

BORANG PENGESAHAN STATUS TESIS

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(HURUF BESAR)

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UTEM CLASS ASSISTANT

NOR HISHAM BIN AHMAD

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

**FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA**

2008

DECLARATION

I hereby declare that this project report entitled
UTEM CLASS ASSISTANT

is written by me and is my own effort and that no part has been plagiarized
without citations.

STUDENT :Date :
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(PUAN KHADIJAH WAN MOHD GHAZALI)

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STUDENT :Date :

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DEDICATION

Specially dedicated to my beloved parents,
En. Ahmad bin Abd Ghani and Pn.Noraini bt Nasir

To my supervisor,
Pn. Khadijah Wan Mohd Ghazali
(Universiti Teknikal Malaysia Melaka)

And lastly, to all my friends who always encouraged, support and inspired me
throughout my journey in Universiti Teknikal Malaysia Melaka.

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I shall also forward my appreciation to other lecturers who never turn me down when being consulted for extra advice in carrying out the project. Thank you to all of you.

ABSTRACT

UTEM Class Assistant is a system that is developed specifically to assist students, lecturers and technicians at *Fakulti Teknologi Maklumat dan Komunikasi* (FTMK). The system is managed to replace the old tradition of getting information about class schedule. It provides the easiest system to manage and control the system information. Besides that, the existence of the system has also introduced a new method of obtaining information by Short Messages System (SMS). In particular, this report explains seven main chapters which consist of Introduction, Literature Review and Project Methodology, Analysis and Design, implementation, testing and conclusion. The introduction explains what the system is and what their purposes are. While in the literature review and project methodology, it explains the existing similar system and comparison, the methodology approach and project requirement. Analysis is the critical part in this report which all information are captured and recorded properly. In addition, the requirements analysis is also covered in this part. The design is where the system architecture will be defined and how the database designed. The implementation covered all the system functionality completion. There were also testing part where the functionality of the system will be examined. Lastly, a conclusion was covered to conclude the project.

ABSTRAK

UTEM Class Assistant adalah satu sistem yang dibangunkan khas untuk membantu pelajar, pensyarah dan juruteknik dari Fakulti Teknologi Maklumat dan Komunikasi (FTMK). Sistem ini akan menggantikan sistem lama yang agak susah dipraktikkan. System ini menyediakan cara yang paling mudah untuk mengawal dan mengurus segala maklumat system. Selain itu, kewujudan system ini juga telah memperkenalkan satu kaedah baru iaitu mendapatkan maklumat menerusi Sistem Pesanan Ringkas (SMS). Secara khususnya, laporan ini terdiri daripada tujuh bahagian iaitu Pengenalan, Ulasan Kesusasteraan dan Projek Metodologi, Analisa, Reka Bentuk, Implementasi, pengujian dan kesimpulan. Bahagian pengenalan menjelaskan apa yang sepatutnya sistem ini ada dan tujuan system ini. Manakala bahagian Ulasan Kesusasteraan dan Projek Metodologi menerangkan system yang sudah ada dan membandingkannya dengan system yang sedang dibangunkan, pendekatan metodologi dan keperluan projek. Bahagian analisis merupakan bahagian yang paling kritikal kerana semua informasi dikumpulkan dan direkodkan dengan teliti. Bahagian reka bentuk ialah bahagian di mana struktur sistem dipastikan dan membangunkan rekabentuk rangkaian bagi sistem ini. Manakala, bahagian implementasi meliputi pengenalpastian kesempurnaan system. System ini juga mempunyai bahagian Pengujian system untuk menguji fungsi – fungsi dalam system. Akhir sekali, keseluruhan kesimpulan projek turut didokumenkan.

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CHAPTER I

INTRODUCTION

1.1 Project Background

UTEM Class Assistant is system project that was purposely develop to assist the student of University of Technical Malaysia Malacca to inform them about their class update, cancel or changing class. The system provides the class location of the entire subject to be taken by the student. The system also will keep all the report of the sending message that was done by the system.

In particular, the project was developed due to some reasons that result in work performance and class management. Usually, student has to search the class location without knowing the class location. Lecturer also sometimes has to put notices at the class room before the class was started to inform the student. The solution is varying from the UTEM Class Assistant where the information not only transfers faster to student, but also can help lecturer by informing their student in more efficient way.

1.3 Objective

The following statements list the objectives of the project. Each objective provides a description.

- i. To assist the student of UTEM to locate their class
 - The project makes sure that the UTEM Class Assistant will help student to find their class base on code subject that they given. In the meantime of the process, less time spending on searching for their class location at the entire campus.

- ii. To make lecturer work more easily by not to put noticed at the class for their cancellation class.
 - Lecturer just informs to the UTEM Class Assistant by giving the message and the student can have the information about their class from there.

- iii. The system has a report.
 - The system will send the message to the student and all the message will be kept including the number that the system sending the message. The administrator may check later whether the system send to the right number or an error occurred.

1.4 Scope

The scope of the project only applies on two areas; specific user and specific functional.

1.4.1 Specific User

The target user of the system is student and lecturer of University Technical Malaysia Malacca because the system will automatically reply the message that has been send by student.

