

BORANG PENGESAHAN STATUS TESIS

JUDUL: MALACCA TRAVEL ASSISTANT

SESI PENGAJIAN: 2006/2007

Saya RAFIDAH BTE ABD RASHID KHAN

mengaku membenarkan tesis (PSM/ Sarjana/ Doktor Falsafah) ini disimpan di Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dengan syarat-syarat kegunaan seperti berikut:

1. Tesis adalah hakmilik Universiti Teknikal Malaysia Melaka
2. Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dibenarkan membuat salinan untuk tujuan pengajian sahaja
3. Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dibenarkan membuat salinan tesis ini sebagai bahan pertukaran antara instusi pengajian tinggi.
4. ****Sila tandakan(/)**


 SULIT


(Mengandungi maklumat yang berdarjah keselamatan atau kepentingan Malaysia seperti yang termaktub di dalam AKTA RAHSIA RASMI 1972)

 TERHAD

(Mengandungi maklumat TERHAD yang telah ditentukan oleh organisasi / badan di mana penyelidikan dijalankan)

 - TIDAK TERHAD


(TANDA TANGAN PENULIS)
Alamat tetap: Peti Surat 148, Lot 255
Taman Ehsan, 89057 Kudat,
Sabah


(TANDATANGAN PENYELIA)
Nama Penyelia: Dr Nanna Suryana
Herman

Tarikh: 12 Nov 2007

Tarikh: 13-11-2007

CATATAN: *Tesis dimaksudkan sebagai Laporan Akhir Projek Sarjana Muda (PSM)
**Jika tesis ini SULIT atau TERHAD, sila lampirkan surat daripada pihak berkuasa

MALACCA TRAVEL ASISTANT

RAFIDAH BINTI ABD RASHID KHAN

**This report is submitted in partial fulfillment of the requirement for the
Bachelor of computer Science (Software Development)**

**FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MELAYSIA MELAKA**

2007

DEDICATION

Specially dedicated to my beloved parents, Abd Rashid Bin Hj. Nawab Khan and Rosy Lo

DECLARATION

I hereby declare that this project report entitled
MALACCA TRAVEL ASSISTANT

Is written by me and is my own effort and that no part has been plagiarized without
citations.

STUDENT: Rafidah Date: 12 Nov 2007
(RAFIDAH BTE ABD RASHID KHAN)

SUPERVISOR: [Signature] Date: 13-11-2007
(DR NANNA SURYANA HERMAN)

ACKNOWLEDGEMENT

I wish to extend my grateful appreciation to all those who have contributed directly and indirectly to the preparation of this project. I would like to express my deepest gratitude to my project supervisor, Prof. Madya Dr. Nanna Suryana Herman for his advice, guidance and encouragement throughout the preparation of this project.

Special thanks to the PSM AJK especially Pn Rusnida Romli for being very helpful, not forgetting to my classmates and friends for their help and making this study a wonderful experience.

I would express my sincere thanks to my parents and family members for their encouragement, inspiration and patience which they provided at every step during my study here in UTeM.

Last but certainly not least, my acknowledgement to you all who had helped me directly or indirectly, thank you for your kindness and encouragement.

ABSTRACT

Tourism is an information-intensive industry in which its competitiveness today is increasingly determined by the ability to develop and assimilate innovative ways to respond to the dynamic nature of the tourism environment and its new paradigms to provide value adding tourist services. This project aims to bring about the changes, development and better improvement to the current Malacca tourism information system through the effective use of computer technology in terms of information management to provide both value and service to attract more tourists coming to Malacca. Based on waterfall software development life cycle, a prototype of Malacca Travel Assistant System is built. This system built incorporates multimedia elements such as maps and graphics and provide a value-added service to the user based on the characteristic of assisting user in making decision in which enable the potential tourist to adjust and access the information according to their own individual needs and can generate a customize travel plan based on the selected destination, budget, restaurants, hotels, events, place of interest and etc.

