disagree) to 5 (strongly agree) according to their opinions.

As for the first question, it asks about the functionality of the system. On an average of 4.3 out of 5 points, the respondents agree that the system has to be divided according to zones and states. This can be included as a high agreement that this can be included as a functionality of the system.

As for the second question, the survey asks whether the system needs to be divided according to subjects. The average feedback for this particular question is 4.0 out of 5 points which indicate that the people agree that the system should be categorized according to states since each state is divided according to zones and differs from other zones. This also can be included as a high agreement that this can be included as a functionality of the system.

Question 3 is another question regarding the functionality of the system. This question asks the respondents whether the system needs to be divided according to primary and secondary schools. The feedback gathered was on an average of 4.2 out of 5 which also indicates that the people agree on this function. This shows that the respondents want the system to be more specific and easier to use.

Question 4 asks whether they agree that the system should include the prices of each textbook. The feedback gathered for this question is on an average 4.1 out of 5 which indicates that the respondents agree. This indicates that the prices of each textbook should be included for the convenience of the users in term of budgeting and knowledge.

Question 5 asks whether the system should include the contact number or contact person respectively for each publisher for queries. The feedback gathered is 4.2 out of 5 on averages which indicate the people agree for this function. This high number of responses shows that the information of the publishers are also an important information that the users seek in the system.

Question 6 asks about the Look and Feel of the system on the website. The feedback gathered for this question is on an average 4.0 out of 5 which indicates that the respondents agree that the website should be colorful and pleasant. This number of responses indicates that the need of a good look and feel design is required for the system for the convenience of the users.

Question 7 asks about the user-friendliness of the system. The feedback gathered for this question is on an average 4.6 out of 5 which indicates that the respondents agree that the navigation around the system should be direct and user-friendly. This shows that the system has to be user-friendly in order to please the users and also to attract a larger number of users for the upcoming system.

Question 8 asks whether there should be an announcement section in the website where the Ministry of Education can post their latest update on the website. The feedback gathered for this question is on an average 4.3 out of 5 which indicates that the respondents agree. This shows that the need of an announcement section is critical for this system.

Question 9 asks whether they agree that the system should include a Frequently Asked Question (FAQ) page. The feedback gathered for this question is on an average 4.2 out of 5 which indicates that the respondents agree. This indicates that the FAQ page is also critical for the system.

Question 10 asks whether they agree that the system should include a complaint board where the users can file complain(s) to the Ministry about the unavailability of certain textbooks in their area. The feedback gathered for this question is on an average 4.2 out of 5 which indicates that the respondents agree. This also can be included as a requirement for the system.

Question 11 asks whether they agree that the system could be a medium of communication between the Ministry and the users when it comes to availability of textbooks around the country. The feedback gathered for this question is on an average 4.2 out of 5 which indicates that the respondents agree. This number of responses indicates that this problem might solve the problem of communication between the ministry and the public.

Question 12 asks whether they agree that the will benefit the users. The feedback gathered for this question is on an average 4.4 out of 5 which indicates that the respondents agree. This shows that the possibility of this E-Government website to function to its purpose is on a high possibility.

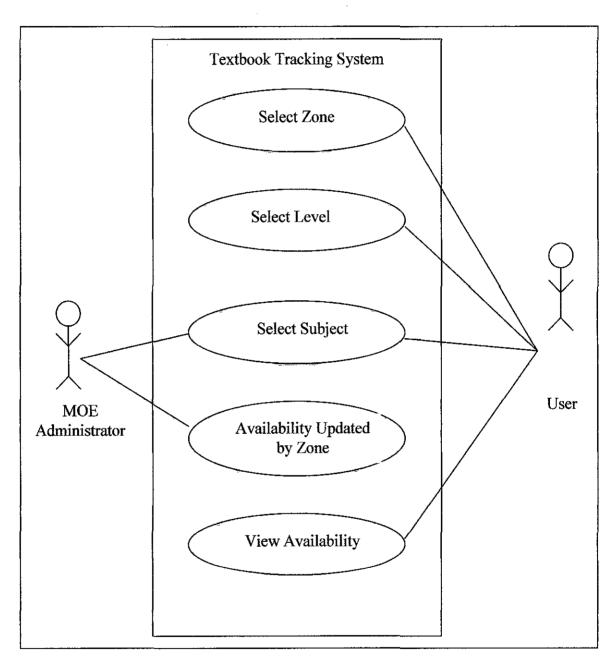
#### 4.3 Project Deliverables

After the process of data gathering and analysis, all the acquired information is gathered. However, this information is meaningless to this project unless it is converted into knowledge.

