

Perpustakaan SKTM

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AVILLION VILLAGE RESORT ONLINE SYSTEM
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Abstract

Information Technology (IT) has a very significant influence in expanding organization's capabilities, particularly to meet the challenges from the borderless environment and global marketing capability. The IT needs in an organization therefore need to be identified that would have an edge and bigger influence in the creation of new culture of working, identify and creation of new business model.

This Avillion Village Resort Online System will be developed to provide an easy and convenience way for all users to gather information and doing online reservation. This system will allow users to access information just by clicking the mouse to have the best view, complete information and online reservation of the hotel just from this website. Furthermore, this system will reduce time and provides the convenience of a paperless environment.

This Avillion Village Resort Online System is a stand-alone system and will be developed with the objectives of providing information for all the services of the resort and a complete form for user to do online reservation. Then, user will receive the confirmation letter, as their guarantee booking. This guarantee booking requires user credit card number or payment by cash as the deposit.

There are two sections in this system where as user section and administrator section. The user section will be provided to any user to search their information about the hotel and can have a lot of convenience way to receive news updates, exceptional offers and more and the administrator section is provided to user that registered as an administrator that will be in charge to maintain the data entry and upload the news of the hotel. This system also provides information about the specialty of the hotel with the

best view images, travel agents services, FAQs and much more. It will be developed on the Windows 2000 Professional platform and utilizes Microsoft Access as the database to store the information. This system also will be used powerful tools for developing the web page contents, Dreamweaver 6.0 that offers more features than Microsoft FrontPage.

In order to build a very user-friendly web page, this system will be developed using scripting language technologies such as HTML, DHTML, and also JavaScript. Using Microsoft Access to provide efficient and secure database to keep information of the clients will develop the online reservation and guarantee form. It is believed that the system will be created with proper environment to become the best website that attract more people to reserve the room and increase the productivity of the resort.

After all the development and implementation phases, the system is running properly and can perform very well to the user after being tested in the testing stages. The system also needs a few enhancements to improve the performance of the system.

Acknowledgement

Thanks for the Mighty of God because of Him; I had finished my WXES 3181 thesis report entitled Avillion Village Resort Online System. For doing this project, I gathered a lot of information and great supports from many personals such as my lecturers, friends and also my family. So here, I would like to thanks all of them that involved directly or indirectly in order to finish up my project.

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Thirdly, I would like to thank my beloved family for supportive and encouragement during finishing my project. Without all of them, I could not give full attention in developing an attractive web page as required.

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Chapter 1: Introduction

1.0 Introduction

There are many existing hotels in the whole places all over Malaysia. The hotel industry in this country is very important as it contributes to the major income nowadays.

This hotel industry will needed a larger publicity to expose and promote their hotel and services to increased the productivity.

The usual promotion for the hotel industry is such as television advertisement, distribution of the hotel brochures to the public and from guest to guest manually. They need something more to attract more people to come to their hotel.

The usage of Information and Communication Technology (ICT) in the hotel industry will help to increase the sales. The hotel will be promoted online to the people that surfing the Internet anytime anywhere all over the world. People will gain information of the hotel services and facilities easier than the manual method.

Unfortunately, most of the hotels in Malaysia are still using space provided by local portal leisure website provider rather than having their own website. This must be due to the lack of knowledge of IT in the hotel industry.

This web-based system is developing to support the Information Technology and create a convenience environment way to dealing between the user and hotel industry.

General objectives of the development for the web-based system in the hotel industry:

1. To introduce the hotel in the World Wide Web,
2. To develop online reservation system for the hotel.
3. To create the paperless environment.
4. To reach a global market customer.
5. To create comfortable environment

1.1 Project Overview

Avillion Village Resort Online System basically is being set up as a business-to-business (B2B) web facility for resort to purchase services and other businesses in the hotel industry. The resort will have a chance to enhanced operating efficiency, increased brand awareness, better industry and market information for management and decision-making, and a platform and channel for promotions for their resort. However, the most significant benefit of the Avillion Village Resort Online System lies in cost-savings. Resort can reduce the cost on promotions just by having the interesting information of their services online.

To realization it, this project will be developed a dynamic, interactive, attractive and user-friendly web-based system that will let people know the services provide by the hotel and the easy way for them to do online reservation to those resort services. This will be including the reservation for bedroom, and ballroom along with their facilities.

The system also gives a lot of essences information about specialty of the hotel along with the interesting images. It is also provided every single kind of the room categories and their special rates, map of the hotel, travel agent services, airport transfer, and lots more.

The Avillion Village Resort Online System also includes information of all the services provide by the hotel such as laundry service, restaurants and others. Besides, the user will be provided with the e-postcard of the Avillion interesting images as one way to attract the user attention.

1.2 Objectives of the Project

The objectives of this thesis project are to build an attractive system that can:

- (i) **Introduce to the users about the Avillion Village Resort and its specialty compare to other existing resort**

There is a lot of information about the resort and its great features along with the best quality images will be provided to attract users to do online reservation.

- (ii) **Online reservation for the services**

Help users to easy booking and receive the confirmation letter by using credit card number as deposit for accommodations reservation without going anywhere. This is very convenience for the users who work during office hour because online reservation can be done 24 hours a day, seven days a week.

- (iii) **Online information of all services provide by the resort**

Display all the services provide by the resort such as all room categories along with their rates and facilities, hotel facilities such as laundry and dry cleaning service, leisure and sport facilities. Besides, this will allow the users to know more or explore the services in detail by just surfing. This will give the users more time to think before making any decision.

- (iv) **Provide latest promotion of the hotel**

Latest information will be uploaded into the website from time to time for the users to know any special events will be held such as Hi-Tea Special or Seafood Heaven Time and any special offer rates for accommodations.

(v) Provide FAQs

This site will provide by the Frequently Asked Questions for the users to settle any confusion. This FAQs will have all the answer for all the problems and confusion of the resort frequently face by the users. The interesting map of the map for rooms, restaurants, gymnasium, etc. coordination will be include to make the users more clear and interested.

(vi) Provide an attractive e-postcard service

This website also provide users to send an interesting images (e-postcard) of the resort and the scenery. This is one way to attract other customer that will receive the postcard from their friends.

The message in this website is competing for attention in a crowded market. Everyday, Internet users are bombarded with information. In this environment, design plays a crucial role in determining whether our message is received. Design is used compete effectively for attention.

1.3 Scope of project

The Avillion Village Resort Online System are inspecting users from all categories to visit this website. This is because the resort offers the affordable rates for all the rooms categories. The E-hotel web-based design proposed in this thesis project will have the following criteria:

- i. **Simplicity** – information will be presented in a short, direct and understandable format for users to get the message at first sight.
- ii. **Professional** – text, graphics, images are properly arranged to illustrate professional, sophisticated and exclusive looks of the resort.
- iii. **Attractive** – the design will be attractive to grab attention and make an appropriate initial for the users to navigate through at the first time visit.
- iv. **Efficient** – consideration the loading time of a website, which will be installed at a server, to be able to reduce the time taken for the website to be loaded.
- v. **User friendly** – the design of the website will be user friendly. Users will find it easy to navigate throughout the website.

1.4 Project Schedule

Project schedule is a schedule of the whole activities of the project development. It is planned out with carefully to make sure a systematic progress and on-time delivery of the product achieved. Project schedule is very important in order to have a guide or time management to a developer. Besides, developer also can know whether in route of the direction of the project or not. The **Table 1.0** below shows the schedule of the activities has been undertaken in finishing this thesis project.

Table 1.0: Avillion Village Resort Online System project schedule

ID	TASKS	MARCH	APRIL	MEI	JUNE	JULY	AUG	SEPT	OKT
1	Resource searching and reading	■							
2	Discussion and gathering information	■							
3	Literature review		■						
4	Requirement analysis		■						
5	System analysis		■						
6	Proposal writing and finalization		■						
7	System design, database setup			■	■	■	■		
8	Module implementation			■	■	■	■		
9	System integration & testing						■	■	
10	Report writing					■	■	■	■

1.4 Chapter Organization

The purpose of this report is to document all the essential information gathered and used to develop this system. This report is mainly divided into five chapters. A brief synopsis of each chapter is as follow:

1. **Chapter 1 Introduction** Serves as an introduction to the entire project that been developed. It overviews the project's objectives, scope, overview of the system and project schedule.
2. **Chapter 2 Literature Review** Talks about the current existing system that reviews on the feature, capabilities, system architectures and so on that will be applied to this system.
3. **Chapter 3 Methodology** Discusses about the aspect of system model that been used and the techniques in solving the problem faced during the project development.
4. **Chapter 4 System Analysis** Fairly discusses the requirements, tools, and technologies consideration as well as how data flow within the system.
5. **Chapter 5 System Design** Documents the system design such as data dictionary and system interfaces. This chapter will show how design a web site based on step-by-step basis.

Chapter 2: Literature Review

2.0 Purpose

A literature review of a project is important as it places the project in the context of others, which might have similar characteristics:

- (i) It offers the developer of using the best way to access and analysis information regarding their research topic.
- (ii) There is no use of reinventing the wheel that has already been invented. The developer can rather focus on learning the existing system and modify or enhance it into a more powerful feature for project.
- (iii) Another important purpose of a literature review is to sufficiently equip the developer with some knowledge of the strengths and limitations of several development tools. This can help the developer to choose the right tool to develop the system.
- (iv) It also helps the developer to recognize the relevant information and synthesize and evaluate it according to the guiding concept.
- (v) It helps users to develop their information seeking and critical appraisal skill.

2.1 Techniques

Information is essential to do a good research and analysis. For this project, several techniques have been taken to seek information. These techniques are as follow:

(i) Refer to reference books

A lot of references can be found from library. References book on hotels in Malaysia and web-based system also can be found from library.

(ii) Search information from the Internet

Internet is the main source of information. Relevant information on web application, client-server and web programming tools are analyzed. From Internet, there is a lot of comparison can be done of the existing web site.

(iii) Do analysis on the pass year thesis

Past year thesis documentation has been studied in order to identify any potential mistakes and gain some skills or software development.

(iv) Refer to magazines and articles

Reference on the latest magazines such as PC World is one of the techniques to gain the latest technology for this project.

(v) Have discussions with friends and lecturers

Useful advises have been given for each section meeting conduct with my supervisor and other lecturers. It is a useful for error correctness and act as reminder when carried out the system development process.

(vi) Conducting interview and survey

Interview and survey have been conducted with administrators and users to find out the information that they want most from the web-based system for the resort.

University of Malaya

2.2 Definition of Avillion Village Resort Online System

Avillion Village Resort Online System is an attractive and interesting website that contains a lot of information about the whole aspect of the Avillion Village Resort. It will help users to find an interesting place for their holiday by providing users with the complete information of the hotel. This website also contains a beautiful scenery of the resort to attract people.

Avillion Village Resort Online System is a computerized system to support day-to-day data entry for reservation services of the resort besides attracting users for vacation. The goal for Avillion Village Resort Online System is to catch users attraction of the resort, to provide complete online reservation form and confirmation letter for the users, to provide efficient data storage, easily accessible to the booking from the Internet and hence provide paperless environment for the users.

The information in this website will be updated and the latest news about the Avillion special offer and rooms rates will be uploaded from time to time. Administrator is the person who has full access to manage all data in the database. The confirmation letter will be given to the customer, which will require customer credit card number or cash payment as their deposit and guarantee booking.

As the conclusion, Avillion Village Resort Online System is a visual attractive place where all the users around the world can find their dream vacation and complete package for holiday only by surfing this website.

2.3 Current Online E-hotel Web-Based System

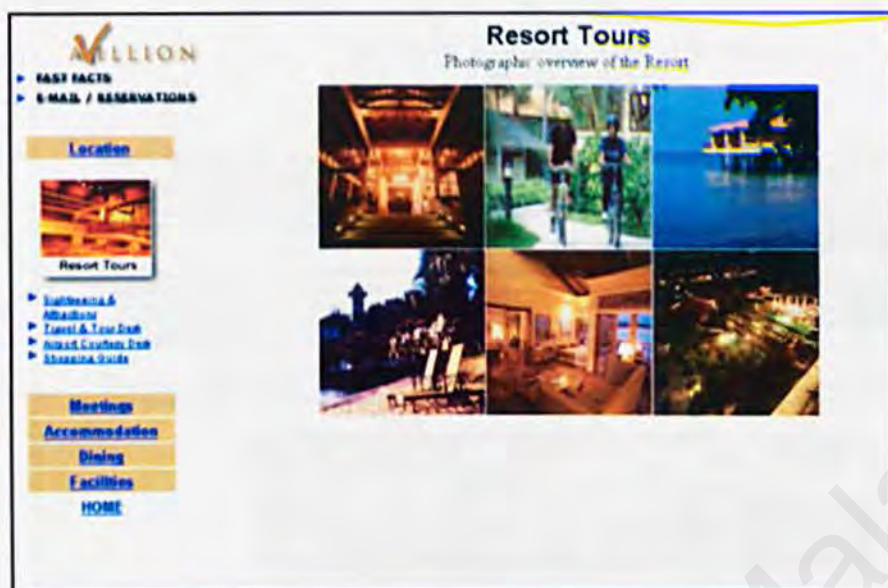
There is a lot of hotel web-based system inside the Internet today. Most of them have their own uniqueness and strong points in order for them to survive in the web. In order to build a website which have a lot of flows of user, it is needs to build a more unique website with more great features and using all the good combination of value inside the existing website nowadays.

Comparison is a very important in looking for the good and bad value in a website. There are a lot of things that we can compare with the existing website such as the graphics, the background color, images, website structure, fonts and many other things else.

After the comparison, then we can start to combine all the good values or a popular column in a website to be used in our own website. This will produce an interesting and attractive website compare to others.

2.4 The existing E-hotel Website

2.4.1 Avillion Resort website



Avillion Resort website is an official website for the Avillion Resort. It provides information about the resort such as the facilities, location and images of the scenery at the resort. The website's layout and design are quite boring with dull color selection as their main background. For a leisure type website, it is lack of information about the resort itself especially images of the surrounding around the resort.



The text on the website as shown here are also not very clear hence making it hard to be defined as especially for viewers with eye-sighted problem.

2.4.2`Berjaya Redang Beach Resort website



Berjaya Redang Beach Resort website contains only a few information about the resort. This information is compiled without structuring the navigation to make it easy for viewers to browse through. The images selection and the composition cant really attract viewers to come and visit the resort. Background color selection are also not attractive and doesn't suit the website as a leisure type website.

2.4.3`Heritage Hotel website

Hotels & Resorts

Where to Stay

index contents

about us

index

add your info

email this page

contact

map

e-cards

Heritage Hotel Cameron Highlands

Jalan Gereja Tanah Rata, 39000 Cameron Highlands,
Pahang Darul Makmur, Malaysia
Tel: 605 - 4913888 Fax: 605 - 491 5666
E-mail: sales@heritage.com.my
Web site: www.heritage.com.my
Please visit [Heritage Hotel Ipoh](#)

Hotel Facilities: All of our 170 lushly accommodated rooms come complete with state-of-art security card lock system, a mini bar, I D D telephone, remote controlled colour television (with in house screening of your favorite movies), coffee & tea making facilities, health club (sauna and gymnasium), room service, shopping arcade, business centre, laundry & dry cleaning, travel desk and safe deposit boxes at the front desk.

Our conference facilities permit you to stage the conference, wedding or birthday celebration of your choice, with space for up to 600 people. While, our smaller but no less well equipped meeting rooms are perfect for smaller functions, for 20 to 120 people.

Hotel Restaurants & Bars: Rainforest Coffee House, Jasmine Garden Chinese Restaurant, Vintage Lounge Bar.

Check Out Time: 12 00 noon

Room Type	Superior	Deluxe	Junior Suite	Executive Suite	Heritage Suite
Room Rate	RM 300.00	RM 340.00	RM 500.00	RM 600.00	RM 800.00



Location Map:

Jalan Besar Tanah Rata

Forest Information Centre

Father's Guest House

School

Where Here

For detail Map, Click the Map-it button



The website for Heritage Hotel contains full information about the hotel such as room rate, facilities and images of the surroundings. With organized composition of the navigation button, it has complete information from how to get there to the details of the facilities. Color selection for the website are also systematic as it uses few main color for the overall website. The loading time for the website is also short due to the usage of structural content composition and minimal usage of images.

2.4.4 Hotel Del Coronado website



Del Coronado Hotel is located in the United States. The website of the hotel contains information about the hotel and also information for travelers. There are photo tour section where user can have a tour through the website and view images of the hotel, facilities and environment. The composition of the write up and the images are also systematic. But font type for the navigation button is not suitable as it is not clear for the viewers. Selection of images for this website can attract viewers as it displays conceptual images rather than images of the hotel itself.

2.4.5 Shangri-La Hotel website

The screenshot shows the official website for Shangri-La Hotel Malaysia, specifically the page for the Rasa Ria Resort in Kota Kinabalu. The website has a yellow header with the Shangri-La logo and navigation links for various hotel properties. A left sidebar contains a menu with links like Hotel Home, Travel Tips, Reservations, Meetings, Guest Rooms, Dining, Recreation, Services & Facilities, Photo Gallery, Virtual Tour, and Hotel Promotions. The main content area features a large image of the resort's beach and a descriptive paragraph about its location and facilities, including an 18-hole golf course and a 64-acre nature reserve. A map of Borneo highlights the resort's location near Kota Kinabalu. Contact information, including phone, fax, and email, is provided at the bottom, along with check-in and check-out times.

SHANGRI-LA
HOTELS and RESORTS

HOTELS • Golden Circle • Maldives • Phoenix Islands • Resorts • Hotels • Phoenix • Maldives • Phoenix Islands • ABOUT US

中文 11888 Contact Us Site Map Search Home

Shangri-La's Rasa Ria Resort, Kota Kinabalu

At the point where the jungle meets the sea, overlooking the glorious Dalit Beach, is Shangri-La's Rasa Ria Resort. Surrounded by 400 acres of gardens and with rooms overlooking a stunning vista of white sands and surf, the Rasa Ria Resort is a great setting for a romantic or family vacation. Excellent recreational facilities complement the resort's 18-hole championship golf course and 64-acre nature reserve. Shangri-La's Rasa Ria Resort makes for an idyllic retreat to peace and tranquility, as one would expect to find in Shangri-La.

Dalit Bay Golf & Country Club - the resort's 18-hole championship golf course designed by Ted Parslow of E&O Parslow and Associates, 500 metres away from the resort.

Nature Reserve

Shangri-La's Rasa Ria Resort
DALIT BAY GOLF & COUNTRY CLUB
KOTA KINABALU, MALAYSIA

Address:
Pantai Dalit Beach,
P. O. Box 500,
89208 Tuaran,
Sabah, East Malaysia

Tel: (86-88) 792 888
Fax: (86-88) 792 777
Email: malaysia@shangri-la.com

Check in: 2 p.m.
Check out: 12 noon

Map labels: PANTAI DALIT, SHANGRI-LA'S RASA RIA RESORT, TUAHAN OTAMPARELI, SUNGAI MINCKABONG, KOTA KINABALU, TANJUNG ARU.

Shangri-La Hotel website is the official website for Shangri-La Hotel Malaysia. It contains information about the hotel such as the room rates, facilities and also the investor's information. As an international standard hotel, it provides facilities such as meeting space, ballroom for functions and recreation. All this facilities information can be obtain from the website. The website also have a virtual tour section where viewers can take a journey in the virtual world composed as if they're really at the hotel.

2.5 Questionnaires Analysis

For this project I had conducted a survey using 'Questionnaires Method' to 20 working people to get an input of analysis about the tourism industry using online technology. The result of the survey are shown below:

1. Do you know about E-Hotel?

Result: Yes – 14

No – 6

Analysis:

The result shows that many people are aware about the technology but there are still groups that don't know about the service. This concludes that even all of them are regular Internet user, the facilities such as online transactions doesn't attract them. This maybe cause of lack of publicity about the services either on the net, newspaper, magazines or other media.

2. Have you ever used the E-Hotel service?

Result: Yes – 3

No – 17

Analysis:

Most of the survey participants haven't used the E-Hotel service as they're still relying on the old method of checking-in a hotel. Publicity as in advertising and promotions about the services or the hotel itself is very necessary to create awareness about it and to ease user that the services are safe and comfortable.