1.4.2 Specific Functional

Table 1.1: List of Project Module

No	Module	Description
1	Inbox	To check incoming message
2	Report	To check outgoing message
3	Location	To check the schedule base on code subject
4	Update	To change the class location
5	Broadcast	To broadcast the message manually

1.5 Project Significance

The project has brought some benefits and advantage to the user of the system and the end user of the system. The project significance is state as below:

- i. Class location assistant – The system assists the student to find information about their class location.
- ii. Store a report of the outgoing message – all the outgoing message of the system will be stored in report that can be reviewed by an administrator.
- iii. Easy notice for lecturer – lecturer work would be easier by giving noticed to system and the system will broadcast the message about any class update.
- iv. Consistency in producing fast and smart work – The student may not to have any schedule that they need to bring to guide them to go from class to another class.

1.6 Expected Output

The project outputs will consist of the following:

- i. A comprehensive report and documentation

A report will be produced in every phase or chapter of the project. At the end, a brief documentation that consists of all chapter of the project will be combined and submitted.

ii. System Deliverable

At the end of the project, a complete UTEM Class Assistant system will be delivered. The system provides features such as stated on table 1.1, which assists the student and lecturer at UTEM. The system should have a friendly user interface that becomes the medium of communication between the administrator and the system. The system also enables user to change the database base on any changing by lecturer.

iii. User Manual Guide

The User Manual Guide will be provided to lead to owning and maintaining the UTEM Class Assistant. It is designed to cover the major issues that user may face, and to give user a better understanding of and a better appreciation of how the system works.

1.7 Conclusion

In this chapter, the project background has been covered along with the problem statements, objectives, project scope, project significances and expected outputs. Throughout this chapter, we were able to understand what exactly the system is and what it provides to the user.

The next chapter will cover the literature review and project methodology.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter describes two parts which consists of Literature reviews and project methodology. The Literature Review discusses on the facts and findings, which covers the domain of the project, a several existing system and the technique used in the project. The Literature Review is a preview on the related or past research, references, case study and other finding that relate to the UTEM Class Assistant. The Project Methodology discusses on the project requirements, which covers the software requirement, hardware requirement and other requirements. In addition, it also covers the project schedule and milestones. The Project Methodology is to explain the project approach or method used.

2.2 Facts and Findings

This section discussed about the approach and related research, references, case study and other finding that relate to the project title.

2.2.1 Domain

The domain of the UTEM Class Assistant is student and lecturer of UTEM. Based on that domain, the topic of this project related to the administration management of the class at UTEM Industry campus. The student of UTEM wants a system that can store all the related information in storage and all the information are easy to retrieve. The system also expected to keep all the information created by lecturer.

2.2.2 Existing System

2.2.2.1 Review 1: SMS (Short Messaging System)

This review focuses specifically on the functionality of the Short Messaging System (SMS). Besides that, the purpose and the constraints of the system will be explained in this review.

The SMS was formerly derived from the internet. SMS allows text messages to be sent and received to and from mobile telephones. The text can comprise words and numbers or even an alphanumeric combination. Each short messages is up to 160 characters in length when Latin alphabets are used and 70 characters in length when non-Latin alphabets are used. Typical uses of SMS include notifying a mobile phone owner of a voicemail message, alerting a salesperson of an inquiry and telling a driver the address of the next pickup.

The SMS is essentially similar to paging, but SMS messages do not require the mobile phone to be active and within range. SMS messages are transmitted within the same cell or to anyone with roaming capability. They can also be sent to digital phones from a web site equipped with a PC link or from one digital phone to another. An SMS

gateway is a web site that lets the user to enter an SMS message to someone within the cell served by that gateway or acts as an international gateway for users with roaming capability.

Below are the lists of SMS technology:

- i. The SMS is a store and forward service. To be clearer, short messages are not sent directly from sender to recipient, but via an SMS center. Each mobile telephone network that supports SMS has one or more messaging centers to handle and manage the short messages.
- ii. The SMS features confirmation of message delivery. This means that, unlike paging, users do not simply send a short message, trust, and hope that it is delivered. Instead the sender of the short message can receive a return message back notifying them whether the short message has been delivered or not.
- iii. Short message can be sent and received simultaneously with GSM (Global Systems for Mobile).

2.2.2.2 Review 2 : SMS Messaging Hub

This review focus specifically on the existing system that was develops by Globitech Technology Company which is located in Singapore. A powerful and user-friendly tool for home and corporate users to broadcast and receive SMS from the comfort of computer.