From the questionnaire, the functions of the system are gathered. Firstly, the system must be divided according to zones and states. This is rationale because each zone and state uses different textbooks which differs publishers. Besides that, the textbook tracking system has to be divided according to subjects. The textbook tracking system also has to divide according to primary and secondary school and according to level.

Besides that, a complaint board also must be included in the system. This complaint board acts as an intermediate between the Ministry and the people when it comes to textbook issues. An announcement board also has to be included in the system where the Ministry can post the latest update on the website.

Besides that, the Frequently Asked Question (FAQ) page must also be included in the system so that it can assist the users.

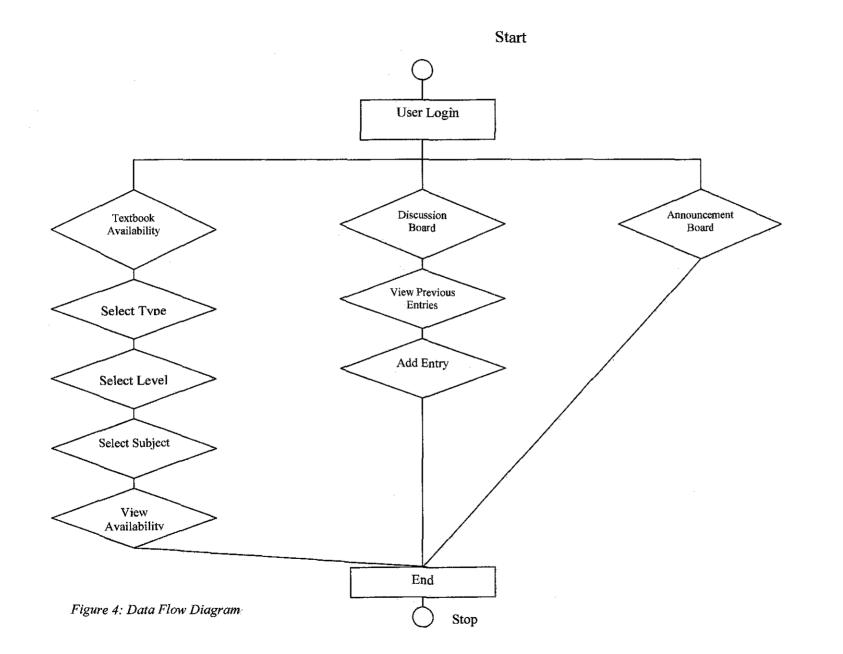


# 4.4 Use-Case Diagram

Figure 3: Use-Case Diagram

The Textbook Tracking System involves 3 players, which are the user, publisher and the MOE Administrator. The motion of this diagram starts when

the user selects zone, level and subject on the system. Then, the user is able to view the availability of the subject that has been updated periodically by the MOE Administrator. This update is done with the flow that every time the publisher sends a new stock of textbooks to distribute, an Availability Report will be sent to MOE. The availability report is then utilized to update the availabilities of textbooks nationwide for the system.



## 4.5 Data Flow Diagram

Figure 4 above shows the Data Flow Diagram for the Textbook Tracking System. The flow starts when the user login to the system. Then, the user is able to choose to either go to the textbook availability, complaint board or the announcement board.

#### 4.5.1 Textbook Availability

When the user chooses this route, the user intends to utilize the main function of this system. The user has to pick a primary or secondary school, level and subject in order to view the availability of the subject. After selecting all that, the user is able to view the availability of the required textbook.

