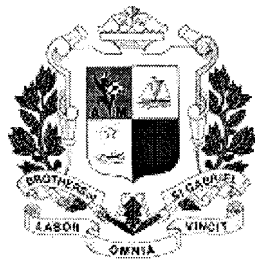Hotel Reservation via Palm

By

Mr. Lertchone Klungboonkrong

Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Science
in Information Technology
Assumption University

September, 2002

Hotel Reservation via Palm

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September, 2002

The Faculty of Science and Technology

Master Project Approval

Project Title   Hotel Reservation via Palm

By   Mr. Lertchone Klungboonkrong
Project Advisor   Dr. Naruetep Chaojarernwanit
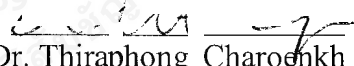
Academic Year   1/2002

The Department of Information Technology , Faculty of Science and Technology of Assumption University has approved this final report of the **three** credits course. **IT6900 Master Project,** submitted in partial fulfillment of the requirements for the degree of Master of Science in Information Technology .

Approval Committee:
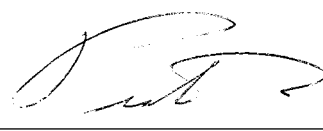
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Advisor   Director Program

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(Dr. Kittipong Srisansanee)   (Dr. Thiraphong Charoenkh   wiwat)
Committee Member   Committee Member

Faculty Approval:

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Program Director   Dean

September/ 2002

ACKNOWLEDGEMENTS

ABSTRACT

A few years from now, most workers will be mobile. Most people will go online through wireless connections via small device like PDA (Personal Digital Assistant) e.g., Palm. Asia Travel.com is focused on developing the mobile information application solutions that their enterprises need to take a business into this new era of communications and competition.

Palm, Inc. invented web clippings to make it possible for users to easily access information on the Internet with a small screen and low connection bandwidth. Web clipping technology allows users to extract and receive specific information from a web page, much like clipping a specific article out of a newspaper.

This project presented The Hotel Reservation via Palm for Asia travel.com by developing the prototype by using the Web Clipping application technology of Palm, Inc.

The results of the study of this project are to present the advantage of web clipping in term implications of the shift underway from wire line to wireless access.

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CHAPTER 1 INTRODUCTION

1.1 Overviews

As the Internet has grown, so has usage of its resources. People spend hours at their desktop computers accessing and using the seemingly unlimited content available—everything from news to stock quotes, telephone directories, restaurant lists, airline schedules, reference materials, and enterprise data. But as mobile employees move from meeting to meeting or travel the country, taking them away from their desks, this wealth of information is inaccessible. The Palm handheld makes all that information portable in an affordable device that provides wireless instant access to the Internet. And, like all Palm Computing platform devices, it provides instant access to critical schedules, addresses, memos, to do lists and fits in a shirt pocket.

1.2 Objectives of the project

The objectives of the project on Palm Computing platform device system for Hotel reservation online services are as following:

- **To improve the performance of the existing system**

    For adapting new Palm Computing platform device system to use instead of the old traditional way to access the internet, it's going to new alternative way to access the internet from anywhere and any time on demand.

- **To build a new application prototype for wireless communication that can be easily used by everyone**

    In order to develope a new Palm Computing platform application.

1

It can support old workflow business system. So it's easy for user to understand the way of the new system processing and implement the new system as the prototype.

1.3 Scopes of the project

The scopes of this project will follow the existing process online hotel reservation system of www.asiatravel.com . The application prototype developed on boundary hotel reservation in Asia especially, in Thailand and Bangkok area only. The proposed system should be able to facilitate all users, improve the performance of the existing online hotel reservation in order to serve customers for their satisfaction in term of alternative access to the internet anyway, anytime and achieve the online hotel reservation's goal as being the best online hotel reservation service.

1.4 Outlines of Project

There are 5 parts in this project with its detail as shown in Figure 1-1.

```
                    ┌─────────────────────────────────────────┐
                    │  Hotel Reservation via Palm System Report │
                    └─────────────────────────────────────────┘
```

Hotel Reservation via Palm System Report

1. Introduction	**3. Proposed System**	**5. Conclusions and Recommendations**
1.1 Overviews 1.2 Objectives of the project 1.3 Scopes of the project 1.4 Outlines of the project	3.1 Methodology 3.2 User's requirement 3.3 System design 3.4 Costs vs. Benefit Analysis	5.1 Conclusions 5.2 Recommendations

2. Existing System	**4. Project Implementation**
2.1 Background of the Organization 2.2 Existing system 2.3 Current problems	4.1 Project Implementation 4.2 Screen of system And Report Layout

Figure 1-1 Outlines of the project

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CHAPTER 2 THE EXISTING SYSTEM

2.1 Background of the organization

Since its inception in September 1995, Asia Travel has steadily grown to become a leading online hotel and travel reservation services provider in the Asia Pacific Region. With the establishment of its offices in the US and Europe, the Group is working towards positioning itself as a global travel services provider.

Asia Travel is recognized for its forte in the provision of long-haul hotel and travel reservation services for Asia-bound travelers. The company drives its regional and global online services through its interne portal, www.asiatravel.com, (as shown in Figure 2-1) which is supported by an integrated network of 16 customer service and business development centers. These centers are strategically located in 12 countries: Australia, Hong Kong, Indonesia, Singapore, the Philippines, Thailand, the United Arab Emirates, Guam, Vietnam, China, Europe, and the USA. They facilitate the fostering of a good working relationship with hotels, as well as the answering of customers' enquiries.

The strategic and extensive coverage of Asia Travel's network is an affirmation of its company mission statement: to provide a 'global reach with a local touch'. It is this unique proposition that sets us apart from our competitors. From hotel reservations services at more than 5,000 hotels and resorts around the globe to tour packages, from our one-stop service for ground transport to air ticketing, our website offers the astute and tech-savvy traveler with a good selection of attractively priced travel-related products and services. The website's current daily average of 35,000 visits is a testament to its increasing popularity. These visits translate, in terms of hotel room reservations alone to an average monthly booking of 30,000 room nights.

A significant factor attributable to the website's success is our ability to exemplify the company's 'local touch' approach. At each of our service and business development centers, our network of trained professionals provide prompt, reliable, and in-depth response to visitor reservations and enquiries.
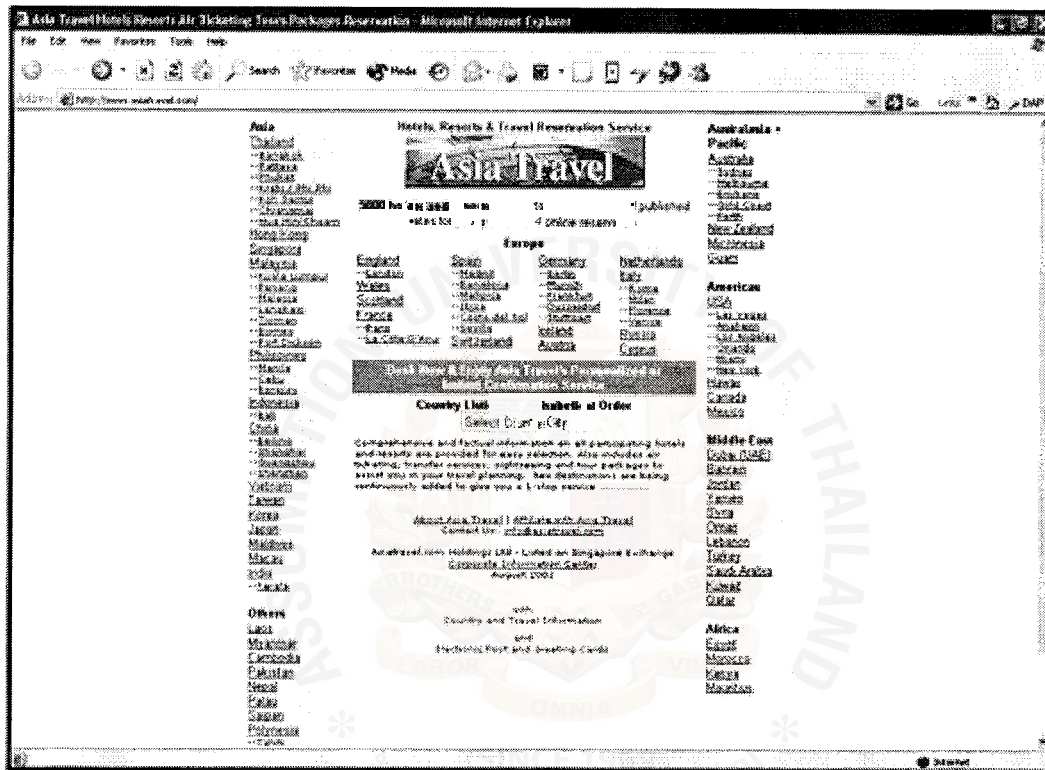
Figure 2-1 Asia Travel web page

2.2 Existing system

When the customers go to www.asiatravel.com they can get all the hotels information on web site provide full information, such as rates and discounts, graphics of rooms, sport, recreation, function, food and cuisine facilities. Location and fact sheets

All the information put up on the hotels, resorts, and travel and leisure establishments is the official information supplied by the management and owners.

All the information is checked and approved before it is activated online. Also constant updating is done to ensure such information is current.

All hotels accept online enquiries and reservations through their online enquiry and reservation forms.

All enquiry and reservation forms are programmed to be received by Asia Travel and the Individual Establishment from which the forms are being sent.

All enquiries and reservations will be responded to within 24 hours, either by the hotel or Asia Travel. Some hotels offer instant availability and confirmation for reservation and check-in voucher can be printed online.

All discounts and special offers are only applicable if reservations are made through the online reservation forms or directly through Asia Travel.