ABSTRAK

Industri pelancongan merupakan sebuah industri yang berotentasikan maklumat di mana daya saingnya semakin dipengaruhi oleh kemampuan atau keupayaan untuk menggunakan kaedah yang inovatif bagi menangani sifat industri pelancongan yang dinamik dan memberikan perkhidmatan yang mempunyai nilai tambahan kepada pelancong. Oleh yang demikian, projek ini bertujuan untuk mengkaji dan mengemukakan cadangan bagi meningkatkan lagi kecekapan pengurusan system maklumat pelancongan negeri Melaka yang sedia ada dan mencadangkan perkhidmatan yang akan menambah nilai untuk menarik lebih ramai pelancong melawat Melaka melalui penggunaan teknologi komputer yang terkini. Metodologi “Waterfall” dalam pembangunan system ini. Prototaip yang di bangunkan mengabungkan unsure-unsur multimedia dan grafik untuk memberi perkhidmatan yang mempunyai nilai tambahan kepada pelancong yang berpotensi untuk menyesuaikan dan mendapatkan maklumat yang diinginkan mengikut kehendak pengguna. Pengguna berupaya untuk menghasilkan sebuah perancangan lawatan yang mengambilkira perbelanjaan, restoran, hotel, peristiwa, tempat tarikan pelancong, dan sebagainya

TABLE OF CONTENTS

CHAPTER	SUBJECT	PAGE
	ACKNOWLEDGEMENT	ii
	ABSTRACT	iii
	ABSTRAK	iv
	TABLE OF CONTENTS	v
	LIST OF TABLES	x
	LIST F FIGURES	xi
CHAPTER I	INTRODUCTION	
	1.1 Project Background	1
	1.2 Problem Statement	2
	1.3 Objective	3
	1.4 Scopes	4
	1.5 Project Significance	5
	1.6 Expected Output	5
	1.7 Conclusion	6
CHAPTER II	LITERATURE REVIEW AND PROJECT METHODOLOGY	
	2.1 Introduction	7
	2.2 Fact and Finding	8
	2.2.1 Domain	8
	2.2.2 Existing System	10

	vii
2.3 Project Methodology	16
2.4 Project Requirements	20
2.4.1 Software Requirement	20
2.4.2 Hardware Requirement	21
2.4.3 Other Requirement	22
2.5 Project Schedule And Milestones	22
2.6 Conclusion	23

CHAPTER III ANALYSIS

3.1 Introduction	25
3.2 Problem Analysis	26
3.3 Requirement Analysis	27
3.3.1 Data Requirement	27
3.3.2 Functional Requirement	27
3.3.3 Non-functional Requirement	30
3.3.4 Other Requirement	31
3.4 Conclusion	31

CHAPTER IV DESIGN

4.1 Introduction	33
4.2 High-Level Design	34
4.2.1 System Architecture	34
4.2.2 User Interface Design	35
4.2.2.1 Navigation Design	35
4.2.2.2 Input Design	35
4.2.2.3 Output Design	46
4.2.3 Database Design	49
4.2.3.1 Conceptual and Logical Database Design	49
4.3 Detailed Design	51
4.4 Conclusion	51

CHAPTER V IMPLEMENTATION	
5.1 Introduction	65
5.2 Software Development Environment Setup	65
5.3 Implementation Status	67
5.4 Conclusion	70
CHAPTER VI TESTING	
6.1 Introduction	71
6.2 Test Plan	71
6.2.1 Test Organization	72
6.2.2 Test Environment	72
6.2.3 Test Schedule	73
6.3 Test Strategy	73
6.3.1 Classes of Test	73
6.4 Test Design	75
6.4.1 Test Description	75
6.5 Conclusion	81
CHAPTER VII PROJECT CONCLUSION	
7.1 Observation on Weakness and Strengths	82
7.2 Proposition for improvement	83
7.2 Contribution	84
7.4 Conclusion	84
REFERENCES	85
BIBLIOGRAPHY	86
APPENDICES	87

