

MAJLIS BANDARAYA MELAKA BERSEJARAH LICENSING ENFORCEMENT
SYSTEM USING SMS

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BORANG PENGESAHAN STATUS TESIS*

JUDUL : MAJLIS BANDARAYA MELAKA BERSEJARAH
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SESI PENGAJIAN: 2008/2009

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MAJLIS BANDARAYA MELAKA BERSEJARAH LICENSING ENFORCEMENT
SYSTEM USING SMS

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

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2008

DECLARATION

I hereby declare that this project report entitled

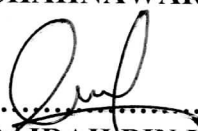
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ABSTRACT

Majlis Bandaraya Melaka Bersejarah Licensing Enforcement System Using SMS is the system which will implemented in the Licensing & Health Department of MBMB. The purpose of this system is to simplify the jobs or tasks of enforcement officers in this department. Furthermore, the license owners are able to check when the license will expire. This system also provides the License Expiry Date Notification in order to make sure all the license owner is always alerted for their business license renewal process. This system is developed according to the SMS technology approaches which are simple, fast and accurate, anytime & anywhere.

ABSTRAK

Majlis Bandaraya Melaka Bersejarah Licensing Enforcement System For SMS Users (MBMBLES) adalah system yang akan diimplementasikan di dalam Jabatan Perlesenan Dan Kesihatan, Majlis Bandaraya Melaka Bersejarah (MBMB). Tujuan sistem ini dicipta adalah untuk memudahkan kerja-kerja dan tugas-tugas yang dilakukan oleh pegawai-pegawai penguatkuasa di dalam jabatan ini. Selain itu, pemegang-pemegang lesen boleh juga menyemak status dan tarikh tamat bagi lesen perniagaan mereka. Sistem ini juga menyediakan peringatan tarikh tamat bagi sesebuah lesen perniagaan untuk memastikan kesemua pemegang lesen prihatin terhadap proses pembaharuan lesen perniagaan mereka. Sistem ini dibangunkan berdasarkan pendekatan teknologi SMS di mana ianya adalah mudah, cepat dan tepat dan juga boleh dilaksanakan tidak mengira masa dan tempat.

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CHAPTER I

INTRODUCTION

1.1 Project Background

Majlis Bandaraya Melaka Bersejarah (MBMB) Licensing Enforcement System Using SMS is a system that will implemented in the Department of Licensing in MBMB. One of the tasks and responsibilities that carried out by this department is to observe and update all the business licenses such as industrial, food, entertainments, vendor, bazaar and advertising and etc. As this research is concerned, SMS applications are not yet been implemented in this department. Hence, the aim of this project is to check either the appropriate license is validate or not via Simple Messaging System (SMS). This will enable the Department of Licensing of MBMB to perform enforcement tasks at anytime and anywhere. This approach is chosen because mobile technology has a greater demand in Malaysia, where in 2007, there are 21.3 millions mobile subscribers are reported (referring to statistic). SMS is one of application that consists in the basic mobile phone. Hence, we are going to adapt this SMS technology and used it as an application that can be used in order to make the enforcement activities as simple, fast, accurate and effective.

Table 1: Statistic of South East Asia Mobile Markets - Subscribers, Penetration & Annual Change, June 2007

Country	Penetration	Subscribers (million)	Annual Change
Brunei Darussalam	114%	0.44	30%
Cambodia	13%	1.9	38%
Indonesia	33%	74.9	59%
Laos	13%	0.9	41%
Malaysia	86%	21.3	-1%
Myanmar	>1%	0.33	49%
Philippines	56%	49.3	28%
Singapore	116%	5.2	21%
Thailand	71%	47.3	38%
Timor Leste	5%	0.06	55%
Vietnam	30%	24.4	98%

1.2 Problems Statement

Within executing the enforcement tasks, the officers always unable to check and validate the license immediately. This problem occurred since all the information only could access on the local host at the main office. Generally, they're just able to check manually by looking to the license serial number which is shown on the license certificate without examine the records that stored in database. According to the situation, there is potential fraud elements could be found in certain license certificate. As an example, the serial number of the license certificate is modified by dishonest license holders. This deception of serial number will continuously occur if there is no action to be taken for prevention. Thus, by using this system we can overcome the usage of fake serial number on duplicated license certificate.

The next problem is certain license holders always forget to renew their permit. Many of them are arrested because of their unconcern about license renewal. This uncomfortable situation will affect the hawkers, industrialists, vendors and any kind of business entrepreneurs' income. This small mistake will give the big impact to their business such as income decreases. It will be giving more impact to small vendors which are having small capital in their business.

1.3 Objectives

- 1.3.1 To ensure all the licensing information is update and the information can be accessed at anytime & anywhere.
- 1.3.2 To prevent the fraud elements in license certificate. The actual certificate can be referred by simple SMS application.
- 1.3.3 To develop SMS application purposely for enforcement task which are simple, fast, accurate and effective.
- 1.3.4 To build SMS application that will use to notify the license holders about their license expiry date.