All hotels accept advance reservations. Customers pay directly to the hotels only upon check-in or check-out, either by cash or credit card. These hotels do not ask for any advance payment or deposits. In some cases, due to very high season demand, they may ask for a credit card guarantee for the first day only of the reservation. This again is only a guarantee of stay, not a payment. Also there will be a grace period for cancellation in which case the guarantee will be invalid. If there is a guarantee requirement, a credit card authorization form will be e-mailed to you and you can fill in the details and return it by fax. (All process as shown in Figure 2-2 to Figure 2-4)
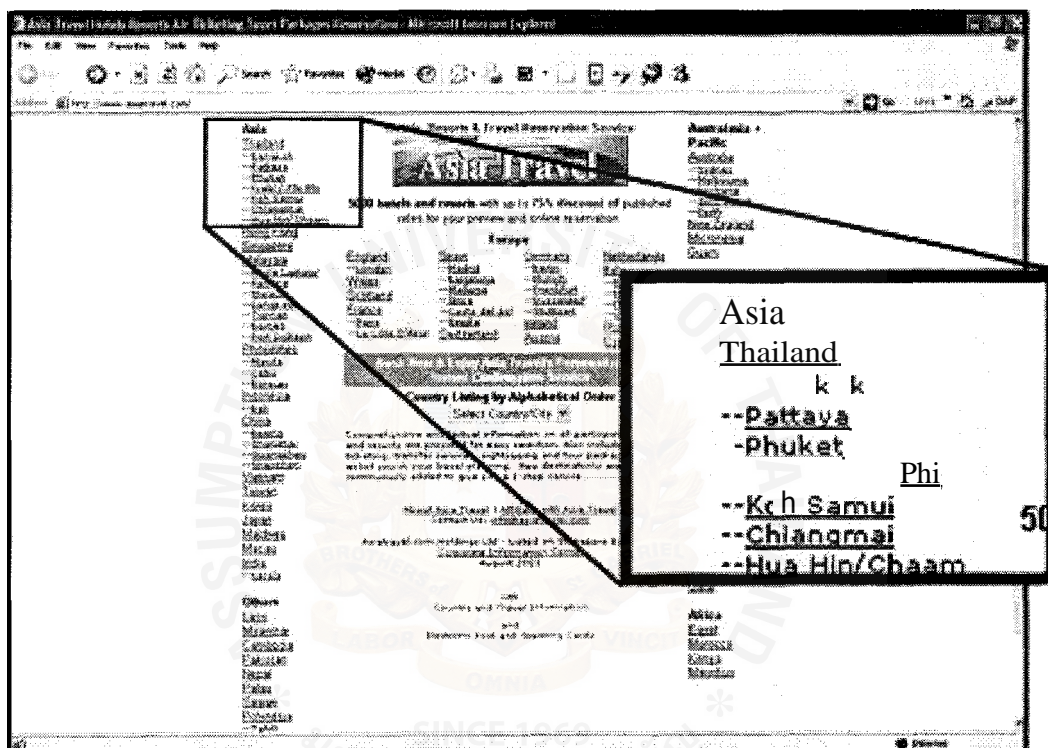
Figure 2-2 Thailand and Bangkok location web page

Figure 2-3 Bangkok location detail web page

Special Rate for Internet User		
Payment direct to		
Single room	2,600 ++	1,200.-nett
Double / Twin room	2,800 ++	1,400.-nett
Triple room	3,300 ++	1,900.-nett
Quart room	3,800 ++	2,400.-nett

II inclusive of service charge s.
AO rooms tire Suites 6S sqm. (1 bedroom &

Room Type	Rack Rate	Special Rate
Single room	2,600 ++	1,200.-nett
Double / Twin room	2,800 ++	1,400.-nett
		1,900.-nett
		2,400
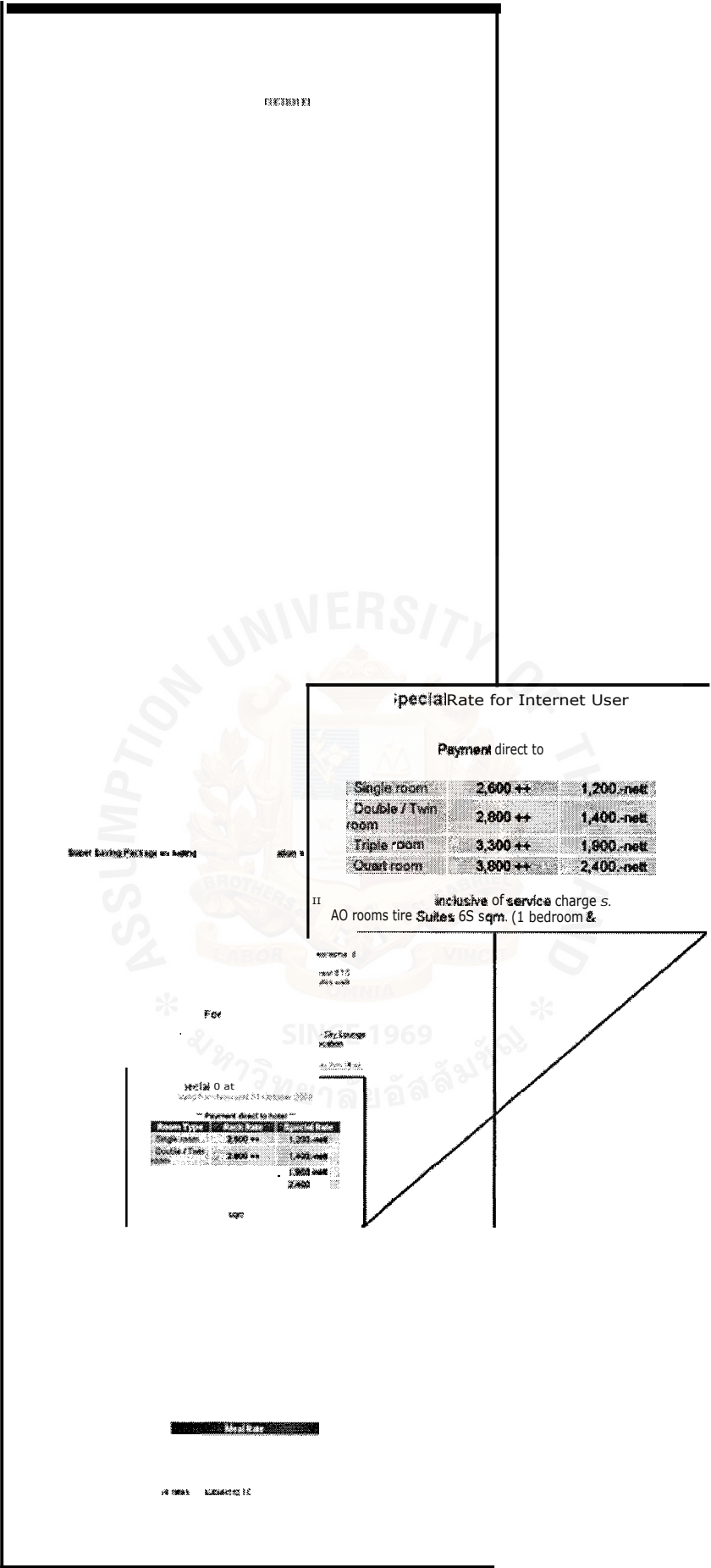
Figure 2-4 Baiyoke Suit Hotel information web page

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Figure 2-5 Baiyoke Suit Hotel Reservation information web page

2.3 Current problems

With the old traditional way to access and get the information from internet, users need to use the computer desktop or computer note book for that operation but some time they can not take their computers everywhere. And now the trend to use handle computer or PDA (Personal Digital Assistant) has greatly increased in this few years. So Asia Travel.com determines to develop an application to support the customers who have contacted the website current daily average of 35,000 visitors in new channels such as wireless communication (This is the important future plan of Asia Travel.com as Figure 2-6). Because of the old traditional way to access the internet, sometimes it causes problems, which are as the followings:

1. In the traditional way, it was difficult to access internet in somewhere when the customers need promptly information.

2. It takes time to track information that customers need in website. (As in Figure 2-2 to Figure 2-4 one can see a lot of information in that web pages)

3. It takes a lot of money for internet air time usage in the old traditional internet access way.

One method to solve this problem is to develop a wireless application for **"Hotel Reservation System"** to serve information for the customers.
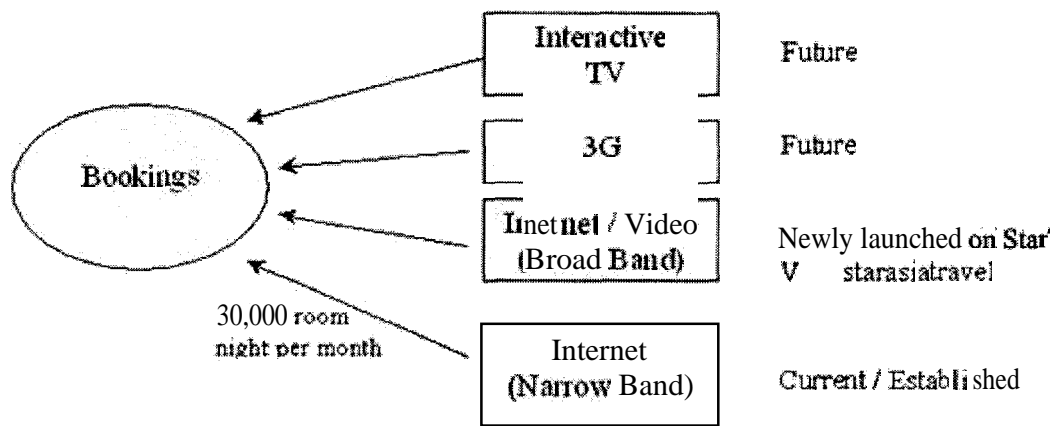
Figure 2-6 Future plan of Asia Travel.com to develope new booking channel.
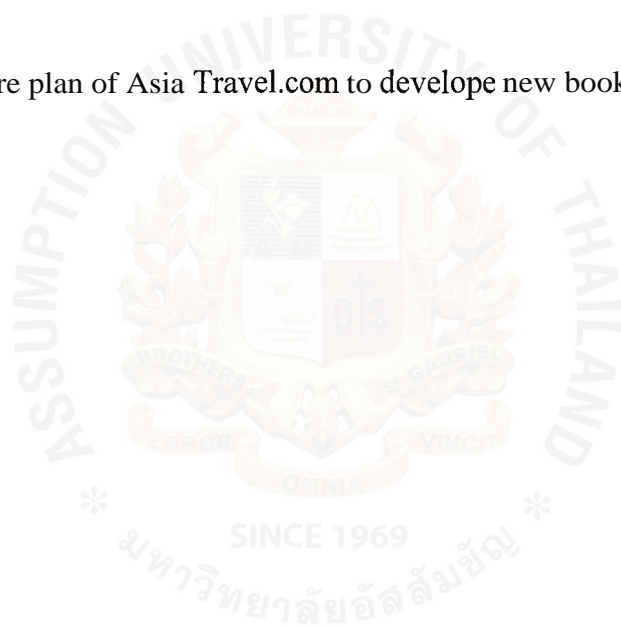
CHAPTER 3 THE PROPOSED SYSTEM

3.1 Methodology

The methodology that is used to develop hotel reservation via palm system is "Web Clipping" application with its details as followings:

3.1.1 Introduction

3.1.1.1. Design Parameters

The content on today's Internet is designed to take advantage of the power of Pentium class computers, with color screens of 640x480 or greater resolution and links of at least 56 K/bps. These design parameters, unfortunately, make the content on the Internet much less accessible to small, low-power handheld devices such as the Palm connected organizer; yet, much of that content is of value to mobile users who may be far away from their computers but always have their organizer close at hand. For information to be delivered quickly from the Internet and displayed readably on a handheld, that information must accommodate itself to the equivalent of a 32 Kbps (Depending on the network) link and a 160x160 display, incur the smallest possible airtime cost, and cause the least depletion of the battery. This chapter describes what a wireless application that supports these goals is.

