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JUDUL: MEDICAL CHECKUP REMINDER SYSTEM

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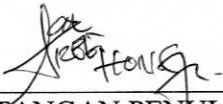
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# **MEDICAL CHECKUP REMINDER SYSTEM**

**TAN KEE HONG**


This report is submitted in partial fulfillment of the requirements for the  
Bachelor of Information and Communication Technology (Software Development)

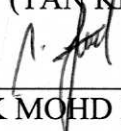
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## DEDICATION

*Specially dedicated to  
My beloved parents and brothers who have  
encouraged, guided and inspired me throughout my journey of education*

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Finally, I would like to thank my course mates for theirs useful comments and advices as well as strong support for the project.

## ABSTRAK

Tujuan utama membangunkan Medical Checkup Reminder System adalah untuk membekalkan satu sistem peringatan kepada klinik mengurus maklumat pemeriksaan perubatan pesakit. Sistem akan mengingatkan dan memanggil penolong klinik apabila salah satu pemeriksaan perubatan pesakit mencapai masa yang telah ditetapkan. Selepas itu, penolong klinik boleh menggunakan fungsi SMS dalam sistem untuk menghantar mesej kepada pesakit. Mesej itu akan mengingatkan pesakit tentang masa yang perlu membuat pemeriksaan perubat semula. Ini akan membantu pesakit ingat balik masa untuk membuat pemeriksaan perubatan. Pada mula itu, penolong klinik perlu memasukkan maklumat pesakit dan menyimpan maklumat tersebut. Selepas itu, penolong klinik perlu memasukkan jenis pemeriksaan perubatan dan masa tamat tempoh untuk jenis pemeriksaan perubatan tersebut. Sistem akan mengingat balik dan memanggil penolong klinik semula tentang pemanggilan yang telah ditetapkan dengan jam loceng dan mesej atas skrin komputer. Apabila penolonh klinik mendapat pemanggilan itu, dia boleh menghantar mesej ke telefon bimbit pesakit dengan fungsi SMS dalam sistem. Penolong klinik mengingatkan pesakit tentang pemeriksaan perubatan dengan SMS ke telefon bimbit kerana pesakit boleh menerima mesej itu dengan mudah.

## ABSTRACT

The main objective to develop Medical Checkup Reminder System for PSM is to provide a reminder system and facilities to the clinic managing their patient's medical checkup information. The system will remind the clinic helper. Then the clinic helper can use the system send the SMS to patient to remind them. This can let the patients know about the medical checkup real date to do the medical checkup on times. This system can help the patient remember the important date to make the medical checkup at clinic. The clinic helper will insert the patient data in the patient form and save the information in the database. Then the clinic helper will insert the type of condition such as diagnosis types, vaccination type, blood group type and others. The clinic helper insert the date for the patients come to clinic makes the medical checkup. After that the system will automatic calculate the review date or due date for the patient come back to clinic for medical purpose. When the due date arrive, the system will remind the clinic helper through the alarm and pop up message box on the desktop. Then, clinic helper uses the SMS function in the system send the message to patient mobile. The SMS function can remind the patient easily. This is because most of the people have theirs own mobile phone. Then the message from clinic can give the patient receive it easily. This also can remind the patient make the medical checkup on times.

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## LIST OF ABBREVIATIONS

|         |   |
|---------|---|
| SMS     | Short Message Service                         |
| MCRS    | Medical Checkup Reminder System               |
| VB .NET | Visual Basic .Net                             |
| SQL     | Structure Query Language                      |
| SMTP    | Simple Mail Transfer Protocol                 |
| SMPP    | Short Message Peer to Peer Protocol           |
| TCP/IP  | Transfer Control Protocol / Internet Protocol |
| IMAP    | Internet                                      |
| POP 3   | Post Office Protocol 3                        |
| ESMTP   | Extended Simple Mail Transfer Protocol        |
| GSM     | Global System Mobile                          |
| PC      | Personal Computer                             |
| XML     | Extensible Markup Language                    |
| IT      | Information Technology                        |
| PSM I   | Projek Sarjana Muda I                         |
| PSM II  | Projek Sarjana Muda II                        |
| KUTKM   | Kolej Universiti Teknikal Kebangsaan Malaysia |
| IIS     | Internet Information Server                   |
| UML     | Unified Modeling Language                     |