LIST OF TABLES

Table	Title	
	Page	
2.1	Project Schedule and Milestones	23
4.0	Sign In	36
4.1	Log In	37
4.2	Events	39
4.3	Hotels	40
4.4	Restaurants	41
4.5	Attractions	42
4.7	WiFi Spot	44
4.8	Maps	45
6.1	Test Schedule	73
6.2	Usability Questionnaire Result for tourists	77
6.3	Average means score of usability criteria for tourists	78
6.4	Usability Questionnaire Result for tourism officer	79
6.5	Average means score of usability criteria for tourism officer	81

LIST OF FIGURES

Figure	Title	Page
2.1 :	Functional Components of TIScover	14
4.1	Three – Tier Architecture	33
4.2	Sign In	35
4.3	Log In	37
4.4	City Guide	38
4.5	Events	39
4.6	Hotels	40
4.7	Restaurants	41
4.8	Attraction	42
4.9	Shopping	43
4.10	WiFi Spot	44
4.11	Maps	45
4.12	Event’s Search Result	46
4.13	Event’s Location Map	47
4.14:	Travel Assistant	48
4.15	Entity Relational Diagram for Malacca Travel Assistant	50
4.16	City Guide	52
4.17	Events	53
4.18	Hotels	54

4.19 Restaurants	55
4.20 Attractions	56
4.21 Shopping	57
4.22 Maps	58
4.23 Sign In	59
4.24 Log In	60
4.25 Travel Planner	61
6.1 Mean for tourist role usability questionnaire result	77
6.2 Evaluation based on tourists	77
6.3 Mean for tourism officer role usability questionnaire result	80
6.4 Evaluation based on tourism officer	80

CHAPTER I

INTRODUCTION

1.1 Project Background

Tourism is one of the most important income sources for the nation Malaysia. Malaysia, with its natural wonders as well as man-made attractions, has the edge to become a premier tourist destination in Asia despite fierce competition from neighboring countries.

The year 2007 has been officially declared by the Deputy Prime Minister Datuk Seri Najib Tun Razak on the 1st of Jan 2007 as Visit Malaysia Year 2007. Visit Malaysia Year 2007 is expected to increase the number of tourist arrivals to the country from the current 15 million to 20 million in 2007.

Tourism is an information-intensive industry in which its competitiveness today is increasingly determined by the ability to develop and assimilate innovative ways to respond to the dynamic nature of the tourism environment and its new paradigms to provide value-adding tourist services.

Founded some 600 years ago, Malacca is where the history of Malaysia began. The city is rich with historical and cultural attractions and is easy to get to, being located on the main highway that bisect Peninsular Malaysia, only 120km south-east of Malaysia's capital, Kuala Lumpur and 250 km north-west of Singapore. A visit to

Malacca is a must for foreign and local tourists. Places of interest include mausoleum of the legendary Malay warrior, Hang Tuah, Hang Tuah's Well, the mausoleum of Tun Teja, the replica of the Melaka Sultan's Palace, A famosa, The Stadhuys, St Francis Xavier's Church and a variety of Museums.

Malacca Travel Assistant is application that will help user in making decision when traveling in Malacca according to their preferences. When planning a trip, one usually needs to take into account a lot of information to achieve the desired vacation. They have to go to various web sites to find information on transportation, hotels, restaurants, car rental agencies, places of interest and etc. This system will do all of this at once and will recommend the best choice for user based on certain characteristics specify by user. This system will be very helpful for tourist who have never been to and are not very familiar with Malacca. It suggests the best mean of transport to get to the destination including the time table and fares; provides the closest restaurants providing cuisine types, price, address, phone number and distance from the user's location. This system will also help user to search for travel route which include maps and graphics. System will suggest few places of interest according to preferred activities, where to shop and etc. User can also find the most suitable hotel to stay according to their budget and facilities needed. The system will have the decision making much easier.

