

**DEVELOPMENT OF OPTIMIZED AND EFFICIENT CLINICAL
PATHWAY SOFTWARE**



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ACKNOWLEDGEMENT

In the name of ALLAH S.W.T, the Most Beneficial and the Most Merciful for it is the will of God that I have finally managed to finish up my report within the specified time given. The Al-Mighty gave me so much blessing in terms of strength, the will to never give up, the relaxation of mind and spirit within me, and the guidance be it in shown or hidden form that guide me throughout the whole process of completing this project

Firstly, I wanted to express my whole gratitude towards my supervisor, En Syed Abdul Mutalib Bin Al-Junid for his supports, wisdom and vision, and also for his guidance and advices throughout the whole process in compiling the finish up project. Without his inputs, maybe I will not have the courage to take on this project since it required a dedicated amount of time and a whole new input of knowledge to be used in constructing the required project within time constraint.

My deepest appreciation also goes to my fellow housemate especially for Mr Mohd Mukhlis Bin Ismail, an engineer from JVC Company and also alumni of UiTM for finding some time in his busy working schedule to shed some information on related topics to my project through a wide suggestion of internet's web links for further reading upon required tools to construct a workable project.

Last but not least, to all that have involved directly or indirectly in my final year project be it in terms of advice, words of encouragement, or money. I cannot help but feel indebted because if not for all their helps, I may not be able to finish up my project until this stage.

Thank you

ABSTRACT

This paper was done due to the need of a new advanced and futuristic approach upon optimizing and furthermore paves the way in creating efficient clinical pathway in healthcare field on a whole new level. There need to be a structural and unified system of clinical pathway to define and taking care upon common diseases. The objective of the final year project is to develop efficient software to manage a good practice and optimized the clinical pathway regardless of different type of hospital capability using only one style of clinical pathway for common diseases so that the treatment can be optimized in terms of time and efficiency. It focuses mainly on the different type of clinical pathway developed by various hospitals in manual form to create a single and uniform type of treatment for common diseases. It is then enhanced from manual conduct into a computer based conduct using the software developed using Visual Basic programming language. Graphic User Interface is applied to the system so that it would become more users friendly. The development of the software should in long terms transform the clinical pathway system from a manually based system to integrated computer based system.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Clinical pathway idea was first being made available by Zander into healthcare services in early 1980s [2]. Clinical pathway since then has significantly being improved in order to provide services of better quality as well as reducing time for patient to get their treatment attended. Clinical pathway has been widely used by hospitals all around the world [1]. Clinical pathway are basically a care plans which is carefully designed and structured to be an optimal multidisciplinary care process which later will be used or performed by a team of healthcare professional for a certain diagnosis only [2]. Though at earlier time it was considered as a breakthrough idea, it does have some disadvantages in terms of recordable data and clinical information its course of treatment regarding certain illness.

From the information gathered upon the clinical pathway system being used in Malaysia, all of the clinical pathway system used a manual based system method and not in a well-coordinated ways resulting in less optimized and not efficient system being implemented. This in short terms would lead to organizational failure be it from the human factor or from the mismanagement.

Since Malaysia government has launch its Economic Transformation Plans (ETP), healthcare service has been highlighted as one of the key point in National Key Economic Area (NKEA). A more systematic and efficient ways is needed to ensure that the quality of healthcare system could be enhanced one step forward. This can be done by changing the manually based clinical pathway system into a newly integrated computer based software system.