

UNIVERSITI TEKNOLOGI MARA

E-BUSINESS: PROPOSE SOLUTION FOR KATSUKI
TECHNOLOGY RESOURCES

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MAY 2006

UNIVERSITI TEKNOLOGI MARA

BSc. (Hons) IT

MAY 2006

Universiti Teknologi MARA

**E- Business: Propose Solution for Katsuki Insight
Technology Resources**

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

April 2006

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DECLARATION

I certify that this thesis and the research to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.



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2003282952

APRIL 27, 2006

ACKNOWLEDGEMENTS

In the name of ALLAH, who is the Most Gracious, Most Merciful and He alone is worthy of all praise. I would like to express my gratitude to all the people who involve in this project whether directly or indirectly.

First and foremost, I would like to address my deepest appreciation and sincere thanks to my dedicated supervisor, Pn. Nor Azimah Bt Khalid , for all his guidance, valuable suggestion, comments, advice, support and concern throughout the completion of this project. Thank you for being so patient in dealing with my problems during the two semesters.

A special thanks also goes to project coordinator, Pn. Shuzlina bt Abdul Rahman , for all the guidance and constant advice concerning the writing of this report.

Finally, to all my friends and lecturers who helped me along the way, due to complete this project, I wish them success and thank you for everything. Last but not least, I also would like to say my heartiest appreciation to my lovely family for everything they have done for me.

To all mentioned here, might Allah bless you all.

Thank you.

Table of Content

Approval	ii
Declaration	iii
Acknowledgement	iv
Abstract	ix
List of Figure	x
List of Table	xii

Chapter 1 Introduction

1.0	Introduction	1
1.1	Problem Description	2
1.2	Project Objective	2
1.3	Project Scope	3
1.4	Project Significant	3
1.5	Conclusion	4

Chapter 2 Literature Review

2.0	Introduction	5
2.1	Detailed Description of Problem	5
	2.1.1 Registration	5
	2.1.2 Payment	5
	2.1.3 Report	6
	2.1.4 Space	
2.2	Definition of Pertinent Technical terminology	6
	2.2.1 World Wide Web (WWW)	6
	2.2.2 Mambo	7

2.2.3	Open Source	7
2.2.4	Content Management System (CMS)	8
2.2.5	Internet	8
2.2.6	HTML	8
2.2.7	JavaScript	9
2.2.8	Internet Explorer 5	9
2.2.9	MYSQL	10
2.2.10	Hyper Text Transmission Protocol (HTTP)	10
2.2.11	Server	11
2.2.12	E-Services	11
2.2.13	E- Commerce	12
2.2.14	E-Transaction and E-Payment	12
2.3	The Benefit of Buying Over the Internet	13
2.4	E-Business	14
2.5	Advantages and Disadvantages of Implement E-Business	14
2.5.1	Advantages	14
2.5.2	Disadvantages	15
2.6	An E-Business Migration Model	16
2.6.1	Stage of Approach to E-Business Migration	16
2.7	E-business Implementation Step	18
2.8	Conclusion	20

Chapter 3 Methodology

3.0	Introduction	21
3.1	Methodology	22
3.2	Plan	23
3.2.1	Identify Problem	23
3.2.2	Preliminary Study	23

3.2.3	Identify and Analyzing Project Requirement	24
3.2.3.1	Hardware	24
3.2.3.2	Software	25
3.2.4	Mambo	26
3.2.5	Web-Based	26
3.2.6	MYSQL	26
3.2.7	Apache Server	26
3.2.8	PHP	26
3.2.9	JAVASCRIPT	27
3.3	Implement	27
3.3.1	System Design and Implementation	28
3.3.2	Design Graphical User Interface	28
3.3.3	State Transmission Diagram	28
3.3.4	Data Flow Diagram (DFD)	30
3.3.5	Story board	34
3.4	Measure	43
3.4.1	Testing and Implementation	43
3.5	Learn	43
3.5.1	Analysis	43
3.6	Conclusion	43

Chapter 4 Result and Discussion

4.0	Introduction	44
4.1	Project Result	44
4.2	Screen Design	45
4.2.1	Home Page	45
4.2.2	The Button Navigation	46
4.2.3	Login	48
4.2.4	Register Form	49

4.2.5	Training	50
4.2.6	Rental	54
4.2.7	Purchasing	56
4.2.8	Contact Us	62
4.2.9	Location	63
4.3	Conclusion	64

Chapter 5 Conclusions

5.0	Introduction	65
5.1	Benefits	65
5.1.1	Benefit to KITRES Company	65
5.1.2	Benefit to Consumer	66
5.2	Recommendations	66
5.3	Conclusion	66

References

ABSTRACT

As we enter the third millennium, we are experiencing one of the most important change in our daily lives, the move to an internet based society. Today Electronic Commerce is going through a period of consolidation in which enthusiasm for new technologies and ideas is now being accompanied by careful attention to a proper strategy and implementation. This project is about the development of Katsuki Insight Technology Resources (KITRES) online system. KITRES is E-Commerce Company that has a problem in Space and still using manual registration. This system was written by using Mambo (formerly named Mambo Open Source or MOS) is an open source content management system (CMS) for creating and managing websites through a simple web interface. As conclusion, this website will give many potential benefits the organization, consumers and the society.

List of Figure

Figure	Page
2.6.1: A process model for e-business migration	17
3.1: rapid prototyping methodologies	22
3.2: State Transition Diagram.	29
3.3: Rental Data Flow Diagram.	31
3.4: Purchasing Data Flow Diagram.	32
3.5: Training Data Flow Diagram.	33
3.3: Home Page storyboard	34
3.4: Training Page storyboard	35
3.5: Training Schedule Page storyboard	36
3.6: Schedule Page storyboard	37
3.7: Rental Page storyboard	38
3.8: Purchasing Page storyboard	39
3.9: Laptop Purchasing Page storyboard	40
3.10: Desktop Purchasing Page storyboard	41
3.11: Purchasing Detail storyboard	42
4.2.1: Home Page	45
4.2.3: Login interface	48
4.2.4.1: Register Form	49
4.2.5.1: Training	50
4.2.5.2: Training Schedule	51
4.2.5.3: Microsoft Beginner Schedule	52
4.2.5.4: Microsoft Beginner Register Form	53
4.2.6.1: Rental	54
4.2.6.2: Rental Registration Form	55
4.2.7.1: Purchasing	56
4.2.7.2: Laptop Purchasing	57
4.2.7.3: Desktop Purchasing	58
4.2.7.4: Purchasing Form	59

4.2.7.5: Software Purchasing	60
4.2.7.6: Hardware Purchasing	61
4.2.8.1: Contact Us	62
4.2.9.1: Location	63

List of Table

Table	Page
3.2 Software Requirement	25

CHAPTER 1

INTRODUCTION

1.0 Introduction

Many private and government sectors use the electronic system in supporting their business transaction process. It's shows that by using information technology application makes business more efficient and effective. All company will develop their own electronic system to mange their daily business. These electronic systems will give many benefits to both customer and company itself. The customer and the merchant do not meet face-to-face, and the clients are more discerning with increased options and solutions available online. With a click of a mouse a customer can find the information and other services that they want. Therefore, for this project we are going to develop an electronic system (a web page) for the Katsuki Insight Technology Resources (KITRES).

KITRES is an IT Company that provides many services computer and hardware and products for their customers for example training, internet surfing, product rental, and purchasing. Currently KITRES do not have any electronic system and still using the traditional way. Customers need to make a phone call for any services that KITRES provided. This is a problem because KITRES has to do lot of advertisement to promote their product. The company needs to replace the old system to the new system in their operation. The current system does not support all the transaction in the company management. Based on the listed scenarios, one new system is to propose for the department to initiate the transaction process. After that, this project determines the Information Technology utilization and usage level of client. This are describe about the hardware and software, facilities, technologies are already available in the KITRES Company. This kind of things can support the development of the new system.

Currently KITRES has difficulty to separate the records effectively. Then, the solution was to allocate the record admin, client/users, services and product available.

1.1 Problem Description

- Problem in getting business. The business is not available online difficult for KITRES to promote it's services and products. Need to advertise itself and make it business marketable.
- Manual Transaction, Currently all of it's business operation is done manually. Problem with manual includes difficulty in managing documents, time consuming (to store and retrieve information, document lost), spaces management (physical storages for file, forms, document get mixed-up etc.). Editing on file document may create hassle as every single correction or editing requires a form. Manual practices require a worker to be available all time to enable a client to do a business transaction. If the client want to buy thing but the sale person is not around, a business cannot be done. A system that could provide 24 hours business availability is requires for KITRES.

1.2 Project Objectives

Based on the identified problems, we have suggested some ways in improving the quality of KITRES business operation. The objectives of this project are to guide for the improvement:

- To develop an interactive web database system for the company.

- To assist customers and KITRES staff by providing an online system for easier business transaction.
- To provide a flexible information systems platform so that any improvement can be made in the future without any difficulties.

1.3 Project Scope

In this project we will interview and collect information from KITRES staffs (admin and technical support), KITRES client and customers. KITRES staff has participated in this project to provide require data. Customers can rent and buying product from KITRES by using KITRES services. The systems will make sure that customer's records database will be organized, avoid redundancy of records, avoid miscalculation of fees and balance payment for customers and can decrease the time for managing the records. In other words the system will solve the problems that faced by KITRES in terms of registration, payment, reports, and space. This system also can involve the profit in terms of cost and operations.

1.4 Project Significant

As application of e-commerce has become a highly demanding option in today's business world, it is very important for KITRES to develop it's own system. Having an online system application will assist KITRES in promoting and managing it's business operation. It is very significant has to migrate from manual to online in order to be in the today's real business world.

1.5 Conclusion

In conclusion, this chapter has discussed about introduction on the project. It contains problem description, project objective, project scope and project significant.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter provides the review from several books, internet, published journals and published texts related to system and the development to this project

2.1 Detailed Description of Problem

2.1.1 Registration

In registration, manual registration system is used where different kinds of forms will be stored in different files. This condition will create a hassle each time the management of KITRES wanted to find specific forms. Thus it will definitely cause problem. The tendency in losing customers' forms is always be an issue to KITRES.

2.1.2 Payment

In the payment aspect, not all of the customers pay their payments in full in one time. Most of them make the payments into several payments. The records of the payment are very crucial as it involving the income for KITRES. Sometimes the customers lost their receipt and it will surely be a major problem if the management also lost the payment file.

2.1.3 Reports

Reports are very essential as it summarize all the transactions data and information about the KITRES business. Reports can be daily, weekly or monthly. Manual reports are sometimes inaccurate and importantly it needs all the information about KITRES transaction for the time period given.

2.1.4 Space

Space is also the problem in KITRES. This because the manual system use many more paper to record all the data, information and also the business transaction with other company that link with the KITRES. So that, more space are needed to store the records. The company waste their money and time to manage it.

2.2 Definition of Pertinent Technical Terminology

There are some terminology used and the meaning with some explanation is as below.

2.2.1 World Wide Web (WWW)

According to the Free Online Dictionary of Computing World Wide Web (WWW) can be defined as an Internet client-server hypertext distributed information retrieval system, which originated from the CERN High Energy Physics laboratories in Geneva, Switzerland (Denis 1998).

A technical definition of the most WWW is all resources and users on the Internet that are using the Hypertext Transport Protocol (HTTP). There are several applications called web browsers that make it easy to access the World Wide Web. Two of the most popular web browsers are Netscape Navigator and Microsoft Internet Explorer (What is? 1998).

2.2.2 Mambo

Mambo (formerly named Mambo Open Source or MOS) is an open source content management system (CMS) for creating and managing websites through a simple web interface. It has attracted many users due to its ease of use. Mambo also includes more advanced features such as page caching to improve performance on busy sites, advanced templating techniques, and a fairly robust API. It can also automate many tasks such as web indexing for static pages. Mambo can provide RSS feeds, printable versions of pages, news flashes, blogs, forums, polls, calendars, website searching, language internationalization, and other possibilities. "Mambo" won the Best Free Software Project of the Year from UK magazine Linux Format in 2004, and the Best Open Source Solution award from the editors of LinuxWorld Magazine in 2005. Mambo is released under the terms of the GNU General Public License (GPL).

