Universiti Teknologi MARA

Modelling Malaysia Flora Multimedia Presentation using Object Oriented Database Management System

Nora Muhammad Abdul Ghani 2005731323

Thesis submitted in fulfillment of the requirements for

Bachelor of Science (Hons) Information System Engineering Faculty of Information Technology And Quantitative Science

30th October 2007

ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious and the Most Merciful, Peace be upon the Holy Prophet, Muhammad s.a.w.

First of all, in the name of Allah, The Mighty Gracious Most Merciful and He alone is worthy of all praise. Thanks to the Al-Mighty for giving me strength, patience and ability to finish this research project.

Not forget, 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. Especially, to my parents for their patience, love and pray they have provide me towards helping me realize my ambition. Without their support, it would be a hard time for me to complete this thesis.

I would also like to convey my appreciation to my thesis supervisor, Puan Nalini Dharmarajan, for her support and hospitality throughout the course of this project who always lead and guide me to make this research complete as wish. Then, to my thesis coordinators, Dr. Wan Adilah Wan Adnan and Prof Madya Dr. Rashidah Rawi who also give me advise and support to finish this thesis. I would like to give a big thanks to all of them for encouraging and believing me in all of this time. Without them, I may cannot complete my research.

Last but not least, I would like to give my thanks to the interviewees 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 and helping me in such a means that could not be written in words.

THANK YOU.

ABSTRACT

Multimedia information can be presented in the Object Oriented Database Management System (OODBMS) which has the capability to handle complex data that Relational Database Management Systems (RDBMS) is not able to support. It is because in OODBMS, data types can be extended to support complex data. The objectives for this research are to investigate the data requirement for flora presentation, to design flora logical model using Object Oriented Database and to demonstrate the prototype of flora multimedia presentation. A lecturer in the Faculty o Applied Sciences Universiti Teknologi MARA was interviewed that flora database is interesting to present in interactive way rather than static presentation. Questionnaires were distributed to students at the Faculty of Applied Sciences Universiti Teknologi MARA to identify the multimedia requirements for the flora database. Subsequently, an interview was carried out with a lecturer from the same faculty to get the flora database requirements. Based on these requirements the logical model for the database was designed and a prototype was developed. The prototype was presented in interactive multimedia features which consist of video, image, audio and text. Thus, the multimedia prototype designed meets the requirements as stipulated by the users.

(Keyword: Multimedia Information, Object Oriented Database Management Systems (OODBMS), Flora Database)

TABLE OF CONTENTS

TITLE	PAGE		
DECLAR	i		
APPROV	ii		
DEDICAT	iii		
ACKNOW	LEDGEMENT		iv
ABSTRAC	CT		v
TABLE O	vi		
LIST OF T	xi		
LIST OF I	xii		
LIST OF A	xiii		
LIST OF A	xiv		
СНАРТЕ	R 1: INTRODUCTION		
1.0	Preface	Δ	1
1.1	Research Background		1
1.2	Problem Statement		2
1.3	Project Objective	e e e un e	3.
1.4	Research Scope		4
1.5	Project Significant		4
1.6	Project Approach and Methodology		.5
1.7	Project Overview		5
1.8	Conclusion		7

CHAPTER 2: LITERATURE REVIEW

	2.0	Introduction			
	2.1	Multimedia Presentation			
	2.2	Multimedia Database			
	2.3	Managing Multimedia Information			
	2.4	Logical Model Design			
	2.5	Object Oriented Database			
	2.6	Advantages of Object Oriented Database			
	2.7	Conclusion			
СНА	PTER:	3: RESI	EARCH APPROACH AND METHODOLOGY		
	3.0	Introd	uction	32	
	3.1	Research Approach and Methodology		33	
		3.1.1	Problem Assessment and Research Study	34	
		3.1.2	Knowledge Acquisition	36	
			3.1.2.1 Primary Data	37	
			3.1.2.2 Secondary Data	38	
		3.1.3	Data Analysis	38	
		3.1.4	Prototype Development	40	
		3.15	Documentation	42	
	3.2	Concl	usion	43	
СНА	PTER ·	4: ANA	LYSIS AND FINDING		
	4.0	Introduction		44	
	4.1 Questionnaire and Analysis				
		4.1.1	Demographic Information	45	
			4.1.1.1 Respondent's Gender and Group of Age	45	