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JUDUL: DENTAL APPOINTMENT MANAGEMENT SYSTEM

SESI PENGAJIAN: 1 - 2008/2009

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# DENTAL APPOINTMENT MANAGEMENT SYSTEM

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

# FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY UNIVERSITI TEKNIKAL MALAYSIA MELAKA 2009



## **DECLARATION**

I hereby declare that this project report entitled

# DENTAL APPOINTMENT MANAGEMENT SYSTEM

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

STUDENT: Date: 3 JULY 2009

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SUPERVISOR: Date: 3 JULY 2009

(EN NOR AZMAN B. MAT ARIFF)

# **DEDICATION**

I would like to dedicate to my beloved parent who has been giving me support and motivation throughout my project.

#### **ACKNOWLEDGEMENTS**

Alhamdulillah and thanks to Almighty Allah, my families and to all who has made this project come true. I would like to take this opportunity to express my gratefulness to all the people who have helped, supported and guided me to completion of Projek Sarjana Muda.

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## **ABSTRACT**

Dental Appointment Management System (DAMs) was developed to facilitate patients at Dental Clinic to make an appointment with the dentist by using short messaging system (SMS). DAMs divide users into two sections which are patients and admin (nurse or clinic clerk). The user can send the SMS to the system to make an appointment with the dentist through certain syntax that provide by the system. Then, the system that manages by the admin will reply the message to the patients follow by the request of patients. There are three main modules in DAMS which is register module, send message module and alert module. The DAMs are alternative then existing technique whether by go to clinic or by make a phone call to make an appointment. By using this system, patients only need a mobile phone and they can use these DAMs facilities at anywhere. To send the SMS to DAMs, the patients must register their information first at the Dental Clinic. The registration process is done by admin. DAMs were developed by using Macromedia Dreamweaver 8 (PHP Programming Language) as platform to create interface to admin and MySQL as the database. This system is hoped to help patients at Dental Clinic in other to facilitate the information delivery that related to appointment management.

## **ABSTRAK**

Temujanji Pergigian (DAMs) Pengurusan dibangunkan memudahkan pesakit di Klinik Pergigian untuk membuat temujanji dengan doktor gigi dengan hanya menggunakan Sistem Pesanan Ringkas (SMS). Sistem ini dibahagikan kepada dua bahagian pengguna iaitu pesakit dan admin (jururawat atau kerani klinik). Pesakit boleh menghantar SMS kepada sistem untuk membuat temujanji dengan doktor gigi mengikut sintaks-sintaks tertentu yang disediakan oleh sistem. Kemudian sistem yang di uruskan oleh admin akan membalas mesej kepada pesakit mengikut permintaan pesakit tersebut. Terdapat tiga modul utama di didalam DAMs iaitu modul pendaftaran, modul hantar mesej dan modul peringatan. DAMS merupakan satu alternatif daripada teknik sediada yang mana secara pergi ke klinik atau membuat panggilan telefon untuk membuat temujanji dengan doktor gigi. Dengan menggunakan sistem ini, pesakit hanya perlu mempunyai telefon bimbit dan mereka boleh menggunakan kemudahan DAMs dimana-mana sahaja. Untuk menghantar SMS kepada DAMs, pesakit mestilah mendaftar maklumat diri dahulu di Klinik Pergigian. Process pendaftaran adalah diuruskan oleh admin. DAMs dibangunkan dengan menggunakan Macromedia Dreamweaver 8(bahasa pengaturcaraan PHP) sebagai pentas untuk mencipta antaramuka untuk admin dan MySQL sebagai pangkalan data. Sistem ini diharapkan dapat membantu pesakit di Klinik Pergigian disamping memberi kemudahan penyampaian maklumat yang berkaitan dengan pengurusan temujanji.

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### **CHAPTER I**

#### INTRODUCTION

# 1.1 Project Background

Dental Appointment Management System (DAMs) is a system that helps patient to make an appointment with the dentist at dental clinic. Only the patients that have been registered in dental clinic be able to use the system. In this system, the patients have to send a SMS to the system to make an appointment. The server will reply a respond to the patients about their appointment.

There are existing systems that allowed the patient to make an appointment as manual like using phone call or go to clinic to meet a dentist, but for this new system, it will help the patients to make an appointment as a new alternative more than existing system. It is more convenience to use mobile (SMS) instead of manual system. This Dental Appointment Management System (DAMs) purposely built to help the patients to make an appointment with the dentist. So, the patients haven't taken other initiatives to meeting with the dentist.

The system will be developed to realize the functionality of the system to help the patients at dental clinic. Besides, it also to proactively detect and resolve operational issues. The system will be developed using Macromedia Dreamweaver 8 (PHP Programming Language) and MySQL as the database system. This system also will integrate with GSM Modem and Ozeki Message Server.