([http://en.wikipedia.org/wiki/Mambo_\(CMS\)](http://en.wikipedia.org/wiki/Mambo_(CMS)))

2.2.3 Open source

Open source describes practices in production and development that promote access to the end product's sources. Some consider it as a philosophy, and others consider it as a pragmatic methodology. Before *open source* became widely adopted, developers and producers used a variety of phrases to describe the concept; the term *open source* gained popularity with the rise of the Internet and its enabling of diverse production models, communication paths, and interactive communities. Subsequently, open-source software became the most prominent face of open source.

The open source model can allow for the concurrent use of different agendas and approaches in production, in contrast with more centralized models of development such as those typically used in commercial software companies. (http://en.wikipedia.org/wiki/Open_source)

2.2.4 Content management system (CMS)

A content management system (CMS) is a computer software system for organizing and facilitating collaborative creation of documents and other content. A content management system is frequently a web application used for managing websites and web content, though in many cases, content management systems require special client software for editing and constructing articles. The market for content management systems remains fragmented, with many open-source and proprietary solutions available.(<http://en.wikipedia.org/wiki/CMS>)

2.2.5 Internet

Internet is the name given to a collection of interconnected computer networks based on the TCP/IP suite (Halsall 1998). The 'inter' refers to the fact that it is an international connection, and the 'net' is short for network, which is connection of two or more computers that share their resources.

Internet originated in the United States in the 1960s when the American Department of Defense funded research into reliable computer network. It was a new approach to interconnecting Local Area Network (LANs) and Wide Area Network (WANs) that became known as internetwork.

2.2.6 HTML

Hypertext Markup Language or HTML is derived from the more generic Meta language SGML. HTML defines the structures and content of Web pages using special language symbols called tags. Over time, HTML has evolved from its simple roots to version 4.01, which contains a large number of tags that accommodate a rich variety of elements including graphics, cascading style sheets and frames. HTML 4.01 also defines semantics and data types for HTML. Hyperlinks are HTML tags that contain a URL. The URL can be a local or remote computer.

HTTP is responsible for requesting client machine. The better HTML editors facilitate Web page construction with a plethora of tools and drag-and-drop capabilities. (Gary, 2001)

HTML (Hypertext Mark-up Language) is the text formatting language most widely used for creating a web site. Although it is a relatively simple language, HTML has the power to convert any text document into a colorful, functional work of art. In addition to the magic of "hypertext" -- the links that make web surfing possible -- HTML can be used to incorporate colorful content and organization into any web page.

(<http://www.performance-tutorials.com/html.html>)

2.2.7 JavaScript

It has the ability for Web pages to change based on the input or actions of a user. Is use for making the page more interactive. (Karla, 1995)

JavaScript is a programming language that can transform a web page into a powerful tool. JavaScript is a "client-side" language, meaning it is not compiled. Instead, it is placed directly into a web page to be run on any compatible browser. This allows the page to interact with a user by displaying messages, asking for input, or processing information without the inefficiency of server interaction.(<http://www.performance-tutorials.com/js.html>)

2.2.8 Internet Explorer 5

Browser is an important piece of software that enables to browse the Internet ("surf" the Web"). IE5 is one of the most popular browsers. Internet Explorer 5 (IE5) is a program that showcases certain files on the Internet in an accessible, visually pleasing way.

It is a Microsoft's Web Browser. Like Netscape Navigator, Internet Explorer enables you to view Web pages. Both browsers support Java and JavaScript. Internet Explorer also supports ActiveX.

2.2.9 MYSQL Database

The MYSQL database server is the world's most popular open source database. Its architecture makes it extremely fast and easy to customize. Extensive reuse of code within the software and a minimalistic approach to producing functionally-rich features has resulted in a database management system unmatched in speed, compactness, stability and ease of deployment. The unique separation of the core server from the storage engine makes it possible to run with strict transaction control or with ultra-fast transactionless disk access, whichever is most appropriate for the situation. (<http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd>)

2.2.10 Hyper Text Transmission Protocol (HTTP)

Hyper Text Transmission Protocol (HTTP) is one of the protocols that use the basis of TCP/IP in a specific implementation. This is the protocol of the World Wide Web HTTP is very simple protocol. The client, usually call a browser, issued a request to the server. The servers respond with the requested file and close the connection.

There are two HTTP message type: request and response. There are three types of request: get, head and post. In get request file, a file is request. In head request, only the server information is returned. In post request, the body is transmitted to the server and it contains data such as HTTP form or mail message. (Hall, 1997)

2.2.11 Server

The server, also known as the web server, is the software component that reacts to and interfaces with browsers. It has no ability to create or update web pages or document. Rather, it reads a request for information coming to it from a browser, usually in the form of an URL, locates the requested page, and sends the requested page back to the browser. Additionally, a server can function as a gateway to external programs and processes when it receives a request for information via execution of an external program or script. This type of interaction between the server and external program occurs through a standard interface called Common Gateway Interface (CGI). (Deitel, 2000)

2.2.12 E-Services

E-service is an interactive, content-centre and Internet-based customer service, driven by the customer and integrated with related organizational customer support processes and technologies with the goal of strengthening the customer-service provider relationship". Providing personalized and accurate customer information with better tracking, delivery and payment details is an online service in B2C e-commerce generally appreciated by customers. Other services such as interactive and personalized customer communications, speed and accuracy, enhanced capability to track and measure transactions, instantaneous 24 × 7 communications, and the ability to offer different combinations of product and service elements please customers and improve buyer and customer relationships in the B2C e-space (Ruyter, 2003),.

E-service functions that are described and discussed in relation to the eight steps of consumer mercantile activities were identified. The eight steps are:

- (1) Product search;
- (2) Comparison shopping;

- (3) Product selection;
- (4) Negotiation of terms;
- (5) Placement of orders;
- (6) Payment authorizations;
- (7) Receipt of product; and
- (8) After-sales customer support.

2.2.13 E-Commerce

E-commerce could be defined as computer to computer, individual to computer or computer to individual business relationships enabling an exchange of information or value. In e-commerce trading partners interact through electronic communications and automated computer systems. Some form of e-commerce has existed among a significant number of large companies for about two decades in the form of Electronic Data Interchange (EDI). The technologies used for e-commerce include EDI, e-mail (interpersonal and integrated messaging), electronic bulletin board systems, electronic catalogues, electronic forms, finance and banking technologies, smart cards, funds transfer digital cash, etc (Siriginidi Subba Rao, 2005)

2.2.14 E-Transaction and E-Payment

It has been confirmed from the online businesses investigated that orders received online compared to handwritten ones received via fax assured accuracy and further improved customer satisfaction. Orders placed online were done on standard forms with allocated spaces (fields) for numeric and alphanumeric characters avoiding wrongly read and printed figures, further enhancing assurance. Customers were given control by allowing them simple enquiries like account history and checking order status online. Account balances could be

called up and simple problems solved independently by clients. Customers could enquire and inform the supplier about any discrepancies in their orders such as incomplete information, typographical errors and incorrect account details. The customers surveyed appreciated this service, and their ability to check orders and total costs before the shipment of goods. Although most e-commerce organizations allowed their customers to shop at ease by allowing them to use a payment method that suited them best such as by cheque, money order, or cash on delivery, e-payment methods are essential in e-commerce to attain the speed of processing payments and for accuracy of transaction information. Site analysis confirmed additional payment methods, although credit card payments were the most popular method (Johnson and Jones, 1997)

2.3 The Benefits of Buying Over the Internet

The benefits of buying over the Internet include: convenience of ordering everything from the desktop, knowing immediately the availability of the product, quick purchase method, keeping track of expenditure spent directly and to gain better value for money; and scope for informed buying (Town, 1999).

The scope for informed buying comprises: availability of enormous amounts of information on the Web due to cross linkages allowing consumers to access competitive information and make an informed purchase and the interactive nature of Internet permits convenient bargaining with a host of sellers to get the best price; and the unique selling proposition of the Internet as a marketplace enables a company to create new customer value by offering a variety of complementary services and products beyond its own ken and a customer to do single-stop shopping for a vast variety of services and products.

The suppliers, on the other hand, could reach their customers at very low unit cost. The electronic shop-front is open 24 hours a day, to the entire world, and overheads are lower, with no investment in physical infrastructure (Ratnasingam and Pavlou, 2002).

2.4 E-business

E-business allows for the extended organization to be connected. This means that all employees, customers/clients, suppliers, and other stakeholders, regardless of geographic region, are interconnected. E-business uses: Common electronic data standards with computer automation technology to electronically interconnect information systems, integrate internal and external data streams, and automate business processes between trading partners (*Health Industry Today*, 1999).

E-business facilitates data flows in business-to-business or system-to-system processes. The most important function of e-business is its interconnectivity and system interaction. As a result of the automation, many human functions are eliminated from various processes such as unnecessary key input, intervention, and internal reprocessing of electronic business information. Efficiency improvement resulting from faster processing and reduced errors is then realized in routine data processes and business interaction. E-business allows service providers to interact with their suppliers and customers (Follit, 2000).

2.5 Advantages and Disadvantages of Implement E-Business

2.5.1 Advantages

While companies strive for e-business initiatives in order to experience cost savings, a recent survey has identified that it is not the most common reason. Many companies do admit that they are inclined to implement an e-business solution in order to operate more efficiently, but a larger percentage of executives indicated that improved customer service is their primary reason. This includes serving the company's customers as well as being better served by its suppliers. In a recent survey, 94 per cent of executives stated that the main reason they

launched e-business initiatives was to provide or receive superior customer service and satisfaction (Violino, 1999; Rosa, 2000).

This result shows that organizations intend to develop a better tie with their own customers, thus leading to increased loyalty. It also shows that a firm integrating with its own suppliers will receive improved service and satisfaction. This will lead to increases in the efficiency of operations and the performance of the business.

The increase in the speed of fulfilling orders is another benefit of e-business. By interconnecting with suppliers, orders will be received faster and should be filled at a quicker speed. This allows a firm to substantially reduce its inventory levels. By bringing the organization closer to a just-in-time (JIT) inventory scheme, storage costs as well as the cost related to obsolete inventory would become virtually nonexistent. This technology provides a positive impact on the profit figures of a corporation. E-business also allows for organizations to continually track their orders. This makes a large impact on the planning and scheduling functions. Once again, operations become more efficient as a result of the improved scheduling capabilities of e-business applications (Yasin, 2000).

2.5.2 Disadvantages

Development cost is one of the primary concerns for e-business. A significant expenditure is needed in order to make e-business proficient. Because e-business applications are complex, a firm may need to completely restructure its current systems. This means new hardware and software to be purchased and new employees to be hired and trained. The adoption of an e-business solution implies a high risk of failure. The high cost and risk associated with e-business projects has made many executives and managers apprehensive of it. In a recent survey, 87 per cent of European firms rated e-business as a medium or low priority and not a fundamental part of their business. Also, 90 per cent of the firms in this

survey stated that the main concern of e-business solutions was their budget (Management Accounting, 1999). This shows that the cost of e-business is too high to handle in many corporations. They simply view e-business as a luxury, not a necessity.

The chance of being attacked by hackers will increase as corporate information is transmitted electronically. Thus, security becomes another concern while implementing e-business. As evidenced by recent service outages on prominent Internet sites such as Yahoo, eBay, Amazon.com, CNN.com, and Buy.com, the Internet is extremely vulnerable and determined hackers can wreak havoc across the global computer network (Nickles, 2000).

2.6 An e-business migration model

Business process, strategies and organization changes have been shown to be significantly impacted by adoption of internet-based technology broadly in a firm. Consequently, any migration of an existing firm to an e-business configuration must address these topics to be capable of successful implementation. While some attempts purport to address this migration, they are generally somewhat incomplete and preliminary, as described above, emphasizing only part of the puzzle rather than the totality of the concerns that must be addressed as in the prominent business model-centered effort by (Weill and Vitale (2001)).