3.1.1.2 Web clipping

Given the small screen and low bandwidth of organizer, and the constraints on the time and attention of mobile users, browsing page after web page of graphically rich, complexly formatted information doesn't make sense. So Palm Computing took

a different perspective on content access: on the Palm organizer, accessing Internet information is more like clipping an article out of a newspaper—you get only the part you really need, nothing more. Palm calls this concept of extracting specific information from the Internet web clipping.

Two principles underlie a web clipping:

• Rather than focusing on the hyperlink, as in browsing, the focus is on a simple query (an HTML form) and a response (called the clipping), usually generated by a CGI script.

• The wireless application is partitioned in such a way that the query form of the application is stored locally on the handheld device.
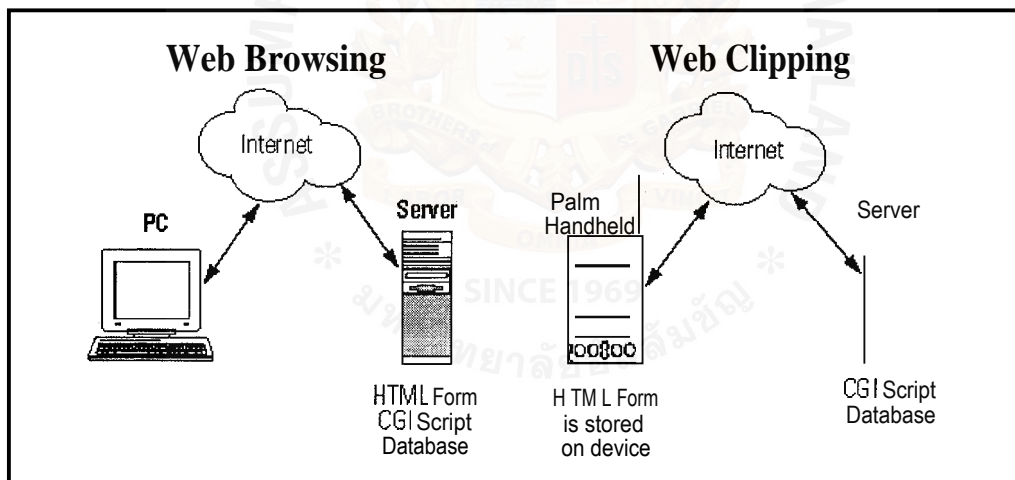
Figure 3-1 Web browsing versus web clipping where the HTML Form is stored on device

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3.1.1.3. Benefits of partitioning

Partitioning the wireless application between the client and host provides several benefits.

• Since the query portion of the application, called the query form, is stored on the device it's instantaneously fast. The user can fill out the request (e.g., a stock symbol, news topic, or name to look up) without ever going online, and no bandwidth or time is spent getting to the query form.

• Once the user submits a query, the clipping sent back is very small. On a typical query and response, about 40 bytes should go over the network and 360 bytes should come back (compressed). Less data transferred means lower cost of ownership, less latency.

Figure 3-2 A typical query form and resultant clipping

3.1.1.4. The Palm wireless proxy server

A key component of wireless communication is the proxy server that resides in Palm's data center. The Palm wireless proxy server is responsible for converting the Internet protocols and content into a form that's acceptable to a wireless network and a small device, and vice-versa. As shown in the diagram below, the server talks standard Internet protocols (TCP, HTTP, and SSL) to HTML servers to maintain compatibility. On the wireless side, however, the proxy server must adjust everything to support extremely low bandwidth and latency:

• Data coming from the Internet is compressed.

• UDP protocol is used to talk to the handheld. Use of UDP enables one packet up (the query) and one packet down (the clipping). This simple protocol greatly reduces latency and conserves battery consumption.
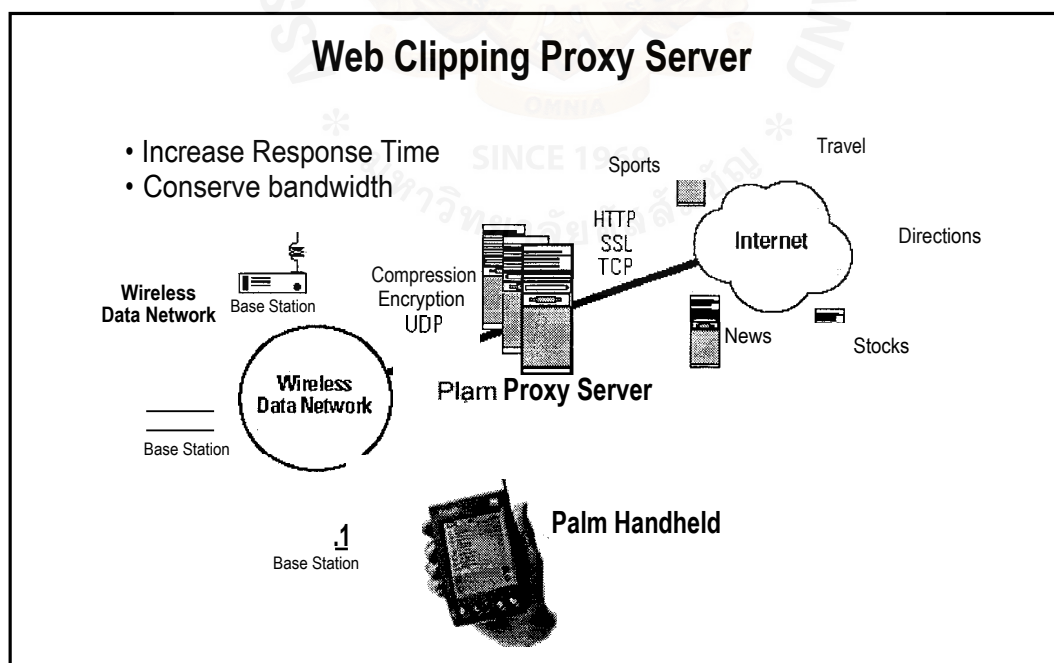
Figure 3-3 Palm Wireless System Architecture

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3.2 User's requirement

3.2.1 The following information is the criteria that needed to be developed:

1. Retrieve the information requested by the customers within a few minutes.

2. The handle computerized system can integrate with the existing system.

3. Implement handle computerized system to provide all services.

3.2.2 Hardware and software requirement

For new computerized system platform Asia Travel.com needed to understand the new platform and know the process of the new existing system, so it has to buy all new computer systems. Hardware required for the proposed system is as following:

(A) Hardware

- PALM m 515 Handheld computer: It's used to develop, test and provide all services to the customer.

- Bluetooth SD Card: It's used for communicate between Palm and mobile phone.

- Mobile phone: It's used for Palm to access to the internet network in term of wireless communication.

  Hardware specification is shown in Table 3-1.

(B) Software

- Operating System: It uses Microsoft Windows XP Professional

- Application Software: It uses custom solution by developing a new

  system based on user requirement because it quite fits with its need.

Hardware Detail	
Handheld Computer	Palm m515 Palm OS Software v4.1
	16 MB of internal memory TFT color display with brightness control and support for more than 65,000 colors Palm Expansion Card slot(Supports Secure Digital(SD) and MultiMediaCard(MMC)) Palm Universal Connector Infrared port 1 Years warrantee
Bluetooth SD Card	Support Bluetooth 1.1 Support Bluetooth Profiles: Serial ,OBEX Push ,Dial Up , Network , LAN Access Support SDIO 1.0 1 Years warrantee
Mobile telephone	Sony Ericsson T68i Digital Tri-band(GSM900/1900/1800) Support GPRS Support data transfer 43.2 Kbps (Depending on net work) Bluetooth built-in 1 Years warrantee

Table 3-1 Hardware specification

3.3 System design

3.3.1 Context Diagram

The proposed system is consisted of 3 external entities: Customer, Hotel reservation department of Asia Travel.com, The Hotel. Each external entity provides and receives different input and output from Hotel Reservation via Palm System. The diagram is shown in Figure 3-4. The input and output can be described as follows:

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- Customers provide hotel reservation to the system and receive the e-mail confirming back.

- The Hotel received customer requirement from the system and sent back reservation information confirm to system.

- Hotel reservation department receives daily report from the system, then provides customer hotel reservation information confirm, and sends e-mail reservation confirm back to customers.

3.3.2 Data Flow Diagram

There are 3 processes within the system: verify hotel reservation information, update customer hotel reservation information, e-mail. The diagram is shown in Figure 3-5.

- Process 1: verify hotel reservation information

This process handles the information both of customer and hotel reservation requirement and distinguishes information of customer (e.g. Name, Nation) and hotel information (e.g. Name, Room type) before sending it to the system.

- Process 2: update customer hotel reservation information

This process takes care of all the information and updates it to the system after receiving the last updating reservation information from the hotel or customer profile changed and sends all the information as a daily report to hotel reservation department.

