Intelligent Tour Management System

Department of Computer Science and Engineering

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Intelligent Tour Management System

A Project

submitted to the department of Computer Science and

Engineering in partial fulfillment of the requirements

for the degree of

Bachelor of Science in Computer Science and Engineering

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ABSTRACT

Access to relevant and accurate information is at the heart of tourism, more so in this era of the Internet information overload has become a prevalent phenomenon and as such a serious issue for those seeking for appropriate information. Furthermore, various researches have been carried out on how to make information on tourism website more effective. Intelligent tourism management system tries to bridge the gap by noting what a tourist perceives as relevant, in terms of content pertaining to tourism products in tourism websites. This study focuses mainly on content because it is seen as the key factor associated with an effective website. Hence, the aim of this research entails the design and implementation of an intelligent platform that will assist tourists in gaining access to information on tourist locations in Bangladesh. In view of the forgoing, the system was implemented using Rational Unified Process as the adopted software development process, whereas MySQL, HTML and PHP were the implementation tools used in the development of the system. Upon completion, the system was able to provide information by fetching information from the web pertaining to the subject of interest to assist tourists in decision making process. It was also able to act intelligently by using hybrid recommendation technique to recommend tourist locations based on their preference.

DECLARATION

I hereby declare that the project entitled "Intelligent Tour Management System" submitted for the degree of Bachelor of Science Engineering in Computer Science and Engineering in the faculty of Computer Science and Engineering of Bangladesh University of Business and Technology (BUBT), is our original work and that it contains no material which has been accepted for the award to the candidates of any other degree or diploma, except where due reference is made in the next of the project to the best of our knowledge, it contains no materials previously published or written by any other person except where due reference is made in this project.

_____   _____   _____

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Section-01   Intake: 38   Intake: 32

                     Section-01   Section-02

CERTIFICATION

This project " <u>Intelligent Tour Management System</u> " report submitted by Shakil Ahmed, Tanvir Hossain Reza, Shabnam Parveen students of Department of Computer Science and Engineering, Bangladesh University of Business and Technology(BUBT), under the

supervision of M.M. Fazle Rabbi, Lecturer, Department of Computer Science and Engineering has been accepted as satisfactory for the partial requirements for the degree of Bachelor of Science Engineering in Computer Science and Engineering.

(M.M. Fazle Rabbi)
Lecturer & Project Supervisor
Department of CSE

(Prof. M. Ameer Ali)
Professor & Chairman
Department of CSE

DEDICATION

Dedicated to our parents for all their love and inspiration.

ACKNOWLEDGEMENTS

APPROVAL

This Thesis "**Intelligent Tour Management System**" Submitted by Shakil Ahmed, Tanvir Hossain Reza, Shabnam Parveen ID NO: 17182103010, 17182103020 and 15162103050 Department of Computer Science and Engineering (CSE), Bangladesh University of Business and Technology (BUBT) under the supervision of M.M. Fazle Rabbi, Lecturer, Department of Computer Science and Engineering has been accepted as satisfactory for the partial fulfillment of the requirement for the degree of Bachelor of Science (B.Sc. Eng.) in Computer Science and Engineering and approved as to its style and contents.

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ABBREVIATIONS AND NOMENCLATURES

AJAX	Asynchronous JavaScript And Xml
API	Application Programming Interface
CS	Client/Server
CSS	Cascading Style Sheet
DBMS	Database Management System
XML	Extensible Markup Language

TABLE OF CONTENTS

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

1.1 Introduction

Over the years, tourism has continued to gain massive interest at a global scale. It is a major foreign exchange earner for a good number of advanced and emerging economies. It is also true that information explosion makes it cumbersome times to access relevant information to enhance decision making. This has given rise to the emergence of intelligent systems or mechanisms that facilitate quick access to relevant content found in the Internet. For developing countries like Bangladesh, tourism is one of the untapped but potentially big income generator. There are about 142 tourist destinations that spread across the 64 states of the republic of Bangladesh. Whereas some exist naturally, others are manmade.

In this era that has witnessed rapid advances in information technology, information overload has become a serious problem to those seeking for information online. Recently, intelligent search mechanisms have been deployed on the web that shows that the problem of information overload can be partially eliminated by providing a platform with more intelligence to assist tourists in the search for relevant information. Google.com is an example of an intelligent search engine that helps users with information and another class of intelligent system that has proven relevant in addressing the problem of information overload are recommender systems.

In the aspect of tourism, Internet and web technologies have made more readily available information on tourist locations, accommodations, transportation, shopping, food, festivals, and other attractions, thus improving tourism experience.

The goal of this research is to design and implement intelligent platform that will aid tourists in Bangladesh to have access to information on tourist locations thus help fasten their decision-making process.

1.2 Existing Model/ Existing Theory

Tour & Travel is an irresistible word when it comes to tour and travel packages. We offer tour and travel services including ticket bookings, hotel reservations, rental car services, holiday tour packages, domestic tour packages. We provide the most suitably designed as well as the customized travel packages to the customers. We offer everything related to travelling   services under one roof. Today's   extremely exhausting work environment dictates that individuals requires some joyful holiday. We provide stress-free joyful refreshing holidays with cost competitive and customized packages according to their requirements. We provide services in almost each and every city of Bangladesh. We want to serve our customers with best possible service and provide them the kind of comfort they want. We also want to customize our tours as per our customer's requirement without reducing joy or quality of tour. People of all ages and backgrounds will come to enjoy the unique, upscale, joyful, and   refreshing environment that Tour & Travel provides.

1.3 Problem Statement

Existing system of the agency is too old to run the business in nowadays. So, it's necessary to upgrade the system into web-based Travel Management.

1.4 Project Motivation

- What is the history of the problem?
- Why is this problem interesting?
- When and why does the problem occur?
- Is the problem already solved? What is done now?
- Are there any similar systems or solutions to the one you propose? If so, reference and very briefly explain them.
- Are there are possible improvements to current solution

1.5 Objectives of the Project

The project carried out under the title "Intelligent Tour Management System" is a sincere effort towards increasing the speed and enhancing the Performance a managing an Private Work. This has been tried to achieve thought making the whole system computerized along with the basic tasks of Private work and automation of all storage network. Certain additional feature like making new user to use this software, better User interaction etc. This Application is built in NETBEANS and database is in ORACLE 10g.NETBEANS is used as Front end and ORACLE as a backend of this software. You can manage all your information from a single database file. Within the file, divide your data in to separate storage containers called tables, view, add and update table data using online forms, find and retrieve just and data you want using queries and analyze or print data in a specific Layout using reports.