The imperative to migrate to e-enabled technology has created a pattern of adoption over time. As experience with the technology has progressed, a number of definable stages in the approach taken toward such migration have emerged. Firms using these earlier approaches to the migration have not addressed all three concerns we have identified. A process model of e-business migration may be formulated, which does include them.

2.6.1 Stages of approach to e-business migration:

- Stage I: Technology-driven process approach
- Stage II: Legacy-limited process approach

- Stage III: Internet strategies and process approach
- A stage IV: Model

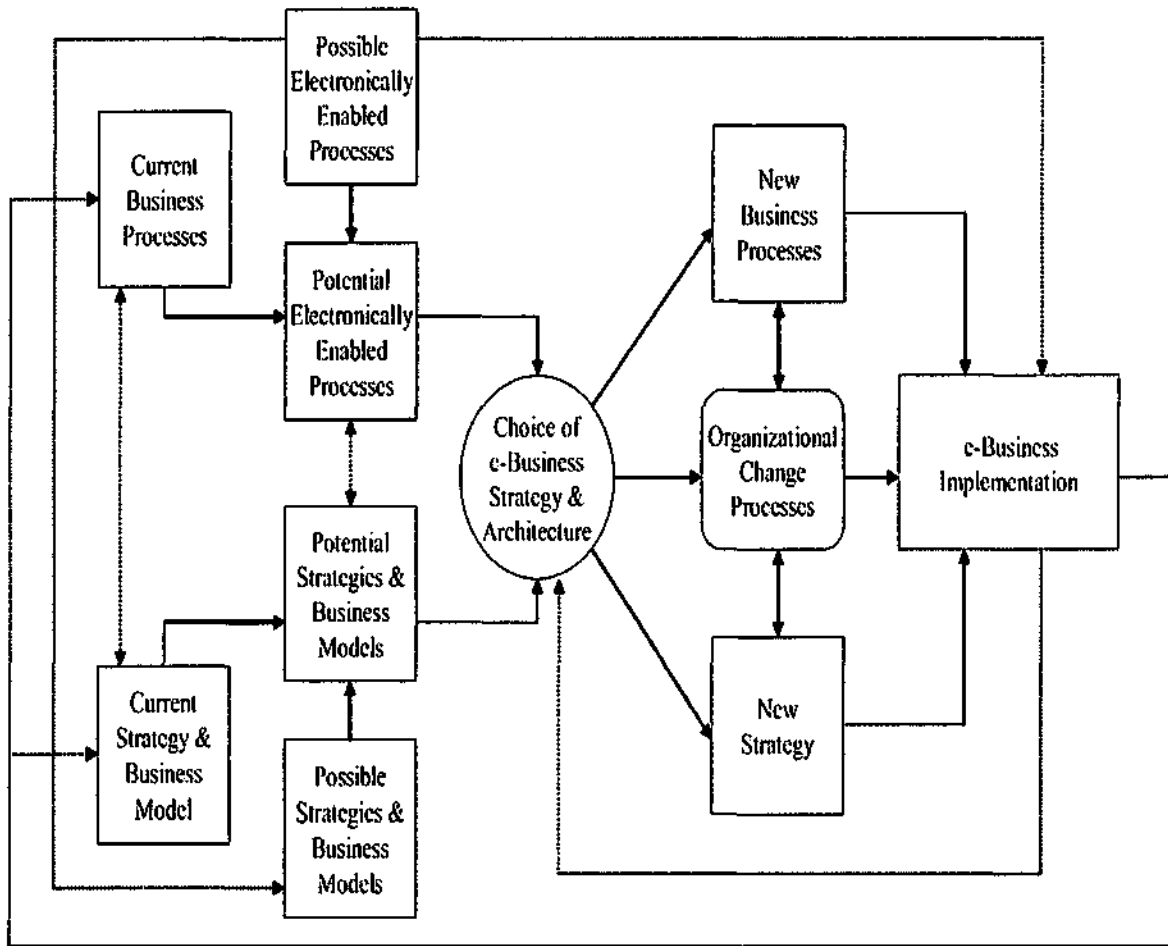


Figure 2.6.1 a process model for e-business migration

2.7 E-business implementation steps

Before implementing an e-business solution, a firm must first identify its capability of handling an e-business solution. Health Industry Today (1999) indicated five major concerns on preparing e-business, they are:

- Are electronic business transactions with trading partners currently sent or received?
- Are the EDI (electronic data interchange) communications and internal application systems integrated to eliminate re-keying of electronic transaction information?
- Are ANSI X12 EDI standards currently used for transactions?
- Do the firm and its suppliers use universal identifiers, codes and definitions to identify products and procedures within its electronic documents?
- Are common barcodes, automatic data capture and shared databases used to capture and communicate point-of-sales data?

If answers of most of these questions are positive, the firm is ready for e-business implementation. It is necessary for an organization to carry out its own processes toward e-business solutions. A number of organizations have named a chief e-business officer to help coordinate e-business initiatives. This setting allows for centralized control of e-business across an organization, thus resulting in a greater efficiency. Companies must be cautious when they start e-business initiatives; this attitude would help firms quickly move to real-time processes (Karpinski, 1999). However, the speed of implementing these strategies has inspired strategic working alliances across a broad range of industries. This has been demonstrated through the alliances that have occurred between infrastructure organizations and Web boutiques.

Firms implementing e-business solutions should recognize the challenges that face their organizations. First, they should comprehend the dot-com advantage. This occurs as a result of clients/customers' preference for dealing with what they know and trust. This situation is often called the click-and-mortar integration; it occurs not only to the customers, but also to the suppliers. Another challenge is about catching the marketplace rules. That is, the Web will support the supply chain more than ever. The third challenge is that customers should be dealt with first. A quality e-business solution, while being electronic and integrative, should improve connectivity, knowledge management, and performance. It thus improves the efficiency of the firms.

Hayes (2000) identified seven steps to implement a successful e-business solution. Specifically, they are:

1. **Start high.** Start high implies that the executives in the organization must embrace the e-business initiative. A company must recognize that the e-business functionality is a business project instead of a technical task.
2. **Think fresh.** Think fresh signifies that the firm must disregard all of its old ideas and paradigms on how business is operated and develop radical new ways to conduct business.
3. **Know your market.** The firm's brand identity, customers, competition, and supply chain should be analyzed in the "know your market" phase.
4. **Set vision.** A firm must set a vision for what it wants to do.
5. **Define strategy.** While the vision outlines what the organization should do, a company must also define strategy, which should dictate how the company will reach its vision.

6. Create. The firm must then “create” its e-business solutions.

- 7. Refresh regularly. The firm must revise its e-business solution regularly as speed and innovation are the keys to the e-business world.

2.8 Conclusion

In this chapter, it have discussed on the definition of pertinent technical terminology used in this project. Besides, it is also discussed on related research an on different methodology or approach in retrieval system to solve the same problem as well as brief of similar and relevant project.

CHAPTER 3

METHODOLOGY

3.0 Introduction

To conduct a project, certain methods and techniques will be used to ensure that systems are built in the most effective way. Examples of methodology are Waterfall model, System Development Life Cycle (SDLC), Spiral model and Prototype model. The use of a correct methodology in developing system will ensure the system will be delivered to user at the expected time and fully fulfilled the entire user requirements. Methodology also can be referred as a model of system development approach. In this chapter we will discuss more about methodology that is used to develop user interface and also software and hardware required for this project. The methodology used in this project can be divided into 4 phases which are plan, measure, implement and learn. This chapter will explain thoroughly about the used in this project. The methodology used and the reason why it is chosen over all other methodologies will be discussed.

3.1 Methodology

A methodology is defined as a collection of procedures, techniques, tools, and documentation aids. It consists of phases that in turn may consist of sub-phases. It is the main part of one project to achieve the project goals. There are lots of methodology approaches that can be used in order to gather information and data for a research and develop a system. The methodology to be used for development of this project is rapid prototyping. There are 4 phases in carrying out this project as shown in figure 3.1.

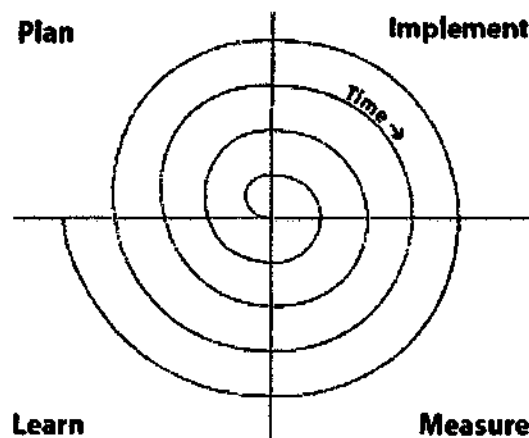


Figure 3.1 rapid prototyping methodologies

1. Plan

- Identify Problem
- Preliminary Study
- Identify and Analyzing Project Requirement

2. Implement

- System Design and Development

3. Measure

- Testing and Implementation

4. Learn

- Analysis

3.2 Plan

3.2.1 Identify Problem

For this phase, the observation technique is used to identify the problem that arises among our society nowadays. This technique allows more information gathering than meet the eye. Form the observation done some of the question like who, when, why, how, what, where can be answered. We found that there lack of self management among the customers mainly in time management. The biggest problem that many people have is improper time management.

3.2.2 Preliminary Study

The phase is about gather of information and data that are related for developing this project. There are several ways that have been used in order to gather information:

1. Conducting some study and research regarding with this project from article, journal, and some similar project from previous student project.
2. Studies on existing system that have been develop.
3. Surfing the internet in other to study the technologies that will be used for this project. Internet is the largest storehouse information in the world which we can get the information. Some of keyword that were used to search in the internet are:
 - E- commerce

- E-services
- E-response
- E-transaction and e-payment

3.2.3 Identify and Analyzing Project Requirement

This phases involved in identify and analyzing project requirement to develop this project. This project has to gather information after decided on what to do the project on like technologies we would need. In this project we have to choose mambo and adobe Photoshop to develop this system. Then move to analyze project requirement which defines functional capabilities, performances, design constrains and system interface. This project also has to find out the essential requirement needed to build such system. There are two categories involved, hardware and software.

3.2.3.1 Hardware

For the hardware requirement, just need a standard personal computer or laptop with windows platform for develops a system. The specification hardware requirements for the system server are list:

Hardware

- Pentium or AMD based processors or any processors compatible
- 256 MB RAM (minimum needed)
- 40 MB free Fixed Disk
- Windows 98, ME, XP Home
- Windows NT, 2000, XP Professional (Recommended)
- CD-ROM drive

3.2.3.2 Software

There is much software available for developing the system. First, this project has identified operating system as the platform of the system and we choose Window XP for the operating system. Adobe Photoshop 8.0, Apache Mambo 4.5.1 was selected for design graphical user interface (GUI). All data will kept in DBMS automatically. The description is explained in the table 3.2:

1.	Internet Browser	Internet Explorer 0.5
2.	Programming Language.	PHP, JAVASCRIPT
		HTML
3.	Server Software	Apache
4.	Database	MYSQL
5.	Other Tools	Microsoft Office Word 2000, Adobe Photoshop 8, Microsoft Paint.

Table 3.2 Software requirement

3.2.4 Mambo

Mambo is one of the template platforms for PHP script .This project used Mambo because is a powerful Content Management System (CMS) that facilitates the development, management, and sharing of content. Using push-button technology, you can use Mambo Open Source to create anything from simple web sites to complex corporate applications. When using Mambo you'll never have to bother with code because everything is managed using our powerful yet easy-to-use web-based administration.

3.2.5 Web-Based

This system will fully running at the internet platform. The customer and the ad ministration may use the system by logon to the site address.

3.2.6 MYSQL 4.0

A database creator which will be used in conjunction with PHP to implement database. MySQL is open source software you can download for free from the internet for non-commercial use.

3.2.7 Apache Server

Every system must have database and every database need server for addressing the data location. Apache server is commonly used with PHP.

3.2.8 PHP

A programming language used to allow the KITRES to be used on the World Wide Web. It is the most current language used today.

3.2.9 JAVASCRIPT

Some form use JavaScript to perform form processing or some other action on the client as opposed to sending the form data to the server processing.