- Process 3: e-mail confirmation

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This process will send e-mail to customer to confirm back reservation requirement. And it will send the reservation requirement to the hotel after the hotel sends the confirm reservation information back to the hotel reservation department. It will send the e-mail confirm back to the hotel reservation department. After it receives the reservation information from the hotel reservation confirm, it will send e-mail for reservation confirm to customer again.
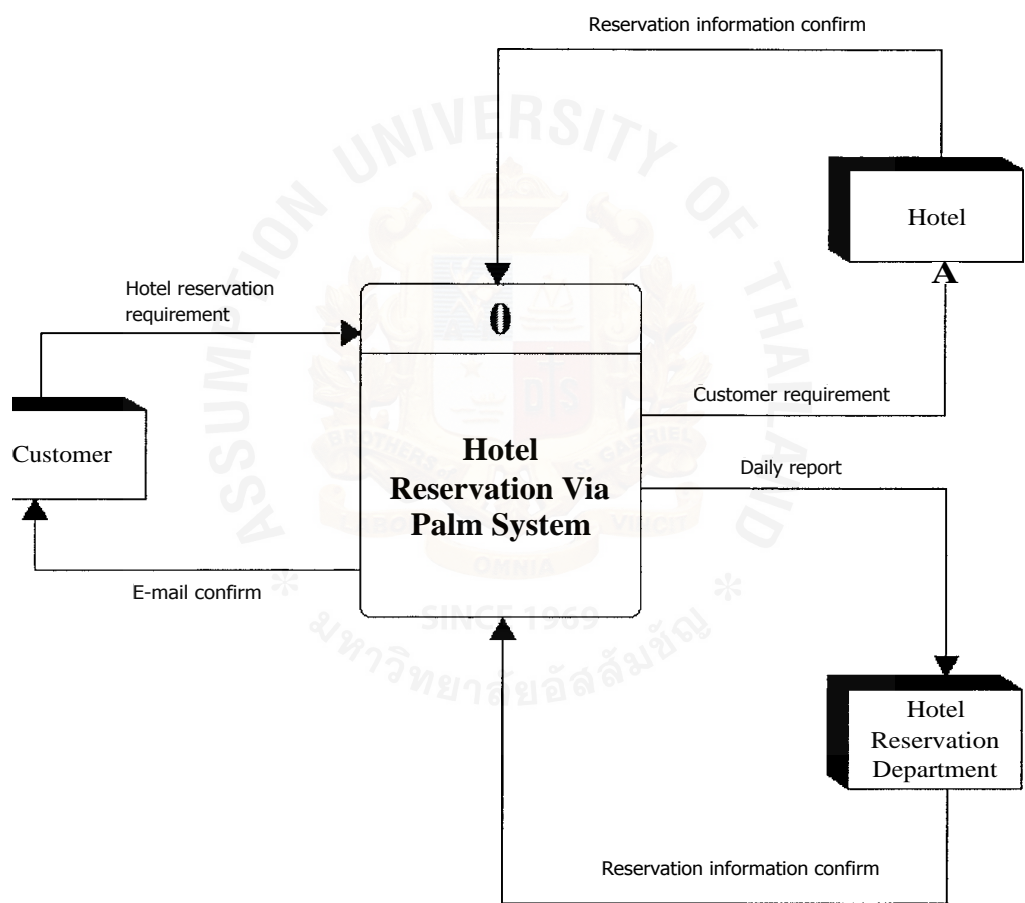
Figure 3-4 Context Diagram

Customer

1

Hotel
reservation
requirement

Verify hotel
reservation
information

Hotel
reservation
information

Reservation
information confirm

Update
customer hotel   44
reservation
information

Hotel
reseration
record

Dl | Hotel reservation File   Daily report   Hotel
                                                            Reservation
                                                            Department

Hotel
reservation
information

E-mail
confirmation   Reservation information confirm

Customer
requirement

Hotel   Reservation information confirm

Figure 3-5 Data Flow Diagram Level 0

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3.4 Costs vs. Benefit Analysis

3.4.1 Cost analysis

There are 2 parts of cost analysis: one-time cost and recurring cost.

- **One-time cost** is a cost associated with project start-up including all hardware, software, system development cost. Total one-time cost is 542,800 Baht with its detail as shown in Table 3-2.

- **Recurring cost** is a cost resulting from the ongoing and use of a system including Web Clipping application software maintenance and hardware maintenance. Total recurring cost for Web Clipping application software maintenance per year (from year 1 – 5) is 120,000 Baht and hardware maintenance per year (from year 4 —5) is 5,500 Baht with its detail as shown in Table 3-3.

ONE-TIME COST Hotel Reservation via Palm service System	
	Year 0
1. Web Clipping application software (System development cost)	500,000
2. New Hardware : PALM m515	16,900
: Bluetooth SD Card	6,000
3. Mobile telephone	19,900
TOTAL one-time cost	**542,800**

Table 3-2 One-time cost

RECURRING COST		
Hotel Reservation via Palm service System		
	Year 1 through 5	Year 4 through 5
1. Web Clipping Application software maintenance (per year)	120,000	120,000
2. Hardware maintenance		5,500
TOTAL recurring-cost	**120,000**	**125,500**

Table 3-3 Recurring cost

3.4.2 Benefit analysis

There are 2 parts of benefit analysis: tangible and intangible benefits.

- **Tangible benefit includes:**

  1. Reducing the amount of the internet access time for one customer. When it implements hotel online reservation services system, Asia Travel.com can provide faster service to customers than before. This may satisfy the customers because they don't have to wait for a long time and they can access to the internet at every situation when compared with the existing system. So Asia Travel.com expects that the hotel reservation system will get an increased benefit of 5% every year .(based on customer's survey report of AsiaTravel.com) from instant respond system and 30% of the existing customers who have palm and support the new system

Before the implementation of this new computerized system, Asia Travel.com got 8,750,000 Baht service charge per month. In one year, the total income is 12 * 8,750,000 = 105,000,000 Baht. So for the first year when it starts the implementation, it will get 105,000,000 * 5% = 110,250,000 Baht and continue increasing 5% every year.

- **Intangible benefit include:**

  1. Improving the performance of business workflow: With the proposed system, Asia Travel.com will support the customer on demand from every place and every situation that the customers will be able to get his information while workingout or traveling with a small device that they have, so it is helpful for the customers who have no time but want to get more benefits.

  2. Increasing customer's satisfaction with a faster service: This is not only tangible benefit but also intangible benefit because when customers are satisfied with its services, they may tell their friends or anyone who wants to booking the hotel, so Asia Travel.com will get additional customers and more income.

3. Reducing the internet air time: Because the customer can access and get the information that they need faster than the old existing system, they don't waste time on logging in and logging out the network. And the internet airtime service charge will be cheaper than before because in term of mobile internet, they calculate the amount of data transferred not time so while the customers logon the network but not request for any data, it means they don't need to pay any thing or if they request the amount of data when calculate in term of data transfer will be small.

Cost vs. Benefit Analysis

Hotel Reservation Via Palm Services System Cost - Benefit Analysis							
			Year of Project				
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Totals
Net benefits	B 0	5,250,000	5,775,000	6,352,500	6,987,750	7,686,525	
Discount rate (1.75%)	1.0000	0.9828	0.9659	0.9493	0.9330	0.9169	
PV of benefits	0	5,159,700	5,578,073	6,030,428	6,519,571	7,047,775	
NPV of all BENEFITS	0	5,159,700	10,737,773	16,768,201	23,287,772	30,335,546	86,288,991
One-time COSTS	-542,800						
Recurring Costs	0	-120,000	-120,000	-120,000	-125,500	-125,500	
Discount rate (1.75%)	•1.0000	0.9828	0.9659	0.9493	0.9330	0.9169	
PV of Recurring costs	0	-117.936	-115,908	-113,916	-117,092	-115,071	
NPV of all COSTS	-542,800	-660,736	-776,644	-890,560	-1,007,652	-1,122,722	-5,001,114
Overall NPV							81,287,877
Overall ROI - (Overall NPV / NPV of all COSTS)							16.25
Break-even Analysis							
Yearly NPV Cash Flow	-542,800	5,041,764	5,462,165	5,916,512	6,402,479	6,932,704	
Overall NPV Cash Flow	-542,800	4,498,964	9,961,129	15,877,641	22,280,120	29,212,824	
Project break-even occurs between year 0 and 1 Break-even point fraction = ((5,041,764 - 4,498,964) / 5,041,764) = 0.108 Actual break-even occurred at 0.1 years Remark: 1.75% Discount rate refers to deposit interest rate announced by Bank of Thailand							

Table 3-4 Cost vs. Benefit analysis

After implementing the new system, Asia Travel.com will get the payback within one month. Project break-even point is shown in Figure 3-3.
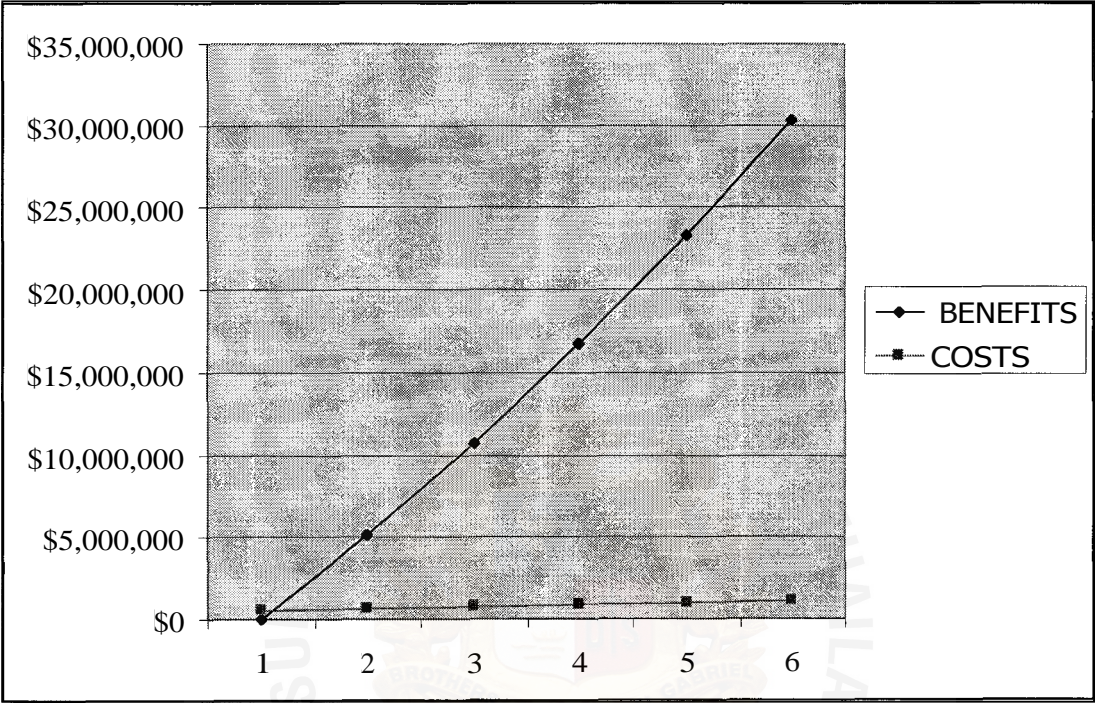
Figure 3-6 Project Break-even point

CHAPTER 4 PROJECT IMPLEMENTATION

4.1 Project Implementation

The implementation schedule for developing a hotel reservation via palm System will be 110 days which is shown in Figure 4-1. The project plan is presented in the Gantt chart showing the timeline and duration to complete each task. There are 4 major tasks; those are:

1. Project initiation

- The project scope is defined and we have to study and analyze the current system.