1.6 Organization of Report

The introduction of our project represents in this chapter. Also, existing problem, objectives of our project and motivation of our project discussed in this chapter.
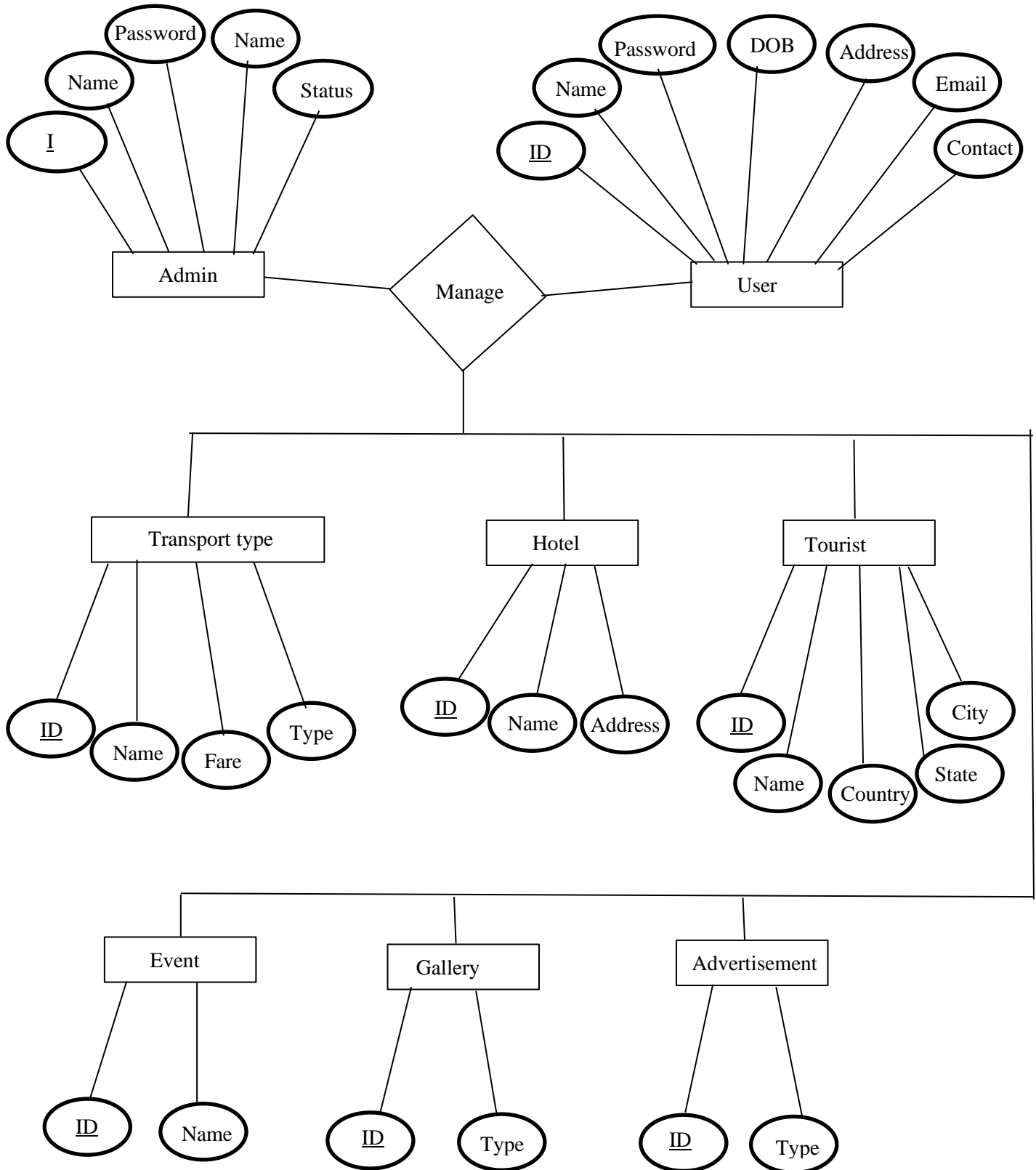
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CHAPTER 2

EXISTING SYSTEM

2.1 Introduction

The Tours Travel Management System is a web-based application and maintains a centralized repository of all related information. The objective of this project is to develop a system that automates the processes and activities of a travel agency. The purpose is to design a system using which one can perform all operations related to traveling and sight-seeing. In the present system a customer has to approach various agencies to find details of places and to book tickets. This often requires a lot of time and effort. A customer may not get the desired information from these offices and often the customer may be misguided. It is tedious for a customer to plan a particular journey and have it executed properly.
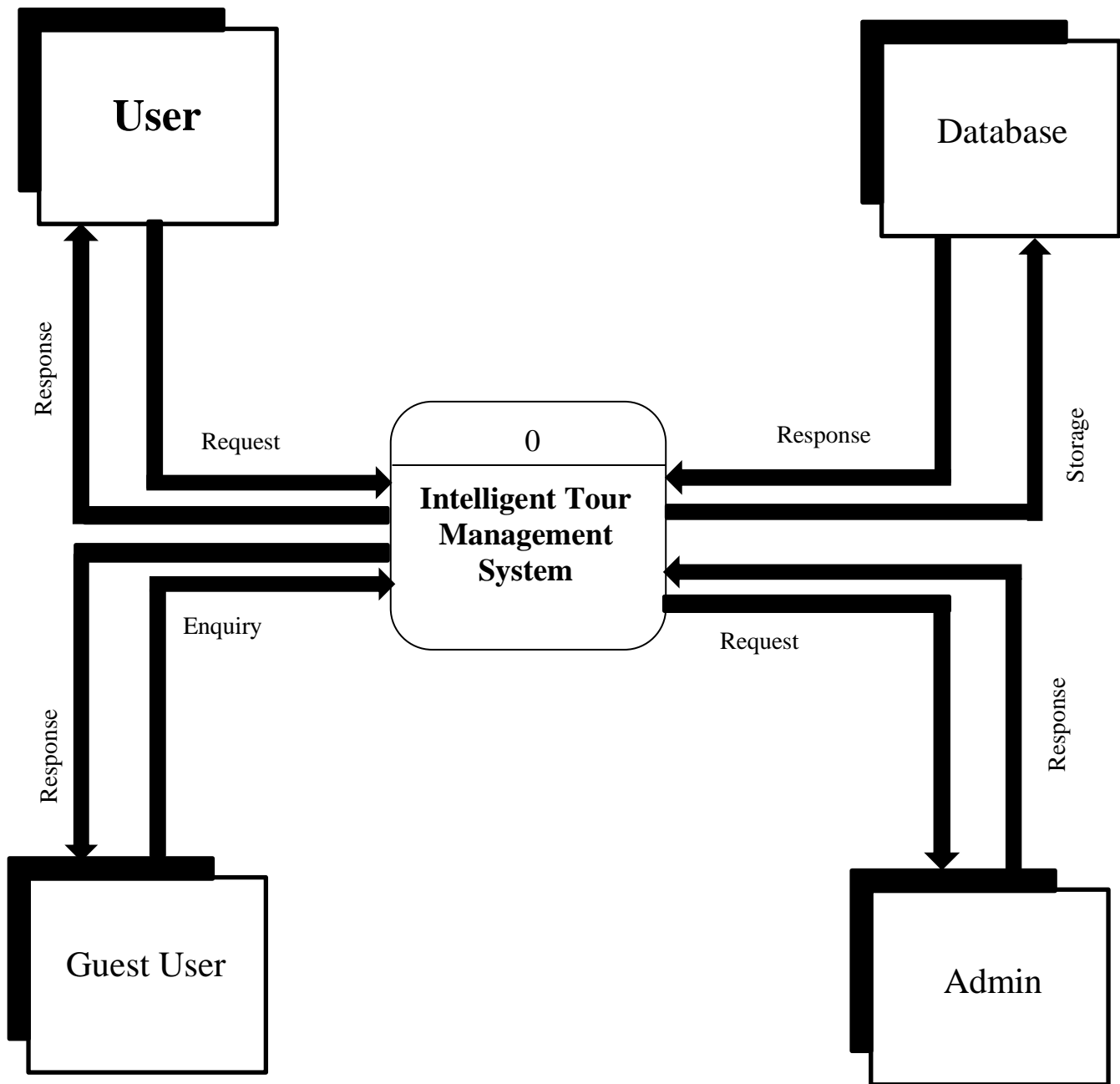
2.2 Existing System