3.3 Implement

3.3.1 System Design and Implementation

This phase is about the designing and developing personal management system. This project has planned to do the system design, which is translating the requirement into a representation of system that can be accessed for quality before coding begins. There are two phase of the design:

- Preliminary Design (transform requirement into architecture)
- Detailed Design (refines the product of preliminary design into detail data structures and algorithm representation)

Subsequently, this project move to the system development where it defines that the project has to move onto the coding and construction of the design. Development environment is importance in building a correct and efficient product. System development is where the actual plans and design are brought to life, making the solutions now visible to the front end user.

The main tasks during development are:

- Design Graphical User Interface for the system using Mambo and adobe Photoshop.
- Create database to keep all data.

3.3.2 Design Graphical User Interface

Mambo is one of the most exciting developments in programming. It was chosen for the design the interface of the system because it is easier to uses. By using mambo the database will create automatically and without need to create another database to keep all data and information. It gives more convenient to develop the system.

3.3.3 State Transition Diagram.

In the state diagram, it shows the transition when enter the web site. Users can logon to the website whether or not as the registered member. For registered member the company provides special services for them that are the members' points. Users can collect as many points to get the prizes that will provides by the company but to get the points the users need to buy the product that provided by the company. For the unregistered user, they don't have this. They can buy but didn't get the prizes. For detail state diagram you can see in figure 3.2.

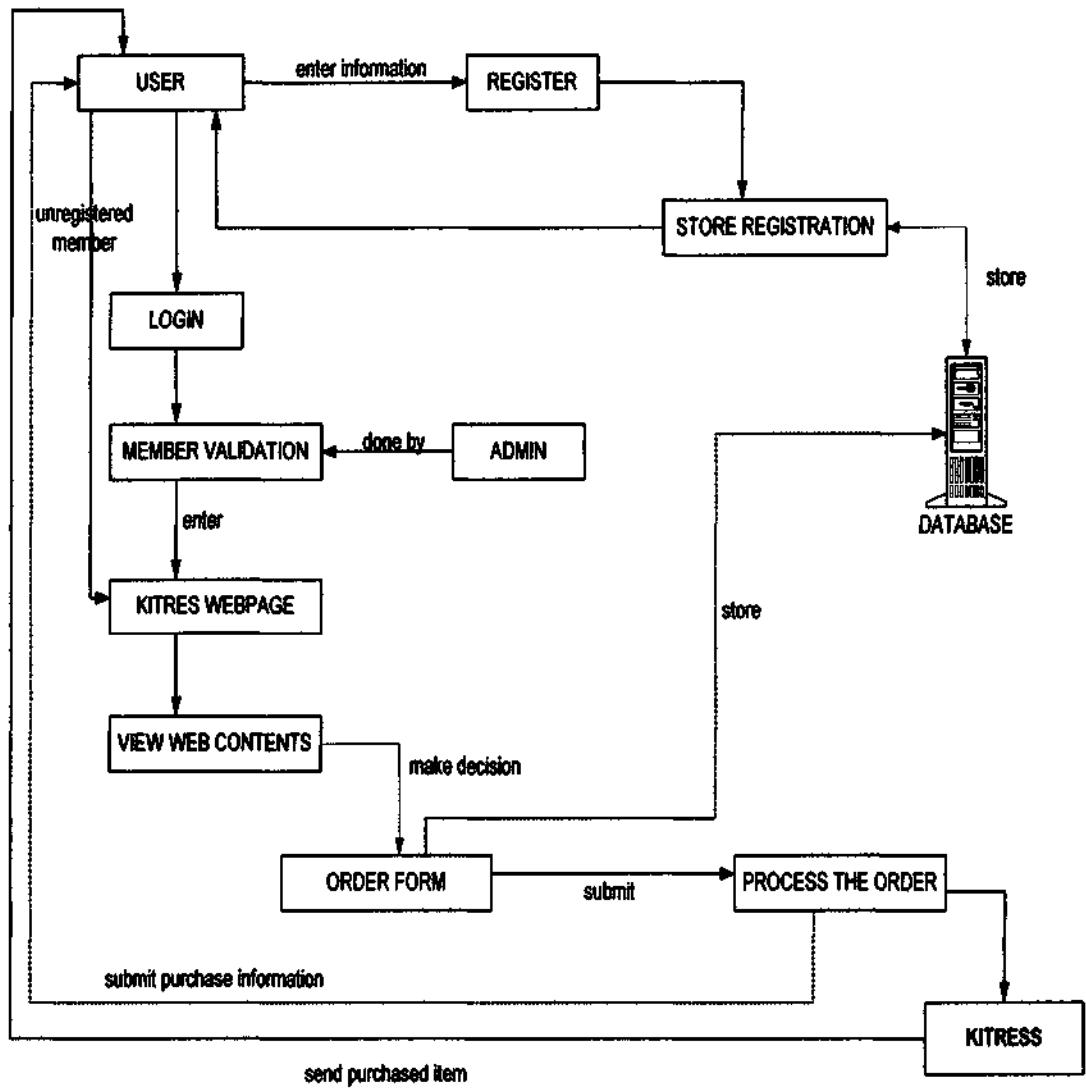


Figure 3.2: State Transition Diagram.

3.3.4 Data Flow Diagram (DFD)

Data flow diagram (DFD) representing a system at any level of detail showing data flow, data stores, and data sources/destinations in order to have a common understood of the system model. DFD is used to better define the process involved in the system. DFD show the flow of data from external entities into the system, showed how the data moved from one process to another, as well as its logical storage. There are only four symbols:

1. Squares representing *external entities*, which are sources or destinations of data.
2. Rounded rectangles representing *processes*, which take data as input, do something to it, and output it.
3. Arrows representing the *data flows*, which can either, be electronic data or physical items.
4. Open-ended rectangles representing *data stores*, including electronic stores such as databases or XML files and physical stores such as or filing cabinets or stacks of paper.

For more detail you can see figure3.3 for rental DFD, figure 3.4 purchasing DFD and figure 3.5 Training DFD.

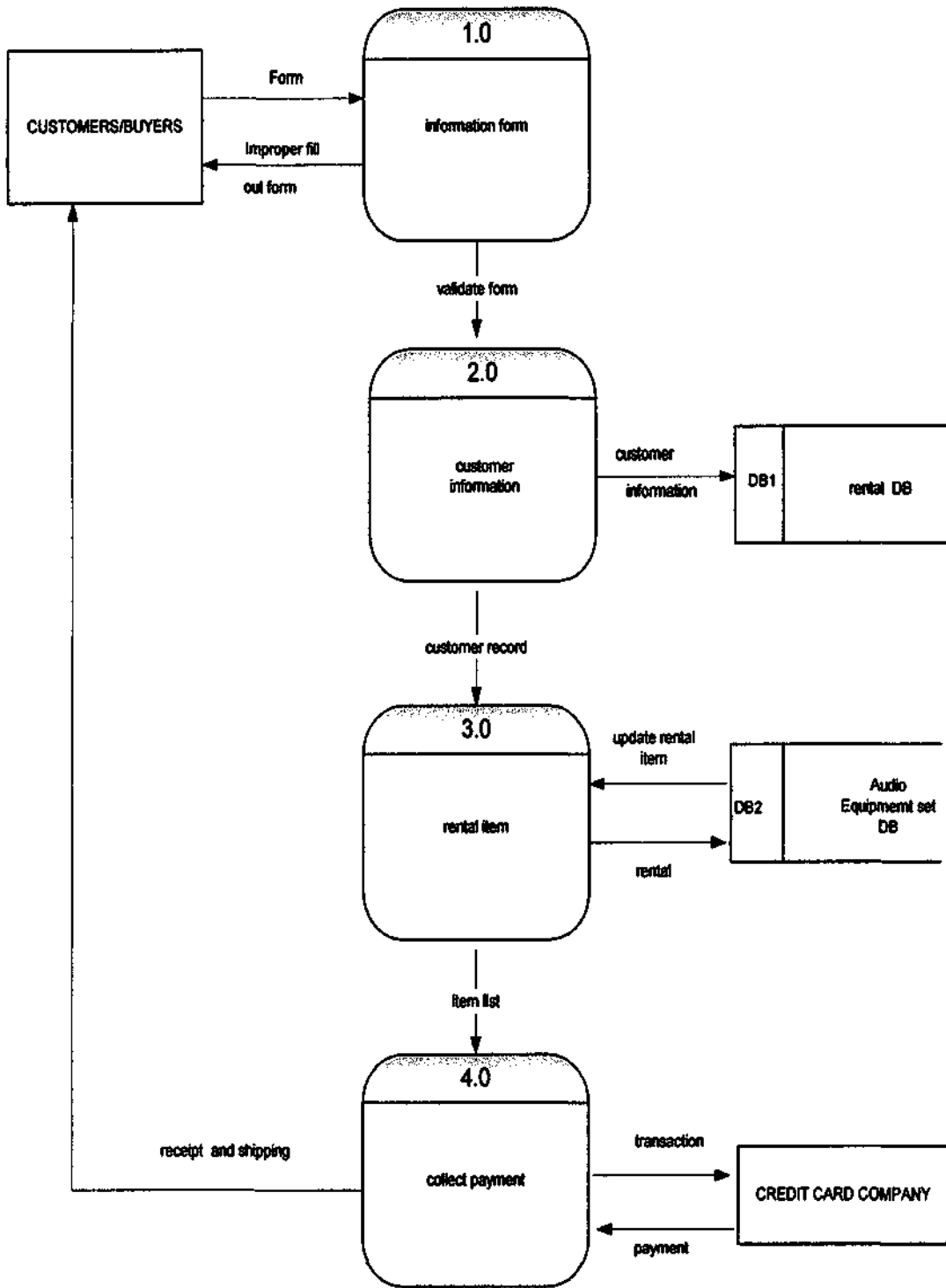


Figure 3.3: Rental Data Flow Diagram.

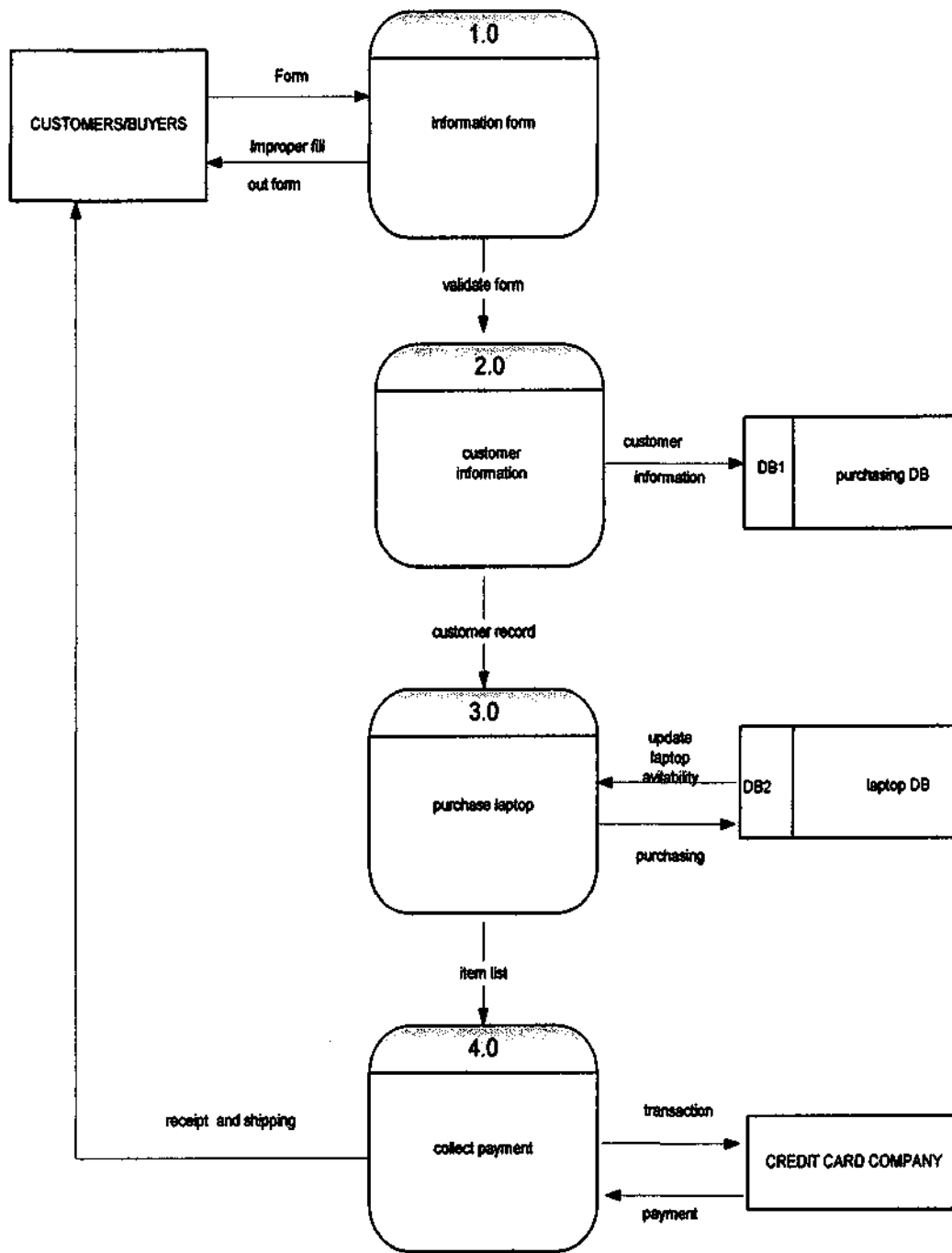


Figure 3.4: Purchasing Data Flow Diagram.