1.2 Problem Statements

Tourism industry in Malacca plays a vital role and carries heavy responsibilities which need to be given immediate attention. While the current tourism information system online does not assist tourism in making decision, this system developed to overcome certain problem statement identified as follows:-

- People use search engine to find information of Malacca, but what they really need is an application that allows them to access a set of related source all at once like hotels information, transportation, places of interest, restaurants and etc.
- To people with no experience staying in Malacca, it might be hard for them to decide which is the best hotel to stay, which hotel provides the lowest rate of room, which hotels has the facilities they wanted since there are so many hotels in town. Modules like the hotel finder, restaurant finder will definitely be helpful for them.
- People who wish to travel alone with no help of travel agencies will often face problems like finding the best transportation and route to go to their desired place. To overcome this, the system will have a module which is the route planner, which will help them in locating hotels, places of interest, and etc.

1.3 Objectives

Based on the problem stated above, the objectives to develop this project are as follows:-

- To develop a system that is convenient and easy to use among tourist in Malacca which will helps user plan their trip from the beginning to the end of their trip, finding the best hotel to stay, places of interest to visit, restaurant to dine and etc according to preferences specify by themselves.
- To develop a system that will help user to manage their budget and time more efficiently
- To develop a travel planner toll which will aid the potential tourist in direction for traveling in Malacca

1.4 Scope

The scope of this project is described as follows:-

I. Users

The targeted users for this application are is the traveler itself, also other tourism authorities and tourism business such as operators, hotels, transport services, telecommunications, and etc

II. Functionality

- Travel Planner

User will enter a desired destination into the system and it will formulate several plan to get user to this destination, when is the suitable time to go to the place, for example whether it is open on weekends or not, time of operation and other related information

- Maps & Destinations

This module will find a route from the user's current position to the desired destination while taking into account the user's preferences, multiple modes of transport and etc.

- Accommodations Finder

This module will provide the best hotel to stay which provide the best rate according to user's budget, facilities needed, location, promotion rate and etc

- **Restaurant Finder**

This module will provide the five closest restaurants to the user's location providing cuisine type, price, address, phone number, address, and distance from user's location

- **Malacca Tourism Information**

This module basically provide the user with general information of Malacca like the list of hotels, restaurants, place to shop, places of interest, travel agencies and etc with graphics and maps. This type of information needed by user at the beginning of their travel planning in order to get a clear picture on what to aspect and this will help them proceed with their travel plan.

1.5 Project Significant

This system will be used mostly in tourism in Malacca. This system will help to promote Malacca and attract tourist to visit Malacca. There are lot of websites which provide information of interesting places to visit, hotels, and transportation. But this system is slightly different because apart from providing such information, the system will give recommendation based on user needs

1.6 Expected Output

The goal of this research is to bring realization of the Malacca Travel Assistant. This is done by designing and implementing a prototype of a system for guidance of travelers in Malacca. Travelers do not have to worry about planning their vacation in Malacca, finding the best hotel to stay, the nearest restaurant and other information of Malacca.

1.7 Conclusion

This project background describes the introduction to the project as a whole. It includes the content of the project, target user and the importance of the project. The problem statement describes the problems related to why this project should be developed. From the problem statements, the objectives of the project can be extracted.

One of the objectives is to develop an application that will help travelers in planning their trip in a more efficient way and much more time saving. The scopes of the project explain the boundary and target user of the project. The needs and the content of this project are also covered in this topic. The project significance explains the output and approach used in this project. The target of this project is to bring realization of the Malacca Intelligent Travel Assistant. This is done by designing and implementing a prototype of a system for guidance of travelers in Malacca. The next chapter will discuss the literature review and project methodology

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter discusses of Literature Review and Project Methodology used during the development of this application. A literature review is an account of what has been published on a topic by accredited scholars and researchers. Literature review it more important to demonstrate knowledge with relevant issues and to make sure no significant issues is missing. Normally, literature review needs to be completed before any research can be started.

Besides explains the details of the project methodology, Project methodology is a specific way of performing an operation that implies precise deliverables at the end of each stage. Choosing the right methodology is very important because it is important to know the right hardware and software requirements needed and it is also important to justify which one is the most suitable in developing this project

Tourism is national's second largest source of foreign exchange after exports. As 2007 is a very special year for Malaysia as we turn 50 year of nationhood, it is also visit Malaysia year. Located on the west coast of the Malaysia peninsular, Malacca is about 120 km south-east of Kuala Lumpur and about 250km north-west of Singapore and is easily accessible by road via the north-south highway.