### 1.2 Problem Statements

Making an appointment with the dentist is the one of the procedure to use the facilities in the dental clinic. Usually, when the patients wish to make an appointment, they have to go to the clinic. In the situation, sometime it will because the problems occurred.

As all of us know, people are busy with their daily life routines; they do not have enough time to go to the clinic to make an appointment with the dentist if they got the problem about their teeth. Some of the problem here is where the patients need to go to the clinic to make an appointment with the dentist. So, they must spend the time from their daily life. For patients that live far from the clinic, it more difficult to them to go to clinic just to make an appointment. It is because, if the patients are a worker, they must spend the time within their office hour to go to clinic to make an appointment. The time that was taken to move from office to hospital will affect their time. Sometimes, it will increase the pressure, stress and fatigue from that move. Other then time constraint, the patients also must spend their money to go to clinic.

To develop the system at dental clinic, I need to have some information about the system requirement that currently use at the clinic, so that an enhancement of the system can be analyzed. The current system that used in dental clinic is using a manual system where the patients have to go to the clinic to make an appointment. For the enhancement, patients do not need to attend to the clinic for making an appointment with the dentist. They just send a message to clinic management to make an appointment via their mobile phone.

Using a Dental Appointment Management System (DAMs), the patients no need to worry because the solutions of this problem can be solved. With a SMS Technology, the patients do not to go to clinic to make an appointment. They just need to send a message to clinic management via their hand phone.

Based on time constraint, no matter where the exact location of the user, they still able to make an appointment via SMS. This system also acted as the platform for the admin to manage their database and make a reliable system to be used. By providing this project, it is hopefully help the users busy and chaos life to be more organized and make their life simple.

"According to Peter M Herriot - Melbourne: Health Informatics Society of Australia (2005), The SMS notification system demonstrates how relatively simple information and communications technology can be applied to make a substantial impact on clinical practice and outcomes"

## 1.3 Objective

- i. Develop an appointment management system using GSM Modem Technology at dental clinic.
- ii. Develop modules in the online system which is send SMS module and send alert module.
- iii. Enable patient at dental clinic to make appointment, check appointment status and cancel appointment via SMS Technology.
- iv. Testing the appointment management system at real environment which is dental clinic at Melaka.

## 1.4 Scope

For the scope of the project, a Dental Appointment Management System (DAMs) is focus on SMS Management for the patient and administrator. The organization that was aims is dental clinic in Melaka. The target users of this project are focus on registered patients at dental clinic which make an appointment with dentist via SMS.

To use the DAMs, patients must login first before the patients can access the main menu and choose the application or modules that were provided. In this project, mobile devices act as a client and PC act as a server. One database will be created to store all the information of the users. The network scope is Telco Network in Malaysia which is Celcom, Maxis and Digi.

Dental Appointment Management System (DAMs) will be integrated with a Macromedia Dreamweaver 8 with MySQL database. For this project, the testing phase will involved two persons as patients and at least one person for admin as testing.

# 1.5 Project Significance

Dental Appointment Management System (DAMs) is a system that will help the patients to make an appointment with the dentist without attend to the clinic or make a phone called. From this system, the patients can save their time and can reduce the cost to attend to the dental clinic to make an appointment.

The system is easy to use because the patients just have to send the SMS to the clinic management, the server will accept the SMS and the admin will reply back to approved or reject the appointment that have make.

The system also efficient to the patients can send the message to the hospital at any time and anywhere. By using the system, all the databases are stored in the system when the patients registered. The admin can manage the database more secure and manageable then the traditional way.

# 1.6 Expected Output

As an expected output, the Dental Appointment Management System (DAMs) will be functioning to the patients where patients will never go to clinic to make an appointment because it can help the patients to make an appointment via SMS as send the message to clinic management at anywhere as long as they have a mobile and are registered in the dental clinic.

DAMs will be more efficient for the patient to make an appointment with dentist while they just only to use their mobile to send the message to clinic management.

The Dental Appointment Management System (DAMs) also will make the database management in the clinic more manageable and efficient. The data that has been stored can be more secure then the manual system.

#### 1.7 Conclusion

As conclusion, Dental Appointment Management System (DAMs) development will help the patients to make an appointment with dentist and to prevent the missing information and to reduce miscommunication between the patient and clinic management.

With SMS Management System technology, it allows the patients to make an appointment more easy way than traditional way through the mobile via SMS technology. The technologies are more reliable and easy to use more then PCs or manual system. This system also makes the database more manageable.

From this chapter, the problem statement, objectives, scope, project significance and expected output are being identified in order to develop the system that will be used by the target users.