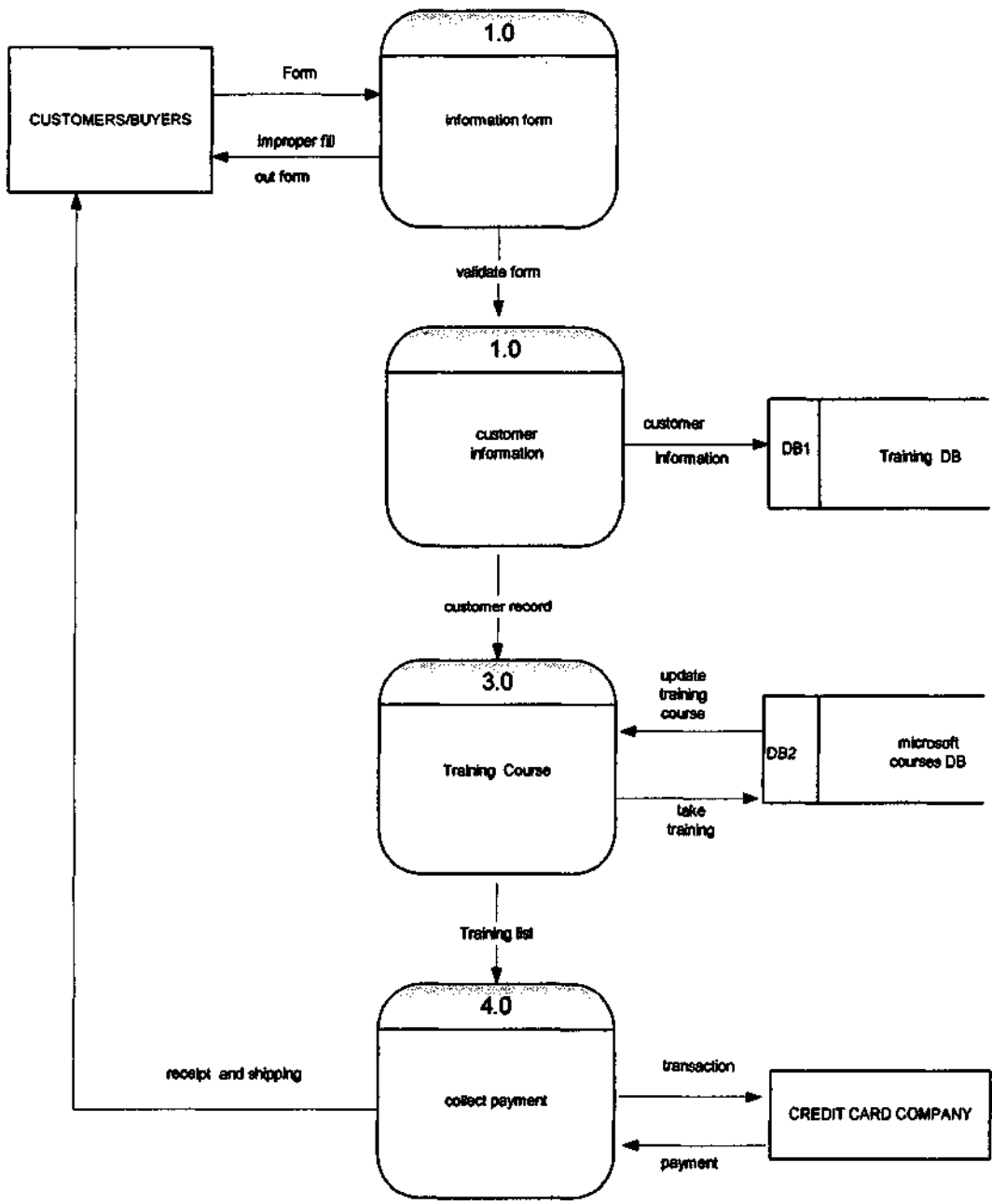


Figure 3.5: Training Data Flow Diagram.

3.3.5 Storyboard

The Figure 3.3 below show the storyboard for the user interface proposed. It contains the left frame and right frame. The left frame storyboard is for link page and the right frame storyboard is for the login page. These two been combined and come out with the based storyboard for the project.

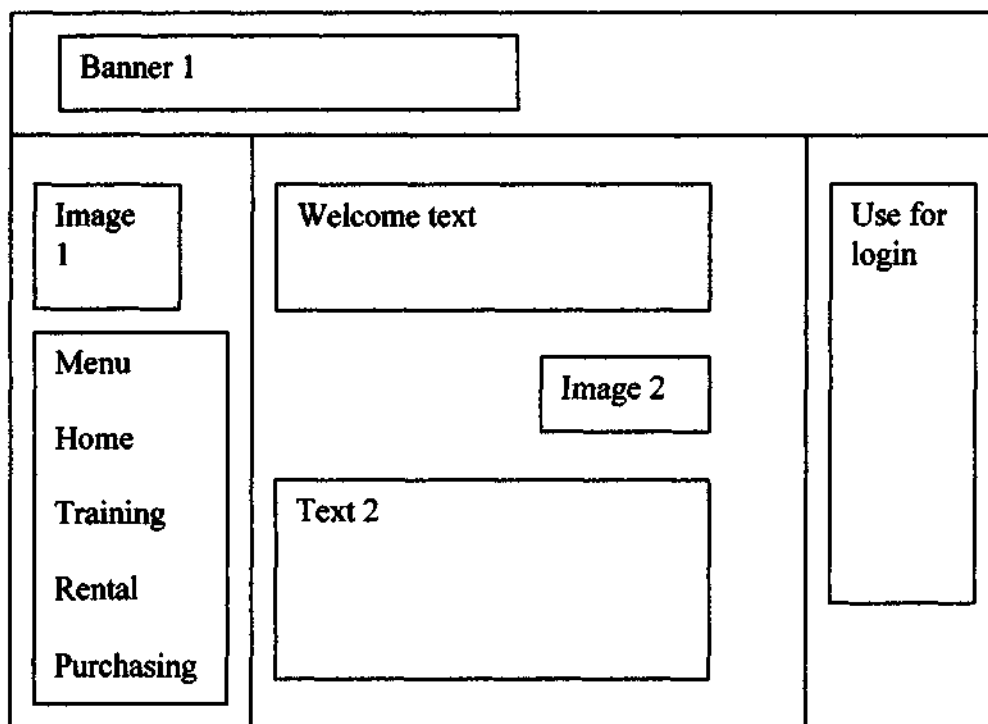


Figure 3.3: home page

The Figure 3.4 below show the training page storyboard for the user interface proposed. In this page users can know more detail about what training was provided and link to training schedule.

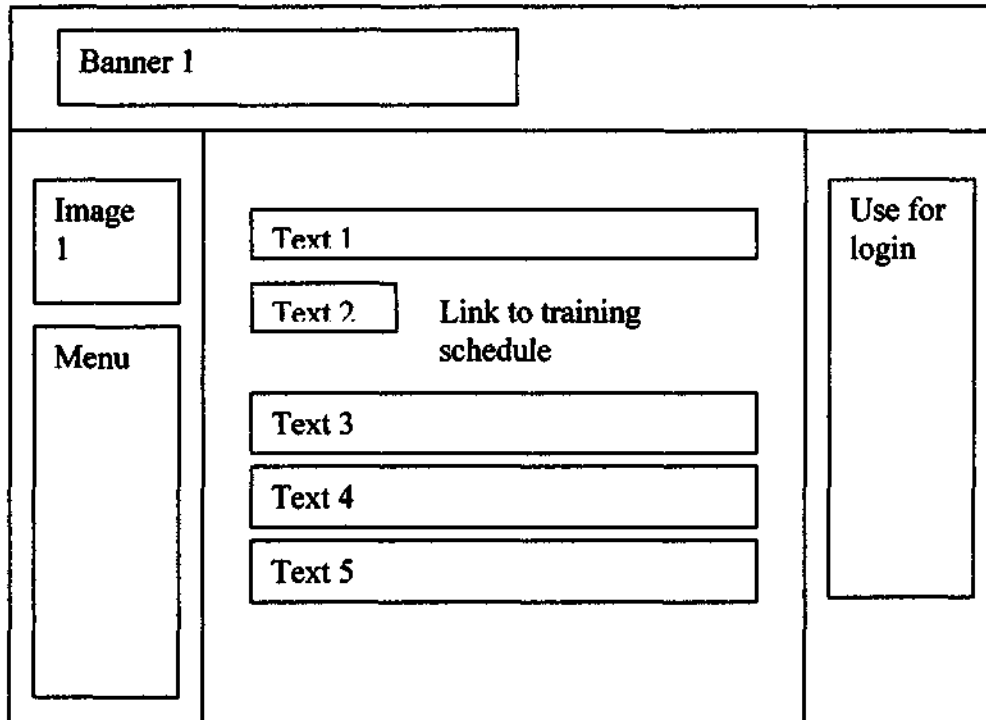


Figure 3.4: training page

The Figure 3.5 below show the training schedule storyboard for the user interface proposed.

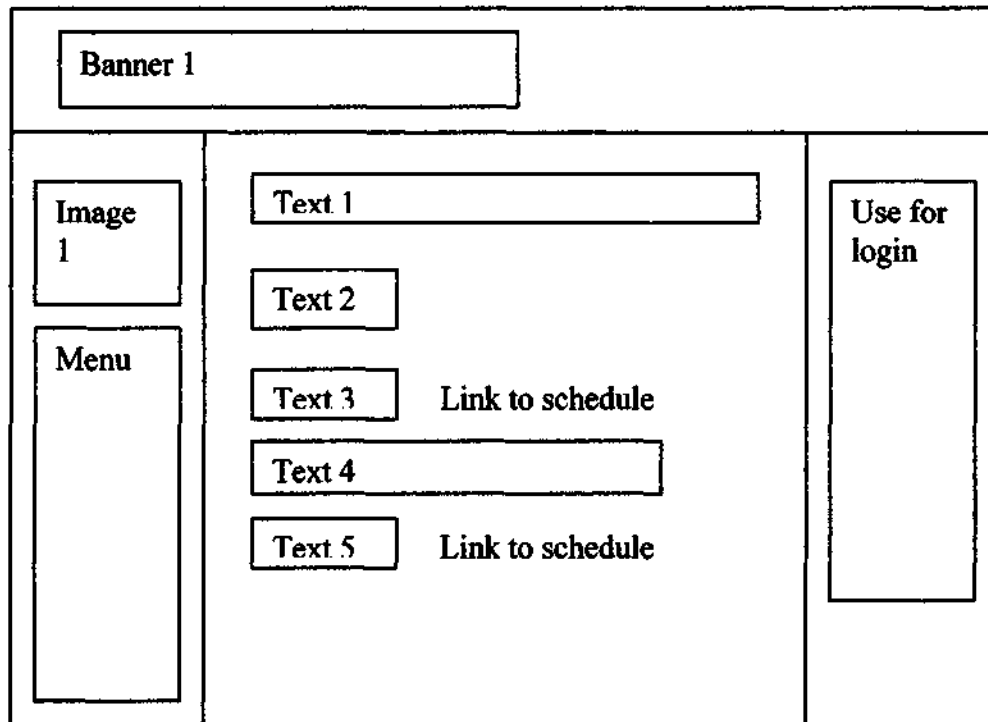


Figure 3.5: training Schedule page

The Figure 3.6 below show the schedule page storyboard for the user interface proposed.