3. Do you think you need E-Hotel services for your vacation plan?

Result: Yes – 15

No – 5

Analysis:

The result shown that people are aware about the comfort ness the service can offer and would like to try to use the service. It's a matter of how to tell the public about the existence of the service. Yet there are still many hotels or resort that doesn't offer this service.

4. What kind of information you need most in an E-Hotel website?

Result: Room Rate – 12

Hotel Facilities – 4

Promotions – 2

Food – 2

Analysis:

Most of the participants are curious about the room rate. They would like to know either its on their budget or not. Other information about the facilities, promotions and the food are less needed information than the rate. This concludes that information about the price of room of hotel is important to visitors to do budgeting.

5. If there's a promotion going on for using the online booking services through an E- Hotel services, would you join?

Result: Yes – 20

No – 0

Analysis:

All the participants agreed to took part in the E-Hotel services if there's reward waiting. It can be good way of promoting the services and can increase the sales in the hotel industry. This concludes that the E-Hotel services can help on increasing the sales of the hotel industry by using the right way.

2.6 Books and Magazines Analysis

To support this project, I do read some books and magazine of the progress and development of the hotel industry. There is a lot of information of the hotel industry in hard copy method. The specialty of the hotel and the facilities to attract the reader attention is one of the good ways to implement in this project.

Then, I also do some research of the software that I'll be using in my project. There also a lot of PC magazine that really informative enough to help to discover the usage and benefits of the software.

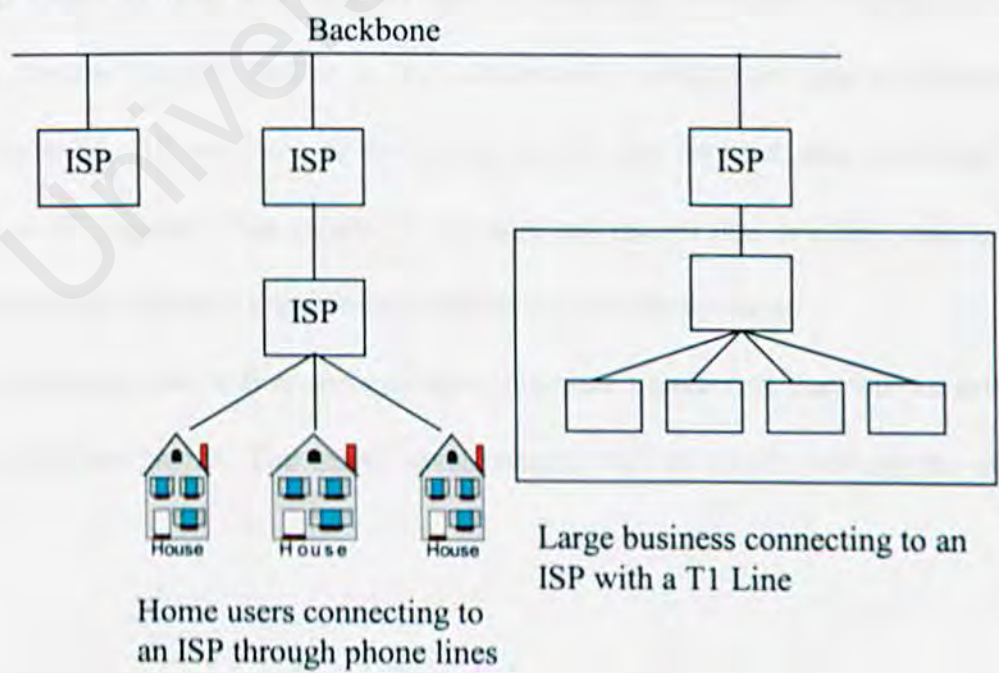
2.7 Web-Based Computing Analysis

2.7.1 Internet

The Internet is a gigantic collection of millions of computers that are all linked together on a computer network. The network allows all of the computers to communicate with each other. A home computer is usually linked to the Internet using a normal phone line and a modem that talks to an ISP (Internet Service Provider). A computer in a company or institution has an NIC (Network Interface Card) that directly connects it to a LAN (Local Area Network) inside the company. The entire company then connects its LAN to an ISP using a high-speed phone line like a T1 Line.

ISP connects to larger ISPs and the largest ISPs maintain fiber optic backbones for a nation or a region. Backbones around the world are connected through fiber optic lines undersea cables or satellite links refer to the **Figure 2.0** below). In this way, every computer on the Internet is connected to every other.

Figure 2.0: Internet connections



2.7.2 E-commerce

Electronic commerce or best known as e-commerce is referred to all the business that has been done via Internet. All the transaction such as online view the resort services details, online select the packages of vacation offered, online reservation, online guarantee reservation, and online confirmation letter are part of e-commerce services.

Besides of the manual method of reservation and involved a lot usages of papers or by make a phone call for doing any reservation all these years, e-commerce provides the services through the network which is more efficient and economic. Business via the Internet make the user has more time to shop anytime anywhere.

2.7.3 Advantages of e-commerce

Developments of e-commerce applications also contribute to many benefits that will influence our daily life. One of e-commerce applications advantages are it will reduce the usage of cost and time to deal in business. With the existence of e-commerce, we don't have to call or go to the resort only to do resort reservation for our planning vacation. All we have to do is just surfing the Internet and searching the material that we required. Plus more, we can surf any resorts that available online and make a comparison between them before making any further decision.

E-commerce also will create unlimited business transaction that will contribute to the businessman profits. The resort advertisement will be easily view by the entire

visual world viewer. It also one of the many business methods that offer the 24 hours non-stop services and can be access anytime anywhere.

Then, e-commerce also offered the better customer services according to their availability to serve their clients with their own private customer services. If e-commerce business and services can be build up successfully, it will increased the local business transaction and income because of their openness to the international foreign business deal.

2.7.4 World Wide Web

The World Wide Web is a global, seamless environment in which all information (text, images, audio, video, computational services) that is accessible from the Internet can be accessed in a consistent and simple way by using a standard set of naming and access conventions. Already we can see some of the unique aspects of the Web that make it so popular:

1. It is easy to use
2. It is easy to move from place to place
3. It combines words, graphics.... even sound and movies - any data type!
4. There are many tools (like this browser) that make the Web easy to use
5. It is easy to publish information
6. And there are millions of people using it now - and more every day!

Tim Berners-Lee and others initially conceived the Web at CERN. The scientists at CERN needed access to a wide variety of information on many different, distributed, computers. Berners-Lee had this idea of universal readership, which is that any client should be able to read any information. Berners-Lee developed the basis ideas, which others have since added to.

Then those involved agreed to work by a common set of principles:

- There would be no central control. The Web works because people work within the agreed-to guidelines. As part of this the Web ethic is that anyone can publish, and anyone (who is authorized) can read information.
- All Web servers would use the same protocols/mechanisms....
 - http, a fast, stateless, extensible transport mechanism would be used to communicate within the Web
 - httpd, or http daemons, would be the base Web server - receiving messages and providing data as requested
 - URLs (Universal Resource Locator) would be used for network-wide addressing
 - All Web browsers would use the same basic language - HyperText Markup Language (HTML)
- And built into the mechanisms is support for format negotiation. Web clients tell servers what formats they can handle, and Web viewers allow basic browsers to use different formats.

2.7.5 The Importance Of Web

There has been a lot of talk about the Web and how it is important. It can effect on business for these four reasons:

1. The ability to easily deliver information in any format, to/from a wide range of computing platforms.

On the Web user can access information from many diverse sources - the competitors, customers, technology providers, international universities, financial institutions, and many other places. This information is on many different computing platforms. The mechanisms of the Web insulate us from needing to know or deal with this - it takes care of getting, moving and presenting the information we need.

In addition to information from external companies, many companies are also using the Web as a mechanism to share information within the enterprise. Several large companies have hundreds of internal servers, and the number is growing rapidly.

The Web has become a standard method of providing distributed information to many different platforms. We are just beginning to appreciate the capability this provides us. We expect to see more applications integrated into the Web in the future, taking advantage of the ability to access and share information across a wide area.

2. Its' potential as a client-server environment.

Web browsers provide a tested client upon which more organizations are building (or converting) client-server applications. Testing time is greatly reduced, and the application will be available on many platforms with no extra effort.

3. Simplified access to the Internet.

The Internet provides access to mail, interactive conferences, network news, and is rich with information resources.... but the Internet can be difficult to use and understand. The World Wide Web makes it easier to use the Internet:

- It provides a graphical interface (on many platforms).
- It supports multimedia (sound, video, as well as graphics).
- It uses the same tools as the Internet, but hides the ugly details.
- It is based on standards/conventions, so sharing is much easier than before.
- All this makes it easier to access information.
- And makes it easier to provide information

4. The wide and rapidly growing amount of information available.

The volume of information available is huge, and growing rapidly. Many of the world's major companies, universities and research organizations are on the Web today, with many others joining daily. The Internet is growing at a phenomenal rate (no one knows exactly how big it is, but as of May 25, 1996 Internet Solutions estimated there were 59,628,024 people on the Internet, and an estimated 304,177 World Wide Web sites on the Internet.)

2.7.6 The Web And Internet

The basis for the Web is the Internet. The Web is built on the Internet, and makes use of many of the mechanisms the Internet provides.

The Internet is the physical aspect - computers, networks, and services. It allows us to connect to thousands of other computers across the world. But it doesn't mean that those systems users' can look at, and understand, the information there.

The Web is an abstraction and common set of services on top of the Internet. It is the set of protocols and tools that let us share information with each other. The Web was developed with the concept of "universal readership" any participating system should be able to read the information on any connected system using a common set of tools:

- Browsers
- Servers/gateways
- Addressing schemes
- Common protocols
- Format negotiation

2.7.7 Uniform Resource Locator (URL)

A URL is simply a "Web address" - the identifier for a specific place on the Web. URL stands for **Uniform Resource Locator**. A URL can be viewed as a networked extension of the standard filename concept:

- Not only can you point to a file in a directory but also that file and that directory can exist on any machine on the network can be served by any of several different methods and might not even be something as simple as a file.
- URLs can also point to queries, documents stored in databases, or the results of a system command.

It is possible to represent nearly any file or service on the Internet with a URL.

2.7.8 URL Syntax

A scheme can include:

- http: a file on a World Wide Web server
- file: a file on your local system, or a file on an Anonymous FTP server
- ftp: a file on an FTP server
- gopher: a file on a Gopher server
- WAIS: a file on a WAIS server
- News: an Usenet newsgroup
- telnet: a connection to a Telnet-based service

2.8 Software and Technology Analysis

2.8.1 Software Analysis

i. Platform

Windows 2000 Professional

Most of the Microsoft Operating Systems such as Windows 95, Windows 98 and 98SE, Windows ME and Windows NT 4.0, they have always crashed. It is always been a matter of switching the computer on and then waiting what would go wrong next but now Windows 2000 Professional appears to be a very stable operating system. It combines the best features of Windows 98 with the reliability, security, and manageability of Windows NT version 4.0.

Windows 2000 Professional is one of the Microsoft's latest operating systems. It based on the NT operating system but has been given a new lick of paint and thrown into the year 2000 to do battle. It balances the needs of a good operating system with the needs of safety. It is a good operating system that will detect programs that aren't working and close them before the whole of Windows is compromised.

It has many features, which help in setting up networks, tutorial and help files and software, which helps give different users access right and privilege levels on one or more computers. It is such a stable operating system and good for networking.

Windows 2000 Professional also known as user-friendly operating system and come along with the Internet Information Services Web server. The Internet Information Services Web server are required to run the Active Server Page for most of the web-based application pages. Then, this features will contributes to build up the web-based application easier.

ii. Web server

Microsoft Internet Information Services (IIS) 6.0

Internet Information Services (IIS) is a powerful Web server which provides a highly reliable, manageable, scalable, and secure Web application infrastructure. It enables organizations of all sizes to quickly and easily deploy Web sites and provides a high-performance platform for applications built using Microsoft ASP.NET and the Microsoft.NET Framework.

Internet Information Services (IIS) 6.0 can increase the reliability of the Web infrastructure, increase the security of the information systems, and deliver a platform for improved developer productivity.

Benefits of Internet Information Services (IIS) 6.0:

- **Increased Web server reliability and availability**-Features a new, fault tolerant architecture that will increase reliability of Web server infrastructure.
- **Easier server management**-Features many management tools designed to reduce the amount of time it takes to manage the Web server infrastructure. These features include a plain text XML configuration file that can be modified without having to stop the server, and command-line scripting.
- **Faster application development**-With IIS, the .NET Framework, and ASP.NET offers developers fast, reliable hosting performance. It also offers international support and support for the latest Web standards.
- **Increased security**-IIS 6.0 provides significantly improved security for Web servers. In addition, authentication and authorization have been improved. It

also provides increased the management capabilities and new command-line tools.

iii. Database

A database is a collection of data that is organized so that its contents can easily be accessed, managed, and updated. The most prevalent type of database is the relational database, a tabular database in which data is defined so that it can be reorganized and accessed in a number of different ways.

Databases contain aggregations of data records or file, such as sales transactions, product catalog and inventories, and customer profiles. Some of the examples of database are IBM's DB2, Oracle, Sybase, and Microsoft Access.

Microsoft Access 2000

Microsoft Access offers an easy-to-use database for managing and sharing data. Access 2000 brings not only the traditional broad range of easy management tools but also adds increased integration with the Web for easier sharing of data across a variety of platforms and user levels and additional ease-of-use enhancements to assist with personal productivity.

Benefits of Microsoft Access 2000:

- **Making Information Easy to find and Use-**Access 2000 continues to offer an easy-to-use tool for easily finding information that provides consistency and integration with other applications in the Office suite.
- **Web-Enabled Information Sharing-**Access 2000 allows to easily sharing information via corporate intranet and ability to easily host a database within the

browser. This combines the power of a desktop database with the power of the web.

- **Powerful Solutions Tools for Managing Information-Power** users and developers may now create solutions that combine to ease-of-use of Access Interface (client) with the scalability and reliability of SQL Server.

Below are the features of Microsoft Access 2000:

Convert Database to Prior Access Version

For the first time, Access users can now down-rev save a database into a previous version of Access, making it easier to share database files with users of different versions.

Database Window

The database window was changed to accommodate the new objects exposed in Access 2000, to enhance usability and to be consistent with the new user interface metaphor used throughout Office 2000.

Name AutoCorrect

Automatically resolves the common side effects that occur when a user renames a database object. Example, when a user renames a field in a table, the change is automatically propagated to dependent objects such as Queries.

Subdatasheets

Subdatasheets provide a picture-in-picture view to focus on and edit related data all in the same window.

Conditional Formatting

Provides support for negative and positive numbers, and values that can be expressed as less than, greater than, between, or equal to. Users will be able to format based on user-defined functions.

Drag and Drop to Excel

Users can now export data from Microsoft Access to Microsoft Excel simply by dragging and dropping Access objects (tables, queries, etc.) from the database container to Microsoft Excel

Print Relationships Wizard

Access now offers the ability to print a visual diagram of the Relationships window, which makes it easier for users to see how the database is structured.

Control Grouping

This functionality allows users to group controls as a single unit to make form design easier.

Compact on Close

Automatically compresses a database when the file is closed if the reduction in disk space is significant. This ensures that Access databases are as small as possible. Users can set the disk space reduction threshold.

Data Access Pages

This feature allows users to extend database applications to the corporate intranet by creating data-bound HTML pages quickly and easily. This will help users share information faster and more efficiently than ever.

Grouped Data Access Pages

This provides the ability to view and manage related information, such as sales by region and sales from a particular sales representative. The data appears in a collapsible hierarchical format when creating Data Access Pages.

Data Access Pages Toolbox

A toolbox is provided in the Data Access Page design environment for creating controls. Users can easily drag and drop each tool as needed.

Field List

The Field List enables users to easily add information to a Data Access Page view simply by dragging and dropping the field names from an easily accessible list.

Microsoft SQL Server Interoperability

Microsoft Access 2000 supports OLE DB, allowing users to combine the ease of use of the Access interface with the scalability of back-end enterprise databases, such as Microsoft SQL Server.

Microsoft Access Project

The Access interface can create a new file type (.adp) that connects directly to the integrated store available in Office, SQL Server 6.5, or SQL Server 7.0.

Microsoft Access Project Design Tools

When working in a Microsoft Access Project file (.adp), new design tools allow users to easily create and manage server side objects including tables, views, stored procedures and database diagrams.

Structured Query Language (SQL)

SQL is a standard language for making interactive queries from and updating a database. Although SQL is both an ANSI and an ISO standard, many database products support SQL with proprietary extensions to standard language. Queries take the form of a command language that lets us to select, insert, update, find out the location of data, and so forth. There is also a programming interface.

iv. Web page

Hypertext Mark up Language (HTML)

HTML is the set of markup symbols or codes inserted in a file intended for display on a World Wide Web browser page. The markup tells the Web browser how to display a Web page's words and images for the user. Each individual markup code is referred to as an element or tag. Some elements come in pairs that indicate when some display effect is to begin and when it is to end.

HTML is a formal Recommendation by the World Wide Web Consortium and is generally adhered to by the major browsers, Microsoft's Internet Explorer and Netscape Navigator. The current version of HTML is HTML 4.0.

Significant features in HTML are sometimes described in general as dynamic HTML. HTML 5 is an extensible form of HTML called Extensible Hypertext Markup Language (XHTML).

Dynamic HTML

Dynamic HTML is a collective term for a combination of new Hypertext Markup Language (HTML) tags and options, that will let us to create Web pages more animated and more responsive to user interaction than previous versions of HTML. Simple examples of dynamic HTML pages would include:

- Having the color of a text heading change when a user passes a mouse over it
- Allowing a user to "drag and drop" an image to another place on a Web page.

Dynamic HTML can allow Web documents to look and act like desktop applications or multimedia productions.

Microsoft FrontPage 2000

The Microsoft FrontPage 2000 Web site creation and management tool gives us everything to create and manage exactly the site that we want, whether we are creating a personal Web page or a corporate Internet or intranet site. It works like Microsoft Office, so FrontPage 2000 is easy to learn and use.

The multiple view in FrontPage 2000 allow us to see all the files in the web, run reports to find slow pages and older files, set up site's navigational structure, and use Folders View to see all the contents on the Web, then set up how the pages link to another in Navigation View.

Benefits of Microsoft FrontPage 2000:

- Create exactly the site with Themes, Dynamic HTML, and enhanced color tools.
- Author in the favorite environment with Better-Than-Notepad HTML editing features.
- Easily manage and update Internet or team intranet sites.
- Save time using familiar Office tools and Office integration features

Macromedia Dreamweaver MX. 6.0

Dreamweaver MX 6.0 has new features for every level of Web developer. It adds more databases code support and server code libraries. This makes Dreamweaver the only program developers will need to create high-performance, database-driven sites.

New support for ASP.NET, PHP, and Coldfusion MX help Dreamweaver stay well ahead of Microsoft FrontPage, which never had database support as complete as UltraDev's. There is also the improved support for ASP and JSP development, as well as for editing and validating.

Dreamweaver tries to solve the palette overload problem which is a workspace increasingly beset by tiny windows because too much must be on-screen simultaneously. It provides solution of grouping windows into one compact, tabbed window and it is easier to use. There is the also addition of features that ease the process of designing pages accessible to those with visual, motor or other disabilities.

So Dreamweaver continues to be the industry leader for professional designers and is still far away the best in its field.

Adobe Photoshop 7

Adobe Photoshop 7.0 software is the professional image-editing standard, that helps us to work more efficiently, explore new creative options, and produce the highest quality images for print, the Web, and anywhere else. It supports creating exceptional imagery with easier access to file data, streamlined Web design, faster, and professional-quality photo retouching.

Microsoft Visual InterDev 6.0

The Visual InterDev scripting object model defines a set of objects with events, properties, and methods that you can use within your Web application. Most script objects represent user interface, elements like buttons and text boxes, and function in a manner similar to controls in Microsoft Visual Basic.