This SMS System review was taken formerly from internet. The main functionality of this system is state below:

1. SMS reminder
2. PC SMS chatting
3. Event Announcement
4. Send SMS greeting
5. Promotion Info Broadcast
6. Receive SMS order 24 hours per day.
7. Info-on-Demand (enquiry on price, promotion, products, services and contact info)

The SMS Messaging Hub was develops into two different edition which are Standard Edition and Special Edition. The functionality of Special Edition is more update if to compare with Standard Edition. All the features in the Standard Edition are the functionality that already exists in Special Edition with certain additional function. Here is the additional functionality that had been developed by the programmer to meet future user requirement:

1. Info on demand
2. Message Scheduling
3. Credit Control Management
4. Support Chinese Character
5. Imports/exports contact messages

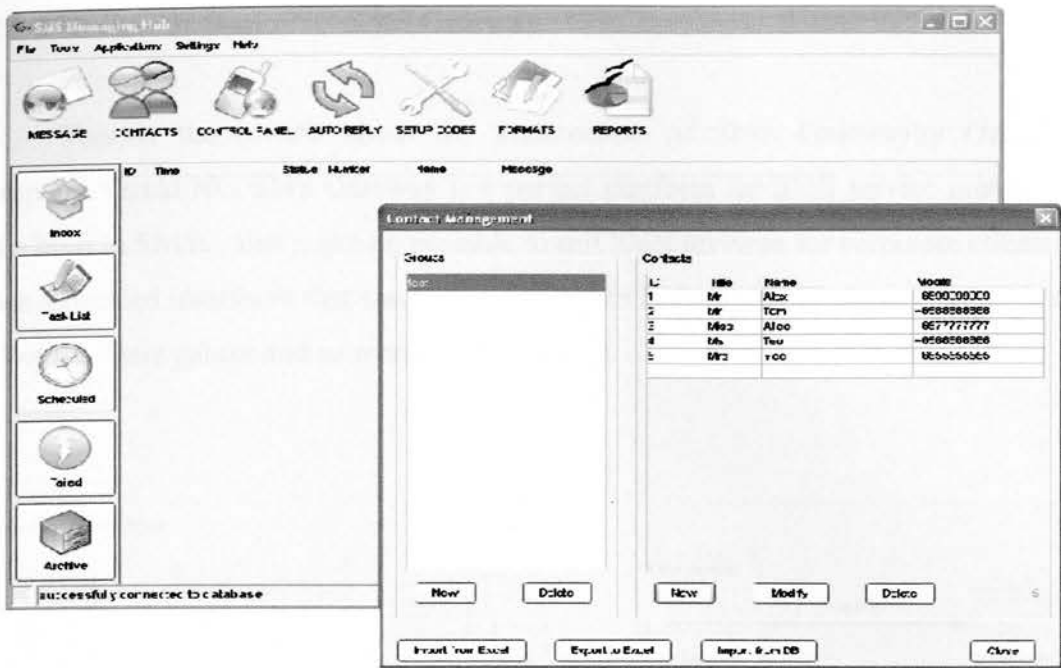


Figure 2.1: SMS System contact number

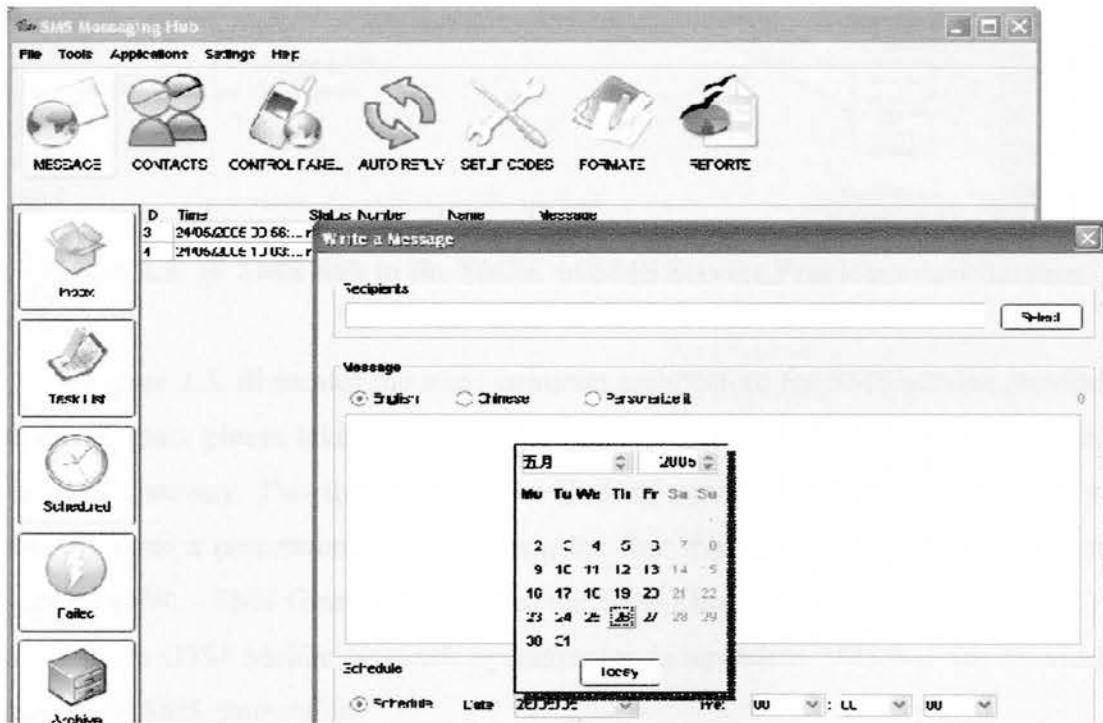


Figure 2.2: SMS System calendar