- **Customized Tour Packaging**: A custom package allows workplace teams to choose or personalize the services that will help meet the needs of the group. This includes: building stronger relationships, learning communication & conflict management skills, resolving conflict, developing effective policies, and more.

- **Promotion Management**: Tourism promotion means trying to encourage the actual and potential customers to travel a destination through the spreading of information. Promotion in tourism helps to draw the attention of the potential tourists, modify the behavior of the existing buyers and influence them to visit a destination.

- **Itinerary Creation:** A travel itinerary is a schedule of events relating to planned travel, generally including destinations to be visited at specified times and means of transportation to move between those destinations.

- **Marketing Management:** Definition of Marketing is about anticipating and identifying the wants and needs of a target market of consumers, then satisfying those needs in order to make a profit Firstly, travel and tourism organizations must understand their customers' demands.

2.2.1 Used Diagrams

ER Diagram for Intelligent Tour Management System:

Context Level Diagram of Intelligent Tour Management System:

User

Database

Response

Request

0

Intelligent Tour Management System

Response

Storage

Enquiry

Response

Request

Response

Guest User

Admin

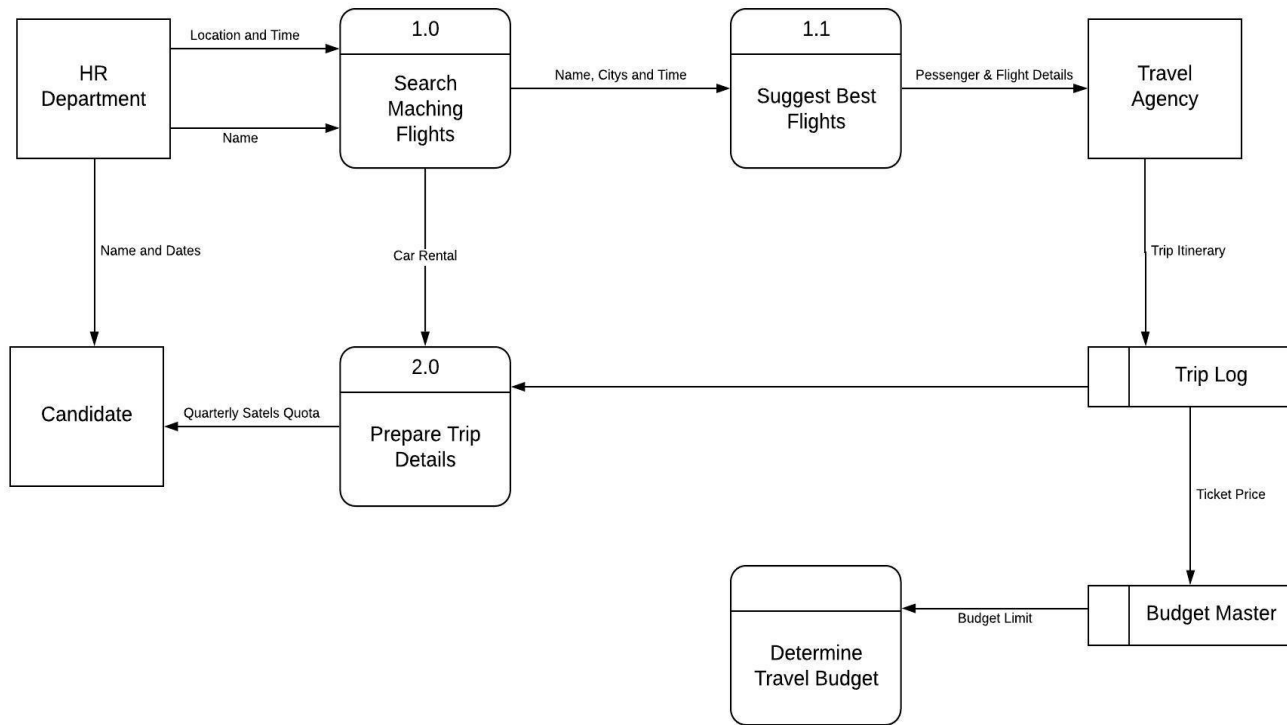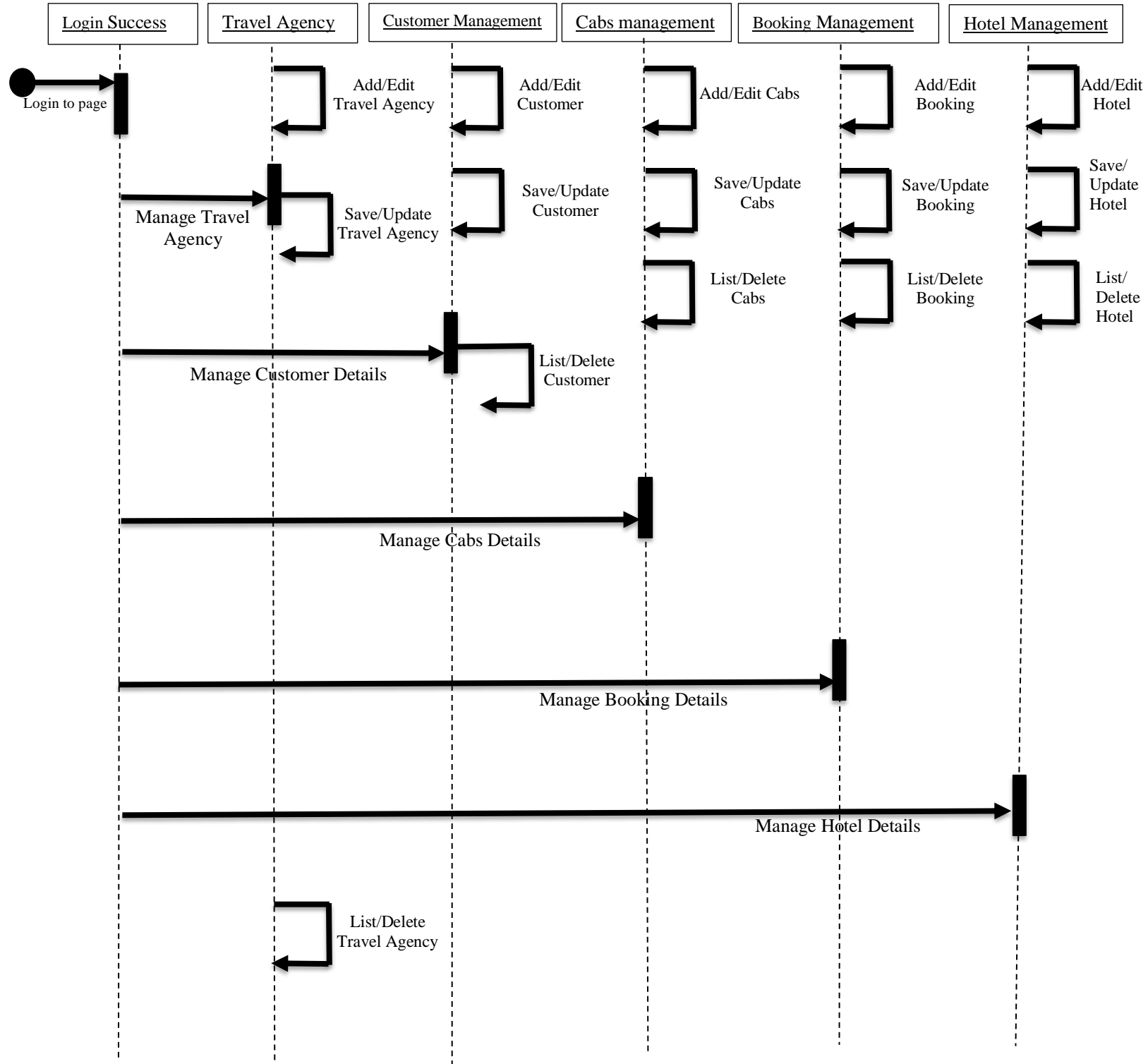# Level Zero Diagram for Intelligent Tour Management System:

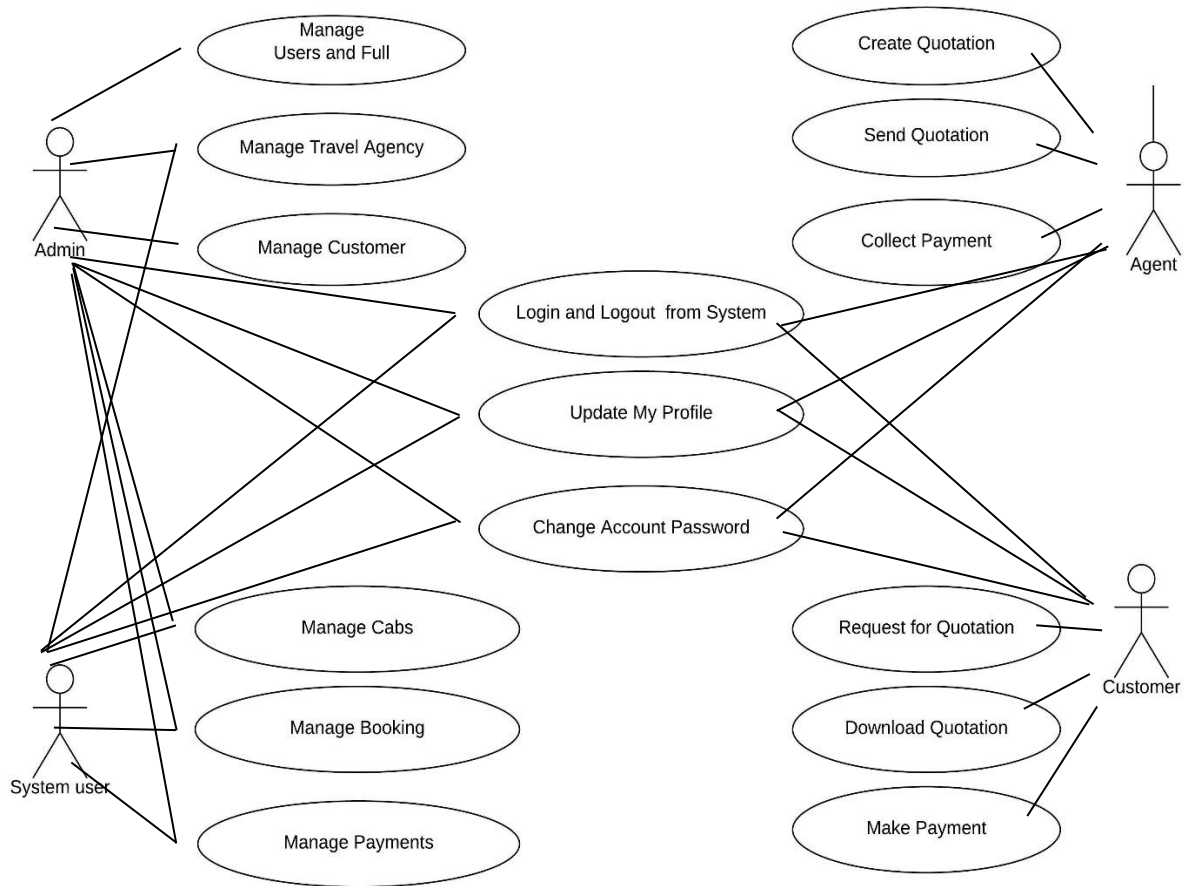
Figure: Travel Agency Management System

Activity Diagram for Intelligent Tour Management System:
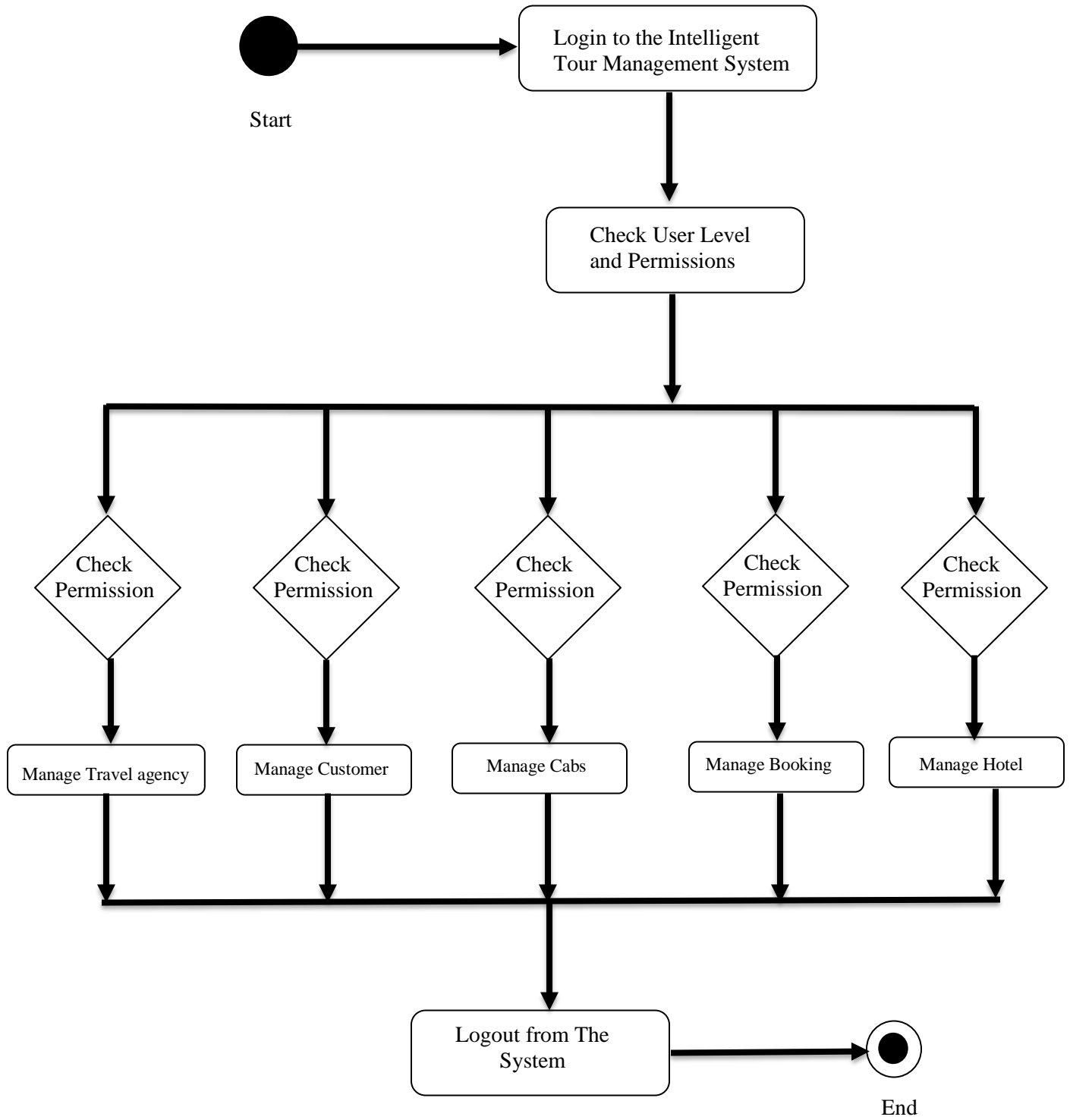
Sequence Diagram for Intelligent Tour Management System:

Use Case Diagram for Intelligent Tour Management System:

2.3 Conclusions

In the present system a customer has to approach various agencies to find details of places and to book tickets. This often requires a lot of time and effort. A customer may not get the desired information from these offices and often the customer may misguide It is tedious for a customer to plan a particular journey and have it executed properly

CHAPTER 3
PROPOSED MODEL

3.1 Introduction

In current competitive scenario every business establishment needs quality processes to increase their efficiency as well as improve their productivity. It is of vital importance that manual, time consuming & monotonous operations are automated so as to streamline the working of an organization.

3.2 Proposed System

✓ **Payment Flexibility:** Travel Agents Offer Affordable Payment Plans - Online booking require payment in full at the time you confirm your reservations. ... If you plan ahead and use a travel agent, you will only be required to pay a small deposit to confirm your family's vacation reservations.

✓ **Vendor Management: Vendor management** is the process that empowers an organization to take appropriate measures for controlling cost, reducing potential risks related to vendors, ensuring excellent service deliverability and deriving value from vendors in the long-run. This includes researching about the best suitable vendors, sourcing and obtaining pricing information, gauging the quality of work, managing relationships in case of multiple vendors, evaluating performance by setting organizational standards, and ensuring that the payments are always made on time. So, that's where the vendor management system or VMS comes in place.

✓ **Reservation Management:** Hotel reservation system is a computerized system that provides a platform for travel agency to manage hotel bookings. It stores rates and inventory of hotel rooms as well as information of clients. Such systems allow tourists to conduct transactions for online hotel bookings