Microsoft Visual InterDev 6.0 is use to identify the features of Active Server Pages (ASP), create a server script and debug the server-side script, set permissions for a Web application, add a Data Source Name (DSN), a data connection and a data command to a project, and identify the advantages of using script objects.

Visual InterDev ships two versions of each script object: one that executes on the server in ASP for generic HTML browsers, and another that executes on the client in Internet Explorer 4.0 and later. The programming model (events, methods, and properties) is identical for both versions. When the ASP page is saved, the script object code is persisted as a combination of standard HTML and script

2.8.2 Technology Analysis

Browser

A browser is an application program that provides a way to look at and interact with all the information on the World Wide Web. The word “browser” seems to have originated prior to the Web as a generic term for user interfaces that let you browse (navigate through and read) text files online.

By the first time Web browser with a graphical user interface was generally available (Mosaic in 1993), the term seemed to apply to Web content too. Technically, a Web browser is a client program that uses the Hypertext Transfer Protocol (HTTP) to make a request of Web servers through the Internet on behalf of the browser user.

A commercial version of the original browser, Mosaic is in use. Many of the user interface features in Mosaic, however, went into the first widely used browser, Netscape Navigator. Microsoft follows with its Microsoft Internet Explorer.

Today, these two browsers are the only two browsers that the vast majority of Internet users are aware of. Although the online services, such as America Online, originally had their own browsers, virtually all now offer the Netscape or Microsoft browser.

Application Service Provider/Active Server Page (ASP)

An ASP is an HTML page that includes one or more scripts (small embedded programs) that are processed on a Microsoft Web server before the page is sent to the user. An ASP is somewhat similar to a server-side include or a common gateway interface (CGI) application in that all involve programs that run on the server, usually tailoring a page for the user.

Typically, the script in the Web page at the server uses input received as the result of the user's request for the page to access data from a database and then builds or customizes the page on the fly before sending it back to the requestor.

ASP is a feature of the Microsoft Internet Information Server (IIS), but, since the server-side script is just building a regular HTML page, it can be delivered to almost any browser. We can create an ASP file by including a script written in VBScript or Jscript in an HTML file or using ActiveX Data Objects (ADOs) program statements in the HTML file. The HTML file named with the ".asp" file suffix. Microsoft recommends the use of the server-side ASP rather than a client-side script, where there is actually a choice, because the server-side script will result in an easily displayable HTML page. Client-side scripts for example with JavaScript may not as intended on older browsers.

2.9 Conclusion

All the information that has been reviewed and studied according to the system requirement in this chapter is so useful and informative. All the methods that have been using like past year thesis analysis, questionnaire analysis and technical requirement analysis will build up a good and successful system.

Chapter 3: Methodology

3.0 Methodology

Methodology is one way or procedure that will be using to develop a system, program or project. Main objective of the methodology is to make a assumption of how to develop the system successfully and giving the good way for the developer to explain briefly of how does the system functioning.

Methodologies that will be using have to fulfill all the criteria of system development to build up the most excellence quality of the system. All the silly errors will be detect earlier to prevent the bigger errors in the next coming phases. Furthermore, it also will clearly state the definitions of all the phases in the project development and give the guidelines to the project management.

The good methodology will give a lot of advantages to the system development. Some advantages that can be reach with the good methodology implementation are:

- Give a standardize check up to the project developer so they will not worry of their responsibility for the project.
- Each phase will produce the highest quality of result in each phase development.
- We will face no problem in checking the system for the next time when follow every procedure given.
- The system quality will be increased with the guideline provide in every phase.
- Give the good explanation to discover the user requirement.
- To give the best way for project planning and control.

The good methodology must has all the criteria's:

1. Easy to use and understand by the analyzer and programmer
2. Cover all the phases in the system development.
3. Related with the application that will be develop.
4. Quality of documentation



Figure 3.10: Waterfall Model

3.1 Waterfall Model

For this project, I chose Waterfall Model as the methodology. Because of the cascade from one phase to another, this model is known as the 'Waterfall Model'.

Waterfall Model takes the fundamental process activities of specification, development, validation and evolution and represents them as separate process phases such as requirements specification, software design, implementation, testing and so on.

This is illustrated in **Figure 3.0** below.

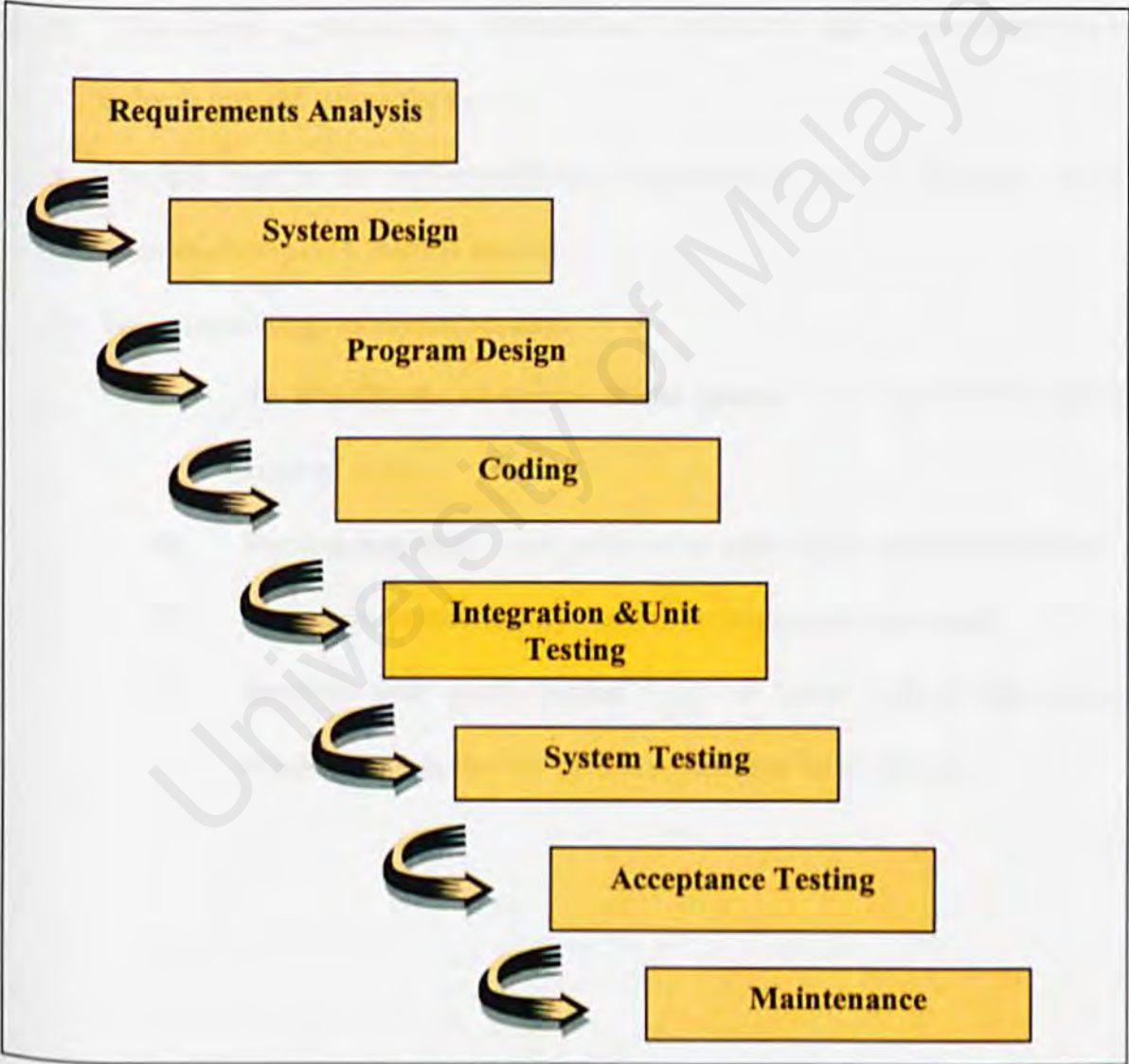


Figure 3.0: Waterfall Model

- Entails the gathering of all sorts of information that is related to the title of the project.
- With the info that has been gathered, analysis is undertaken to identify important factors in order to develop the system.
- Information gathering step will be traced back if there is insufficient information.
- The steps before the current step can be traced back if needed.
- After designing the system, construction is the next step to be undertaken in order to test and debug the system.
- The last stage is the implementation of the system – each of the steps can be retraced during each stage if needed.
- This methodology is chosen because:
 - (i) **To identify the structure of the system** – the logical flow can be referred easily.
 - (ii) **For repeatability** – each step can be repeated to ensure excitability.
 - (iii) **To ensure predictability** – allow estimation for the output.
 - (iv) **Involves user participation** – get to know more of the system requirements so that the perfect system can be produced.

3.2 Other software Process Models

There are many other software process models such as Waterfall Model and Prototyping Model, V Model, Prototyping Model, Operation Specification Model, Transformation Model and Phased Development Model.

These entire models have their own advantages and disadvantages. The process of the model defines the activities of main process. Process also uses the resources that related with problems faced. All the processes have their own sub process. Activities of process have the input and output characteristics and they are applied in sequence.

Process models are used to design the overall understanding of the whole project development. It can detect problems such as inconsistency, looping and omissions. Process models also can be used to get and assess the set of activities that are suitable in order to achieve processes target. It generates the common processes for certain situation where it been used.

Chapter 4: System Analysis

4.0 System Analysis

This section will discuss about the requirements that are required by the system such as the functional requirements, nonfunctional requirements, and software and hardware requirements.

4.1 Requirement Analysis

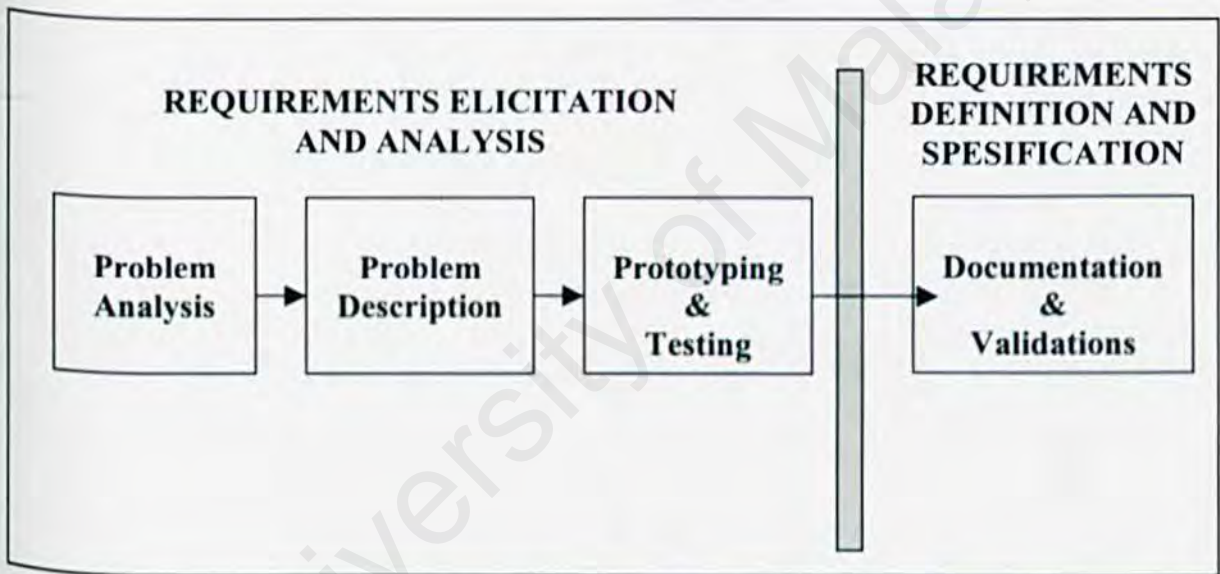


Figure 4.0: The process of determining requirements

A requirement is a feature of the system or a description of something that the system is capable of doing in order to fulfill the system's purpose. It describes not only the flow of info to and from the system but also constraints on the system's performance.

Requirement elicitation is an especially critical part of the process. A variety of techniques must be used to determine what the users and customers really want. Requirements elicitation also enables to explain the requirements definition of the system. Requirements definition is a complete listing of everything the customer expects the proposed system to do. It represents an understanding between customer and developer of what the customer needs or wants and it usually written jointly with developer.

4.2 Functional Requirements

A functional requirement describes an interaction between the system and its environment. Further, functional requirements describe how the system should behave given certain stimuli. Below is the functional requirement of the Avillion Village Resort Online System along with their module.

Figure 4.1: Structure Chart For the User Section

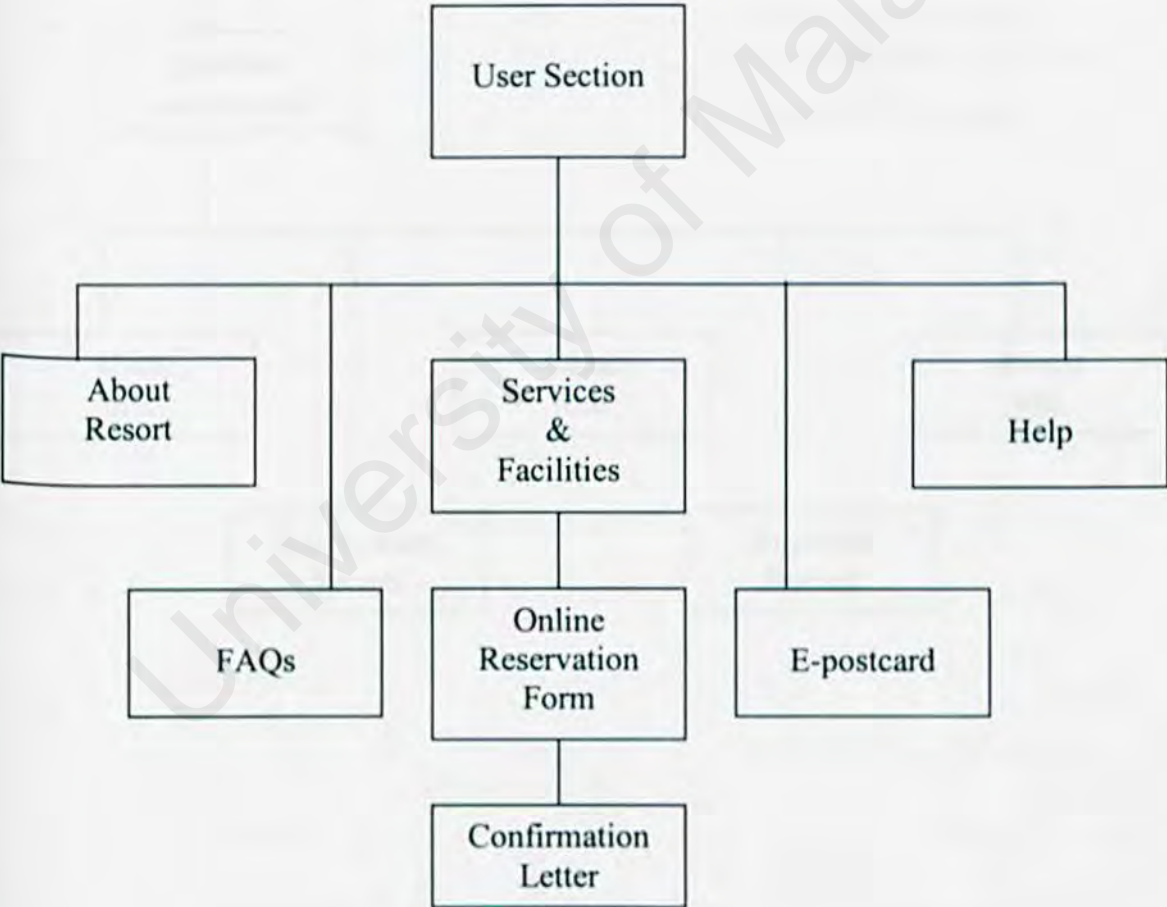
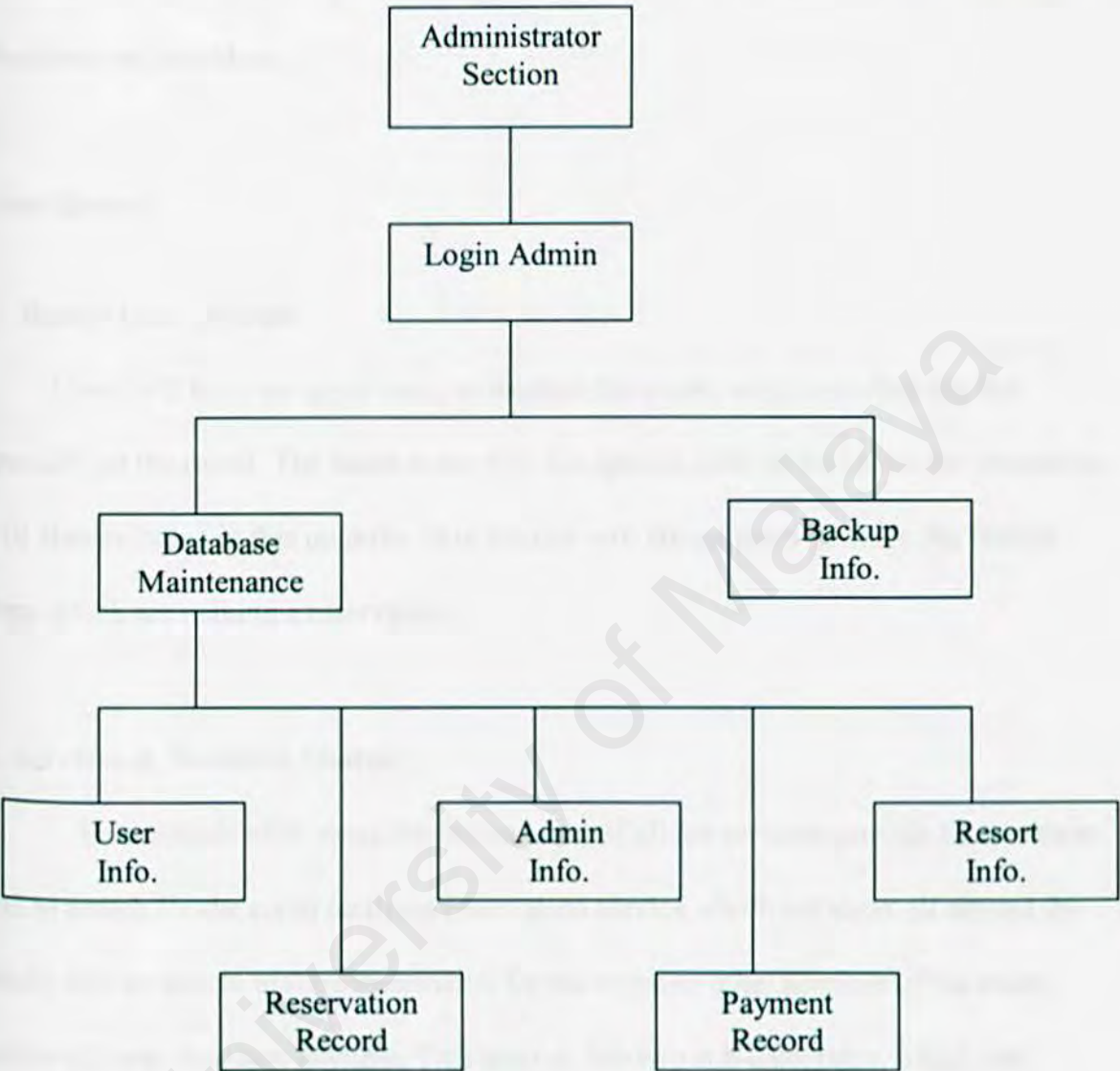


Figure 4.2: Structure Chart For the Administrator Section



Avillion Village Resort Online System basically divided into 2 categories, which are User Module and Administrator Module. Both are web-based application modules. This module has divided to a few sub-modules with their own functions. The functions are including:

User Module

1. Resort Info. Module

Users will have an opportunity to explore the whole website to find out the specialty of the resort. The latest news with the special offer of the resort for promotion will also included in this module. This module will attract users to make the further step, which are making a reservation.