#### 4.5.2 Discussion Board

This discussion board is for the public to utilize as a dialogue space in the website where they are able to give their opinions on issues. This discussion board is managed by the web master of the Textbook Division of Ministry of Education Malaysia. Besides that, the discussion board can also be a channel for the public to lodge complains about textbook availabilities around the country.

## 4.5.3 Announcement Board

This section of the system will be uploaded by the MOE Administrator. This section will announce the latest news by the Textbook Division of Ministry of Education of Malaysia. Besides that, updates regarding the complaint board will also be included here.

## 4.6 System Architecture Design

#### **4.6.1 Client Server Tiers**

In this project, the server is responsible for the data and the client, the application and presentation. A two-tiered architecture is used because it uses two sets of computers, which are client and server.

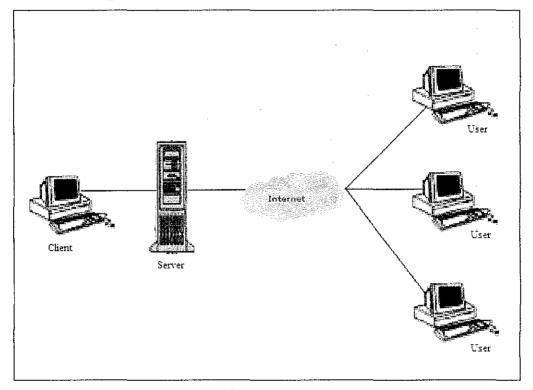


Figure 5: System Architecture Design

Figure 5 above shows the System architecture of the Textbook Tracking System. The client's computer would be the administrator or webmaster for the system. The Client would be connected to the server. The database of the system would be embedded within the client's computer. The server will be connected to the internet. Then, the users of the public could access the web page via the internet.

## 4.7 System

The system was built using Macromedia Dreamweaver software that supports internet programming. The database of the system is built using MySQL database and Apache server is used to integrate the website to the database of the system.

# 4.7.1 Login Page

The login page of the system holds the description of the website as an introduction to the system. The aim of the description is to give the user of the system a brief idea of what the system is all about. The login page also displays the logo of MOE and Textbook Division in order to show that the system is build under the supervision of the ministry.

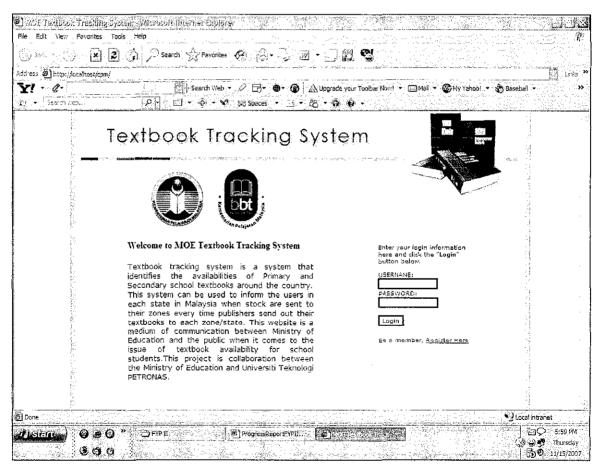


Figure 6: Login Page

At the right side of the login page is the space where the user is able to login in order to utilize the system. There are 2 levels of users that are able to login into the system, which are:

- System Administrator
- Normal User

#### 4.7.1.1 System Administrator

The system administrator is the person that is in charge to maintain the system. Normally this task is given to the webmaster of the Textbook Division of MOE. The main functions of the System Administrator is

- Update textbook supply database according to state or division
- Maintain the number of users
- Ensure the integrity of the database
- Ensure the security of the system
- Post announcements on the system
- Manage the discussion board of the system