2. System analysis

- During this task we have to gather all users requirement, which analyzes the old existing system to integrate with the new existing system. And we have to provide all information and problems when working in the old existing system. Also we have defined what hardware and software requirements are, appraise system development cost in order to calculate cost-benefit analysis.

3. System design

- During this task we have to design all interfaces in Palm device (input and output screen) and present to users whether it's convenient to use or not. For backend, the database is designed as well.

4. Implementation

- During this task we have to code program, test, install, and train all users to use this new system.

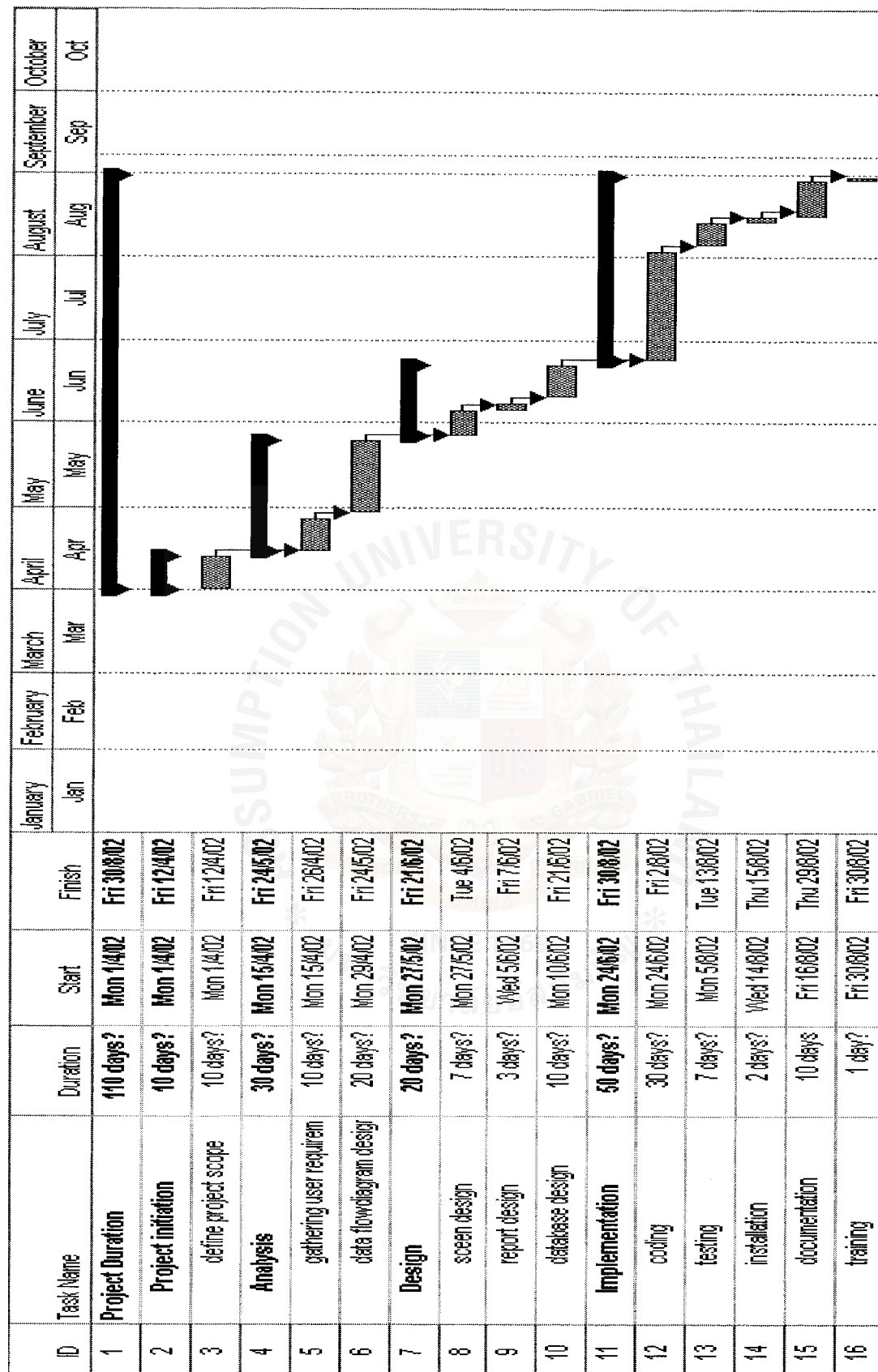| ID	Task Name	Duration	Start	Finish
1	**Project Duration**	**110 days?**	**Mon 1/4/02**	**Fri 30/8/02**
2	**Project initiation**	**10 days?**	**Mon 1/4/02**	**Fri 12/4/02**
3	define project scope	10 days?	Mon 1/4/02	Fri 12/4/02
4	**Analysis**	**30 days?**	**Mon 15/4/02**	**Fri 24/5/02**
5	gathering user requirem	10 days?	Mon 15/4/02	Fri 26/4/02
6	data flow/diagram design	20 days?	Mon 29/4/02	Fri 24/5/02
7	**Design**	**20 days?**	**Mon 27/5/02**	**Fri 21/6/02**
8	sceen design	7 days?	Mon 27/5/02	Tue 4/6/02
9	report design	3 days?	Wed 5/6/02	Fri 7/6/02
10	database design	10 days?	Mon 10/6/02	Fri 21/6/02
11	**Implementation**	**50 days?**	**Mon 24/6/02**	**Fri 30/8/02**
12	coding	30 days?	Mon 24/6/02	Fri 2/8/02
13	testing	7 days?	Mon 5/8/02	Tue 13/8/02
14	installation	2 days?	Wed 14/8/02	Thu 15/8/02
15	documentation	10 days	Fri 16/8/02	Thu 29/8/02
16	training	1 day?	Fri 30/8/02	Fri 30/8/02

Figure 4-1 Proposed Schedule for new system development

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4.2 Screen of the system and Report Layout
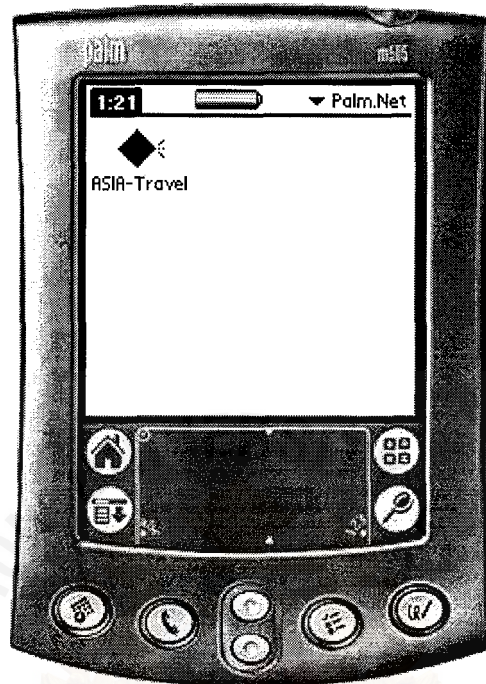
- **Screen Layout**

Figure 4-2 Icon of Web Clipping ASIA-Travel application

This screen is in menu Palm.net .It shows the icon Web Clipping application of

ASIA-Travel. When the customers click this icon, it is the beginning home page of

Online Hotel Reservation via Palm System. (As shown in Figure 4-3 (All Figures are

the actual size that can be seen on Palm Device.))
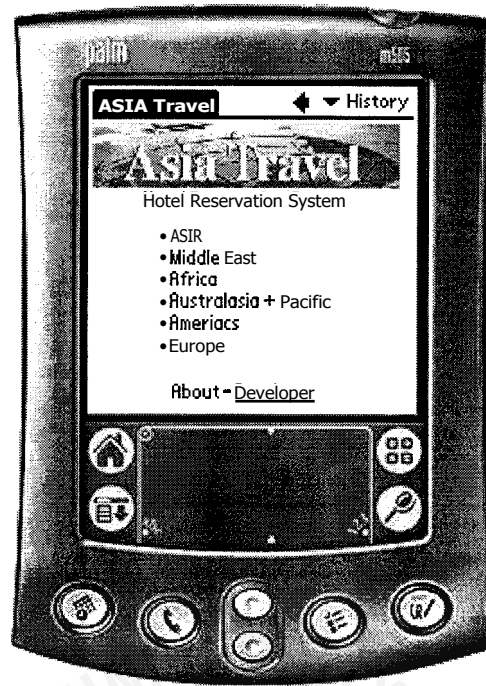
Figure 4-3 Home page of Hotel Reservation via Palm System

(In Web Clipping Application)

This screen is started up when the customers enter ASIA-Travel icon on Palm

device. It's used to select the location to book the hotel. On this page locations are

distinguished by the continents. This part Asia Travel.com presents 5 main continents

in the world (Asia, Middle East, Africa, Australasia+Pacific, America, Europe). When

the customers decide to choose the location they need, it will go to next screen.