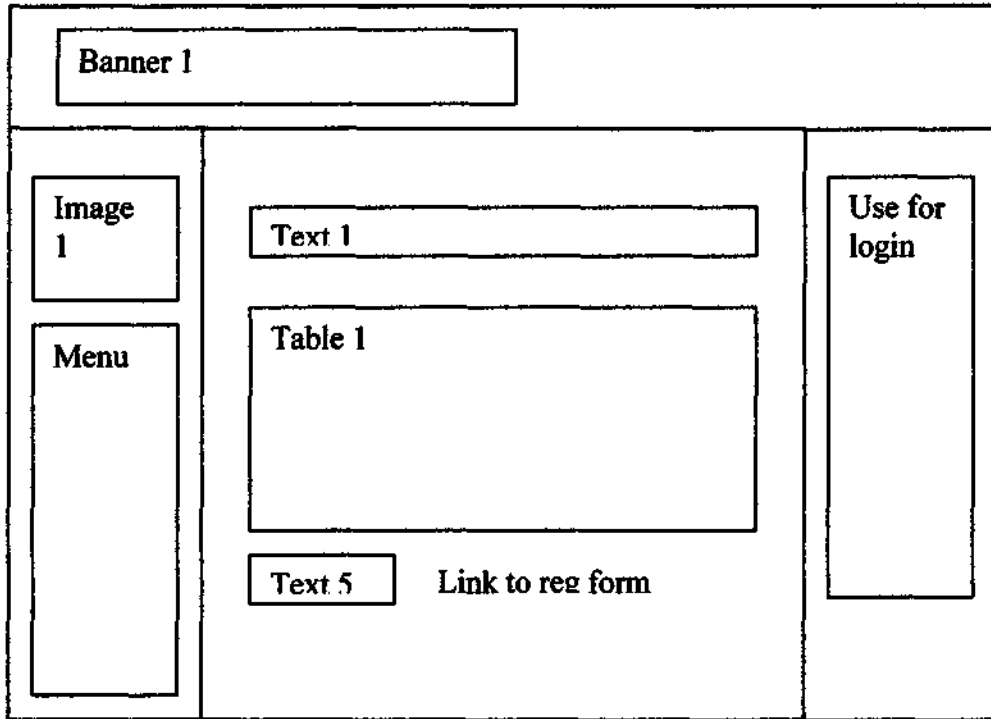


Figure 3.6: Schedule page

The Figure 3.7 below show the rental page storyboard for the user interface proposed.

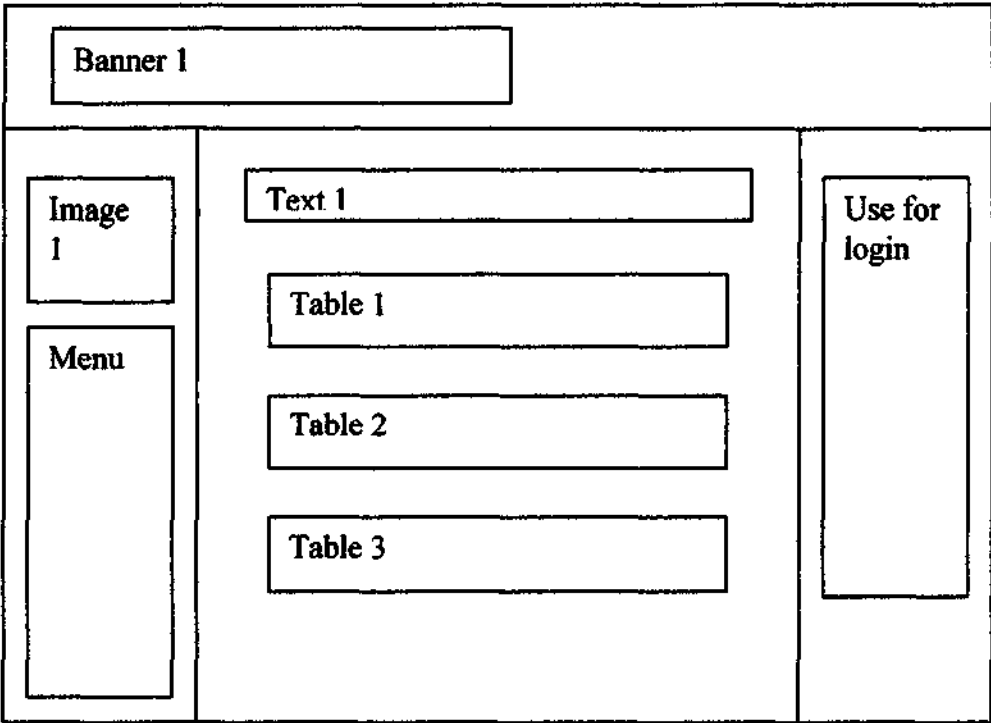


Figure 3.7: Rental page

The Figure 3.8 below show the purchasing storyboard for the user interface proposed.

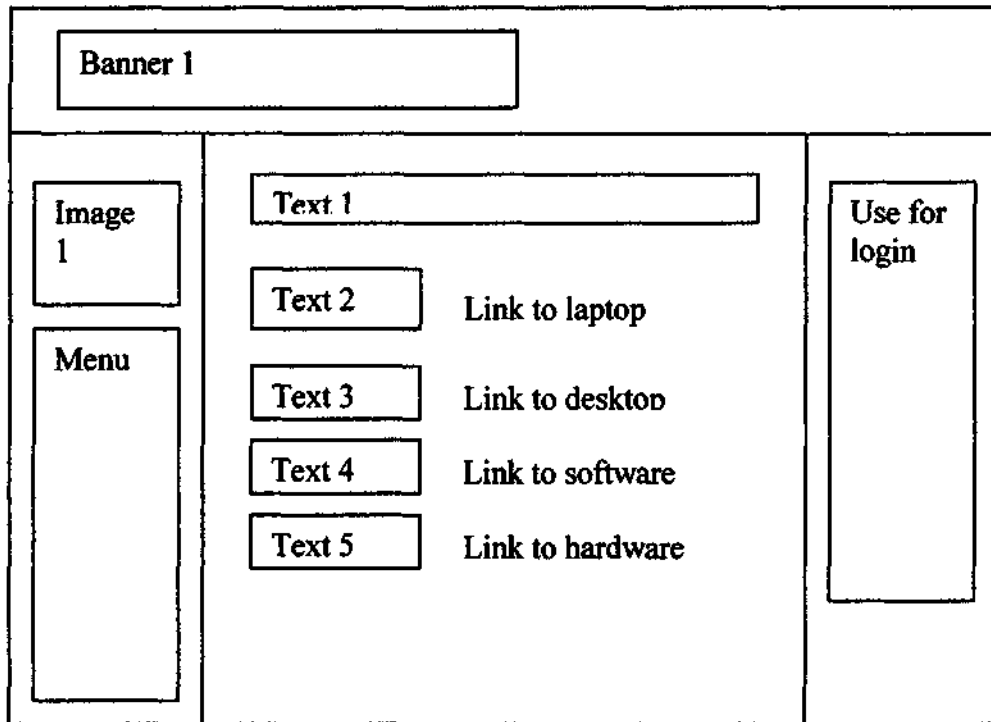


Figure 3.8: Purchasing page

The Figure 3.9 below show the laptop purchasing storyboard for the user interface proposed.

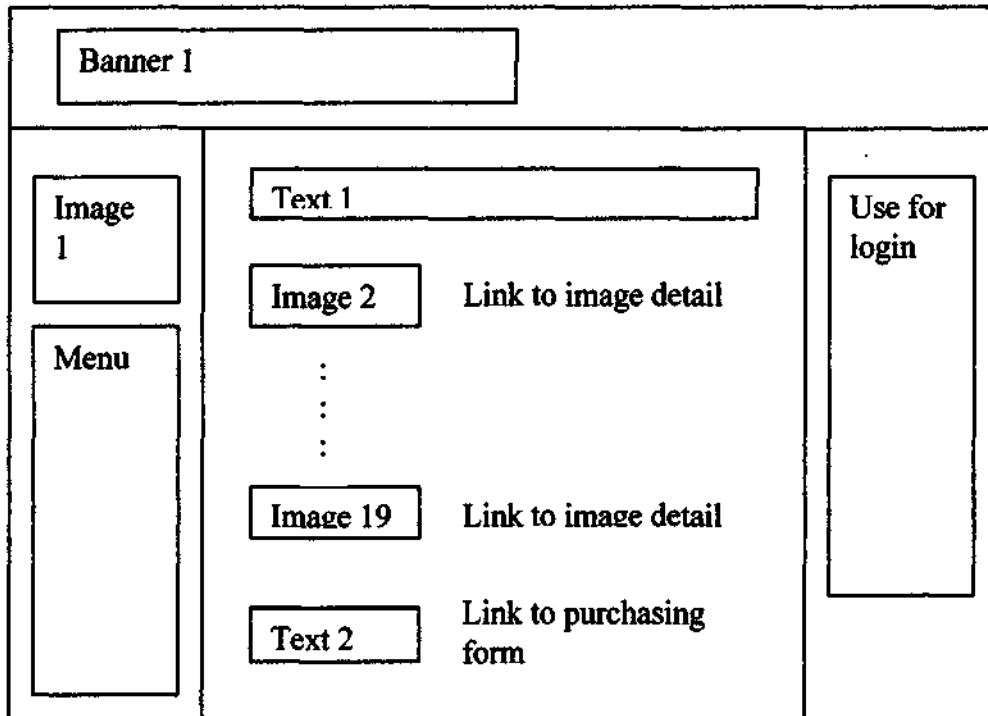


Figure 3.9: Laptop purchasing page

The Figure 3.10 below show the desktop purchasing storyboard for the user interface proposed.

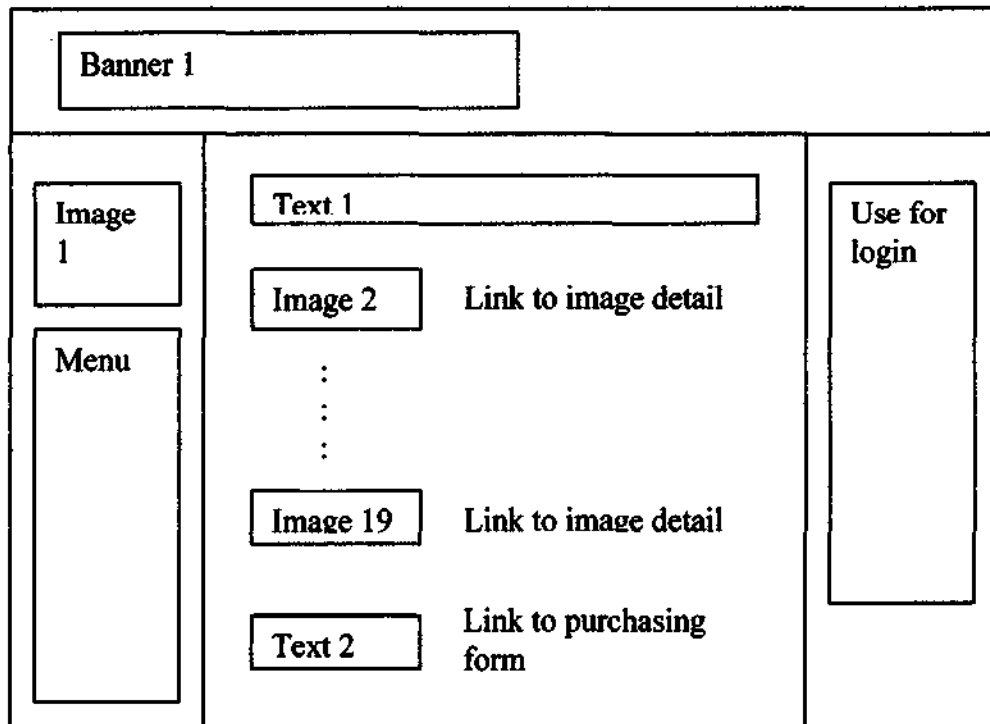


Figure 3.10: Desktop Purchasing page

The Figure 3.11 below show the purchasing detail page storyboard for the user interface proposed.