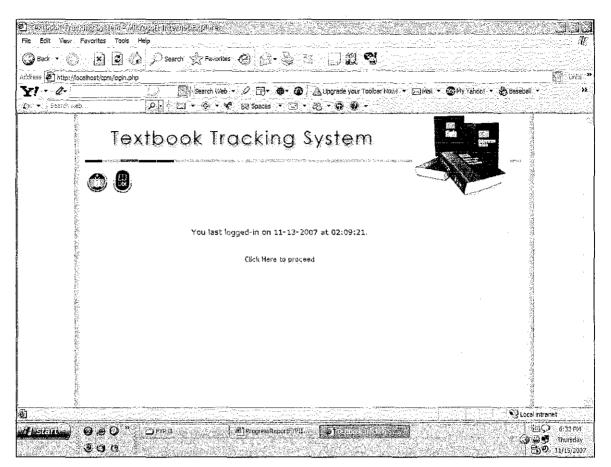


Figure 7: Login History Page

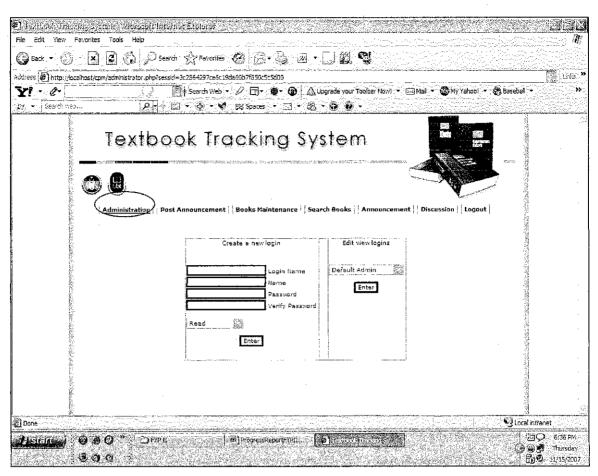


Figure 8: User Management Administrator Page



Figure 9: Post Announcement Administrator Page

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Figure 10: Administrator Book Maintenance Page

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Figure 11: Administrator Search Book Page

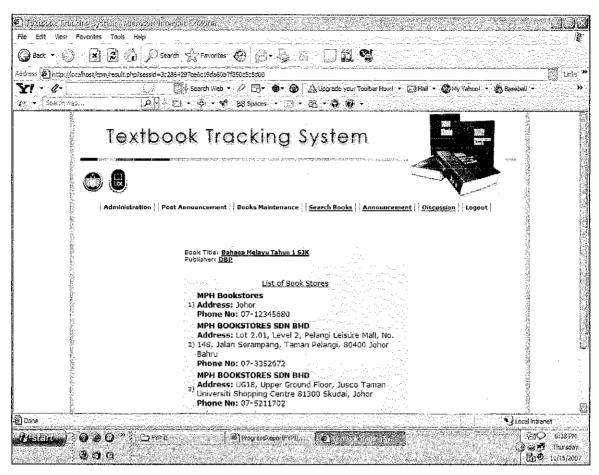


Figure 12: Administrator Search Book Result Page

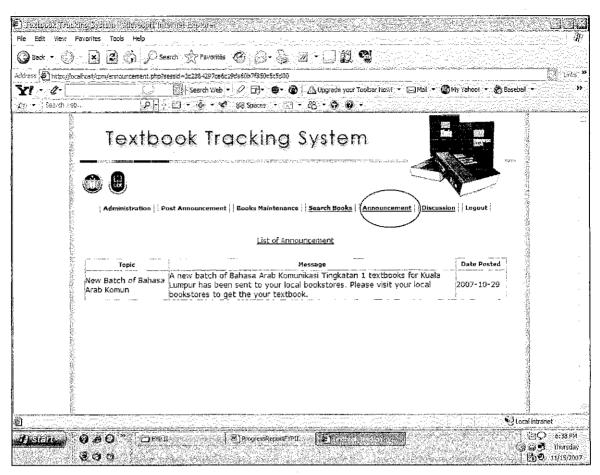


Figure 13: Administrator Announcement Page

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Figure 14: Discussion Board Page