1.4 Scope

- 1.4.1 A SMS application to check and validate either the appropriate license is authenticated.
- 1.4.2 A SMS application that used to notify the license expiry dates to the license holders.
- 1.4.3 Application Programming Language using Microsoft Visual Basic 6.0 which is integrated with the GSM modem that uses to capture the keyword for processing purpose in the database.
- 1.4.4 Enforcement officers under the licensing department of MBMB which involve in executing enforcement tasks & the other peoples such as the license owner.

1.5 Project Significance

This SMS project is very useful in certain process of enforcement tasks. For example, SMS application is implemented in Malaysian Royal Police (Police Di Raja Malaysia, PDRM). One of the advantages that they can gain is they are able to trace the car either it was stolen or not through the vehicle registration number which is sent via SMS. Other SMS implementation that already implemented in PDRM is checking the traffic summon on the road. Maybank2u.com is the banking system that

using the SMS approaches. During the customers doing the transaction using this online banking, they are supplied with the Transaction Authorization Code (TAC) that is sent to them via SMS. This kind of authorization shows the importance of SMS application and its wider usage in Malaysia. The executive summary below shows how mobile technology is very familiar to the Malaysian:

Executive Summary of 2007 Telecoms, Mobile and Broadband in Malaysia and Philippines

Almost 84% of the 26 million people in Malaysia had a mobile telephone service by March 2007. This meant Malaysia had the second highest mobile penetration in South East Asia after Singapore. The country passed the milestone of 20 million mobile subscribers in 2006, up from only two million in 1998. Malaysia's mobile market has made a remarkable recovery after suffering a serious setback.

Having reached annual growth levels in excess of 50% by the mid-1990s, the growth rate dropped to 17% by March 1998 as the impact of the Asian economic crisis was felt. However, the Malaysian mobile market quickly recovered and, by end-1999, there were almost three million subscribers in the country. Malaysia's mobile users have also been enthusiastic in their adoption of SMS, with the regulator reporting that Malaysians sent more than 9 billion SMS during 2005.

Global Information, Inc.

All the statements that are mentioned above are clearly shown to us about the importance of SMS technology. Many advantages we would gain from this technology especially in reducing costs, times and many more.

1.6 Expected Output

After this project implementation, the SMS application will help the enforcement officer in executing enforcement tasks. Hopefully, there will be no more fraud elements in the license certificate because the dishonest peoples are won't able to do any license duplication and modification. Lastly, the vendors, industrialists and any kind of entrepreneurs will always be alerted for their license renewal process.

1.7 Conclusion

This chapter elaborates the background of this project which will apply the Simple Messaging Service technology to perform the entire application for the project. We can see the problems which are need to solve by referring to the problem statements and the project objectives. In this chapter also, we are able to identify the kind of target users and how they interact with these applications. The project significant tells us how important to use the SMS application in order to simplify all the tasks and jobs which are related to the target users. The next activities to be developed are to investigate the required device such as GSM modem and the Application Programming Language such as Microsoft Visual Basic 6.0 that will used to fulfill all the requirements for this project.

CHAPTER II

LITERATURE REVIEW & PROJECT METHODOLOGY

2.1 Introduction

On this chapter, we will discuss about the literature review and selected methodology that will be use in the SMS project at Majlis Bandaraya Melaka Bersejarah (MBMB). Before we go further, MBMB has 15 departments such as Department of Engineering, Department of Valuation & Properties and many more. One of the departments that we make cooperative for doing this SMS project is the Department of Licensing & Health. This department activities & responsibilities include;

- Determine each business is monitored according to the laws, ensuring all the licensing information is computerized recorded & saved perfectly.
- Collecting license payment on time and;
- Improving the understanding and culture of licensed traders.

There are many types of license that provided by MBMB such as Industrial License which is related to the factories, workshops, warehouses and petrol stations. Secondly, the Food License for example supermarkets, food outlets, grocery shops, café and restaurants. MBMB also provide the Entertainment License for karaoke & pubs, entertainment centers, music & sounds and cinemas. Other than that, MBMB

also provide the Hawkers License, Market Business License, Advertisement License, Hotels & Motels License and General Business License.

2.2 Literature Review

2.2.1 Domain

The domain for this Majlis Bandaraya Melaka Bersejarah Licensing Enforcement System for SMS users (MBMBLES) is Database Technology. For this SMS project, we are not going to discuss about technology features that contains in a certain database. For this SMS project, we are going to discuss about the agent database which is integrated SMS application which is carried out using Visual Basic 6.0. This SMS project involves the usage of data that contains in the database. For example, the enforcement officers from MBMB will access data in the database in order to find out either the license is validate or not and other users are able to know about their license expiry date. For this project, we are using the Microsoft Office Access 2003 Database to act as the sample agent for the SMS application. In the SMS application, there will be a script of codes which is used to 'pull' or capture several fields or information about the license owners from main database of MBMB. This sample agent database will store the records that will use in the license number checking & license expiry date notifying.

2.2.2 Keyword

i. Mobile phone:

An electronic telecommunications device, often referred to as a cellular phone or cell phone. Mobile phones connect to a wireless communications network through radio wave or satellite transmissions. Most mobile phones provide voice communications, Short Message Service (SMS), Multimedia Message Service (MMS), and newer phones may also provide Internet services such as Web browsing and e-mail.

also provide the Hawkers License, Market Business License, Advertisement License, Hotels & Motels License and General Business License.

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