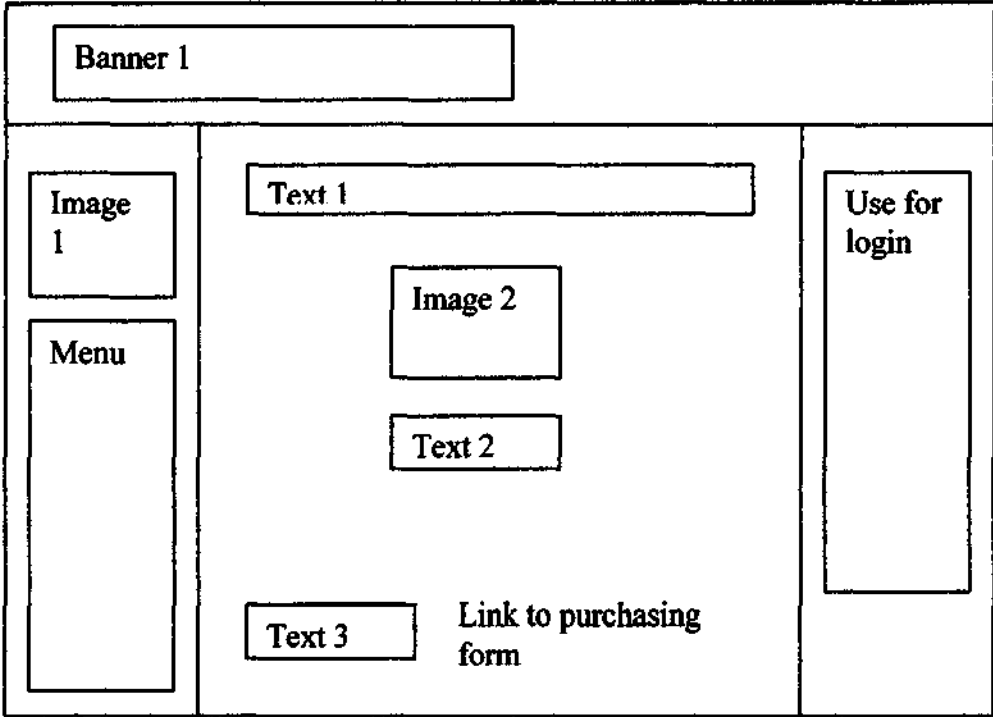


Figure 3.11: Purchasing detail page

3.4 Measure

3.4.1 Testing and Implementation

The testing phase will take place after all hardware and software had been installed and configured was complete including system development. The system also needs to test to ensure it is running without any problem and the system is running as efficiently as possible.

Implementation step will be conduct to users or customers which need to chosen randomly that come to company to determine whether the end products have fulfilled the customer's requirement. Observation and interview will be done to the customer to seek their acceptance toward the personal management system.

3.5 Learn

3.5.1 Analysis

The response that give from the customer will be analyzed according to the acceptance of perceive ease of use and perceive usefulness. The system will be upgrade everyday according to the feedback that given from the customers to make sure our system always up to date.

3.6 Conclusion

In this chapter, this project have described the project methodologies in details, which contain planning, implement, measure and learn of the user acceptance towards the project. With proper steps and methodologies approaches, this project can be managed wisely and will help a lot in producing a good finding and result.

CHAPTER 4

RESULTS AND DISCUSSION

4.0 Introduction

This chapter discusses and defined the results of the project. The result of the system will be captured and paste and shown in the form of screen layout. Each screen layout has brief description about the function. Result is important part for a project development. From the result user can determine that the project is efficient or meet the objective. It will also describe all the processes involved, where it will show whether the designs are working. In this chapter, the discussion is on the result of this project. The explanation of each page in this project will be according to the site map and screen design in the next section. This will be put under supervisor directory or homepage and the URL will be changed.

4.1 Project Result

User needs to use web browser such as Netscape Communicator or Internet Explorer to open this page. 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 user browse online. User needs to type this Web page Uniform Resource Locator (URL) address that is `http://localhost/thesis` at browser location. A URL is the address of a file (resource) accessible on the Internet.

The type of resource depends on the Internet application protocol. The URL contains the name of the protocol required to access the resource, a domain name that identifies a specific computer on the Internet and a hierarchical description of a file location on the computer. Whenever the user opens this web page, the first page that will appear is the homepage of the KITRES website.

4.1 Screen Design

This section includes important information about navigating through the KITRES online system environment.

4.1.1 Home page

This is the page that will be retrieved by the user which will contain the link at the left frame which is listed as home, training, rental, purchasing, contact us and location. This is the navigation for the user to go through the site as they interact with the site. (See figure 4.2.1)



Figure 4.2.1 Home Page

4.2.2 The Button Navigation

Below are the functions of the button provided in the interface of the KITRES online system.

4.2.2.1 Home Button

Two different colors for home buttons were created to make the button changing among them when point to it. The button will go to home page (see figure 4.2.1).

HOME

HOME

4.2.2.2 Training Button

Two different colors for Notes buttons also were created to make the button changing among them when point to it. The button will go to Notes page (see figure 4.2.5.1).

TRAINING

TRAINING

4.2.2.3 Rental Button

Two different colors for Quiz buttons were created to make the button changing among them when point to it. The button will go to Quiz page (see figure 4.2.6.1).

RENTAL

RENTAL

4.2.2.4 Purchasing Button

Two different colors for Link buttons were created to make the button changing among them when point to it. The button will go to Link page (see figure 4.2.7.1).

PURCHASING

PURCHASING

4.2.2.5 Contact Button

Two different colors for Forum buttons were created to make the button changing among them when point to it. The button will go to Forum page (see figure 4.2.8.1).

CONTACT US

CONTACT US

4.2.2.6 Location Button

Two different colors for Forum buttons were created to make the button changing among them when point to it. The button will go to Forum page (see figure 4.2.9.1).

LOCATION

LOCATION

4.2.3 Login



The image shows a login interface with the following elements:

- Who's Online**: A section header with a light blue background.
- We have 1 guest online**: Text indicating the current number of online users.
- User Login**: A section header with a light blue background.
- Username**: A text label above an empty input field.
- Password**: A text label above an empty input field.
- Remember me**: A checkbox and label for remembering the user's login details.
- Login**: A red button for submitting the login information.
- [Forgotten your password?](#): A link for users who have lost their password.
- No account yet? [Create one](#)**: A link for users who do not have an account.
- User Menu**: A section header with a light blue background.
- User Point**: A text label below the User Menu header.

Figure 4.3.1.1 login interface

This interface is been retrieved in the right side in which if the users are accessing the site from a Web browser, the users will be prompted for a Username and Password. If the user key in the wrong password therefore they cannot get in the site because of security factor and only authorized user can be allowed to login. Figure 4.3.1.1 show the login.

4.2.4 Register Form

The screenshot shows a web browser window titled "Registration - KITRES.com - Microsoft Internet Explorer". The address bar displays "http://localhost/these/index.php?option=com_registration&task=register". The page features the "KITRES.COM" logo at the top, with the tagline "KA TELUK INSIGHT - BERSAMA SAMA BERKUALITI". Below the logo is a navigation menu with links for HOME, MAIN MENU, IKES, TRAINING, BENTAL, PERUSAHAAN, CONTACT US, LOCATION, and Administrator. The main content area is titled "Registration" and includes a clock icon and a "Send Registration" button. The form fields are: Name (*), Username (*), E-mail (*), Password (*), and Verify Password (*). A note states "Fields mark with an asterisk (*) are required." To the right, there is a "Who's Online" section showing "We have 1 guest online" and a "User Login" section with fields for Username and Password, a "Remember me" checkbox, and a "Forgot your password?" link. Below the login section, there is a "No account yet? Create one" link and another "User Menu" link. The footer contains the copyright notice "Copyright 2000 - 2004 Mio International Pty Ltd. All rights reserved." and the text "Local intranet".

Figure 4.2.4.1 Register Form

This interface has shown a register form that need to user keep in their information detail. User need to register to become the company member to get prices discount and point the get many prizes that the company was provided.

4.2.5 Training

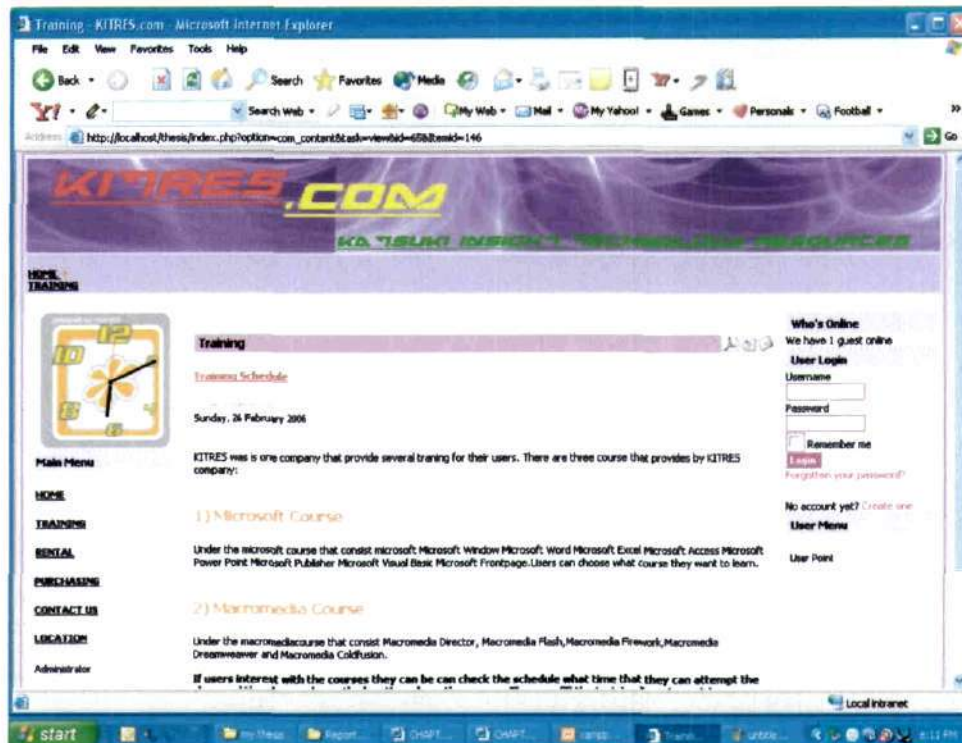


Figure 4.2.5.1 Training

Figure 4.2.5.1 above show the training interface that provides the training course that the company provides for their customers. The training courses that will provide are Microsoft course and macromedia courses. With this interface user can go to the training schedule. (See figure 4.2.5.2)

