

Universiti Teknologi MARA

**Towards Developing a Web Based Online
Advisor System Implemented For Health
Care Supplements**

Mohamed Roshimi Bin Md Shahor

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

November 2006

DECLARATION

This declaration is to certify that all of the submitted contents of this thesis are original in its stature, excluding those in which have been acknowledged specifically in the references. All the work processes involved are form my own endeavor and it has not been taken or done by unknown sources or individuals. I, Mohamed Roshimi Bin Md Shahor (Identity Card Number: 821111-07-5223) hereby declare that I am responsible for the contents of this thesis as it had been submitted as part of fulfillment of BSc. (hons) in Information System Engineering.

Mohamed Roshimi Bin Md Shahor

2003328088

November 02, 2006

Acknowledgement

First and foremost I would like to express my highest gratitude to Allah S.W.T, the Almighty for granting me the will and strength to finish this research on time. Without His blessing and permission, this research could not have been completed.

Secondly, I would like to express my gratitude to all my family members, who cares about me, and giving me all the support that they can in hoping that I will be successful in anything that I do. Without their support, it would be a hard time for me to finish this thesis.

Next to my thesis supervisor, Pn Azlin Binti Ahmad, for her support and hospitality throughout the course of this project, Pn. Wan Nor Amalina Binti Wan Hariri, the one who cares most about me from the beginning of my degree up until my final semester. Pn. Ariza Binti Nordin, the one that I won't forget, for a special deep motivation given to me along the time that I've known her. I would like to give a big thanks to all of them for encouraging and believing me in all of this time

Next, the interviewees from Luxor Network Sdn. Bhd, Mr. Liang Ong Hui as my client for requirement gathering and Mr. Yee Wang Lou as my domain expert for expert system knowledge acquisition that nicely corporate and support me with all information that I need for this thesis.

Last but not least, I would like to give my thanks to the Luxor Network Sdn. Bnd. customers for the feedback given, my friends whose there for me when I needed someone to share my problems and to the entire person involve direct or indirectly. Thanks for the inspiring me in such a means that could not be written in words.

Abstract

Web based system moves forward to its advance development that provides information services through the internet around the world. Many researchers already knew the advantages and try to take out the system out of its box which is not only providing static information but also implements with other sort of system. One of implementation is web based system and expert system to develop a Web Based Online Advisor System that can communicate and interact with user. Currently Luxor Network Sdn. Bhd doesn't provide this service as an alternative of their strategy to establish good relationship with customers. The objectives of this research are to identify the user requirement for developing a Web Based Online Advisor System for Luxor Network Sdn Bhd., to design architecture of the Web Based Online Advisor System for Luxor Network Sdn Bhd based on the user requirement and to develop a Web Based Online Advisor System for Luxor Network Sdn Bhd based on the user requirement. The approach that I've been using is through interview and questionnaire analysis, and also using part of web based expert system methodology to develop this project. Through the methodology, I take out some steps such as knowledge acquisition and knowledge representation to come out with a list of useful rules for the project. Through the approach and findings in this research, I manage to achieve the entire objective of my research mention above.

List of Figures

Figure No	Figure	Page
Figure 2.1	A typical Expert System	9
Figure 2.2	Forward chaining workflow	11
Figure 2.3	Web Based Expert System Development Project	13
Figure 3.1	Overview of Research Methodology and Approach	21
Figure 4.1	Luxor customer's Age	25
Figure 4.2	Luxor customer's occupation	25
Figure 4.3	Common disease	26
Figure 4.4	List of supplements currently bought	27
Figure 4.5	Problem faced by customers when getting supplements information	27
Figure 4.6	Customer's opinion about Luxor current web site	28
Figure 4.7	Customer's suggestion about Luxor current web site	29
Figure 4.8	Healthcare Online Advisor System's Use case Diagram	35
Figure 5.1	The CSCI HCODS packages	38
Figure 5.2	Processes in CSCI HCODS	38
Figure 5.3	User Home process	39
Figure 5.4	The Basic Structure of a Rule Based Expert System	43
Figure 5.5	The inference engine cycles via a match-fire procedure	44
Figure 5.6:	Main page and login page	48
Figure 5.7:	User main page	48
Figure 5.8:	View nutritional information page (user)	49
Figure 5.9:	Request online advice page (page 1)	49
Figure 5.10:	Request online advice page (consultation)	50
Figure 5.11:	Request online advice page (result 1 - Disease)	50
Figure 5.12:	Request online advice page (result 2 – recommended product)	51
Figure 5.13:	Search Product (page 1)	51
Figure 5.14:	Search Product (result – recommended product)	52
Figure 5.15:	Search Stockiest (page 1)	52