2. Services & Facilities Module

This module offer users the information of all the services provide by the resort and to search for the room facilities reservation service which are users all around the world will be able to make a reservation for the room or other services of the resort online all over the place anytime. This module has two sub-categories, which are:

- **Guarantee module**

After the user has made a verification to reserve the room then they will be asking for their credit card number as a guarantee reserve. User also is allowed to pay deposit cash. Then the confirmation module will take the next step of the process.

- **Confirmation module**

After reservation has been made, user will receive a clarification of confirmation (confirmation letter). This confirmation letter can be print out as a verification that reservation has been made that allows user to check in at the resort. This confirmation' clarification also will be keep by the administrators for hotel record.

3. E-postcard Module

This module allows visitors or resort guests to send an electronic postcard that contains information and images of the resort to whoever they intend to send to. This will attract more people to come and visit the website or the resort itself.

4. FAQs Module

The FAQs module will have a list of frequently asked questions about the resort such:

- i. Where is the resort located?
- ii. What are the facilities provided by the resort?
- iii. How to get there?

5. Help Module

The Help module will consists of instructions on how to use the web facilities including detail directions and definitions on using the reservation and payment forms.

Administrator Module

1. Login Admin Module

The Login Admin Module is needed to verify an authorization person to access into the Administrator Section. This section uses an encryption technique as a security system to avoid unauthorized personnel from accessing this section.

2. Database Maintenance Module

This module consists a database that keeps data of users, administrators and resort info. All the data in this database are protected and confidential to ensure the security of the users, administrators and resort. The database contains a Reservation and Payment Record as a reference of the guests. This database acts as the information storage for guests, so that further steps can be taken to proceed with the reservation.

3. Backup Info. Module

This module acts as a backup to the database to avoid loss of data in case of disaster occurs. This backup information storage will be place at any other server.

4.3 Nonfunctional Requirements

Nonfunctional requirement or constraint describes a restriction on the system that limits our choices for constructing a solution to the problem.

(i) Reliability

It is if the application system s/w and h/w do not cause failure while it's using.

(ii) Usability

Shall be easy to be used.

(iii) User-friendly

Easy of usage, apply better visual effect interface.

(iv) Security

Be able to prevent unauthorized users.

(v) Respond time

The shorter respond time and loading time is good.

4.4 Hardware Requirements (minimum requirements)

4.4.1 Developing the system

- i. Intel Pentium 266Mhz processor
- ii. 10 Gigabytes hard disk
- iii. 128 Mb RAM
- iv. 1.44 Floppy disk
- v. CD-RW drive
- vi. Monitor
- vii. Keyboard and mouse
- viii. Printer
- ix. Scanner

4.4.2 User

- i. Pentium 133Mhz
- ii. 2 Gigabytes hard disk
- iii. 32 Mb RAM
- iv. Monitor
- v. Keyboard and mouse
- vi. Printer
- vii. Network connection modem

The hardware requirements differ from each other due to various functional. The development requires higher performance hardware than user hardware requirements.

4.5 Software Requirements

4.5.1 Developing the system

- i. Microsoft Windows 2000 Professional (**platform**)
- ii. Microsoft Internet Information Service (IIS) 6.0 (**web server**)
- iii. Microsoft Access 2000 (**database**)
- iv. Hypertext Markup Language (HTML) (**web page**)
- v. Dynamic Markup Language (DHTML) (**web page**)
- vi. Microsoft FrontPage 2000 (**web page**)
- vii. Macromedia Dreamweaver 6.0 (**web page**)
- viii. Adobe Photoshop 7 (**web Page**)
- ix. Java Scripting (**web page**)
- x. Microsoft Visual InterDev 6.0 (**ASP Editor**)
- xi. Microsoft Internet Explorer 5.0 (IE) (**browser**)

4.5.2 User

- i. Microsoft 9x/Me/2000/XP
- ii. Microsoft Internet Explorer (IE) (**browser**)

Software requirements are different for each usage. Mainly the software for the development of the system is used for developing system and software requirements for user are for browsing and data entry.

4.6 Software Analysis

According to the comparison of the constraints and advantages of the web development tools and programming language in **Chapter 2, Literature Review for Software and Technology Analysis**, it is decided to choose ASP technology and Java Script as main server-side scripting language for this project. The approach choice is due to the fact that it is simple to implement and no extra addition software requirement needed besides Windows 2000 Professional and IIS 6.0. On client-side scripting, HTML and DHTML are used in order to support the web browser.

Analysis was done on different web servers and this project will use Microsoft Internet Information Services (IIS) 6.0 as the web server. This is because this web server has its own scalability, robustness and support for ASP. Used also Microsoft Windows 2000 Professional operating system and Microsoft Access database management system.

Microsoft Visual InterDev is selected as an ASP editing tool. This is because it is user friendly and easy to use. As for web testing, Microsoft Internet Explorer 5.0 is used to test the web site, as it is the only browser that displays error messages when ASP scripting generated errors.

4.7 Conclusion

System analysis phase involved details' definition of all aspects in the system.

There are 3 requirements definitions, which are functional requirements such as user module and administrator module, non-functional requirement such as user-friendly interface, usability, security and reliability, and the last one is technical requirements and development tools such as ASP programming, Macromedia Dreamweaver and Adobe Photoshop as web tools and graphic editor.

Chapter 5: System Design

5.0 System Design

System design is the process of describing, organizing and structuring the components of a system at both the architectural level and a detailed that will allow the construction of the purposed system. The important idea is that design describes, organizes and structures with a focus toward the construction of a new system.

System design is one of the phases in the system development where requirements for the system are translated into the system characteristics. There are three stages in the design process, which are architecture design, user interface design and database design.

5.1 System Structuring Design

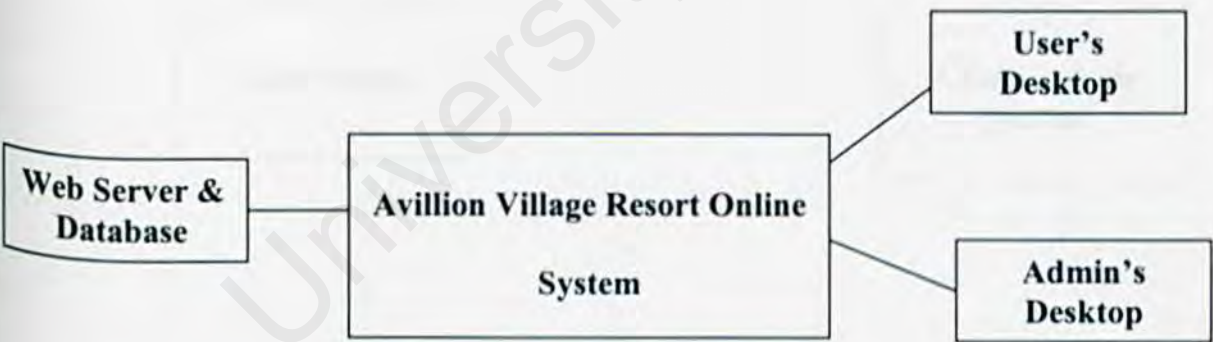
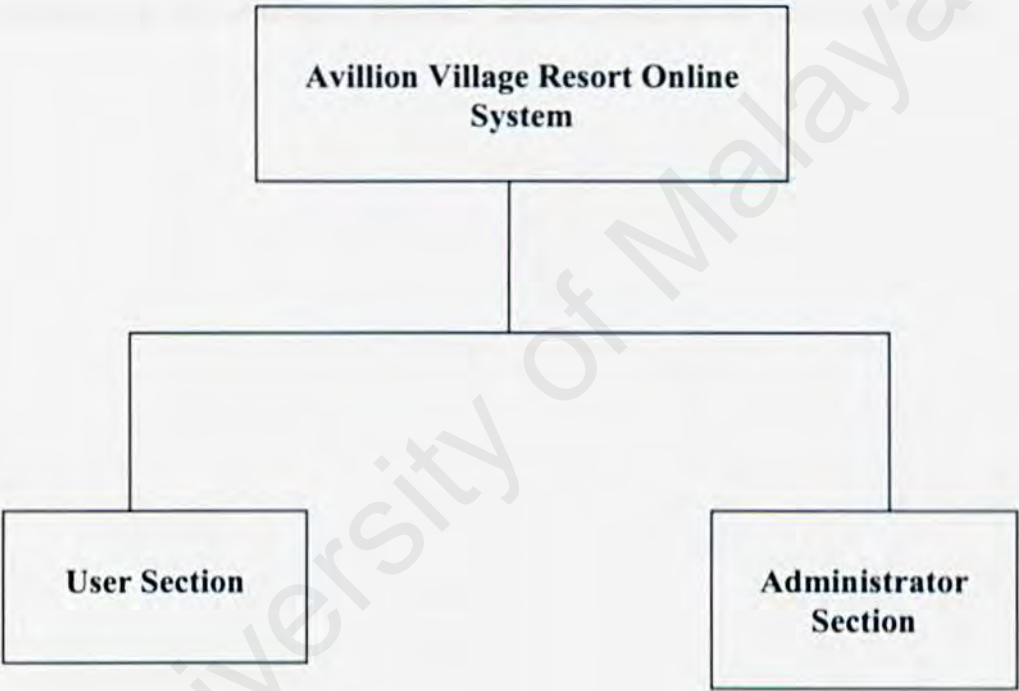


Figure 5.0: Overview of system architecture

5.2 Architecture Design

Architecture design is important in identifies the subsystem that make up the system and their relationship. Each subsystem has its own function but it may relate with other sub-system to form a larger system that consists of two main sections, which are User Section and Administrator Section.



5.2.1 System Structure

System structure will be form with the number of sub-system which every sub-system is a independent unit and can communicates with every single sub-system that exist in the system.

The system distribution into these sub-systems is the most important phase.

Structure in the form of chart has been used to describe the structure more specific.

Avillion Village Resort Online System consists of two important modules, which are the User Module and Administrator Module. Below is the content of the modules:

Figure 5.1: Structure Chart For the User Section

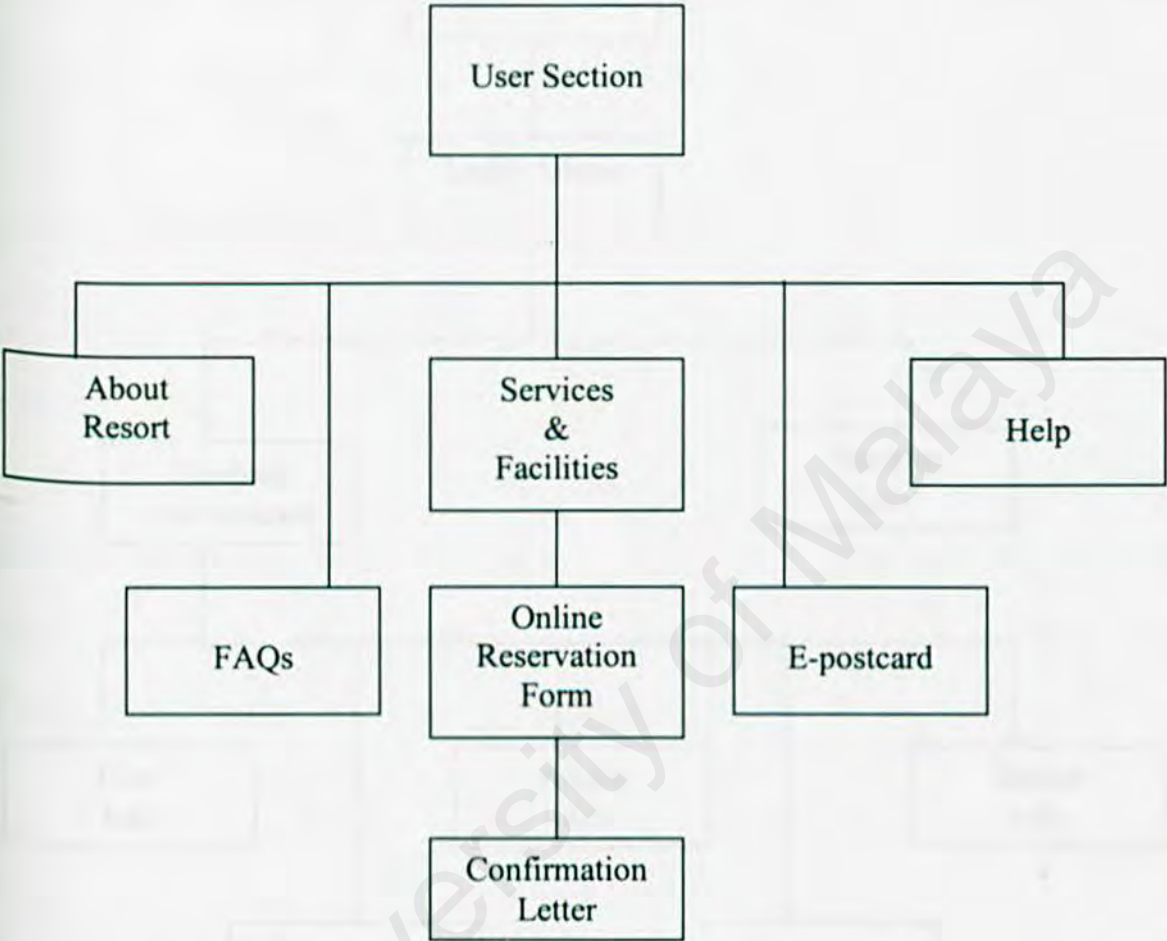
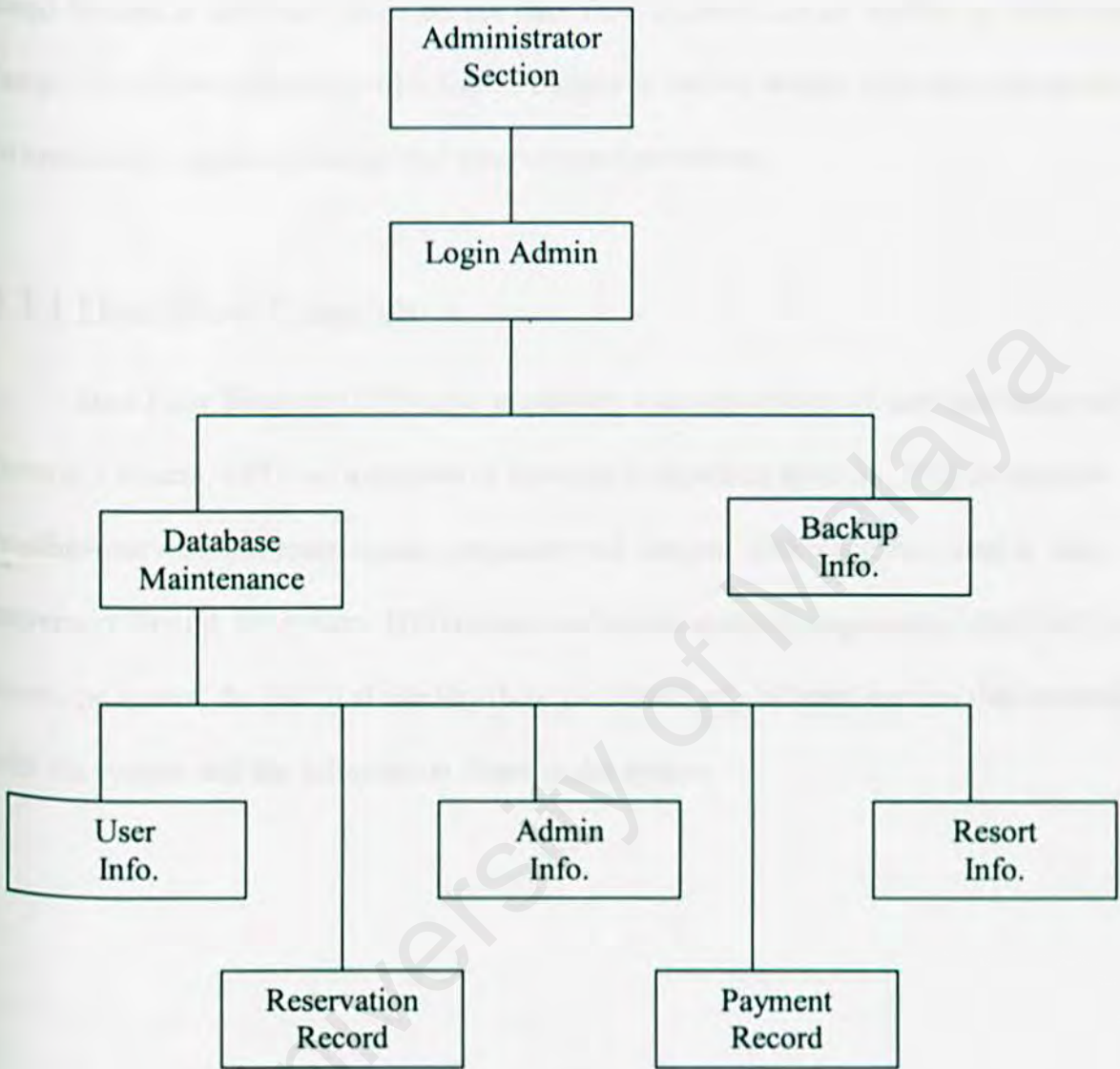


Figure 5.2: Structure Chart For the Administrator Section



5.3 Process Design

There are several design methodologies for the process design. Avillion Web-based System is designed based on the data flow oriented-design method or structured design. Data flow oriented-design has its origins in earlier design concepts that stressed on modularity, top-down design and structures programming.

5.3.1 Data Flow Diagram

Data Flow Diagram (DFD) is a graphically characterization of data processes and flows in a system. DFD use a number of symbols to represent systems. DFD depicts the possible overview of system inputs, processes and outputs, which corresponded to data movement through the system. DFD consists of model system components, which are the system processes, the data that used by these processes, any external entities that interact with the system, and the information flows in the system.