✓ **Reporting and Analysis:** The process of organizing data into informational summaries in order to monitor how different areas of a business are performing. The process of exploring data and reports in order to extract meaningful insights, which can be used to better understand and improve business performance.

✓ **Customer Database:** A customer database is the collection of information that is gathered from each person. The database may include contact information, like the

person's name, address, phone number, and e-mail address. The database may also include past purchases and future needs.

- ✓ **Rental Car Reservation:** A car rental, hire car, or car hire agency is a company that rents automobiles for short periods of time, generally ranging from a few hours to a few weeks.

- ✓ **Flight Booking:** The airline reservation system is a web-based booking solution that helps in consolidating data from all airlines through the use of global distribution systems. The system provides inventory and rates in real time to customers as well as travel agents.

- ✓ **An Intelligent Bot in Existing website:** It will contain a set of questionnaires which the user has to reply using radio buttons. Based on the answer provided by the user an intelligent three algorithms will run and 3 best results will be provided from the online database.

- ✓ **Intelligent Apps:** Replace travel guide by an intelligent app.

3.3 Feasibility Study

A company that does all or some of the following. Organizing group or individual tours within or outside the country, and related to these services (transportation, accommadation, accommodation, etc) Sale or exchange of tickets or flight 'The operation and the different means of transportation (land, air, sea, river)

Market study is part of the study of the feasibility of the project and requires the study of the market to obtain statistics and information by the competent government agencies, the most important of which s the Ministry of Tourism, in addition to the Ministry of Planning and Statistics, which collects data on the movement of tourists and nationalities of tourists and tourist groups and ratios of Hotels ... etc. A number of government offices should be consulted to see such information so that the marketing vision of the projects clear.