Figure 4-4 Location page (Country)

This screen shows country location that the customers want to book the hotel (in this operation user clicks to choose Asia then goes to this page). And when the user chooses the country they want, it will go to the City name list (As Figure 4-5).
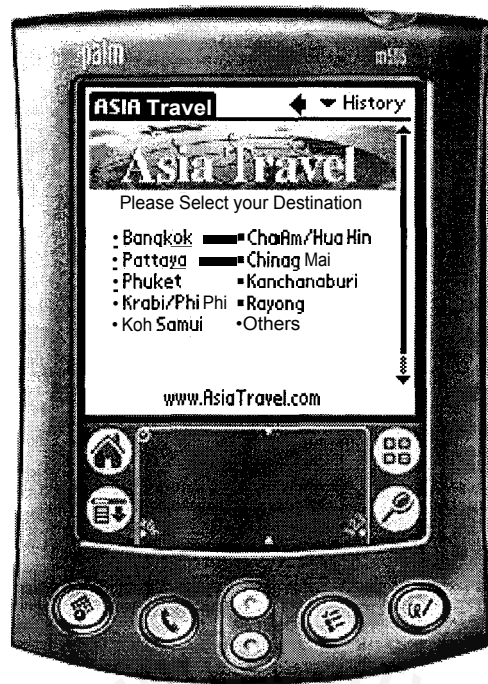
Figure 4-5 City name list (In Thailand)

This screen shows the City name list of each country. The customers can choose the city where they want to go and then it goes to the hotel name list in that city in the next page. (As shown in Figure 4-6)
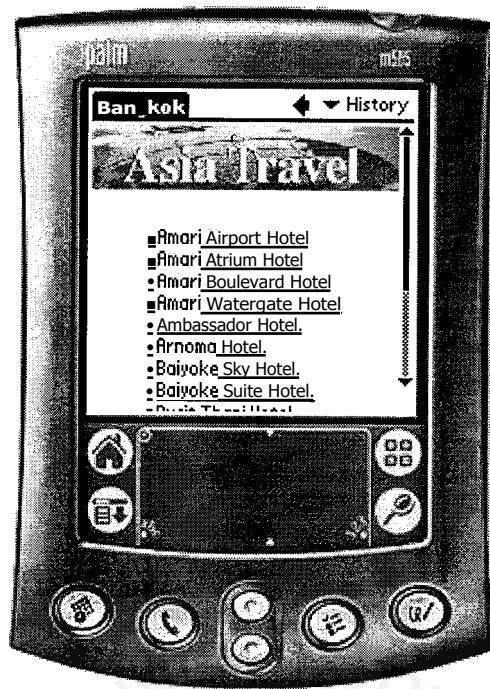
Figure 4-6 Hotel name list (In Thailand)

This screen shows the Hotel name list of each city on this page, when the customers

choose the hotel, they can get the information about that hotel e.g. the location of the

hotel, room detail, an atmosphere, and restaurant. (Full screen of this page as in

Figure 4-7)

Figure 4-7 Full hotel name list page (In Thailand)

Figure 4-8 Hotel detail page (In Thailand)

This screen shows the hotel in detail to make the customers know about the hotel

information and when the customer chooses that hotel, they will know the price of

each room type, discount rate by clicking "Room rate" (As shown in Figure 4-9) and

then when the customer decides to book that hotel they need to click "Reverse" button

in hotel room rate page (As shown in Figure 4-10) then the system will begin to

reservation operation.

Baiyoke Suite Hotel, the 243 all-suite superior class hotel is where everything have been refurbished. In the 43 storey building, set right in the heart of Bangkok's premier shopping and commercial area, we provide you with a new standard in comfort, service and personal attention.

Room Type

Superior Suite : Floor 26-35 (One bed room with one living room)
Deluxe Suite Floor 36-40 (One bed room with one living room)
Total area is 55 square meters per suite

Room Facilities

Air Conditioned
olor television set with cable system
Refrigerator with fully stocked mini bar
Individual safe deposit box
Local / International direct dial telephone
Radio with alarm
inibar
110/220v bathroom outlets
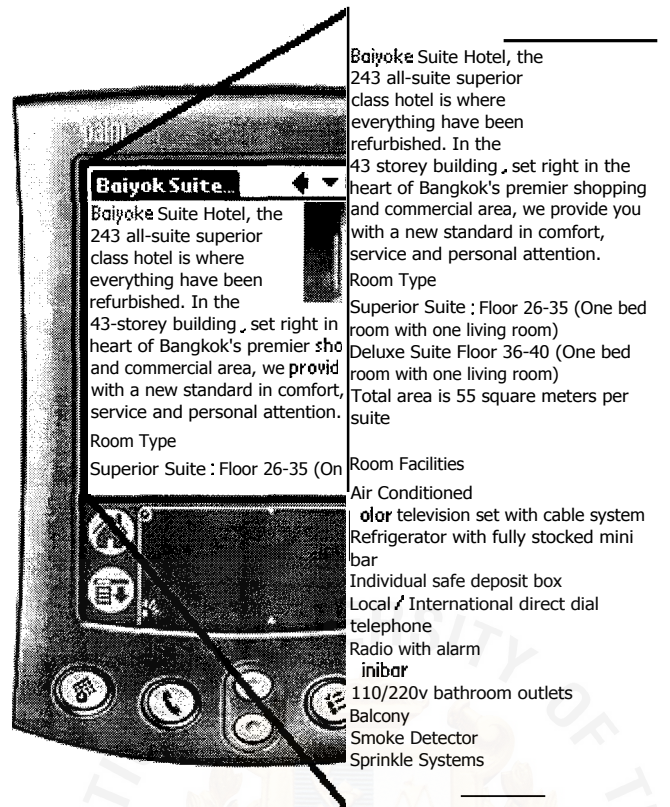Balcony
Smoke Detector
Sprinkle Systems

Figure 4-9 Full Hotel detail page of Baiyoke suit Hotel (In Thailand)
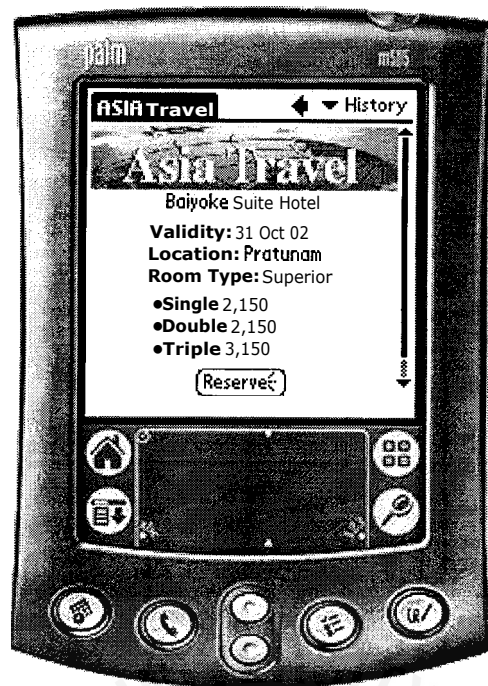
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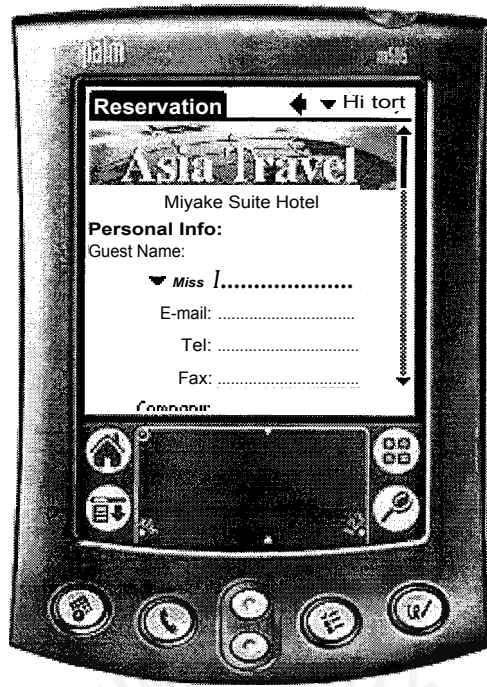Figure 4-10 Hotel room rate page of Baiyoke suit hotel (In Thailand)
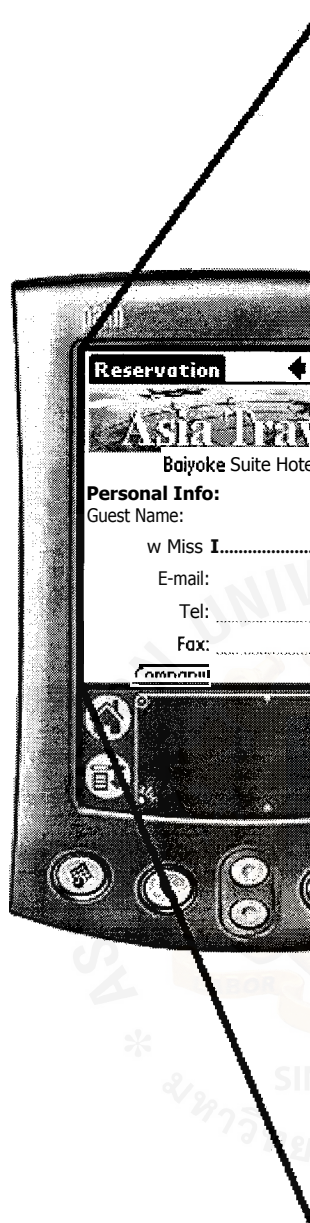
Figure 4-11 Hotel Reservation form page of Baiyoke suit hotel (In Thailand)

This screen shows the hotel reservation form, that the customers need to fill in the customer information e.g. Name, Address (As shown in Figure 4-12 Full hotel reservation form). After clicking "Send" button, the system will send all customer information to Asia Travel.com

Figure 4-12 Full Hotel Reservation form page of Baiyoke suit hotel (In Thailand)

After the system receives the customer information, it will show the massage confirm

(As shown in Figure 4-13) and send back e-mail confirm customer detail. (As shown

in Figure 4-14)
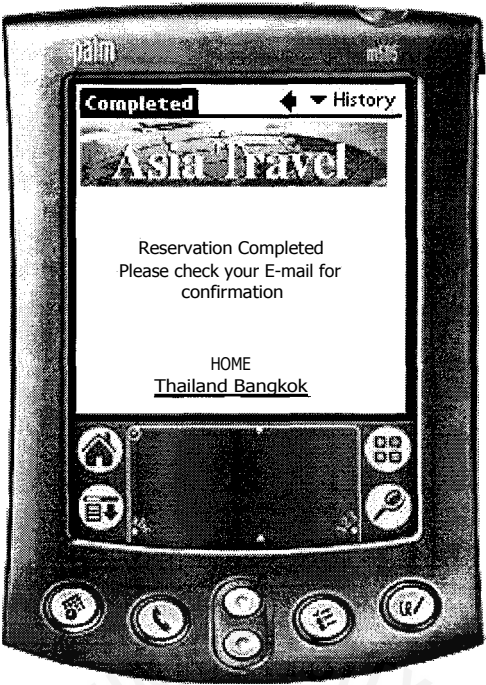
Figure 4-13 Massage confirm