A process model is depicted in the flow chart and data flow model. In the DFD, functional transformations process their input and produce outputs. As data flows from one numbered process to another, it is transformed as it moves. It uses only four symbols as follow:

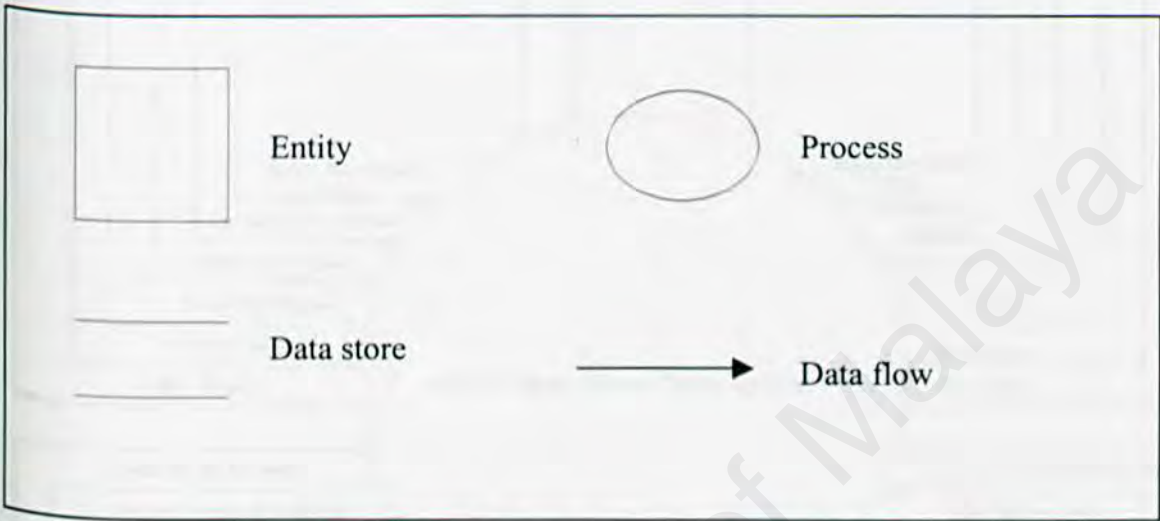
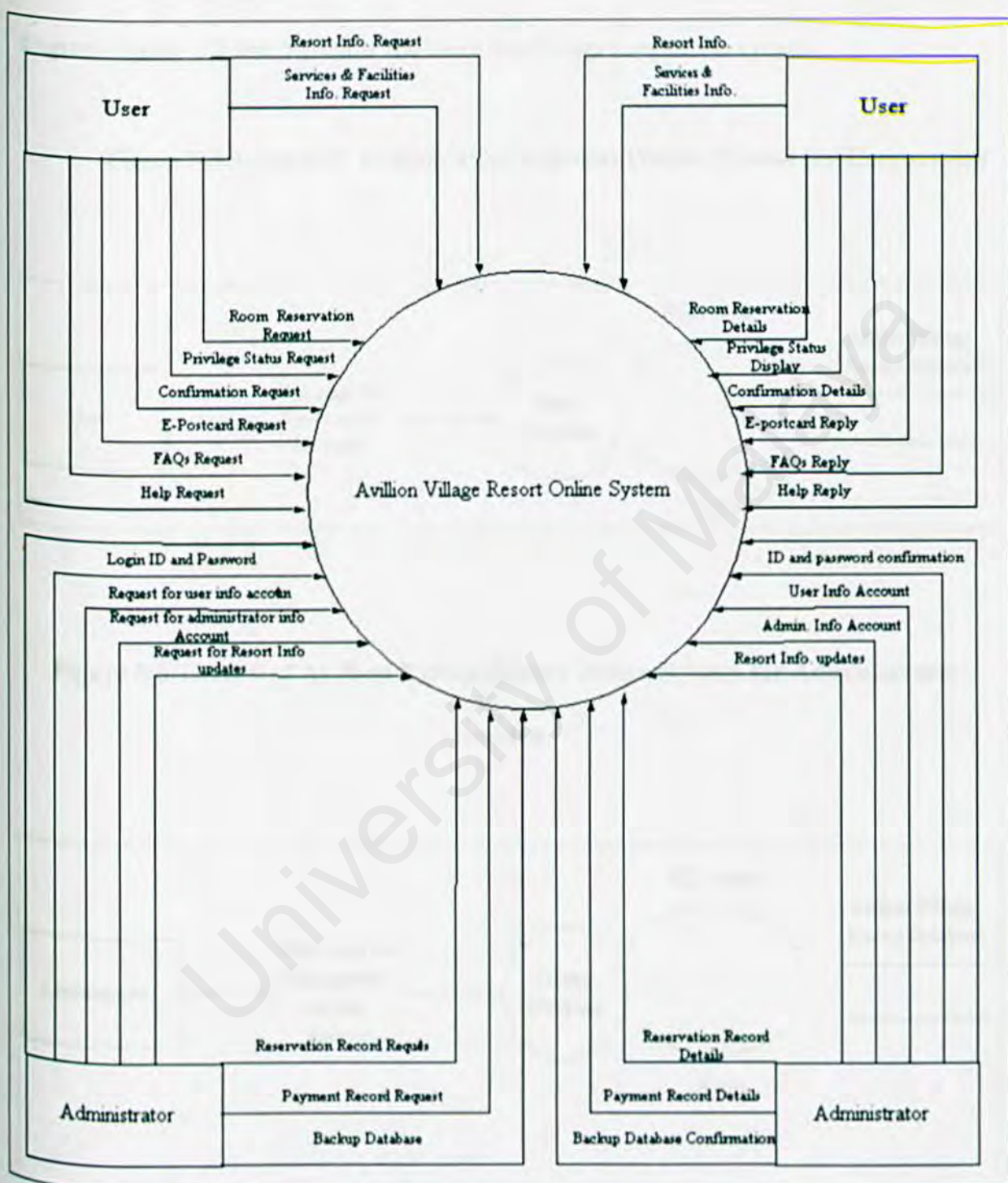


Figure 5.3: Data Flow Diagram Model Symbols

5.3.1.1 Context Diagram

Context Diagram in Data Flow Diagram (DFD) is a overall impression of the system flows which it is only represent the simple input, output and process of the system. Figure 5.4 below is shown the context diagram for Avillion Web-based system:

Figure 5.4: Context Diagram for Avillion Village Resort Online System



5.3.1.2 Level 0 DFD

This is a more complex path and more process of diagram compare to the context diagram. Figure 5.5 and 5.6 show the more detail data flow of the system:

Figure 5.5:Level 0 of Avillion Village Resort Online System for User section

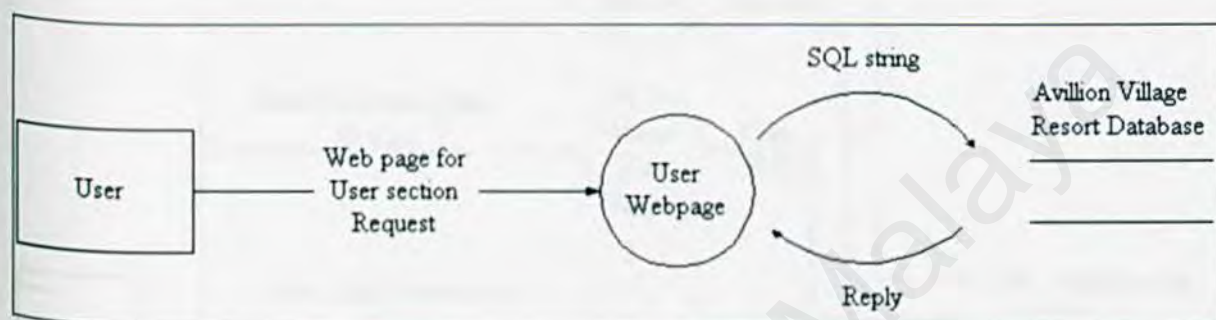
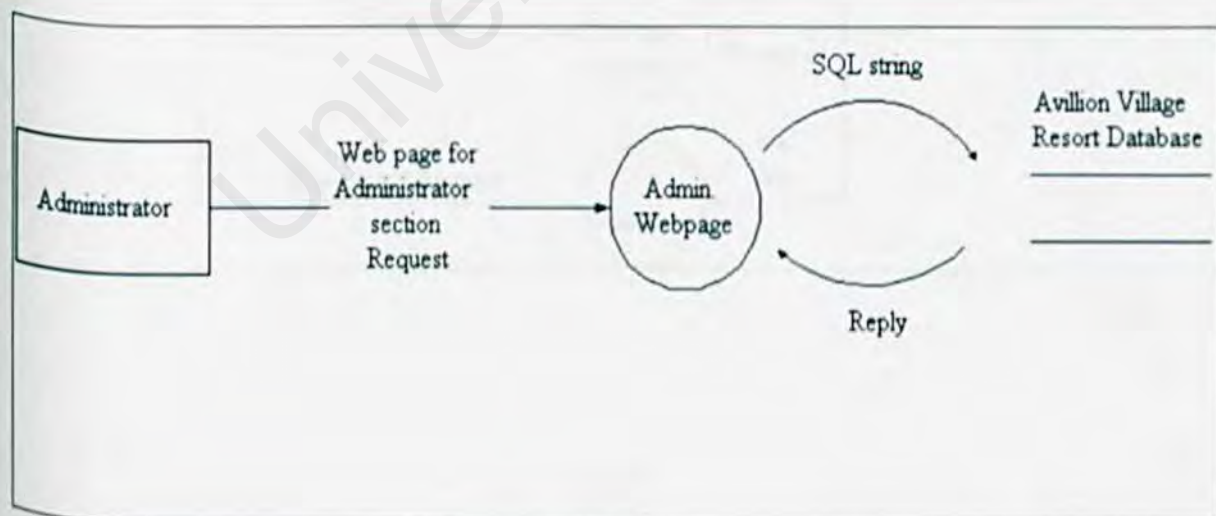
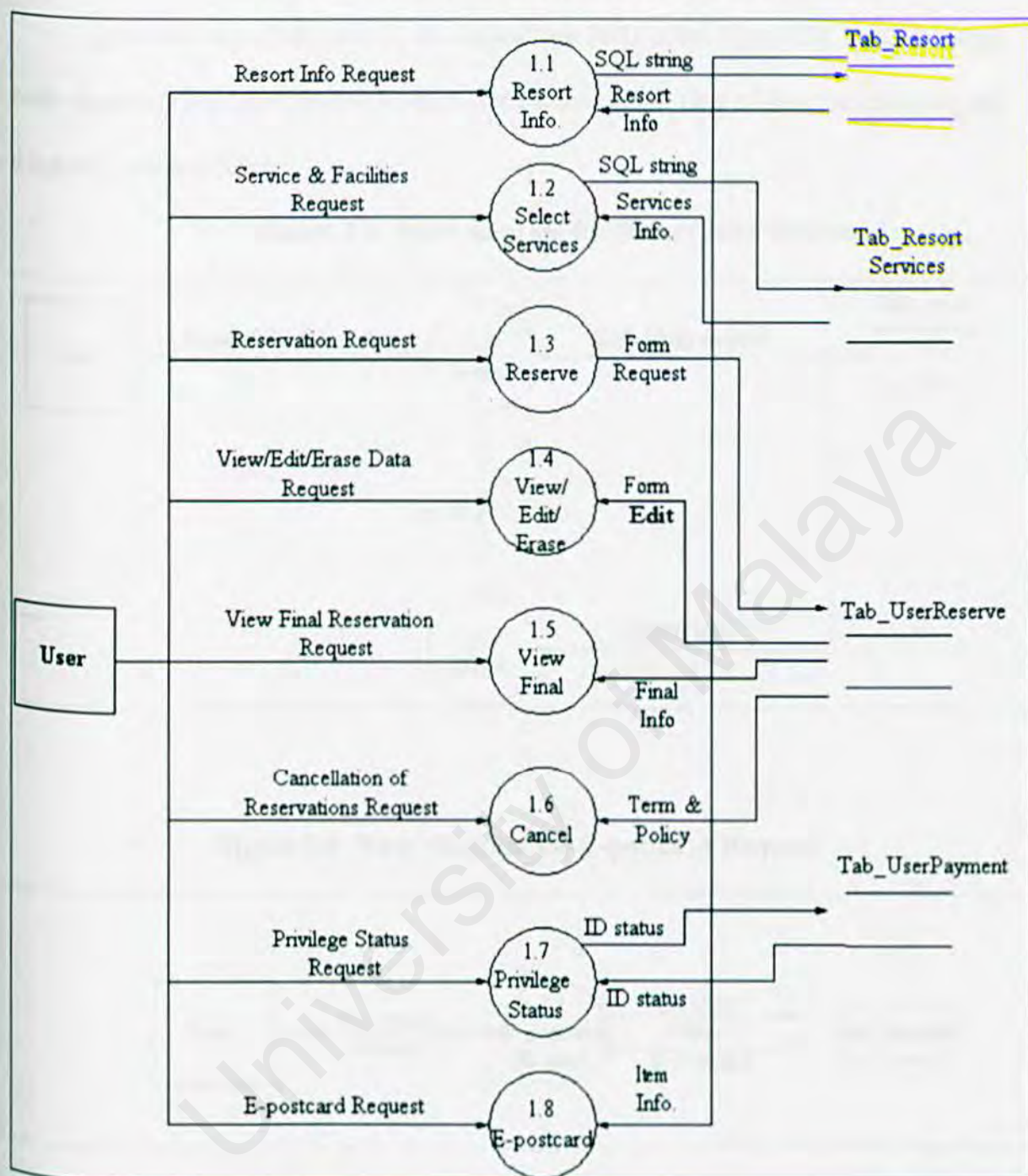


Figure 5.6:Level 0 of Avillion Village Resort Online System for Administrator section



5.3.1.3 Level One DFD for User (Figure 5.7)



5.3.1.4 Level Two DFD for User

After the entire brief path in the Level One DFD in the figure 5.7, there are some node diagrams that have similar function for each of them. One of the examples of node diagram is shown below:

Figure 5.8: Node diagram for Resort Info. Request

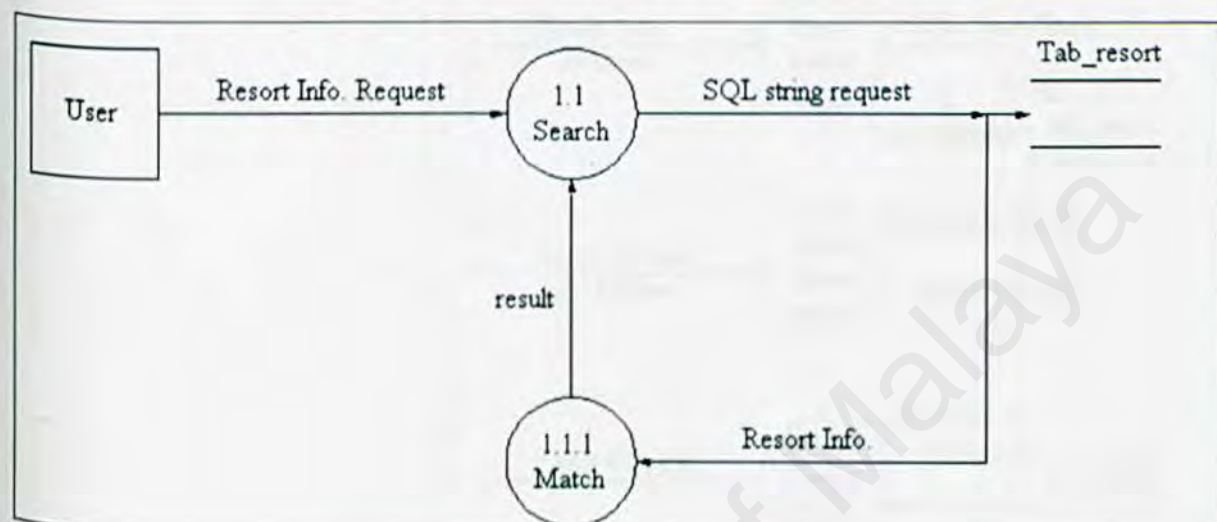


Figure 5.9: Node diagram for E-postcard Request

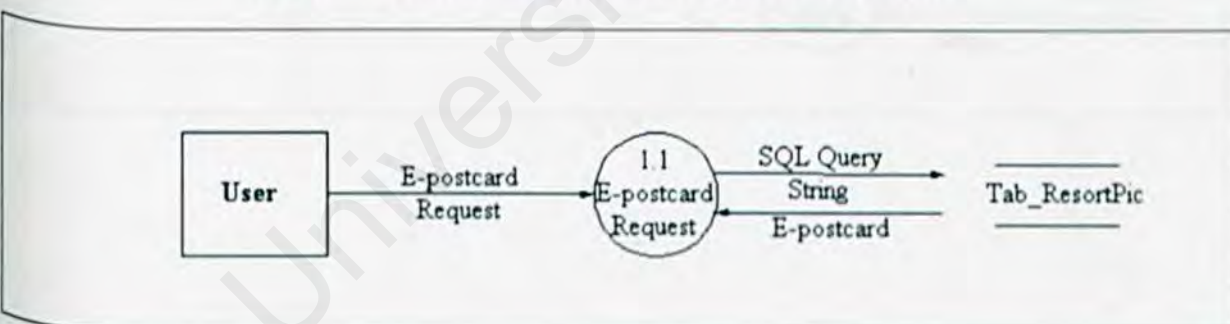


Figure 5.10: Node Diagram for Resort Notice Board Info Request

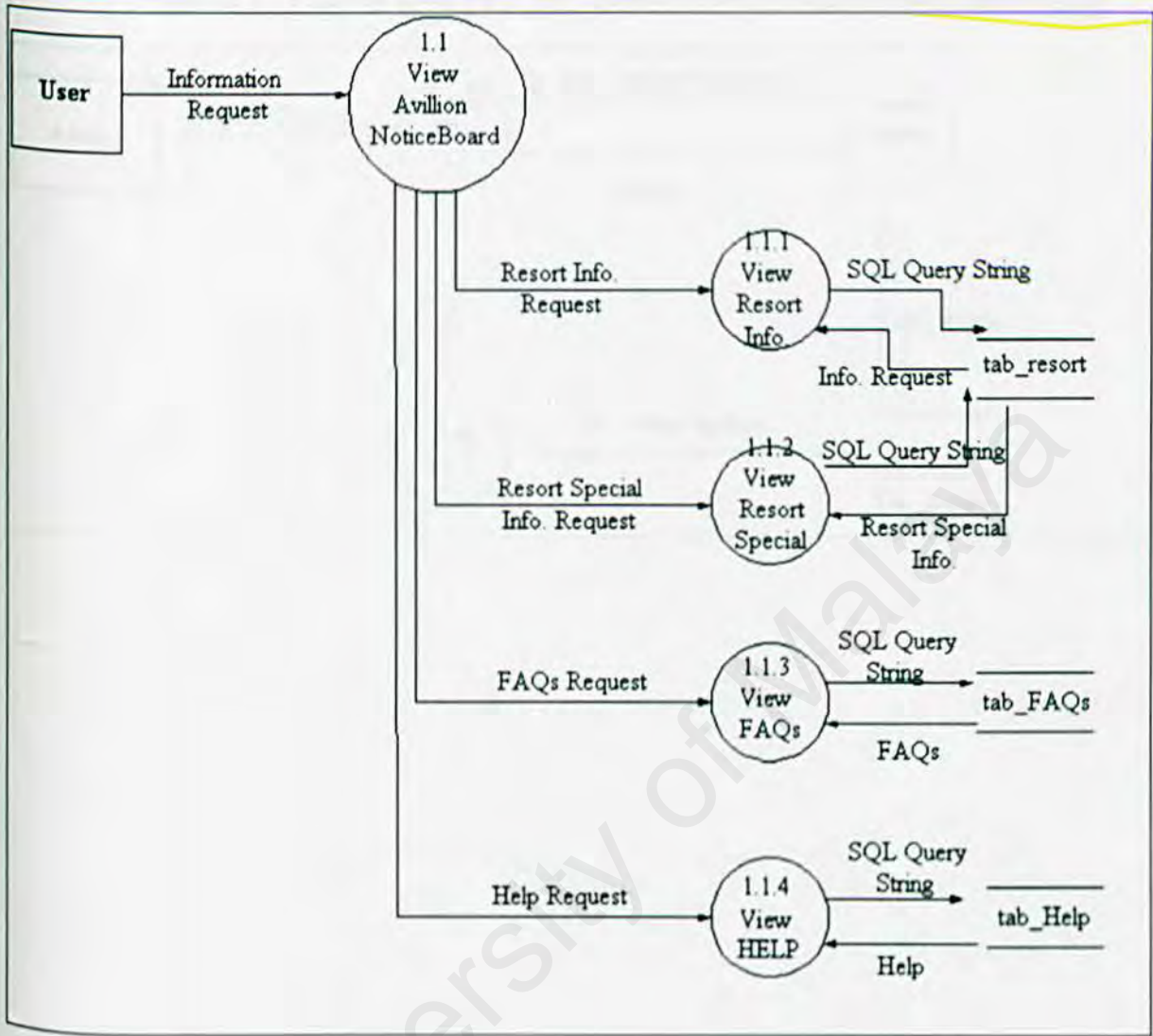


Figure 5.11:Level One DFD for Administrator Registration and Login

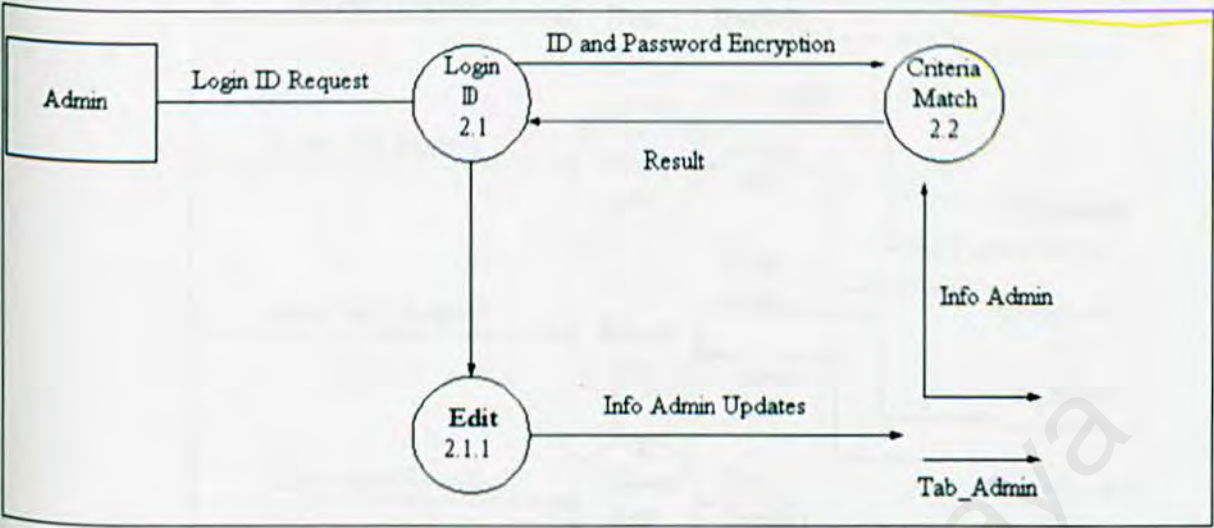
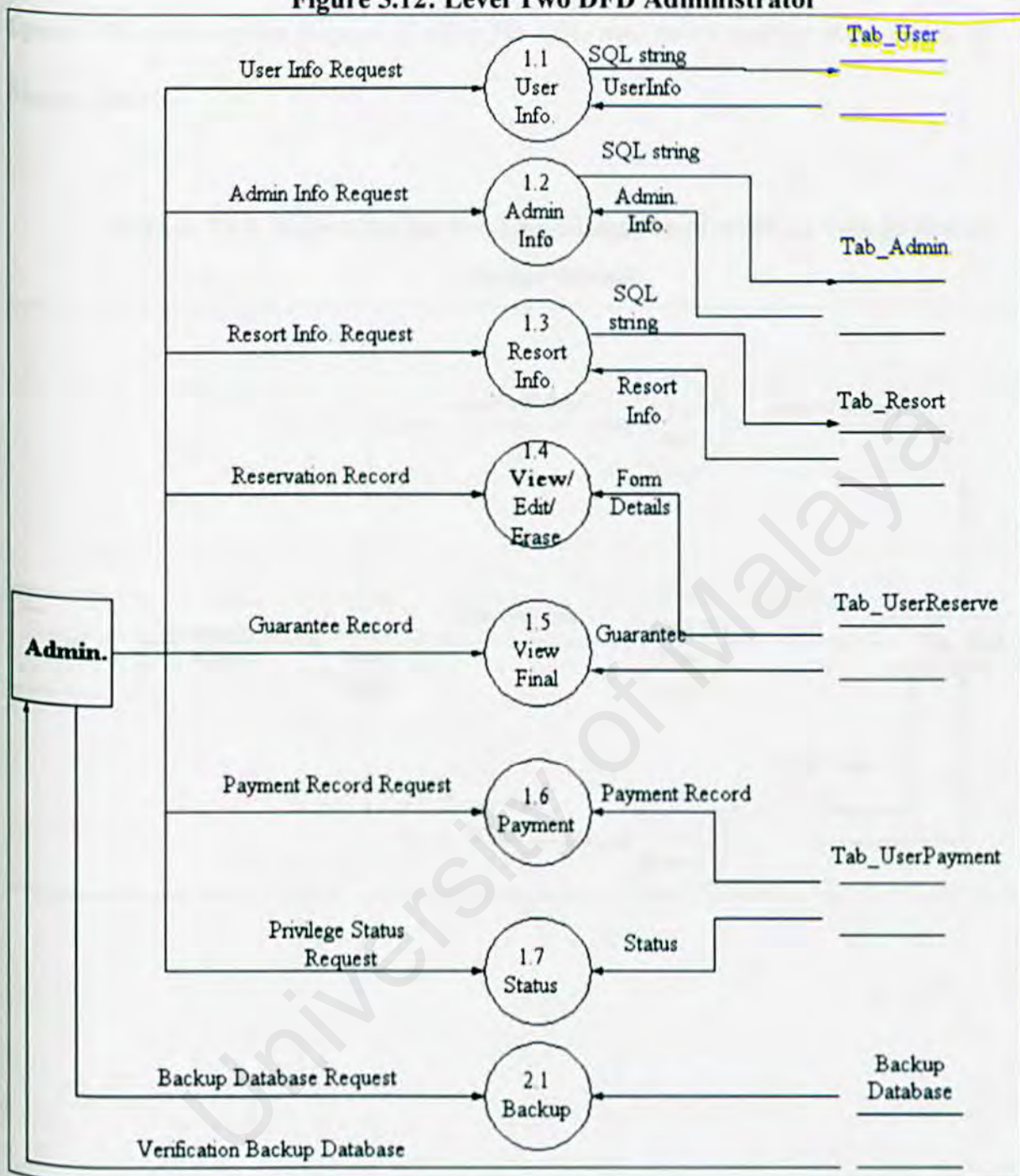


Figure 5.12: Level Two DFD Administrator



Below is one of a few node diagrams for Administration of Avillion Web-based System. The entire nodes diagram consists the same structure as shown as the two node diagram below.

Figure 5.13: Node diagram for Administration of Avillion Village Resort Online System

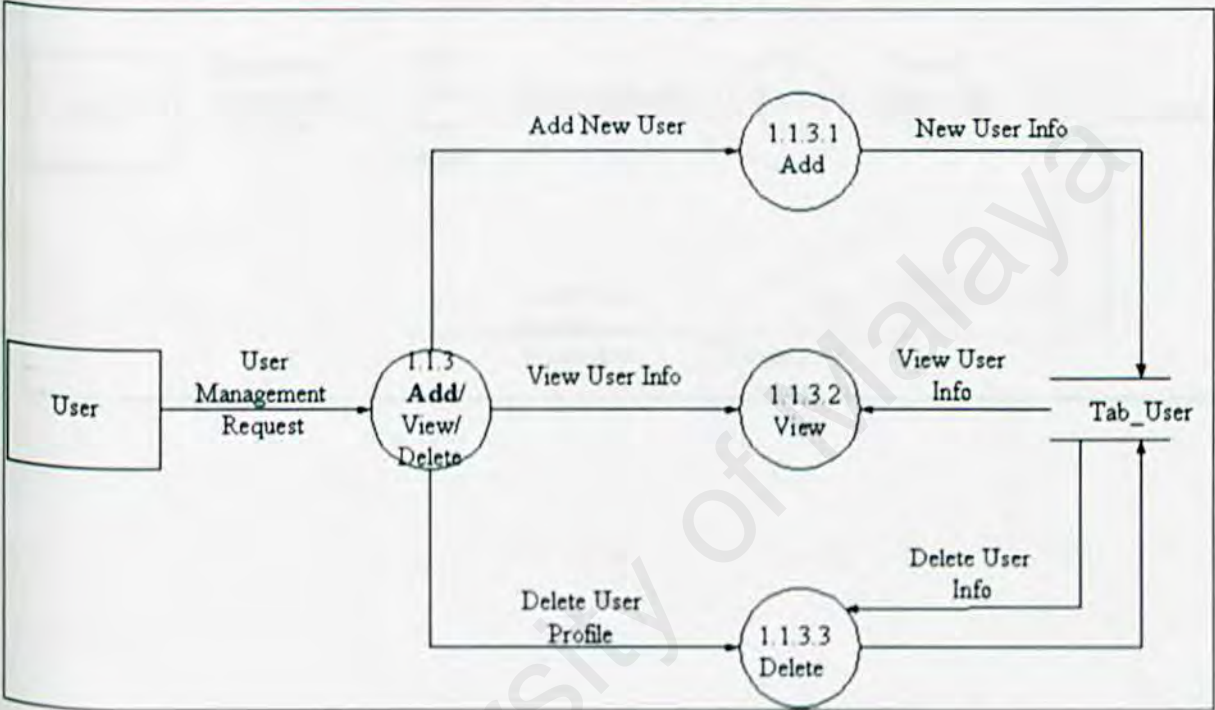
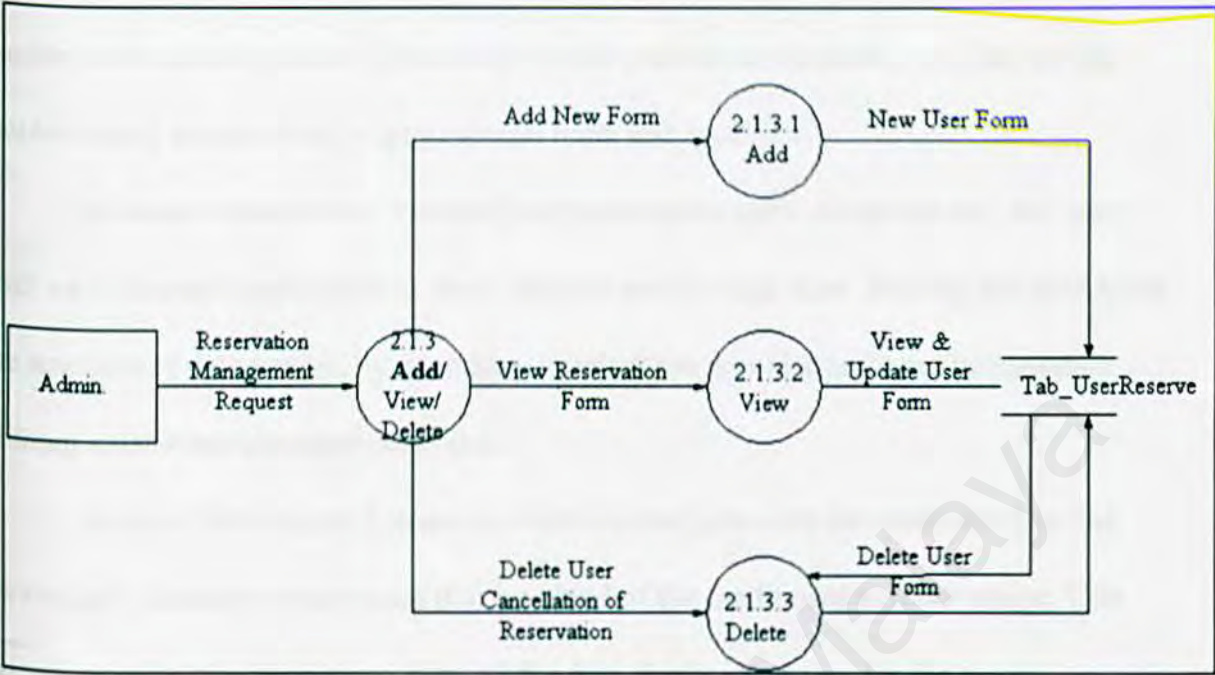


Figure 5.14: Node diagram for Management of Reservation for Avillion Village Resort Online System



5.4 Database Design

Database and database management systems are important components of a modern information system. Database provides a common repository for data so that it can be shared among many organizational units and locations.

Database management systems provide programmers, designers and end-users with sophisticated capabilities to store, retrieve and manage data. Sharing and managing the amounts of data needed by a modern organization would simply not be possible without a database management system

Avillion Web-based System is a web site that provides the reservation online service and guarantee reservation that involved of the credit card number usage. This system requires the database to keep all the data that is important for the resort management. Examples of the data are administrator profile, user profile, resort information and so forth. Below are few tables that may needed to keep data of Avillion Web-based System.

5.4.1 Entity-Relationship Diagram

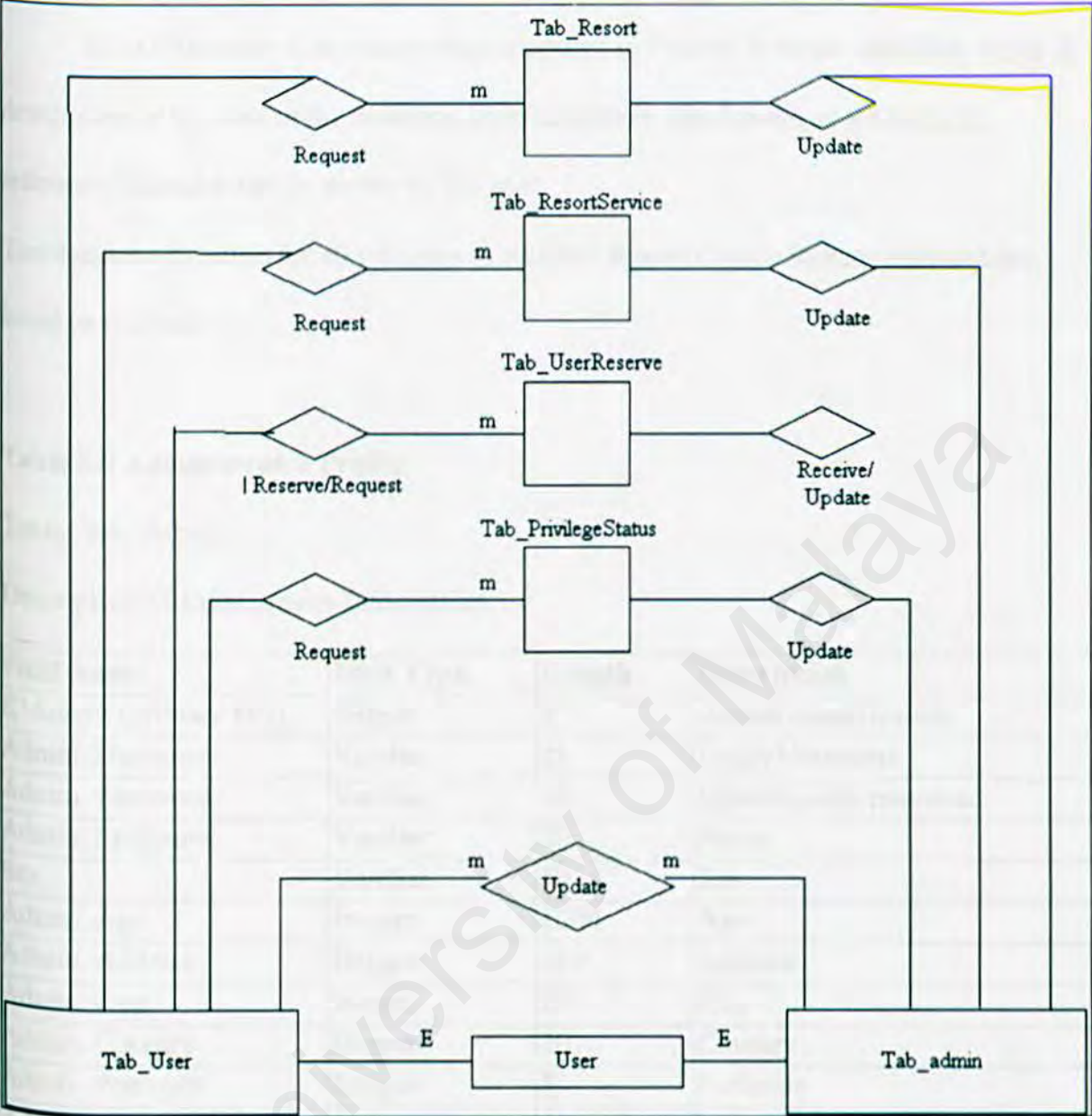
The product of the database design process which aims to identify and organize the required data logically and physically. A data model says what information is to be contained in a database, how the information will be used, and how the items in the database will be related to each other.

For example, a data model might specify that a customer name and credit card number and a product as a product code and price represent a customer, and that there is a one-to-many relation between a customer and a product.

It can be difficult to change a database layout once code has been written and data inserted. A well thought-out data model reduces the need for such changes. Data modeling enhances application maintainability and future systems may re-use parts of existing models, which should lower development costs.

One of the most widely used methods for developing data models is the entity-relationship model. Entity-relationship diagrams can be used to represent a model.

Figure 5.15: ER Diagram for Avillion Village Resort Online System



5.4.2 Data Dictionary

Data dictionary is an important component in DBMS. It keeps metadata, which is description of the data in the database. Data dictionary also known as a catalog or reference data and it can be accessed by the user.

The database structure for all relations in Avillion Resort Online System database are listed as follows:

Table 5.0 Administrator Profile

Table: Tab_Admin

Description: Administrators Information

Field Name	Data Type	Length	Description
IDAdmin (primary key)	Integer	5	Admin identification
Admin. Username	Varchar	20	Login Username
Admin. Password	Varchar	15	Identification password
Admin. Fullname	Varchar	20	Name
Sex	Varchar	10	Sex
Admin. Age	Integer	1000	Age
Admin. Address	Integer	100	Address
Admin. City	Integer	20	City
Admin. Country	Integer	20	Country
Admin. Postcode	Integer	5	Postcode
Admin. PhoneNumber1	Integer	15	PhoneNumber1
Admin. PhoneNumber2	Integer	15	PhoneNumber2
Admin. E-mail	Integer	15	E-mail Address

Table 5.1 User Profile

Table: Tab_User

Description: User Information

Field Name	Data Type	Length	Description
IDUser (Primary Key)	Integer	5	User Identification
Frequently	Integer	3	User Frequently
User Fullname	Varchar	20	Name
Sex	Varchar	10	Sex
Age	Integer	10	Age
Address	Integer	100	Address
City	Integer	20	City
State	Integer	20	State
Postcode	Integer	5	Postcode
Telephone1	Integer	20	Telephone Number
Telephone2	Integer	20	Telephone Number
E-mail	Integer	20	E-mail Address

Table 5.2 Resort Info.

Table: Tab_Resort

Description: Resort Information

Field Name	Data Type	Length	Description
IDInfo (Primary Key)	Integer	4	Info Identification
ResortInfo	Varchar	1000	Resort Information

Table 5.3 Services Info.

Table: Tab_ResortService

Description: Resort Services Information

Field Name	Data Type	Length	Description
IDService (Primary Key)	Integer	5	Service Identification
IDRestaurant	Integer	5	Type of Restaurant
IDFacilities	Integer	5	Type of Facilities
RoomType	Integer	5	Room Type
ResortPackage	Varchar	100	Resort Package
FrequentlyStatus	Integer	3	User Frequently
RoomPrice	Integer	5	Room Price

Table 5.4 User Reservation

Table: Tab_UserReserve

Description: User reservation

Field Name	Data Type	Length	Description
IDUser (Primary Key)	Integer	5	User Identification
IDRoom	Integer	5	Room Type
NumOfRoom	Integer	3	Number Of Room
IDPackage	Integer	5	Package Type
CheckInDate	Integer	10	Check In Date
CheckOutDate	Integer	10	Check Out Date
NumOfGuest	Integer	1000	Number of guest
CreditCardType	Varchar	10	Credit Card Type
CardNumber	Integer	10	Card Number
CardExpiryDate	Integer	10	Card Expiry Date

Table 5.5 User Confirmation

Table: Tab_UserPayment

Description: Confirmation of Reservation

Field Name	Data Type	Length	Description
IDUser (Primary Key)	Integer	5	User Identification
IDRoom	Integer	5	Room Type
NumOfRoom	Integer	3	Number Of Room
IDPackage	Integer	5	Package Type
CheckInDate	Integer	10	Check In Date
CheckOutDate	Integer	10	Check Out Date
NumOfGuest	Integer	1000	Number of guest
CreditCardType	Varchar	10	Credit Card Type
CardNumber	Integer	10	Card Number
CardExpiryDate	Integer	10	Card Expiry Date
ReservationStatus	Varchar	10	Reservation Status

Table 5.6 User Privilege Status

Table: Tab_PrivilegeStatus

Description: User Privilege Status

Field Name	Data Type	Length	Description
IDRoom (Primary Key)	Integer	5	Room Type
FrequentlyStatus	Integer	3	User Frequently
RoomPrice	Integer	5	Room Price

Table 5.7 Resort E-Postcard

Table: Tab_ResortPic

Description: Resort Postcard Collection

Field Name	Data Type	Length	Description
IDPic (Primary Key)	Integer	4	Picture Identification

Table 5.8 Frequently Asked Question Information

Table: Tab_FAQ

Description: FAQ Information

Field Name	Data Type	Length	Description
IDFAQ (Primary Key)	Integer	4	FAQ Identification
FAQ_Quest	Varchar	10	FAQ Question
FAQ_Answer	Varchar	10	FAQ Answer

Table 5.9 Help

Table: Tab_Help

Description: Help Guidelines

Field Name	Data Type	Length	Description
IDHelp (Primary Key)	Integer	4	Help Identification
HelpInfo	Varchar	1000	Help Information

5.5 Interface Design

5.5.1 User Interface

Follows are the sample of the interface that will be developed for this project.

