

Universiti Teknologi MARA

**E-CLINIC: DEVELOPING AN
APPLICATION TO SUPPORT
ACTIVITIES OF CLINICAL
PERSONNEL**

**Muhd Eizan Shafiq Bin Abd Aziz
2004219616**

Thesis submitted in fulfillment of the requirements for
**Bachelor of Science (Hons) Information System
Engineering
Faculty of Information Technology And
Quantitative Sciences**

APRIL 2006

DECLARATION

I certify that this project to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

APRIL, 27 2006

MUHD EIZAN SHAFIQ BIN ABD AZIZ

2004219616

ABSTRACT

The main purpose of this research is to assist clinical personnel such as clerk, doctor and nurse to run clinic daily activities through an information system. This research focused on the development of electronic clinic information system application which can give long term benefits to them. This application is developed using the open source software such as Apache Web Server, MySQL Database, phpMyAdmin Database Administrator plus with PHP programming language. Three problems have been identified and researcher focused on how to solve the problems. Those three problems previously done manually and the existence of this application would change the manual processes to computerized processes. Clerk no longer needs to manually count the medicine stock because this application will count all stocks by itself. Medication prescription errors could be reduced using the computerized medication prescription to replace the handwriting of doctors. At then end of month, clerk does not need to key-in one by one patient's name into computer to produce invoices and claims for each panel anymore. This application will does it by clicking only one button. Therefore, this application is really hope to reduce burden of clinical personnel and make clinical processes faster than before.

1.6.5 Chapter 5	7
-----------------	---

CHAPTER 2: LITERATURE REVIEW

2.1	Introduction	8
2.2	Clinical Information System and Patient Records	9
2.3	Factors of Medication Errors	
	2.3.1 Handwriting	11
	2.3.2 Inability to understand prescription abbreviation	12
	2.3.3 Previous Treatment History	13
2.4	Conventional Medicine Inventory Management	16
2.5	Open Source Software	18
2.6	Requirements in Deploying E-Clinic	
	2.6.1 Web Server: Apache Web Server	18
	2.6.2 Programming Language: Hypertext Preprocessor (PHP)	19
	2.6.3 Database: MySQL	19
	2.6.4 Database Administrator: phpMyAdmin	20
2.7	Summary	20

CHAPTER 3: METHODOLOGY

3.1	Introduction	21
3.2	Problem Solving	
	3.2.1 Problem Identification & Definition	22
	3.2.2 Data Collection	23
	3.2.3 Problem Redefinition	23
	3.2.4 Finding Ideas	23
	3.2.5 Finding Solution	23
	3.2.6 Implementation	24

TABLE OF CONTENTS

CONTENT	PAGE
APPROVAL	ii
DECLARATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	v
LIST OF TABLES	xi
LIST OF FIGURES	xii
LIST OF APPENDICES	xiii
LIST OF ABBREVIATION	xiv
CHAPTER 1: INTRODUCTION	
1.1 Problem Background	1
1.2 Problem Statement	
1.2.1 Preparing Medication Prescription	4
1.2.2 Preparing Invoices and Claims	4
1.2.3 Medicine Stock Tracking	5
1.3 Project Objective	5
1.4 Project Scope	6
1.5 Project Significance	6
1.6 Overview of the Report	
1.6.1 Chapter 1	6
1.6.2 Chapter 2	7
1.6.3 Chapter 3	7
1.6.4 Chapter 4	7