Thousand of people came to Malacca every year, but there are no system, helping traveler to find the travel route, best hotel to stay, restaurant to dine, places of interest and etc. This system provides user with a personalized, up to date advice, which take into account user preferences. The travelers themselves provide information / preferences about their trip and the system will generate the most suitable hotel to stay, the nearest restaurant and the best route to get to the place.

2.2 Facts and Findings

2.2.1 Domain

In industrialized nations, the travel sector is the leading generator of e-commerce revenue. The enormous success of e-tourism has attracted the attention of developing countries hoping to reap similar gains. Worldwide, travel generated \$52.4 billion in profits in 2004 and is predicted to yield some \$119 billion by 2010, according to Forrester Research.

Many developing countries have already put in place some of the elements needed to successfully market tourism online. The influence of ICT on the sector is expected to grow, and effective use of the Internet for tourism can bring immediate and tangible returns. The expertise that comes from the application of travel assistant may also enable ICT to be expanded into other economic sectors. And it can enable developing countries to win a higher profile for their tourism destinations and to offer products and destinations based on local knowledge which are rarely promoted by travel services based abroad.

The challenge is not only to put in place the technology for e-tourism but to develop plans that are innovative enough to allow public authorities, travel agencies, and local firms providing hotels, meals and other tourism services to work together so that destinations are effectively promoted, arrangements and financial transactions are handled in the country concerned, and marketing and advertising can compete effectively and this information will be very helpful for traveler to make decision and a system which help decision making will be very helpful in this case.

2.2.2 Existing System

Tourism Related Definition

Tourism is a difficult phenomenon to describe. No definitions of tourism are universally accepted. Some defined it as an industry, others defined it as a system or rather an activity. The businesses that comprise tourism offer complementary rather than competing products and services, which complement each other and come together to offer tourists the services that comprise a vacation (Robert, 1997).

few definitions related to tourism will be presented and compared. These definitions include the terms tourism itself, tourism industry, and tourist. Few definitions of tourism are as follows:

- i) All travel for whatever purpose, that results in one or more nights being spent away from home (South Africa, 1996).
- ii) The science, art, and business of attracting and transporting visitors, accommodating them, and graciously catering to their needs and wants. Tourism is further defined as the sum of the phenomena and relationships arising from the interaction of tourists, business suppliers, host governments, and host communities in the process of attracting and hosting these tourists and other visitors (McIntosh et al., 1986).

The first definition for tourism as listed above mainly regard the tourism as a travelling activity which involves accommodation at least one night away from home. This definition would be too general. In contrast, the second definition is much clearer and comprises of the few important elements of a tourism system, which are the attraction (destination), transportation, communication (interaction) and marketing (process of attracting tourist).

For comparison purpose, few definitions of tourism industry are also listed as follow:

- i) All businesses, organization, governmental bodies, and their related facilities, lands and services that accommodate the needs of travelers (Texas, 1999).
- ii) All recipients of direct spend incurred by tourist. This includes pre-trip expenditure on travel and booking, travel and en-route expenditure, and all spending at the destination (South Africa, 1996)
- iii) All recipients of direct spend incurred by tourists. This includes pre-trip expenditure on travel and booking, travel and en-route expenditure, and all spending at the destination (South Africa, 1996).

These two definitions above defined the tourism as an industry. Although system is a more preferred term for describing tourism, the definition of tourism as an industry with clearly defined limits would also be able to provide a clear picture of what tourism is all about. Definition (i) of tourism industry would be a general definition highlighting the sector involved in the tourism industry to provide service to satisfy the need of tourist. Definition (ii) is based on the tourist's point of view in terms of the spending and all expenses paid by tourist in order to travel. Therefore, both of these two definitions do not clearly deliver the main point of what tourism is.