Figure 4-14 About Asia Travel.com page
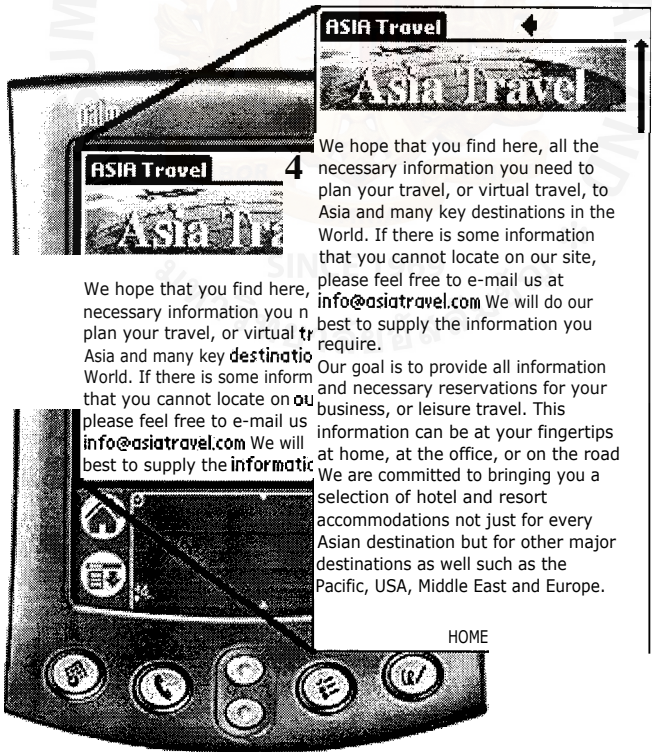
Figure 4-15 About Asia Travel.com page (Full)
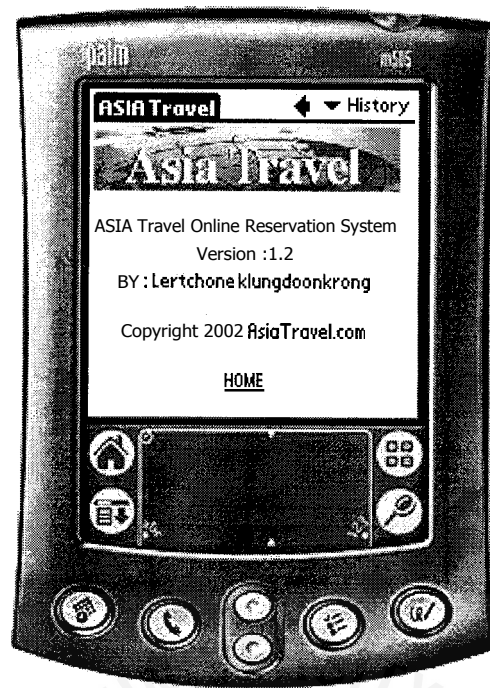
Figure 4-16 Asia Travel.com Developer page

• Report Layout

After the system at Asia Travel.com receives the information from the customer,

it will send back the e-mail confirm to the customer As in Figure 4-17

kob@hotmail.com

From : int @m bile-edition.com

To : n | h n .com

Subject : Asi m l Hotel Reservation Confirmation

Date : 8 Sep 2002 14:1 :0000

Reply   Reply AO   Forward   Delete   Put n Folder,,,

Printer Friendly Version

This is to confirm that you have made reservation via Asia Travel Reservation System
your reservation info below:

Personal Info:
Mr. Lertchone K.
ii kob@hotmail.com
Passport: 123456789-0
TEl: 01-8495847 FAX: 043-811742
ABC.Co,Ltd
123/783 khonkaen
Nationality : Thai

Reservation Details :
first choice of hotel : Baiyoke Suite Hotel
second choice of hotel : Century Park Hotel
Room type: Deluxe Triple
Number of room : 1
Number of Adult/Children : 2/1 (14 years old)
Check in/out : 2002-09-01/2002-09-05

Flight Info
Arrival Flight : TG 123 Arrival Time : 09:08
Departure Flight : TG 123 Departure Time : 20:00

Payment method :

Airport Pickup Yes, from airport - hotel - airpor

Special Request :
  This is the hotel reservation online test

Reply | Reply All | Forward | Delete | Put in Folder..   Previous Next I Close

Figure 4-17 E-mail Massage confirm from Asia Travel.com

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CHAPTER 5 CONCLUSION AND RECOMMENDATION

5.1 Conclusions

Many IT organizations today are overwhelmed by the prospect of trying to tackle wireless development with ready strained resources. In addition, the demand for mobile applications is often urgent, as companies come to view wireless technologies are a strategic mean seizing competitive advantage.

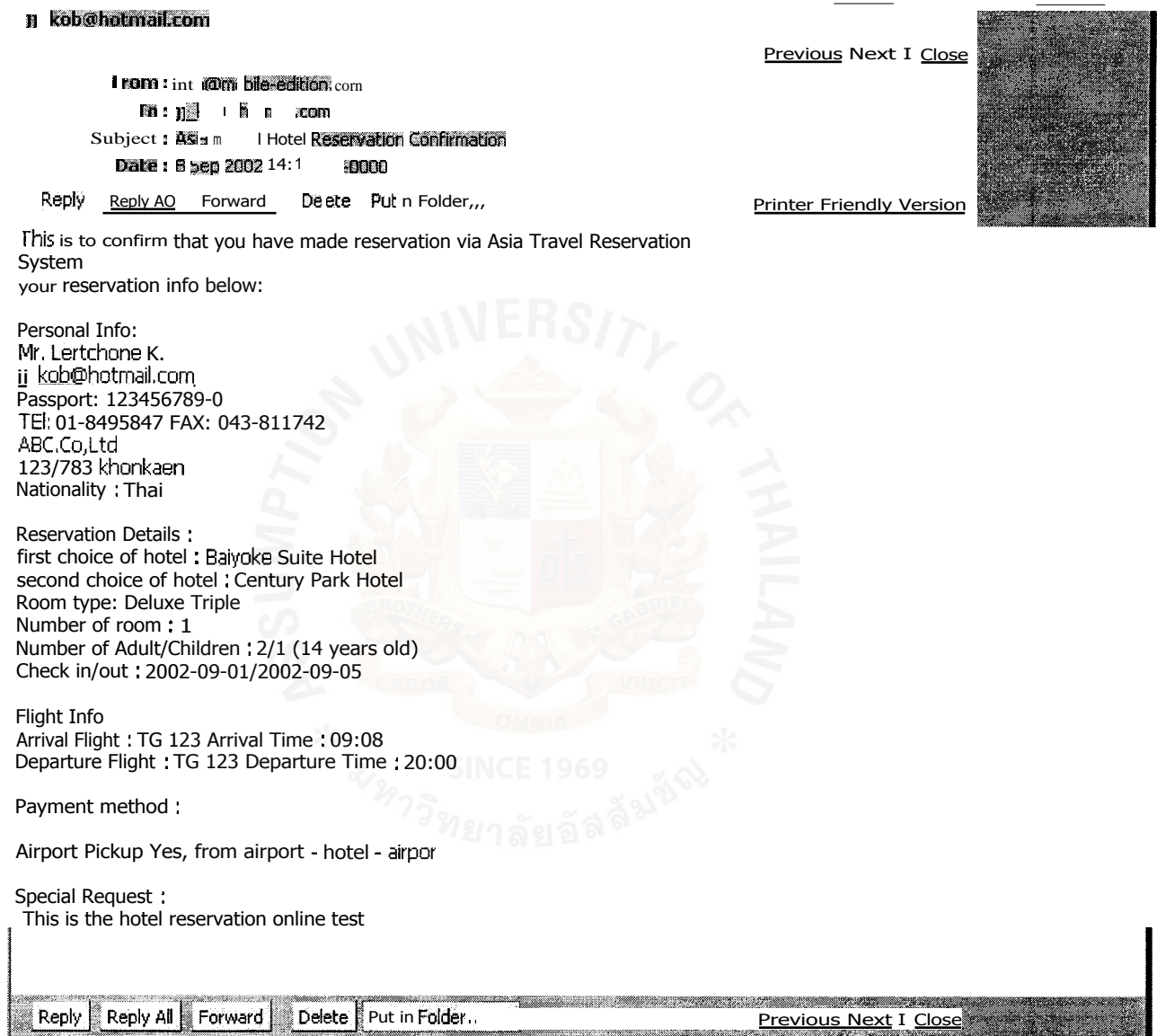Asia Travel.com is a company that considers the wireless technologies and they see the way to reach their market shear by developing the wireless application that can run on the portable device like a PDA (Personal Digital Assistant). Because the growing rate of the computer handle market has increased so high in a few years we can approximate the demand of users who use internet clarify from wire line to wireless access.

Web clipping application is a fast and simple way to submit information to, and retrieve information from, the internet.

After implementing Web clipping application for online hotel reservation system to Asia Travel.com, Asia Travel.com will get more increased income of 5% every year, not only tangible benefit which it will get, but also tangible benefit. Those are improvements of the performance of business workflow, increasing customer's satisfaction with a faster service, and help to achieve the company's goal as being the best online hotel reservation service.

5.2 Recommendations

There are still opportunities to further develop hotel reservation services system to increase its efficiency and to fully support all the information and provide the best service for customer's satisfaction. The scope of the system can be developed in hotel information update by developing another wireless application that can help the existing application to update the information by itself.

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APPENDIX A

SOURCE CODE

This is the example of source code for Palm programming developer
Module 1 Hotel reservation form

```
<html>
<head>
<meta name="PalmComputingPlatform" content="true">
<title>Reservation</title>
</head>
<body>
<center><img src=file://ASIA-Travel.pqa/logo.gif  <br>
<? echo"$hotel" ?></center>
<form method="post" action="http://www.mobile-edition.net/asia/cgi2.php">
  <p><b>Personal Info:</b><br>
   Guest Name: </p>
  <table width="100%" border="0">
   <tr>
    <td>
     <div align="right">
      <select name="prefix">
       <option value="Miss">Miss</option>
       <option value="Mr.">Mr.</option>
       <option value="Mrs.">Mrs.</option>
      </select>
     </div>
    </td>
    <td>
     <div align="left">
      <input type="text" name="name">
     </div>
    </td>
   </tr>
   <tr>
    <td>
     <div align="right">E-mail:</div>
    </td>
    <td>
     <div align="left">
      <input type="text" name="email">
     </div>
    </td>
   </tr>
   <tr>
    <td>
     <div align="right">Passport:</div>
    </td>
    <td>
```

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```html
      <input type="text" name="passport">
    </td>
  </tr>
  <tr>
    <td>
      <div align="right">Tel:</div>
    </td>
    <td>
      <div align="left">
        <input type="text" name="phone">
      </div>
    </td>
  </tr>
  <tr>
    <td>
      <div align="right">Fax:</div>
    </td>
    <td>
      <div align="left">
        <input type="text" name="fax">
      </div>
    </td>
  </tr>
  <tr>
    <td>
      <div align="right">Company:</div>
    </td>
    <td>
      <div align="left">
        <input type="text" name="company">
      </div>
    </td>
  </tr>
  <tr>
    <td>
      <div align="right">Address:</div>
    </td>
    <td>
      <div align="left">
        <input type="text" name="address">
      </div>
    </td>
  </tr>
  <tr>
    <td>
```

