Universiti Teknologi MARA

# An Investigation of Spatial Database in Klang Valley and Kuala Lumpur

Nur Aziza Bt Romai Nar

Thesis submitted in fulfillment of the requirements for Bachelor of Science (Hons) Business Computing Faculty of Information Technology And Quantitative Science

April 2005

#### ACKNOWLEDGEMENT

In the name of Allah, Most Gracious, Most Merciful, Praise to Allah, the one and only, for giving our inner strength, knowledge, skills and good health for complete this project paper as required.

The research presented in this dissertation could not have been conducted without the support, encouragement and cooperation of many people. First of all, I would like to express my deepest gratitude to my supervisor, Pn Fauziah Redzuan who has always give me valuable advice and encouragement besides her endless guidance, idea and criticism for betterment of this project throughout the research. I would like to thank her for giving the opportunity to learn and conduct survey under guidance, which have been the most memorable experiences.

I would also like to thank Prof Madya Hajah Mardziah Hj. Hashim, Academic Project Coordinator for her support and guidance in writing this project. To my beloved family, especially to my parent, En. Romai Nar bin Hj Mohd Nasir and

1 , I thank them for giving me their blessing, unconditional love and financial support. Thank you for everything.

My thanks also go to my friends, who are very helpful in giving me information and creative idea for the project, especially the final year students of CS224.

May Allah bless all of us. Thank you.

#### ABSTRACT

Spatial database is simply a database that contains spatial information. This research focuses in spatial database awareness in the company around Klang Valley and Kuala Lumpur. Other than that this research will study in which application or field the spatial database is currently used or undergoing research. We also define how spatial database is being implemented or the methodology to develop spatial database. A study information scent is taken from the methodology that being used such as interviewing and distributing questionnaire to the companies. From this study, we find out that the Geographic Information System (GIS) provider in Malaysia is the one that has been use spatial database extensive. The report of the findings is divided into several chapters and subchapters to explain each of the result more clearly and in organized manner.

# **TABLE OF CONTENTS**

	Page
ACKNOWLEDGEMENT	iv
LIST OF TABLES	ix
LIST OF FIGURE	x
LIST OF ABBREVIATION	xi
ABSTRACT	xii

## **CHAPTER 1: INTRODUCTION**

1.0	Introduction	1
1.1	Background of Study	1
1.2	Problem Statement	2
1.3	Objectives of Study	2
1.4	Significance of Research	2
1.5	Scope of Study	3
1.6	The Research Approach and Methodology	3
1.7	Limitation of the Research	4
1.8	Overview of Research	4

### **CHAPTER 2: LITERATURE REVIEW**

2.0	Introduction	6
2.1	Definition of Terminology	6
	2.1.1 Awareness	6
	2.1.2 Application	6
	2.1.3 Methodology	7
2.2	Definition of Spatial Database	7
2.3	Spatial Database Background	8
2.4	Spatial Database System	9

### **CHAPTER 1**

#### **INTRODUCTION**

#### 1.0 Introduction

Spatial database is defined as a collection of inter-related spatial data, which can handle and maintain a large amount of data which is shareable between different GIS applications. Spatial database are used to keep the numeric data on the maps according to the location itself. This database is connection and related to the maps to view the data or information. Spatial database is difference between the other databases because spatial database play around with object and it is unlike normal database.

Spatial data management is of use in many disciplines including geography, remote sensing, urban planning and natural resources management. Spatial database management plays an important role in the solution grand scientific problems like global climate change and genomics.

## 1.1 Background of Study

Because of the usefulness of spatial database, this study will go concentrated on investigating of spatial database in Klang Valley and Kuala Lumpur focusing on the development of database management. The survey of this project is to search about the people awareness, application being used or develop and methodology in developing spatial database.

Spatial database are most important to store a large amount data especially like maps or geographical data. Based on this research, it will investigate the application of spatial database that there are use in organization whether in mapping, agriculture, weather and so forth.