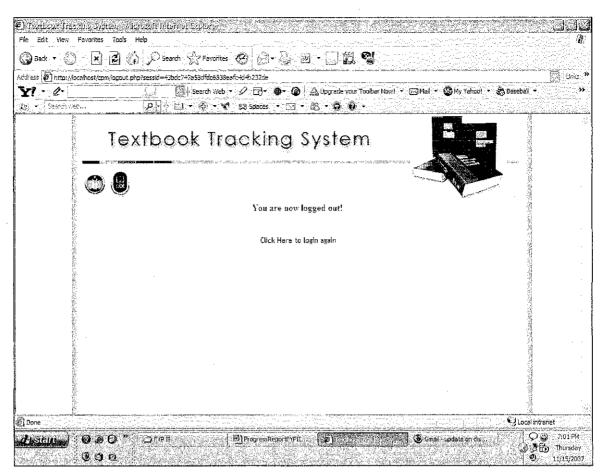


Figure 15: Administrator Logout Page

### 4.7.1.2 Normal Users

The normal users have limited access to the system. However, the main target of the system is the normal users. The normal users consist any member of the public that wants to utilize the system in order to buy textbooks, either students or parents. The normal users are able to

- Check textbook availability around the country
- View the announcement board
- Participate in the discussion board

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Figure 16: User Search Book Page

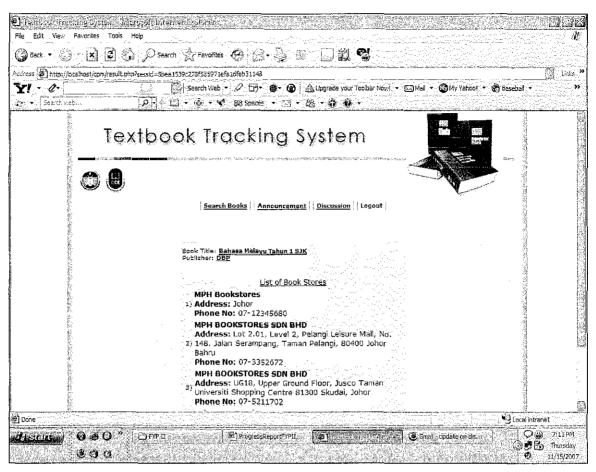


Figure 17: User Search Book Result Page

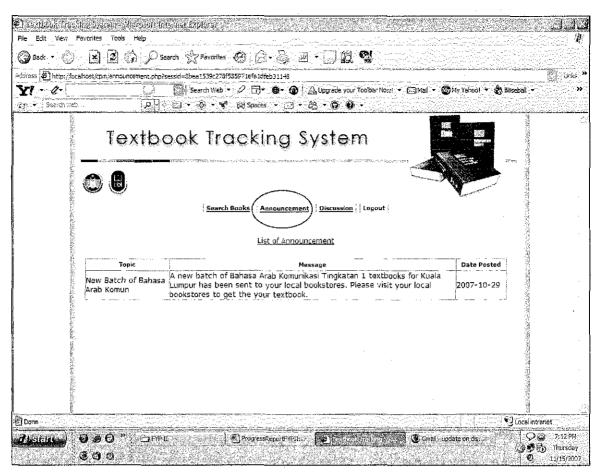


Figure 18: User Announcement Board Page

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Figure 19: User Discussion Page

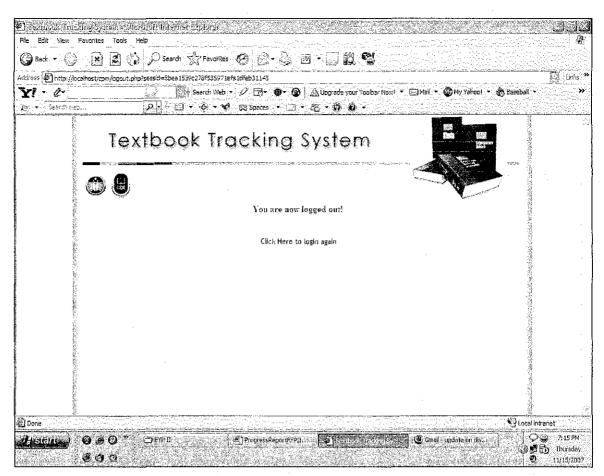


Figure 20: User Logout Page

#### **CHAPTER 5: CONCLUSION**

#### **5 CONCLUSIONS**

As a conclusion, the project is about a system that tracks the availability of Textbooks for School Students within Malaysia. This project is collaboration between the Ministry of Education and publishers in order to solve the problem of insufficient textbook supplies all around the country. This project is aimed to assist the Textbook Division of the Education Ministry of Malaysia in order to solve their textbook supply crisis nationwide.