3.3.1 Technical Feasibility

Study the number of travel agencies in the country in the city concerned, as well as its field of activity, positives, disadvantages and locations, and the level of cooperation between them and

between the other tourist companies and tourist services companies supporting them, as well as study the field of cooperation between local and international airlines and Travel agents in the city concerned. And study the relationship with the transport companies, hotels, motels and camps, as well as field studies on the extent of confidence and orientation of citizens to travel agents.

3.4 Requirement Analysis

3.4.1 Non-Functional requirement

The nonfunctional requirements of the tourism information service system include the security, reliability, portability and scalability, and maintainability of the system. Each specific function is introduced as follows: The Security of the System: Customers can access the system through registering and confirming in the system, and the customer cannot acquire any service information from the tourism information service system in the case of without the registration. The Reliability of the System: Customers need a legitimate login system to accurately access to the travel information in the system. The Portability and Scalability of the system: When appearing a new customer, it can extend the function of the system on the basis of the original one and will not affect the existing function. The Maintainability of the System: Ensure to solve the faults in the system within 24 hours.

3.4.2 Functional requirement

- The customers must register for create the account and login using username and password to use function in the application

- collect data of customers personal information (name, address, tell number, old, behavior)

- The customers can view or find the information of hotel, tourist attraction.

- The customers can search for booking hotel, flight after select date time to go.

- The customers can find the information and the calculate system of time, ways, price to the destination place.

- The customers can review place or find another friends and people reviews.

- The customers can see private history with analyses with booking, transport, price, time, etc. And keep or share the information.

- The customers can use function dictionary to translate sentences for communication with different language of travelers.

- The customers can note with text or plan trip with themselves.

- The customers can see monetary compare with Thailand monetary (baht).

- The customers can chat with their friends.

- The customers can manage and see their profile.

- The customers can find the location themselves and share location if they want.

- The customers can see whether of each area inside map or place that they want to go.

- The customers can view friend's photo using newsfeed.

- The customers can view friends in the map with real time, it will show status of customers too if turn on app and turn on share location mode it will show that person with green colour

- The customers can book using the application with email and barcode.

3.5 Conclusions

According to the above problems, this study proposes a solution that improves the construction of tourism information service system through the platform relying on electronic maps, making the system effectively organize tourist information and letting the tourists select the concerned information through getting all kinds of tourism information. The tourism information service system designed by this study should include the functions of tourist login administration, travel line management, query electronic map, tourism services provided, the related content of tourism company and the system background maintenance.

CHAPTER 4
EXPERIMENTAL RESULT

4.1 Introduction:

The tourism information service system can accept at least 500 customers to visit at the same time, and ensure the normal operation of the system. Under the normal network, the response time shown in the electronic map is within 3 seconds, and the response time displayed in the text information is within 2 seconds. It needs a database table with the maximum number of lines of 10000 at least, more than 40 GB disk capacity and 512 MB memory.

4.2 Result Analysis

The running environment of the tourism information service system mainly involves in the main body that is the client and the server. The client's requirement is lower so long as to connect the Internet and install a Web browser component. While the server's requirement is higher, it needs to install Tomcat, Windows Server 2003 operating system and SQL Server 2005 database management system.

4.3 Applications

When choosing the development tools, this system adopts the SuperMapIS of the Beijing SuperMap company as the development platform of the tourism information service system. This technology using component technique is open architecture, and it can undertake the research and development of the tourism information service system. The system also adopts SQL server 2005 database development tools to build the database management system, but also uses SuperMapIS map engine to provide the space for the database technology, thus improving the use efficiency of spatial database, eventually using the Internet browser to access the databases data.

4.4 Conclusions

In addition, the most important thing is to ensure the security of network equipment such as the switches, servers and the firewall. Whats more, it has to restrict to visit the system for the unauthorized customer

CHAPTER 5

USER MANUAL

5.1 Introduction

The purpose of this projects is to help the customers about travel such as make decision, manage time and life of traveler. Make more fun activity between people and can booking using this software.

5.2 System Requirements

5.2.1 Hardware Requirements

a) Server

Configuration:

PROCESSOR / CHIPSET:

CPU - Intel Core i7 (7th Gen) 7500U / 2.7 GHz
Max Turbo Speed - 3.5 GHz
Number of Cores - Dual-Core
Cache - L3 - 4 MB
64-bit Computing – Yes

RAM:

Memory Speed - 2133 MHz
Memory Speciation Compliance - PC4-17000
Comigration Features - 1 x 8 GB
Technology - DDR4 SDRAM
Installed Size - 8 GB
Rated Memory Speed - 2133 MHz

MEMORY:

Max Supported Size - 16 GB
Technology - DDR4 SDRAM
Speed - 2133 MHz / PC4-17000 - 2133 MHz
Form Factor - SO-DIMM 260-pin
Slots Qty - 2
Empty Slots – 1

b) End User/Client

Configuration of our Computer:

PROCESSOR / CHIPSET:

CPU - Intel Core i7 (7th Gen) 7500U / 2.7 GH

Max Turbo Speed - 3.5 GHz
Number of Cores - Dual-Core
Cache - L3 - 4 MB
64-bit Computing – Yes

RAM:

Memory Speed - 2133 MHz
Memory Speciation Compliance - PC4-17000
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Technology - DDR4 SDRAM
Installed Size - 8 GB
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MEMORY:

Max Supported Size - 16 GB
Technology - DDR4 SDRAM
Speed - 2133 MHz / PC4-17000 - 2133 MHz
Form Factor - SO-DIMM 260-pin
Slots Qty - 2
Empty Slots - 1

5.2.2 Software Requirements

5.2.2.1 Server

- Operating System: Windows 7/ XP/8/10
- Front End: HTML, CSS, Java Script.
- Front End Framework: Bootstrap 4
- Server-Side Script: PHP
- Database: MySQL
- Dependency Manager: Composer (If local server using)
- Local server setup package: XAMPP, WAMP or other apache, MySQL servers (If local server using)

5.2.2.2 End User /Client

- o Operating System: Windows 7/ XP/8/10
- o Browsers: Firefox, Opera Mini, Chrome (All the browsers)