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## **CHAPTER I**

### **INTRODUCTION**

#### **1.1 Preamble/Overview**

Every year many persons will make the medical checkup to make sure their health condition. The Medical Checkup Reminder System will help the clinic helper to remind persons the real medical checkup date. The system is developed to replace the traditional method such as record manually in clinics. The patient's medical checkup info is recorded in the paper and collected with documentation. The method is not suitable for a clinic and easily loses the record. The patients may forget the medical checkup date and need to check consistently the medical checkup report to make sure the real date. This will waste the user's time.

The MCRS will remind the clinic helper through the message box that pop up on the desktop. After that, the clinic helper will send the information to patients through SMS. The patients can view the info through hand phone. The message will display the patient name, patient ID, medical checkup date, and other information. That can remind the patients easily.

In this century, there have many reminder systems have been developed. However the medical checkup system is lack use and lack of function for a clinic. The functions for the Medical Checkup System are:

- a) Manipulation of patients detail
- b) Remind the clinic helper through the pop up message box and alarm on the desktop
- c) Send the medical checkup date and others info through SMS to patients mobile phone
- d) View the medical checkup inquiry
- e) View medical checkup info report

The methodology use to developing the system is methodology of Unified Software development Process (USDP). By using this methodology, development of this application will be dividing into few phases. There have inception phase, elaboration phase, construction phase and transaction phase.

## **1.2 Problem Statement(s)**

The Medical Checkup Reminder System is develops to replace the traditional method such as record manually in clinics. The patient's medical checkup info is record in the paper and collects with documentation. The method is not suitable for a clinic and easy loses the record. The patients maybe forget the medical checkup date and needs to check consistently the medical checkup report to make sure the real date. This will waste the user's time. The system will remind the clinic helper through the message box that pop up on the desktop. After that, the clinic helper will send the information to patients through SMS.

Sometimes the clinic helpers maybe forget the patient detail. The system can view the medical checkup inquiry and create the medical checkup info report. In this century, there have many reminder systems have been developed. However the medical checkup system is lack use and lack of function for a clinic.

### 1.3 Objectives

The Medical Checkup Reminder System is developing to help the clinic remind the patients do the medical checkup on time. To success the project, the objectives of the project want to achieve are:

- a) To make sure the clinic helper can get the remind from the pop up message box and alarm on the desktop
- b) To make sure patients can receive the SMS through mobile phone
- c) To create a flexible system
- d) To develop the user friendly interface and make sure the patients detail can insert easily
- e) To create the MCRS report
- f) To create a stable database. The data manipulation procedures like add, update, delete and modify function that can maintain the data validation

To develop a stable system can make the system send the message automotive on time.

## 1.4 Scopes

The Medical Checkup Reminder System is developing for remind the clinic helper and send the SMS to patient's mobile phone to remind the patients do the medical checkup on time. Beside that the system also can view out the report about the medical checkup info. The system focuses on the functions are:

- a) Pop up a message box and alarm to remind the clinic helper
- b) Send the medical checkup date and others info through SMS to patients mobile phone
- c) Show the medical checkup inquiry
- d) Manipulation of patient's details. The patient master will manipulate on all the patients data. It will perform function such as add, delete, search, edit, save and data navigation
- e) View medical checkup info report

The medical checkup system is confined to clinic user. The main modules will be developed are:

1. Patient master to manipulate patients detail
2. Remind the clinic help through alarm and pop up message box
3. Send SMS module to send SMS to patients
4. View the report

I will be used the VB.net programming language to develop the system. The SQL Server will be used to store the data for the system.