Avillion Village Resort Online System	
<div>Experience The Resort</div> <div>Services & Facilities</div> <div>Avillions' Special</div> <div>Reservations</div> <div>E-postcard</div> <div>FAQs</div> <div>Help</div> <div>E-mail Us</div>	<div>Welcome...</div>

There are seven columns provided by the website which are Experience The Resort, Services & Facilities, Avillions' Special, Reservations, E-postcard, FAQs, Help, and so on.

Experience The Resort column will serves the information of the Avillion Village Resort generally. This will include the resort details, maps, the specialty of the resort, and together with the beautiful images of the Avillion Village Resort.

Avillion Village Resort Online System	
	[Back] [Next]
<div>Experience The Resort</div> <div>Services & Facilities</div> <div>Avillions' Special</div> <div>Reservations</div> <div>E-postcard</div> <div>FAQs</div> <div>Help</div> <div>E-mail Us</div>	<div>Experience The Resort</div> <div>[Home]</div> <div><ul style="list-style-type: none">• About the resort<ul style="list-style-type: none">• Maps• The specialty• Nice view</div> <div>[Back to Top]</div>

The Services & Facilities Column is provided to inform the users of all the services and facilities offer by the resort. This will include the transport services, meeting room, and so on. The facilities of the resort will include the resort and rooms facilities.

Avillion Village Resort Online System

[\[Back\]](#)

[\[Next\]](#)

Experience The Resort

Services & Facilities

Avillions' Special

Reservations

E-postcard

FAQs

Help

E-mail Us

Services & Facilities

[\[Home\]](#)

- **Rooms Rates [Reserve Now!!](#)**
 - **Privilege Status!!**
 - **Restaurant**
 - **Recreations**
 - **Transport Services**
- **Conference & Banquet Facilities**
 - **Laundry**

[\[Back to Top\]](#)

The Avillions' Special Column in this system provides the users with the latest news of the resort. This will include any special occasion like Tom Yam' Day at the restaurant or any special rates for the rooms.

Avillion Village Resort Online System	
	[Back] [Next]
<div>Experience The Resort</div>	<div>Avillions' Special</div> <div>[Home]</div> <div><ul style="list-style-type: none">• Latest News.• Special Seasons• Special Rates</div> <div>[Back to Top]</div>
<div>Services & Facilities</div>	
<div>Avillions' Special</div>	
<div>Reservations</div>	
<div>E-postcard</div>	
<div>FAQs</div>	
<div>Help</div>	
<div>E-mail Us</div>	

The Reservation Form column for this system will provide users the room rates and how to reserve them. Users are allowed to edit their details before making the confirmation. Then, users also will be provided along with the guarantee reservation form to confirm their reservation.

Avillion Village Resort Online System

[\[Back\]](#)

[\[Next\]](#)

Experience The Resort

Services & Facilities

Avillions' Special

Reservations

E-postcard

FAQs

Help

E-mail Us

Reservation Form

[\[Home\]](#)

Room Rates & Reservation Form

[Edit Form](#)

[View Form](#)

[Printable Guarantee Letter](#)

[\[Back to Top\]](#)

If the users have any confusion according to the resort, they will always be able to refer to the FAQs column and if they having a problem with the website they will always be able to refer to the Help column. Also they are welcome to send an e-mail to the resort' administration department for any inquires or commend.

Avillion Village Resort Online System

[\[Back\]](#)

[\[Next\]](#)

Experience The Resort

Services & Facilities

Avillions' Special

Reservations

E-postcard

FAQs

Help

E-mail Us

Any inquires or commend,

Please contact us

admin@avillion.com

[\[Back to Top\]](#)

5.5.2 Administrator Interface

After login with the correct user ID and password, the resort administrators will be able to access resort database and view the record according to their authorized level.

Avillion Village Resort Online System	
	[Back] [Next]
<div>Experience The Resort</div>	<div>Welcome To Avillion Administrators</div> <div>User Name: <input type="text"/></div> <div>Password: <input type="password"/></div> <div>[Back to Top]</div>
<div>Services & Facilities</div>	
<div>Avillions' Special</div>	
<div>Reservations</div>	
<div>E-postcard</div>	
<div>FAQs</div>	
<div>Help</div>	
<div>E-mail Us</div>	

5.6 Conclusion

Process design, database design and interface design are the most important method to contribute for the success of Avillion Village Resort Online System. These are three basic interfaces for determining more complex interface of the system that I have to develop soon.

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Chapter 6: System Testing

6.0 Testing

Testing is a critical step in assuring the quality of the developed system and is representing the overall review of specification, design, and coding. Testing is performed to ensure that the programs are executed correctly. Testing is necessary to ensure that the final system delivered is in line with the user's requirements and expectations.

In general, the Avillion Village Online System underwent 3 general stages of testing which are component testing, integration testing and the user testing.

6.1 Testing Techniques

There are few testing techniques applied in the testing stage of the system. The techniques used are white box testing, and black box testing.

6.1.1 White box testing

White box testing is a test that involved directly with the structure of the code within a module or code segment. The test should adequately cover all the code in a given module, but this is hard to accomplish. Code coverage is define in terms of seven types:

- ❑ Segment coverage;
- ❑ Branch coverage or node testing;
- ❑ Compound condition coverage;
- ❑ Basis path testing;

- ❑ Data flow testing;
- ❑ Path testing; and
- ❑ Loop testing

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6.1.2 Black Box Testing

In addition to white box testing there is also black box testing. Black box testing assuming that the logic structure of the code is unknown. This is the point at which the function of a module is tested. There are several tests can made at this point:

- ❑ Error guessing;
- ❑ Equivalent class partitioning;
- ❑ Boundary value analysis;
- ❑ Cause-and-Effect graphing;
- ❑ Domain testing;
- ❑ Module interface testing; and
- ❑ Command-line testing

6.2 Testing Strategies

Testing a large system usually involving several stages. The stages are unit testing, integration testing, and system testing.

6.2.1 Unit Testing

Unit testing is a set of basic tests at the module level. Each module is treated as a independent component and is tested individually to ensure the component operate well and in an expected operations. The unit testing involving:

- ❑ Testing the interfaces to ensure information flows properly into and out of each program unit;
- ❑ Testing boundary conditions to ensures each component is operating correctly at the boundary values;
- ❑ Ensure all independent paths in a control structure are tested at least once; and
- ❑ Testing all error handling paths

6.2.2 Integration Testing

Integration testing is one of the frustrating parts of software development and testing. Purpose of integration testing is to adequately test whether or not the system actually runs as one program as expected. Incremental integration testing approach is used in testing the system. By using this approach, the program is constructed and tested in small segments where error is easier to isolate and corrected.

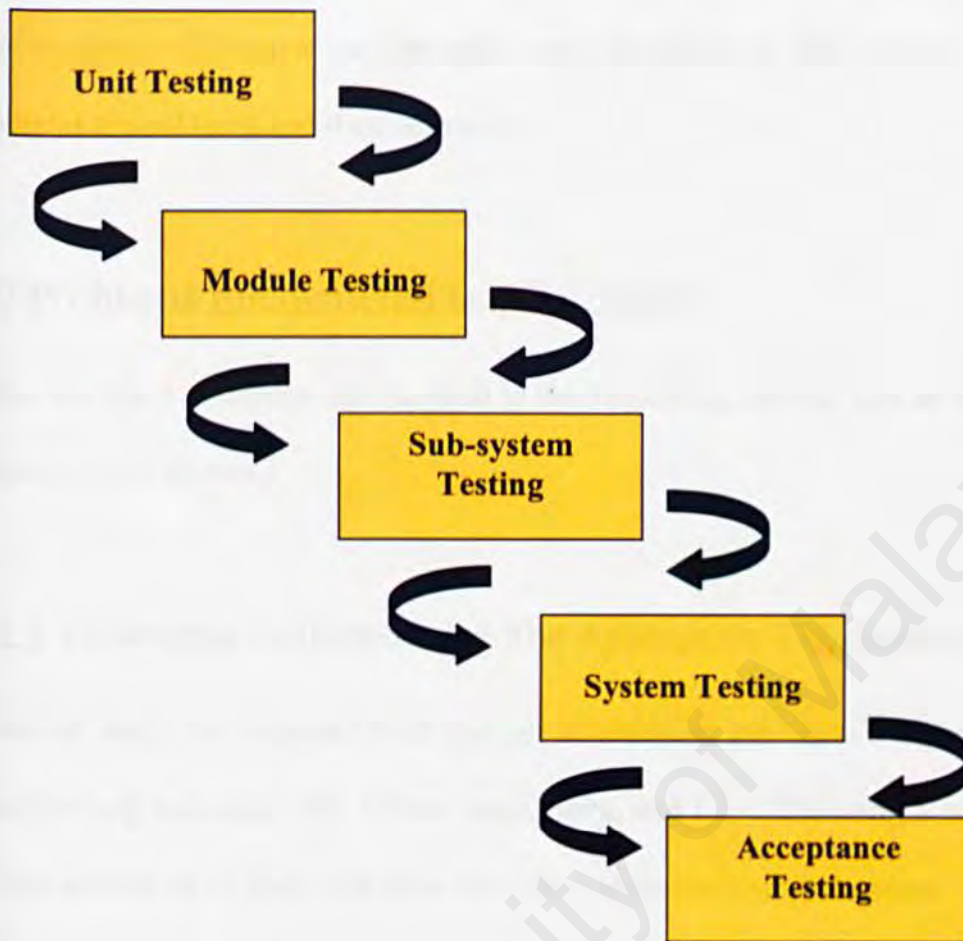
6.2.3 System Testing

System testing is actually a series of different test designed to fully exercise the system to uncover its limitations and measure its capabilities. The objective is to test an integrated system and verify that it meets specified requirements.

6.2.4 Acceptance Testing

Acceptance testing is the stage where the system is being testing is approved to proceed to the next stage. The system is performed and running well and can be used safely and easily by the user.

Figure 6.0 Testing Stages



Chapter 7: System Evaluation

This chapter will review the strengths and limitations of the system as well as the problems encountered and their solutions.

7.0 Problems Encountered and Solutions

There are many problems encountered at the beginning, during, and as well as after the delivery of the system.

7.1.1 Difficulties In Determining The Appropriate Development Tools

There are many development tools that are available in the market, especially the fourth programming language, like Visual Basic, Java, and C++. Choosing a suitable tool is a critical process as all tools available have their strengths and weaknesses.

Besides, the availability of a technology, hardware and supporting software to support, its learning curve, compatibility with the existence operating system and technologies. A great deal of reading and research from many sources, like books and Internet regarding the problems helped to solve the problem, and choose the suitable tools.

7.1.2 Difficulties In Determining The Scope Of The Project

Due to the interdependence nature of reservation systems and **inexperience in** developing the similar systems related to the resort fields, made outlining **the scope of the** project difficult. The inability to distinguish which of the system features are **essential**, or optional has made defining the project scope complicated. In order to define **the project** scope, discussions with project supervisor and advices from my friend, En. Mohd Khairi Lamsah.

7.1.3 Difficulties In Information Gathering

Gathering information is one of the most important phases of the project. Problems are arising when dealing with the resort reservation requirements, as most of the users and resort manager reluctant to disclose the information because the information required is considered as Private and Confidential. This has made useful data gathering techniques such as interviewing and observation impossible.

Therefore, in order to gather the needed information, other method of acquisition information required, such as informal interview with the users, research papers, Internet, and books.

7.1.4 Difficulties In Defining System Requirements

The difficulties in finding information have led to difficulties in defining the requirements for the system. Unlike some other systems where either the domain experts or requirements can be found easily from the basic sources, such as Internet, and plenty of real life workable systems available, such as online shopping. System requirements of the project are following the information gathered from the users from several resorts and hotels and also from the Avillion Village Resort staffs with formal and informal interviews.

7.1.5 Difficulties In Defining The Flow Logic Of The System

The system is only based on the information gathered from interviews with the users; as a result, the flow logic of the system is very hard to define. The system is only following the flow logic based on my understanding of the resort system requirements and the important of ease of use.

7.2 System Strengths

7.2.1 Targeted for Popular Windows Platform

Avillion Village Resort Online System is targeted on the Microsoft Windows platform, which is the most popular and common operating system in the business environment today. Most of the computers in the banks are installed with Windows platform, therefore no incompatibility problems arisen.

7.2.2 Graphical User Interface (GUI)

The design of the interface of the system is based on graphical user interface (GUI). It is designed to be as user-friendly and attractive as the system can with the available technologies in market. Therefore, the system is relatively easy to learn and use. Besides, it also can be used to attract more people to visit the resort.

7.2.3 Consistent User Interface

The user interfaces maintains its consistency throughout the system. The choice of icons, text formatting and color are standardized across all sections.

7.2.4 Search Existing Guest

The system will automatically check for existing guest when the user input the guest profile, such as Identification Card number. This feature will eliminate any duplicate entry and mistakes from the user.

7.2.5 Good Security Features

Different level of users is created for different level of permissions on the system. The user needs to have the right password and login name to grant access to the system.. Besides, all the passwords are encrypted with special algorithm to ensure system safe and block any unauthorized users to access the system.

7.2.6 Reliable And Ensure Data Integrity

The programming of the system using transaction features to enable the ability of rollback when the system encounters any errors that have possibility to violate data integrity. This is implemented to ensure no lost updates or lost links occurred in the database.

7.3 System Limitations

Although the system implemented to adapt many different environments, the system still has several limitations.

7.3.1 Not Platform Independent

This system is built with Macromedia Dreamweaver 6.0 and Application Service Provider (ASP) and using Microsoft Access as backend. As a result, this system needs to be install and run on Windows platform. Customization needs to be done if the user needs to change the database management system (DBMS) from Microsoft Access to Oracle or other DBMS.

7.3.2 Lack of Functional Modules

Currently, the functionality provided by the system is still very limited, and no fully support the fast growing of the business environment. Functions such as real Decision Support System is still under research and not included in the system, due to less information gathered, and absence of domain experts.

7.4 Future Enhancement

The system is still under continuous developing as this system is built under incremental model. New updates and upgrades will be integrated in the system from time to time.

7.4.0 Decision Support System

Decision Support System (DSS) will be integrated into the system as soon as possible because this feature is very useful and suitable to be one of the competitive weapons in the competitive market now. This feature will provide fast approval system for the use of the administrators to approve the reservation without any interrupt from resort front desk administrator. As a result, the reservation procedures will definitely faster and more reliable.

7.4.1 Integration To Other Existing Reservation System

The usefulness of an isolated or independent system is very limited. This is because the important and increasing of functionality of the system is depending of the level of interdependency. The output of the sub-systems will be automatically flow into the system without the interruption from human will definitely save costs in labor, and save a lot of time.

8.0 Conclusion

Valuable skills, experiences, and knowledge have been gained in a great “amount” throughout the development of the system, including skills in programming languages, database management, networking, concurrency access, system analysis and design, and information gathering.

Overall, the project has achieved and fulfilled the objectives and requirements of the Avillion Village Resort Online System as determined during the system analysis phase. It is reliable, attractive and ease of use.

Finally, the project has “open” a path for individual who is creative and innovative to continue the never-end developing of the system to fulfill the future users need. The enhancing of the system will be more robust to errors, reliability, ease of use, and new features to speed-up the loan approval procedures.

References:

Books references:

1. Kroenke, D. "Database Processing: Fundamentals, Design & Implementation". Prentice Hall International, Inc., 1998.
2. Connolly, T., Begg, C. & Strachan, A. "Database System – A Practical Approach to Design, Implementation & Management". Addison-Wesley, 1996.
3. John, W. Stazinger. "System Analysis & Design in Changing World". Courses Technology International, Inc., 2000.
4. William, S. & Slyke, R. V. "Business Data Communication". MacMillan College Publishing Company, Inc., 1994.

Thesis references:

1. Zuriani Karya, "Internet Security Web-based System", Universiti Malaya, 2002/2003.
2. Adila Mastura Ibrahim, "Sistem Penempahan Album Dalam Talian", Universiti Malaya, 2002/2003.
3. Rosmawati Pandak Ahmad, "E-Home décor System", Universiti Malaya, 2002/2003.

Internet References:

1. <http://www.microsoft.com>
2. <http://searchwebservices.techtarget.com>
3. <http://www.adobe.com>
4. <http://www.asp.com/WhatIsAsp/whatisasp1.htm>
5. <http://whatis.com>
6. <http://www.macromedia.com/software/>
7. <http://www.tanjungrhu.com.my>
8. <http://www.planetholiday.com>
9. <http://www.marimari.com>
10. <http://www.avillion.com.my>
11. <http://www.impiana.com.my>
12. <http://www.chorusparadise.com.my>
13. <https://violet.site-secure.net>

Magazine References:

1. PC World
2. PC Magazine

Appendix

Survey Questions:

1. Do you know about E-Hotel?

Yes _____

No _____

2. Have you ever used the E-Hotel service?

Yes _____

No _____

3. Do you think you need E-Hotel services for your vacation plan?

Yes _____

No _____

4. What kind of information you need most in an E-Hotel website?

Room Rate _____

Hotel Facilities _____

Promotions _____

Food _____

5. If there's a promotion going on for using the online booking services through an

E- Hotel services, would you join?

Yes _____

No _____

User Manual
University of Malaya

This system is built to allow users to view the data and to view the status of the water supply. It is a web-based system that can be accessed from any computer that has an internet connection. The system is built to be user-friendly and easy to use. It is designed to be used by the community members who are responsible for the water supply. The system is built to be secure and to protect the data from unauthorized access. The system is built to be reliable and to provide accurate information. The system is built to be flexible and to be able to handle changes in the data.

- 1) View data
- 2) Search data
- 3) Table view
- 4) Map view
- 5) Add data

User Interface

The user interface is designed to be simple and easy to use. It is built to be user-friendly and to provide a good user experience. The user interface is built to be intuitive and to allow users to navigate the system easily. The user interface is built to be consistent and to provide a uniform look and feel. The user interface is built to be accessible and to be usable by people with disabilities.

Figure 1.1 below shows the main menu of the system.

Documentation for Avillion Village Resort Online System

This system is built to attract more users to stay in this resort by surfing the web pages, doing online reservation to reserve the room and also to help the administrators to manage the guests and resort' information. The system is divided into 2 main sections, which are guest section, and administrators' section. The system encompasses of 5 main functions at both section:

- 1) View record
- 2) Search record
- 3) Delete record
- 4) Insert record
- 5) Save records

User Section

At the main page, the user can view the overview of the resort. The main page also provides some of the navigation button as the access to the next page of the system.

Figure 1.1 below shows the main page of the system.