5.3 User Interface
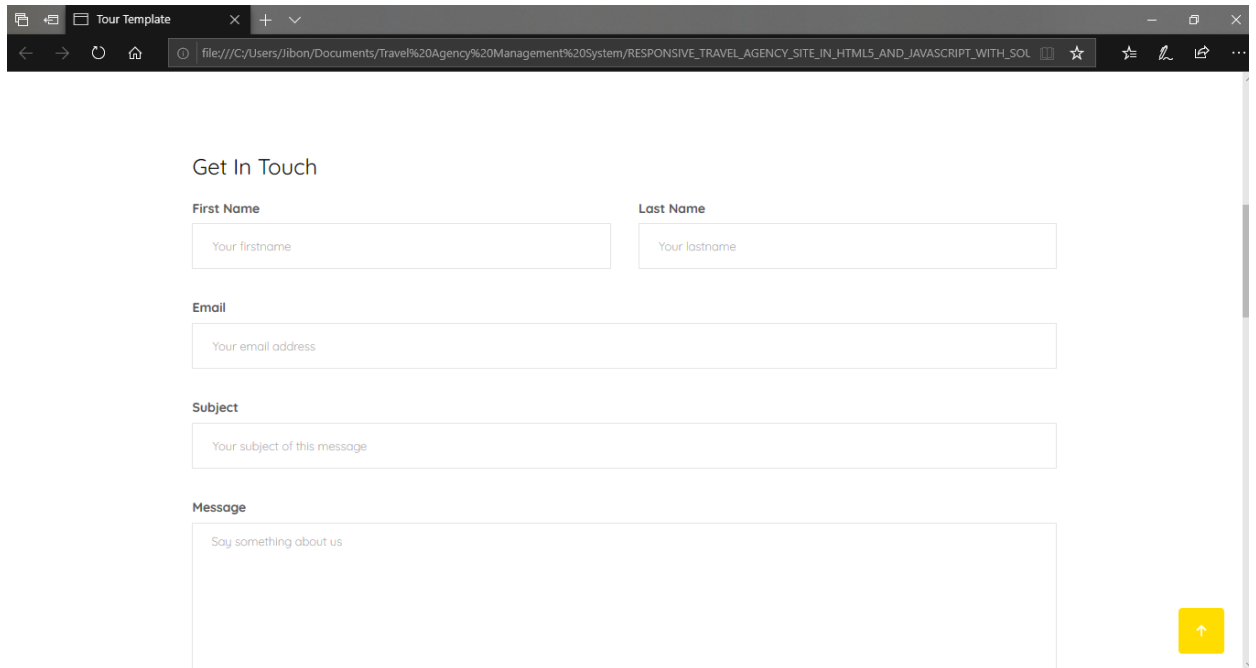
5.3.1 About

5.3.2 Blog

5.5.3 Contact

5.3.4 Hotel-Room

5.3.5 Hotel

$120 /night

★★★★★ 545 Reviews

Hotel Edison

New York, USA

A small river named Duden flows by their place and supplies it with the necessary regelialia.

$120 /night

★★★★★ 545 Reviews

Hotel Edison

New York, USA

A small river named Duden flows by their place and supplies it with the necessary regelialia.

FIND YOUR HOTEL

Check-in:

Check-in date

Check-out:

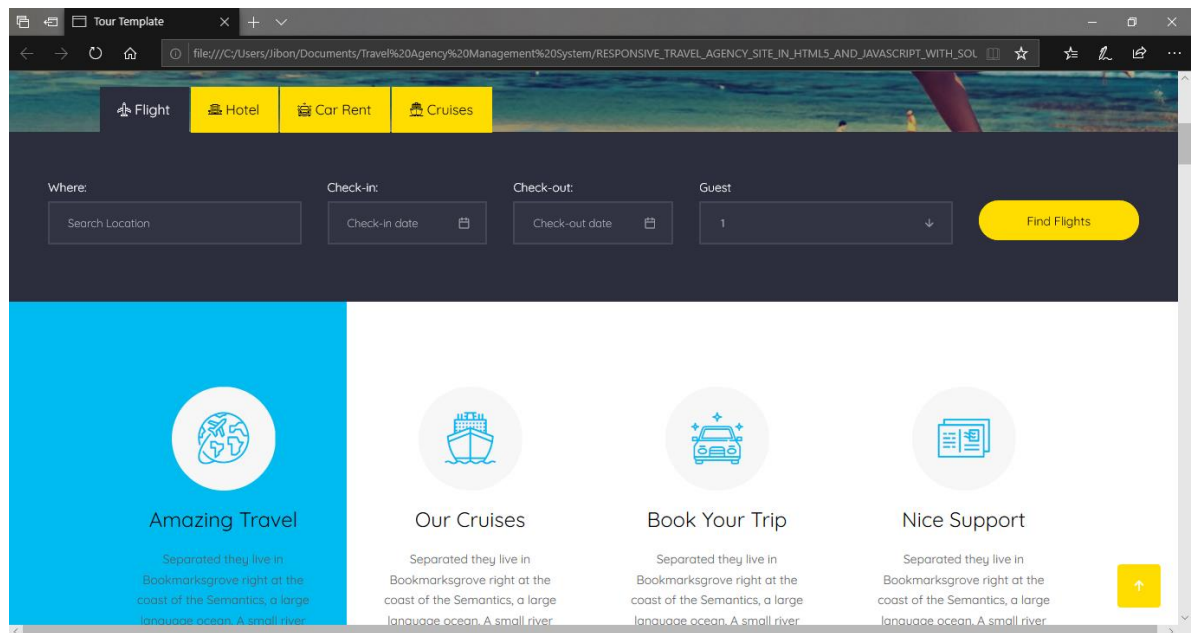Check-out date

Guest

1

Find Hotel
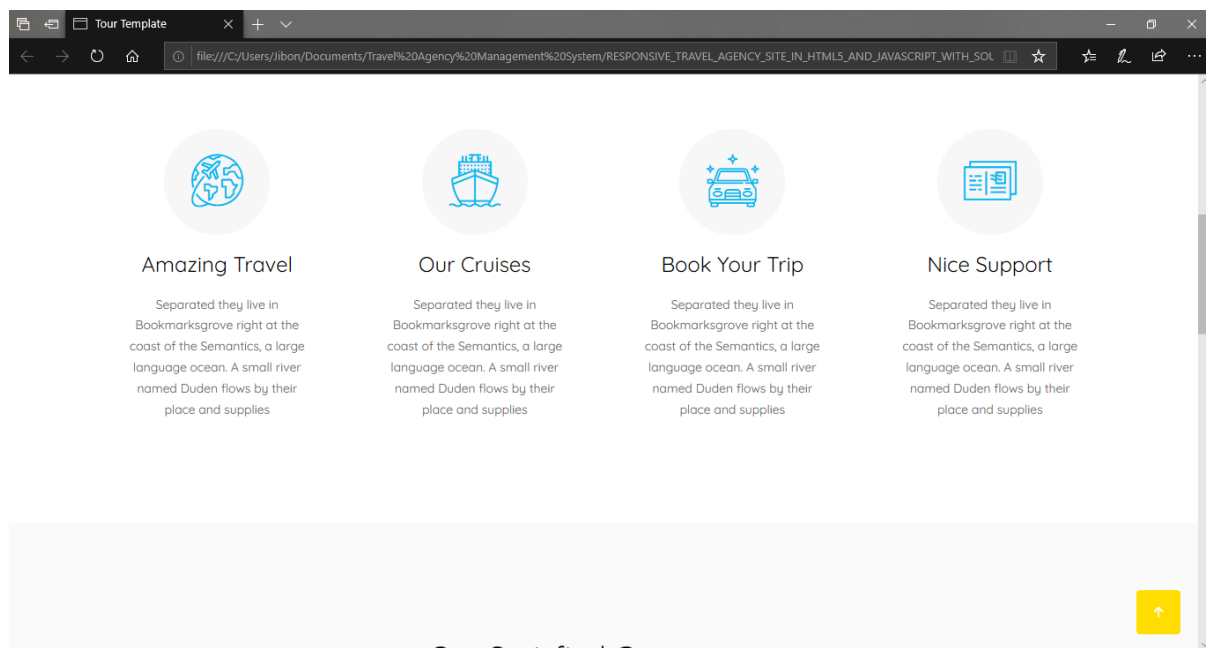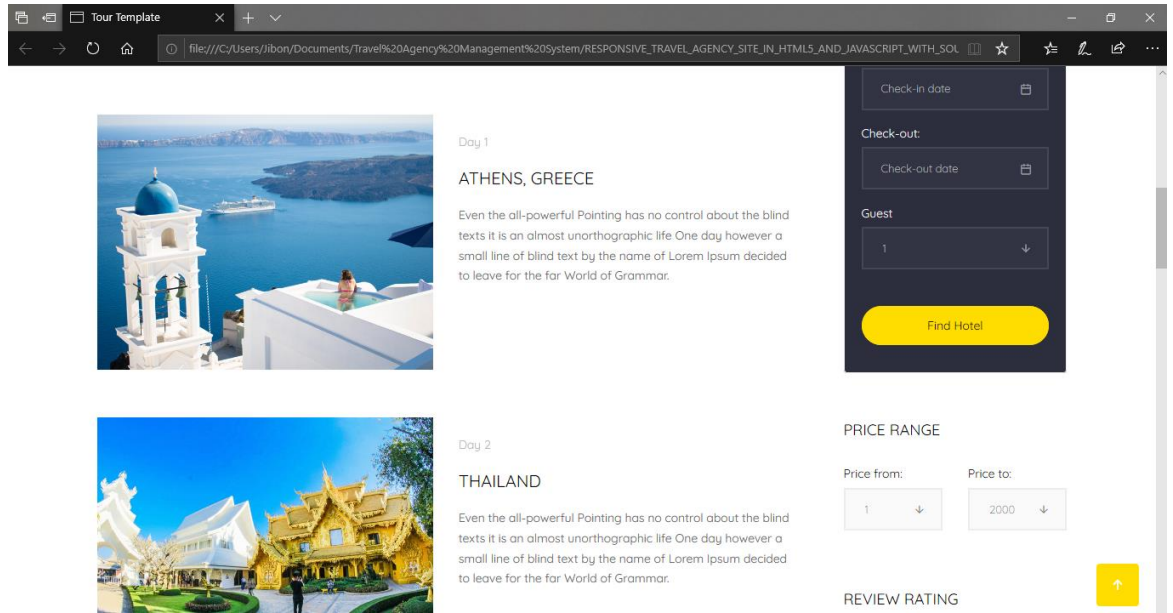
PRICE RANGE

Price from:

1

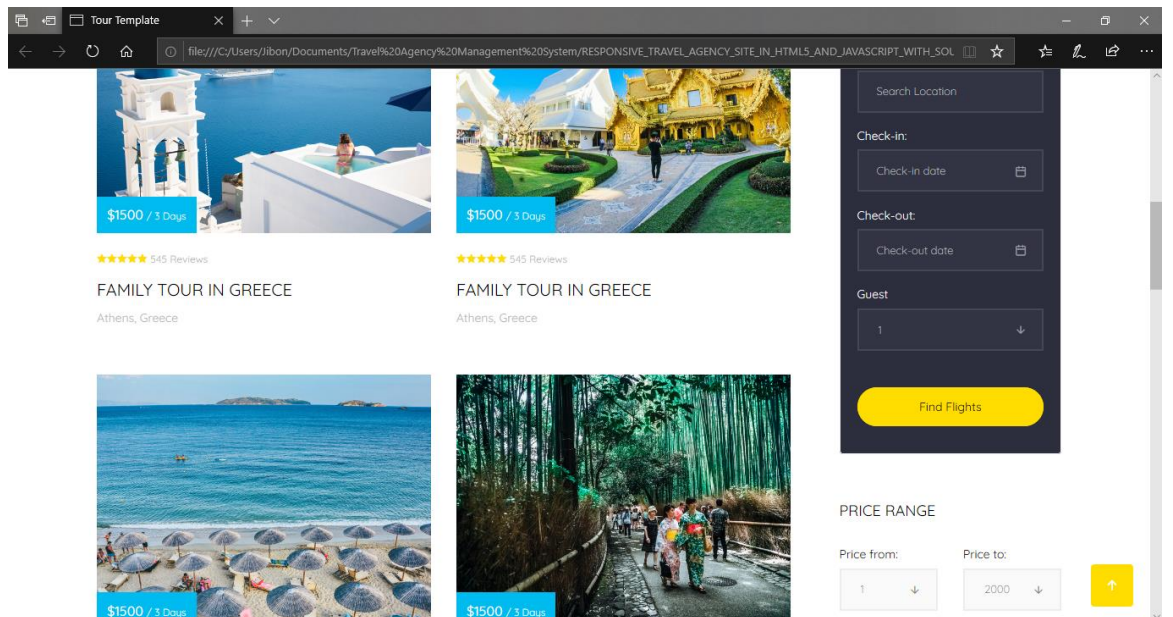Price to:

2000

5.3.6 Index

5.3.7 Services

5.3.8 Tour Places

5.3.9 Tours

CHAPTER 6

CONCLUSIONS AND FURTHER WORK

6.1 Conclusions

This study first discusses on the necessity of the construction of tourism information service system, and then introduces the related technologies in detail which are needed to build the system, such as J2EE technology, Java development language and SQL Server 2005 technology, etc. Then it specifies the construction of the tourism information service system, which includes the business requirements of tourism information service, the goal of the tourism information service system, functional and non-functional requirements, performance requirements and running environment requirements. Finally, it describes the architectural design of the tourist information service system which has a certain applied and extensible value.