```html
        <div align="right">Nationality:</div>
      </td>
      <td>
        <div align="left">
          <input type="text" name="national">
        </div>
      </td>
    </tr>
</table>
<hr>
<p><b>Reservation Details:</b><br>
  1st choice of hotel:<br>
  <select name="hotel1">
    <option><? echo"$hotel" ?></option>
  </select>
  <br>
  2nd choice of hotel:<br>
  <select name="hotel2">
    <option>Amari Airport Hotel</option>
    <option>Amari Atrium Hotel</option>
    <option>Amari Boulevard Hotel</option>
    <option>Amari Watergate Hotel</option>
    <option>Ambassador Hotel</option>
    <option>The Arnoma Hotel</option>
    <option>Baiyoke Sky Hotel</option>
    <option>Bangkok Palace </option>
    <option>Baiyoke Suite Hotel</option>
    <option>Bangkok City Inn</option>
    <option>Century Park Hotel</option>
    <option>Chaophaya Park</option>
    <option>Classic Place</option>
    <option>D'Ma Pavilion Hotel</option>
    <option>Dusit Thani Hotel</option>
    <option>Elegance Suite</option>
    <option>The Emerald Hotel</option>
    <option>Eastin Bangkok Hotel (Empress Hotel)</option>
    <option>Evergreen Laurel</option>
    <option>Fortune Hotel</option>
    <option>Forum Park Hotel</option>
    <option>Four Wings Hotel</option>
    <option>Grand Diamond</option>
    <option>Grand Hyatt Erawan Hotel</option>
    <option>Grand Pacific Hotel</option>
    <option>Hilton International Bangkok</option>
    <option>Imperial Impala Hotel</option>
    <option>Imperial Queen's Park</option>
    <option>Imperial Tara Hotel</option>
    <option>Indra Regent Hotel</option>
```

```
    <option>Jade Pavilion Hotel</option>
    <option>JW Marriott Hotel</option>
    <option>Landmark Hotel</option>
    <option>Le Meridien President </option>
    <option>Le Royal Meridien (DLX)</option>
    <option>Mandarin Hotel </option>
    <option>Manhattan Hotel</option>
    <option>Menam Riverside</option>
    <option>Merchant Court</option>
    <option>The Monarch Hotel </option>
    <option>Montien Riverside</option>
    <option>Novotel Siam Square</option>
    <option>Narai Hotel</option>
    <option>Novotel Lotus</option>
    <option>Pan Pacific Hotel</option>
    <option>Pathumwan Princess</option>
    <option>Peninsula Hotel</option>
    <option>Radisson Hotel</option>
    <option>Rembrandt Hotel</option>
    <option>Royal Benja</option>
    <option>Royal Orchid Sheraton</option>
    <option>Royal River Hotel</option>
    <option>Royal City Hotel</option>
    <option>Shangri-La Hotel</option>
    <option>Sheraton Grand Sukhumvit</option>
    <option>Siam City Hotel</option>
    <option>Silom City Inn</option>
    <option>Sofitel Central Plaza</option>
    <option>Sol Twin Hotel</option>
    <option>Sukhothai Hotel</option>
    <option>Taipan Hotel</option>
    <option>The Grand Hotel (Nikko)</option>
    <option>Wall Street Inn</option>
    <option>Windsor Suites Hotel</option>
    <option>Zenith Sukhumvit Bangkok</option>
</select>
<br>
Room Type:<br>
<select name="roomtype">
  <option>Standard Single</option>
  <option>Standard Double</option>
  <option>Standard Twin</option>
  <option>Standard Triple</option>
  <option>Superior Single</option>
  <option>Superior Double</option>
  <option>Superior Twin</option>
  <option>Superior Triple</option>
  <option>Deluxe Double</option>
```

```
<option>Deluxe Twin</option>
<option>Deluxe Triple</option>
<option>Garden View Single</option>
<option>Garden View Twin</option>
<option>Garden View Triple</option>
<option>Seaview Single</option>
<option>Seaview Twin</option>
<option>Seaview Triple</option>
<option>Superior Garden Single</option>
<option>Superior Garden Twin</option>
<option>Superior Garden Triple</option>
<option>Deluxe Villa Single</option>
<option>Deluxe Villa Twin</option>
<option>Deluxe Villa Triple</option>
<option>Lake Wing Single</option>
<option>Lake Wing Twin</option>
<option>Lake Wing Triple</option>
<option>Ocean Wing Single</option>
<option>Ocean Wing Twin</option>
<option>Ocean Wing Triple</option>
<option>Boat Suite Single</option>
<option>Boat Suite Twin</option>
<option>Boat Suite Triple</option>
<option>Standard Bungalow Single</option>
<option>Standard Bungalow Twin</option>
<option>Standard Bungalow Triple</option>
<option>Superior Bungalow Single</option>
<option>Superior Bungalow Twin</option>
<option>Superior Bungalow Triple</option>
<option>Building Single</option>
<option>Building Twin</option>
<option>Building Triple</option>
<option>Villa Single</option>
<option>Villa Twin</option>
<option>Villa Triple</option>
<option>Tower Wing Single</option>
<option>Tower Wing Twin</option>
<option>Tower Wing Double</option>
<option>Tower Wing Triple</option>
<option>Main Wing Single</option>
<option>Main Wing Double </option>
<option>Main Wing Twin</option>
<option>Main Wing Triple</option>
<option>Junior Suite Single</option>
<option>Junior Suite Double</option>
<option>Junior Suite Twin</option>
<option>Junior Suite Triple</option>
<option>Diplomat Suite Single</option>
<option>Diplomat Suite Double</option>
```

```html
    <option>Diplomat Suite Twin</option>
    <option>Diplomat Suite Triple</option>
    <option>Counsellor Suite Single</option>
    <option>Counsellor Suite Double</option>
    <option>Counsellor Suite Twin</option>
    <option>Counsellor Suite Triple</option>
    <option>Shangri-La Wing Single</option>
    <option>Shangri-La Wing Double</option>
    <option>Shangri-La Wing Twin</option>
    <option>Shangri-La Wing Triple</option>
    <option>Krungthep Wing Single</option>
    <option>Krungthep Wing Double</option>
    <option>Krungthep Wing Twin</option>
    <option>Krungthep Wing Triple</option>
</select>
<br>
No. of room:
<input type="text" size="2" name="numberofroom">
<br>
No. of Adult/Children:
<input type="text" size="2" name="adult">

<input type="text" size="2" name="children">
<br>
Age of children:
<select name="age">
  <option value="1">1</option>
  <option value="2">2</option>
  <option value="3">3</option>
  <option value="4">4</option>
  <option value="5">5</option>
  <option value="6">6</option>
  <option value="7">7</option>
  <option value="8">8</option>
  <option value="9">9</option>
  <option value="10">10</option>
  <option value=" 1 1">11</option>
  <option value="12">12</option>
  <option value=" 13"> 13 </option>
  <option value="14">14</option>
</select>
<br>
Check in/out:<br>
<input type="datepicker" name="in">

<input type="datepicker" name="out">
```

```html
    </p>
    <hr>
        <p><b>Flight Info:</b><br>
        Flight name and no. (arrival):

        <input type="text" name="flightarrv">
        <br>
        Arrival Time:
        <input type="timepicker" name="arrvtime">
        <br>
        Flight name and no. (Departure):
        <input type="text" name="flightdept">
        <br>
        Departure Time:
        <input type="timepicker" name="depttime">
        <br>
        Payment method:

    <select name="payment">
      <option value="Visa Card">Visa Card</option>
      <option value="Master Card">Master Card</option>
      <option value="JCB Card">JCB Card</option>
      <option value="AMEX">AMEX</option>
      <option value="Telegraphic Transfer">Telegraphic Transfer</option>
    </select>
        <br>
        Airport Pickup:

    <select name="pickup">
      <option>Yes, from airport - hotel</option>
        <option>Yes, from hotel - airport</option>
        <option>Yes, from airport - hotel - airport</option>
        <option>No</option>
      </select>
        <br>
        Any Spicial Request?:<br>

    <textarea name="request" row="3"></textarea>
        </p>
        <center>
        <input type="submit" name="Submit" value="Send">
        </center>
</form>
</body>
</html>
```

Module 2 E-mail confirmation

```
<html>
<head>
<meta name="PalmComputingPlatform" content="true">
<title>Completed</title>
</head>
<body>
<center><img src=file://ASIA-Travel.pqa/logo.gi   <br>
<?
// database module pending for access permision to Asia-Travel Database
//




// E-mail confirmation module to confirm the user that Asia-Travel got their
reservation
//
//

// Preparing E-mail contant
if($email){
$message = "This is to confirm that you have made reservation via Asia Travel
Reservation System\nyour reservation info below:\n\n";
$message .= "Personal Info:\n$prefix $name\n$email\nPassport: $passport\nTEl:
$phone FAX: $fax\n$company\n$address\nNationality : $national\n\n";
$message .= "Reservation Details : \n";
$message .= "first choice of hotel : $hotel1\nsecond choice of hotel : $hotel2\nRoom
type: $roomtype\nNumber of room : $numberofroom\nNumber of Adult/Children :
$adult/$children ";
if($children != 0 or $children){
$message .= "($age years old)";
} else {
$message .= "0";
}
$message .= "\nCheck in/out : $in/$out\n\n";
$message .= "Flight Info : \nArrival Flight : $flightarrv Arrival Time :
$arrvtime\nDeparture Flight : $flightdept Departure Time : $depttime\n";
$message .= "\nPayment method : $pay";
$message .= "\n\nAirport Pickup : $pickup";
$message .= "\n\nSpecial Request : \n $request";
```

```
// Fuction mail of php
$header = "From: info@mobile-edition.com\n";
if (mail($email,"Asia Travel Hotel Reservation Confirmation",$message,$header))
{
    echo "<p> </p><center>Reservation Completed <br>";
    echo "Please check your E-mail for confirmation<br></center>";
}
else { echo "Sorry, System Error Please submit reservation again"; }
}
else { echo "<p> </p><p> </p><center>Please Sepcify your E-mail
Address</center><p> </p><p> </p>"; }
?>
<p> </p>
<center><a href="file://ASIA-Travel.pqa/index.html">HOME</a><br><a
href="file://ASIA-
Travel.pqa/thailand.html">Thailand</a>    <a
href="file://ASIA-Travel.pqa/bkk.html">Bangkok</a></center>
</body>
</html>
```

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