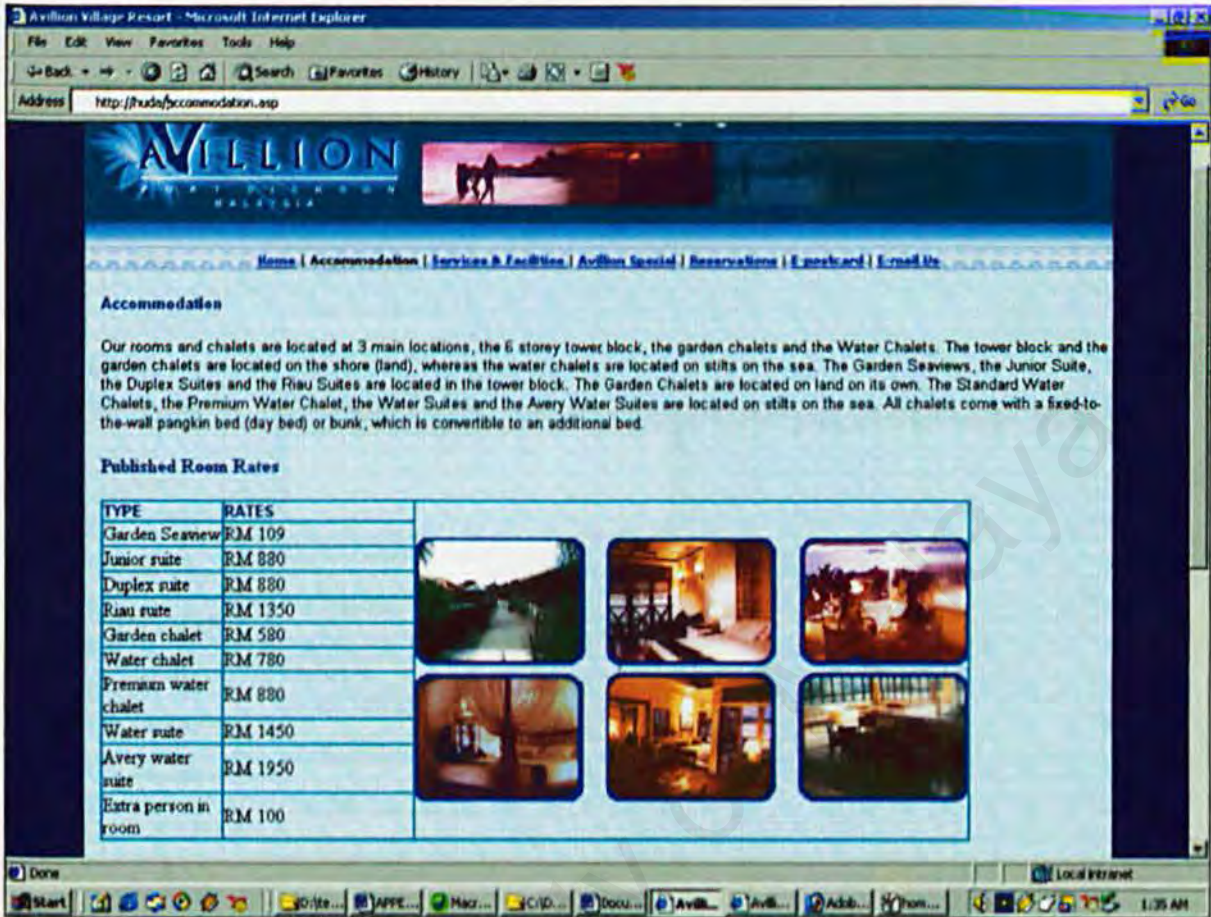
Figure 1.1: Main page of the system



The main page will lead the users to the next step of surfing the system. By clicking the accommodation navigation button, the user can view the room pictures along with their room rates.

Figure 1.2 below show the accommodation interface.

Figure 1.2: Accommodation Interface



There are also a few interfaces for user to view and gain information about the resort such as **services and facilities interface**, **Avillion special interface** which is promote the latest packages offer by the resort, and also the **e-mail us** interface which is provide the e-mail address for user to ask any problems about the resort.

Then, the user can make a reservation by filling the reservation form provided. User will have a confirmation letter that asks them to pay on the time they arrive to the resort.

Below is the figure 1.3 that shows the reservation form.

Figure 1.3: Reservation form

BOOKING FORM

Guest Information

Title

Name

Contact Information

Address

City

Postal Code

Country

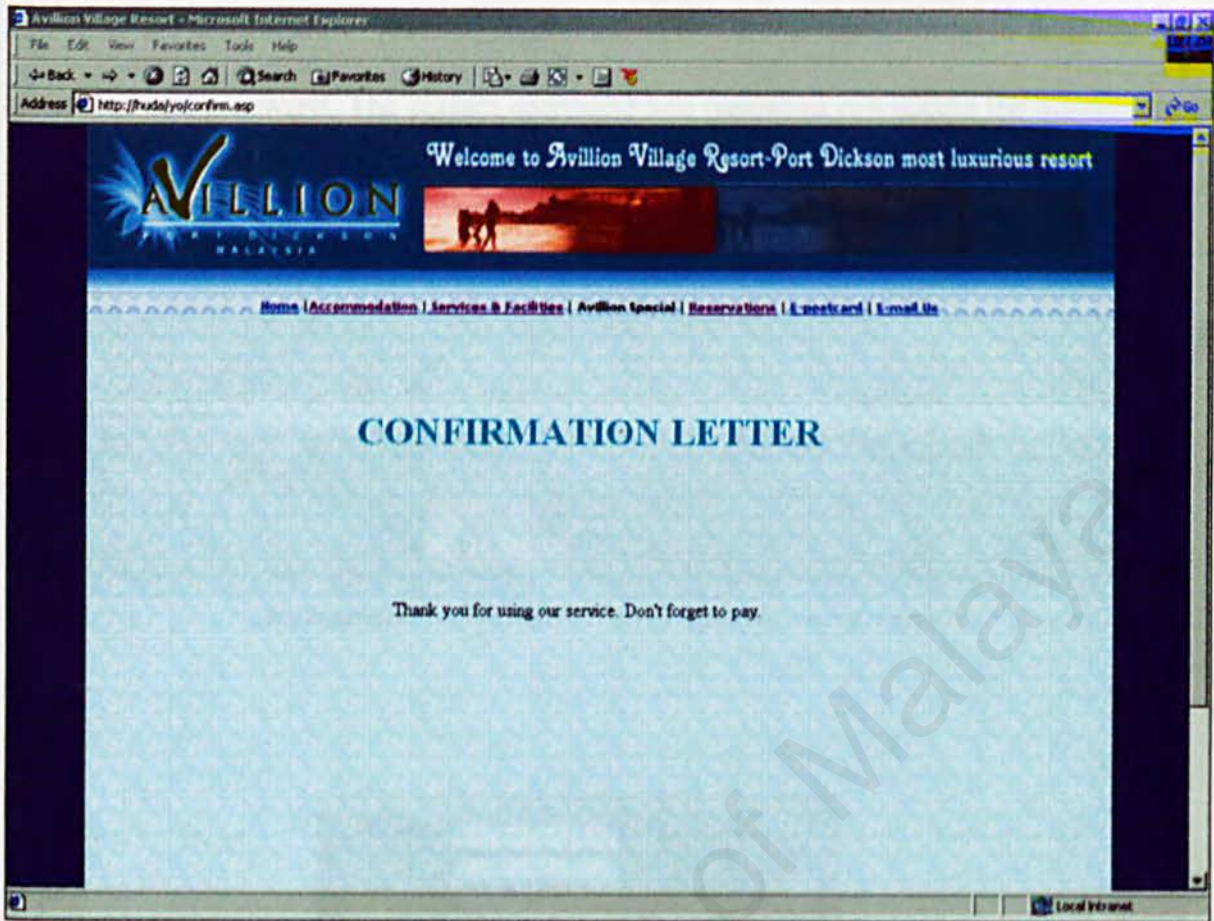
Contact Number

Fax Number

Email Address 1

Below is figure 1.4 that shows the confirmation letter received by the user after doing online reservation.

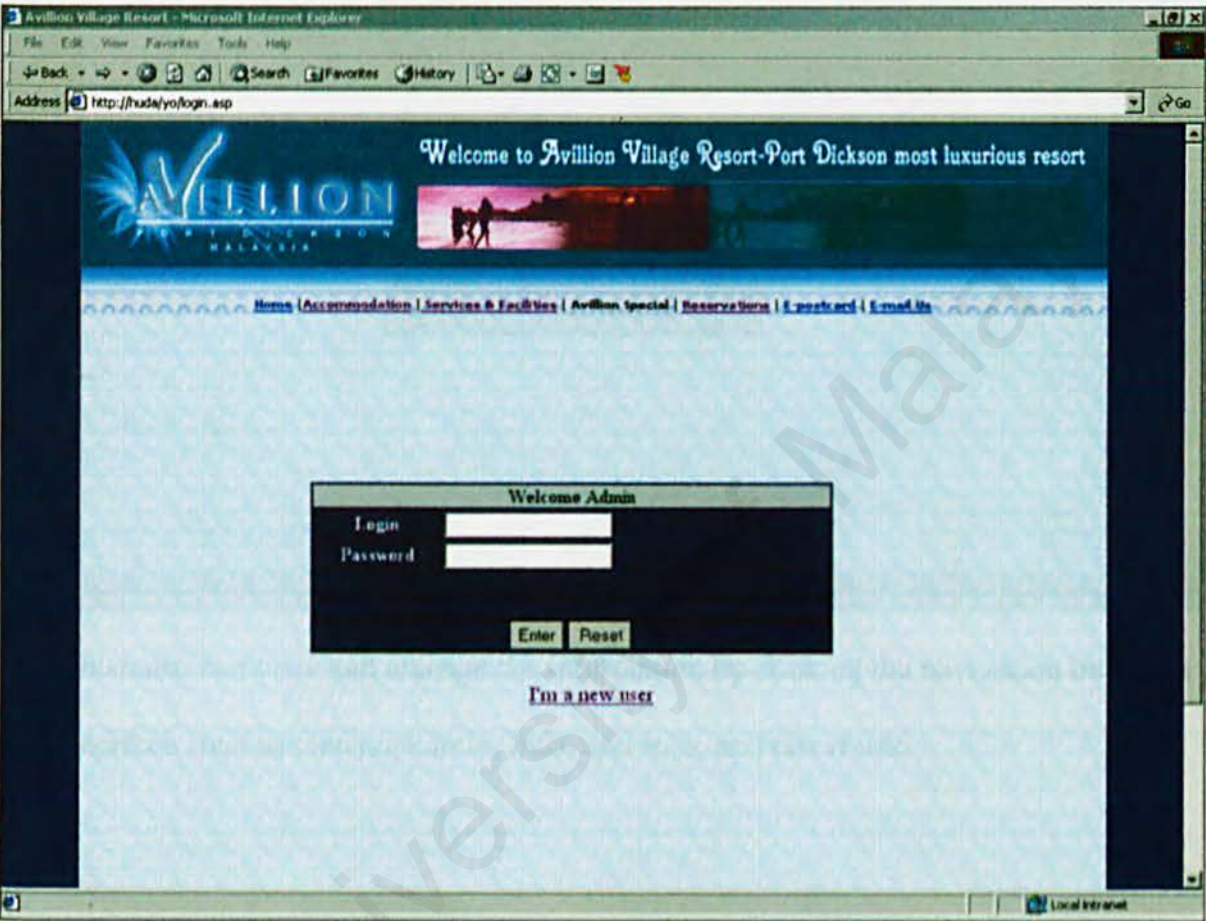
Figure 1.4: Confirmation letter



Administrator Section

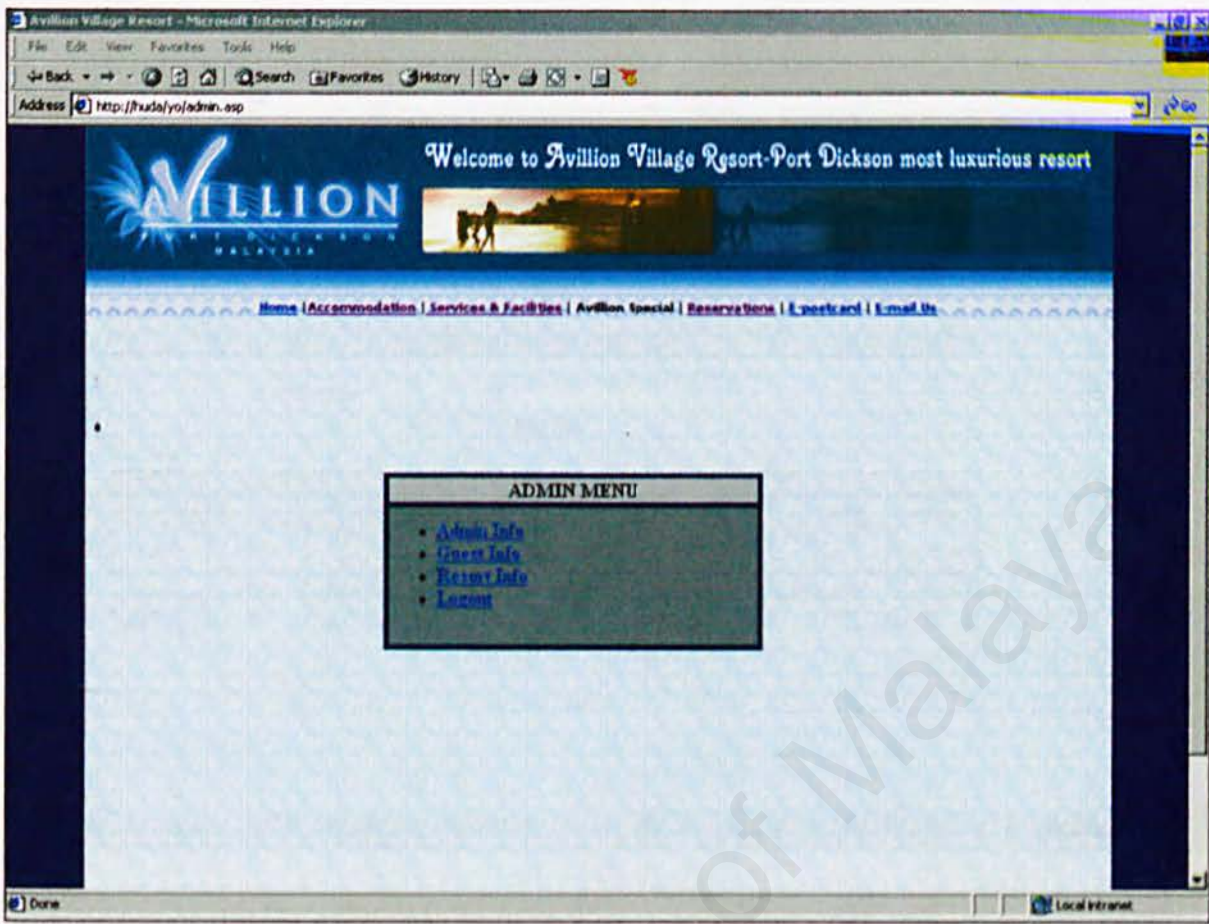
To enter the administrator section, administrator has to log in according to **their** username and password. The correct username and password can access the **administrator** menu.

Figure 1.5: Login Interface



Below is the Figure1.6 that show interface after successful login.

Figure 1.6: Successful Login



Administrator can view and manage the information by clicking the navigation button in this interface such as viewing admin. Info, user info, and resort info.

Figure 1.7: Admin Info

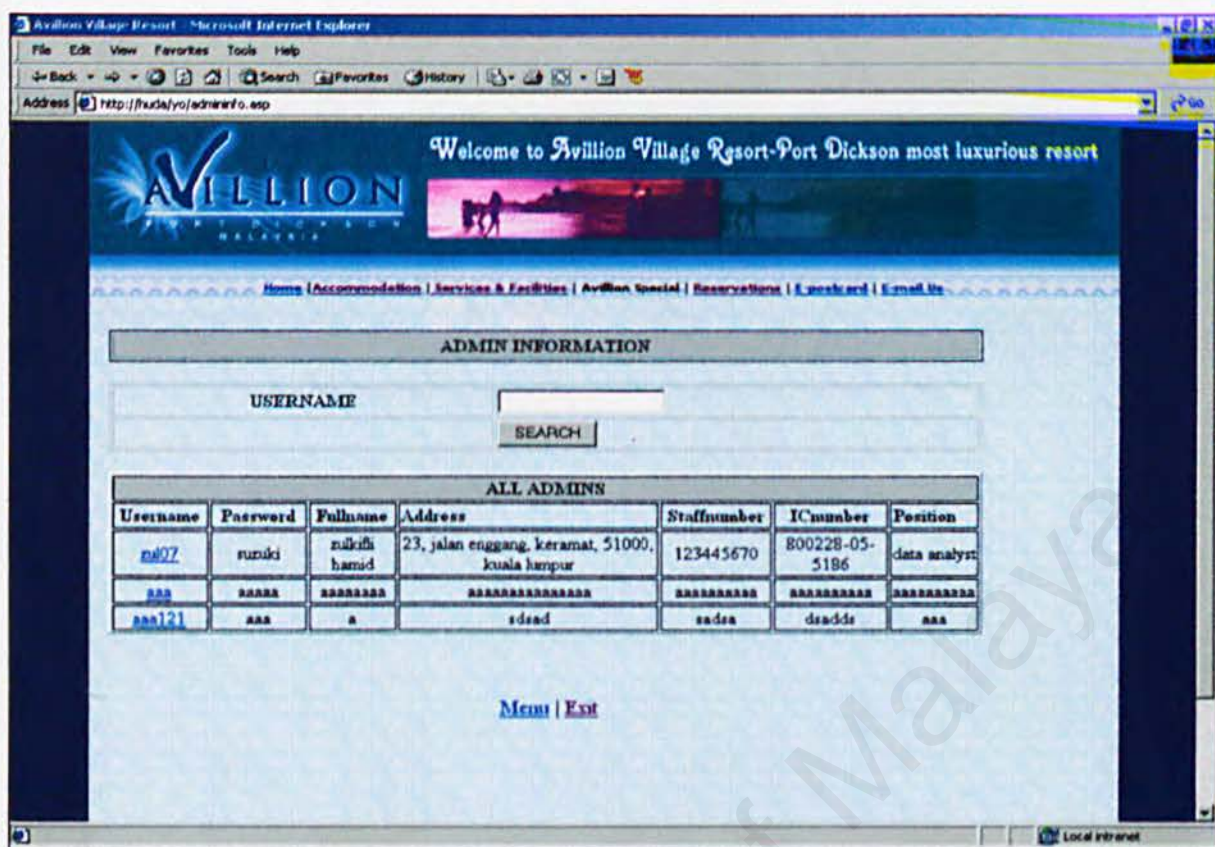
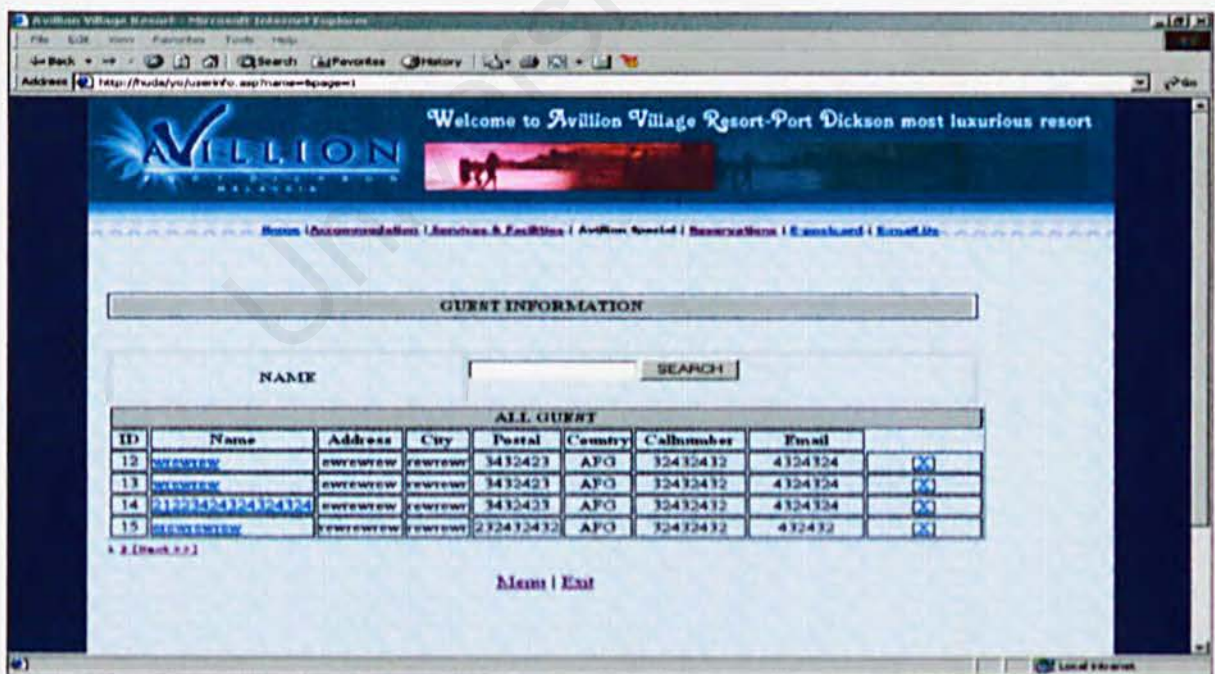


Figure1.8: User Info



After all the management tasks are done, the administrator can log out through the **logout** interface.