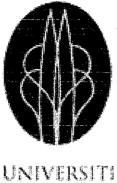
The benefit of this project to the public is to ease the process of purchasing textbooks for school pupils. This project is also informational to the public in the sense that information about different textbook that are used in other zones are easily extracted through this website. Besides that, the website can be used as a discussion board and also a channel to lodge complains.

The project may benefit the Ministry as it acts as a communication media between the ministry and the public. This reflects the integrity of the ministry as a government body. Besides that, the Ministry is able to monitor the textbook supplies around the country when this system is implemented.

#### REFERENCES

- [2] Textbook Division website from <a href="http://apps.emoe.gov.my/bbt/">http://apps.emoe.gov.my/bbt/</a>
- [3] Textbook Tracking Source code from <a href="http://sourceforge.net/projects/cgtextbook/">http://sourceforge.net/projects/cgtextbook/</a>
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- [5] Mohamed Idris, (17<sup>th</sup> January 2007), "Resolve Textbook Supply Issue" The Star Newspaper, from <a href="http://www.moe.gov.my/bbt/papar\_berita.php?id=42">http://www.moe.gov.my/bbt/papar\_berita.php?id=42</a>
- [6] Textbook Tracking from <http://www.skyward.com/>

**APPENDICES** 



TEKNOLOGI PETRONAS

University Technology PETRONAS, Bandar Seri Iskandar, 31750 Tronoh, Perak.

## **Textbook Tracking System**

Textbook tracking system is a user oriented system that identifies the availabilities of school textbooks around the country. This system can be used to inform the parents in each zone in Malaysia when stock are sent to their zones every time publishers send out their textbooks to each zone. The aim of this project is to use this system as a medium of communication between Ministry of Education and the public when it comes to the issue of textbook availability for school students.

### Questionnaire for the Textbook Tracking System.

Name:

Department:

- 1. Are you familiar with the internet?
  - (a) Yes.
  - (b) No.
- 2. How often do you use the internet?
  - (a) Everyday
  - (b) Once a week
  - (c) Once a month
  - (d) Only when needed
  - (e) I don't use the internet
- 3. Do you think that this system is needed?
  - (a) Yes.
  - (b) No.
- 4. Do you think that the textbook tracking system will be convenient for the students and parents?
  - (a) Yes.
  - (b) No.
- 5. If the system is ready and running on the internet, would you consider using the system to check out the availability before heading to the bookstore?
  - (a) Yes
  - (b) No

- 6. Do you think the textbook tracking system can solve the problem of insufficient textbook supplies before new school term starts?
  - (a)Yes
  - (b)No

For the following questions, please circle the answer with the range 1 (strongly disagree) to 5 (strongly agree).

No.	Questions			Scores				
1.	The textbook tracking system needs to be divided according to zones and states.	1	2	3	4	5		
2.	The textbook tracking system needs to be divided according to subjects.	1	2	3	4	5		
3.	The textbook tracking system needs to be divided according to either primary or secondary schools.	1	2	3	4	5		
4.	The textbook tracking system must include the prices of each textbook.	1	2	3	4	5		
5.	The textbook tracking system must include a phone number to contact respective publishers for queries.	1	2	3	4	5		
6.	The website must be colorful and pleasant.	1	2	3	4	5		
7.	The navigation around the system must be direct and also user-friendly.	1	2	3	4	5		
8.	There must be an announcement section in the website where the Ministry of Education can post the latest update on the website.	1	2	3	4	5		
9.	There must be a page for Frequently Asked Questions (FAQ).	1	2	3	4	5		
10.	There must be a complaint board where the users can file complaint(s) to Ministry of Education about the	1	2	3	4	5		

	unavailability of certain textbooks in their area.					
11.	The website can be a medium of communication	1	2	3	4	5
	between Ministry of Education and also the users when					
	it comes to availability of textbooks around the country.					
12.	This website will benefit the users.	1	2	3	4	5

Comments:

# Thank you.