

**Universiti Teknologi MARA**

**Calories Recommendation Mobile  
Application for Diabetic Using Rule  
Based Expert System**

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## DECLARATION

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

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## **TABLE OF CONTENTS**

<b>CONTENTS</b>	<b>PAGE</b>
<b>SUPERVISOR'S APPROVAL</b>	<b>I</b>
<b>DECLARATION</b>	<b>II</b>
<b>ACKNOWLEDGEMENT</b>	<b>III</b>
<b>TABLE OF CONTENTS</b>	<b>IV</b>
<b>ABSTRACT</b>	<b>VI</b>
<b>LIST OF FIGURES</b>	<b>VII</b>
<b>LIST OF TABLES</b>	<b>VIII</b>
<b>CHAPTER 1</b>	<b>1</b>
<b>INTRODUCTION</b>	<b>1</b>
1.1 Project Background	1
1.2 Problem Statement	2
1.3 Objectives	3
1.4 Scopes	3
1.5 Research Elements	3
1.6 Significances	3
<b>CHAPTER 2</b>	<b>5</b>
<b>LITERATURE REVIEW</b>	<b>5</b>
2.1 Introduction	5
2.2 Calories	5
2.3 Diabetes	6
2.4 Expert System	9
2.5 Rule-Based Expert System	11
2.6 Certainty Factor	12
2.7 Forward Chaining and Backward Chaining	13
2.8 Previous Works	15

2.9	Comparisons of Method	17
<b>CHAPTER 3</b>		<b>18</b>
	<b>METHODOLOGY</b>	<b>18</b>
3.1	Research Framework	18
3.2	Requirements Gathering and Analysis	20
3.3	System Design	21
3.4	Implementation	22
3.5	Verification and Testing	28
3.6	Hardware and Software Requirements	29
3.7	Project Timeline	30
<b>CHAPTER 4</b>		<b>31</b>
	<b>DESIGN AND DEVELOPMENT</b>	<b>31</b>
4.1	Design	31
	4.4.1 Rule Based Expert System	31
	4.4.2 Result of Rule Based Expert System	34
4.2	Development	38
<b>CHAPTER 5</b>		<b>44</b>
	<b>RESULT AND EVALUATION</b>	<b>44</b>
5.1	Result and Evaluation	44
5.2	Functionality Testing	44
<b>CHAPTER 6</b>		<b>47</b>
	<b>CONCLUSION AND EVALUATION</b>	<b>47</b>
6.1	Conclusion	47
6.1	Limitations	48
6.1	Recommendations	48
	References	49
	APPENDICES	53

## ABSTRACT

Diabetes is one of the diseases that have high contribution to death among Malaysian. Hence, Malaysian is become aware about diabetes since many diabetes campaigns have been made by government in order to increase awareness among Malaysian. But then, diabetic people are having difficulties in order to decide what they should eat simply because they do not know the exact amount of total calories intake per day should they consume. Thus, this project develops a mobile application recommended system that assists diabetic people to decide what is the total calories intake per day should they consume based gender, age, body mass index, physical activity and diabetes stage. The target user of this mobile application is female with type-1 diabetic that age 31 until 50 years. This is because female is the most that suffered diabetes compared to male. The method that is being used for this mobile application is rule based expert system. Apart from that, since human is always uncertain with their decisions, certainty factor is integrated where this mobile application accepts user's uncertain decision. Besides that, this mobile application can be enhanced in future works to get result that are more accurate. The criteria that user need to input can be added more so that the result will be more specific when the criteria is more detailed.

**Keyword:** *diabetic, recommendation, expert system, rule-based, uncertainty.*