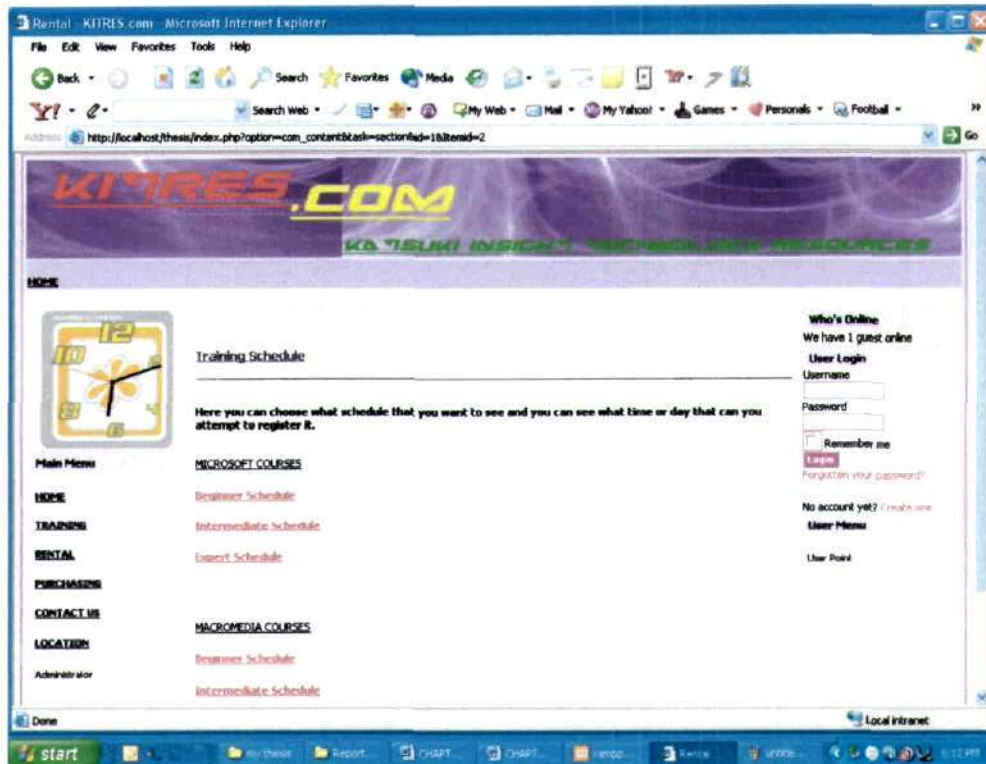


Figure 4.2.5.2 Training Schedule

For this training schedule interface user can choose what course that they want to apply and the level they are to make sure they can learn with suitable for them. Then uses can link to what schedule they want. (See figure 4.2.5.3)

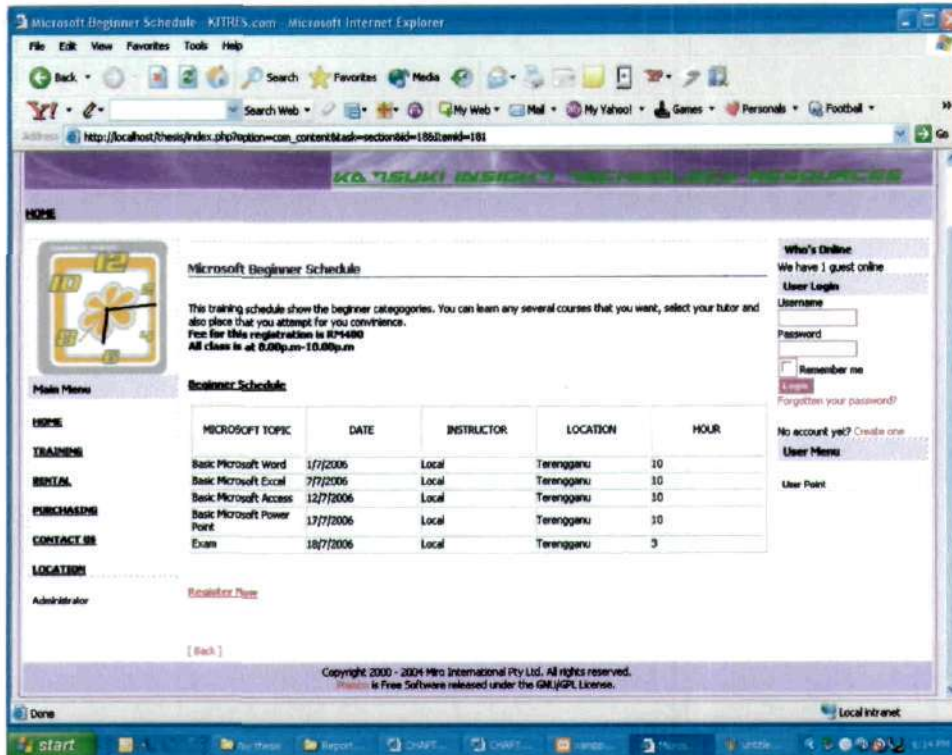


Figure 4.2.5.3 Microsoft beginner Schedule

In this Microsoft beginner schedule interface user can look their time table and course outline what will they learn in the beginner level. Users can link to register form if interested with that course. (See figure 4.2.5.4)

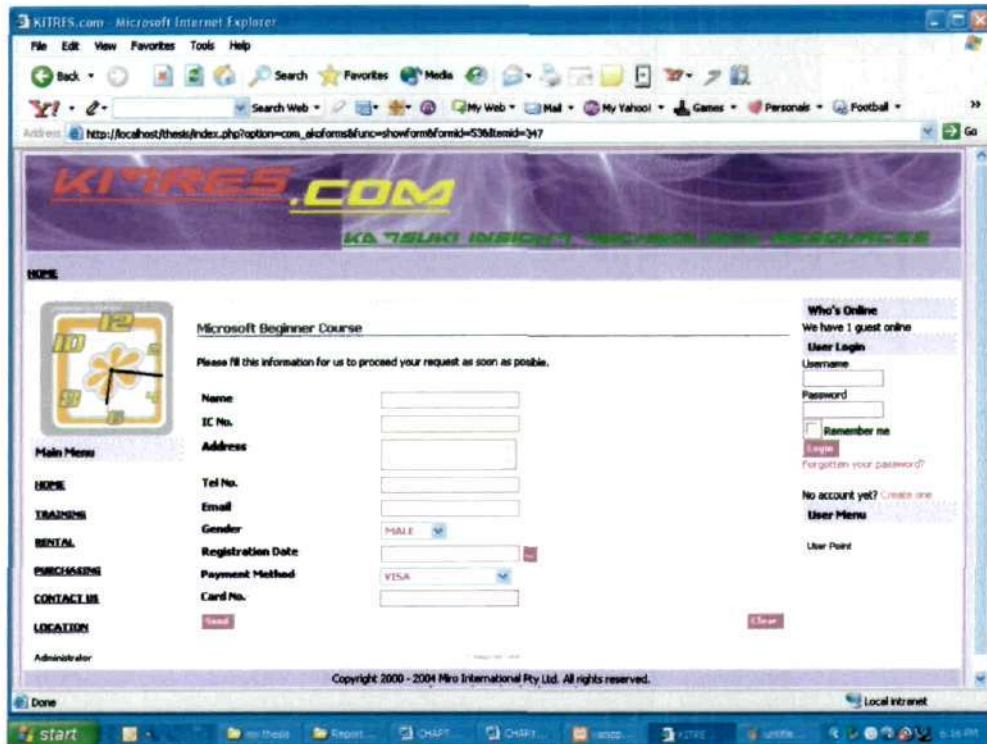


Figure 4.2.5.4 Microsoft beginner register form

Figure 4.2.5.4 show the Microsoft beginner register form. With this form user need to enter their information detail and need to pay their registration fee by using their credit card.

4.2.6 Rental

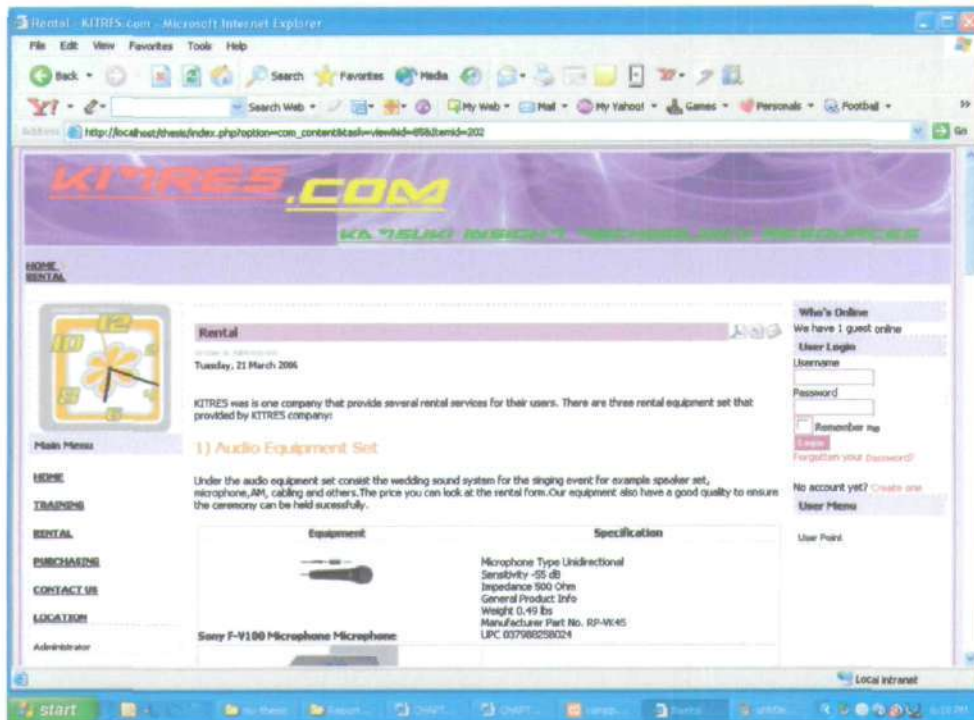


Figure 4.2.6.1 Rental

Figure 4.2.6.1 above show the rental interface that was provides the rental services for the customer. In this interface user can choose the item what they want to rent with the suitable prices. If users are interested with the item and prices they can link to rental registration form. (See Figure 4.2.6.2)

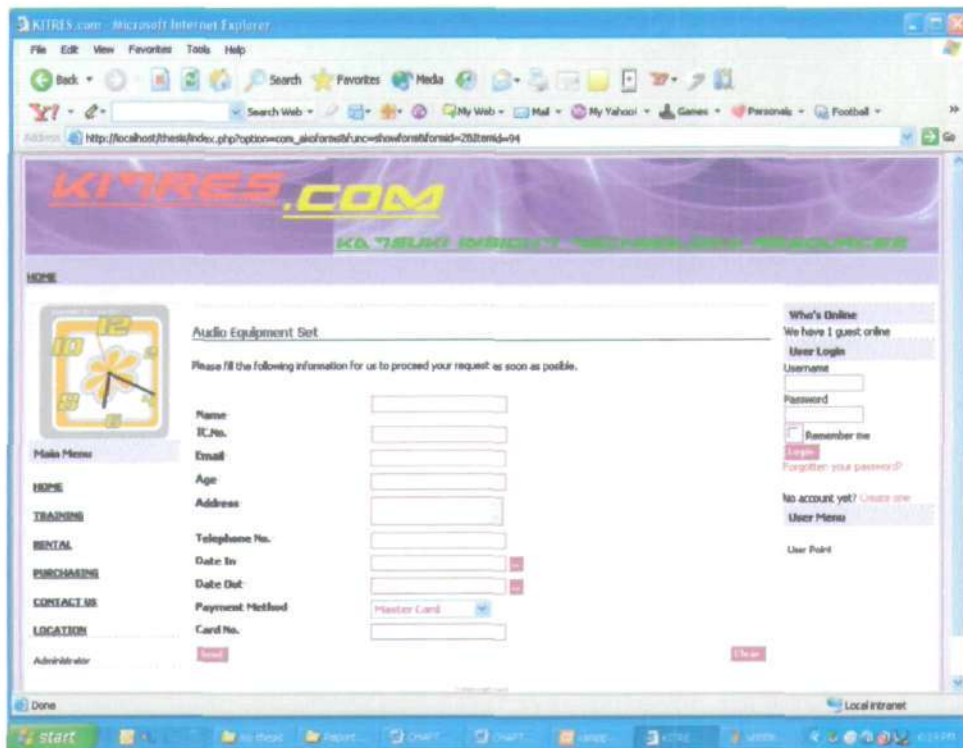


Figure 4.2.6.2 Rental registration form

Figure 4.2.6.2 show a rental registration form for the user to enter. User need to complete the form to rent the product they want by using credit card.

4.2.7 Purchasing

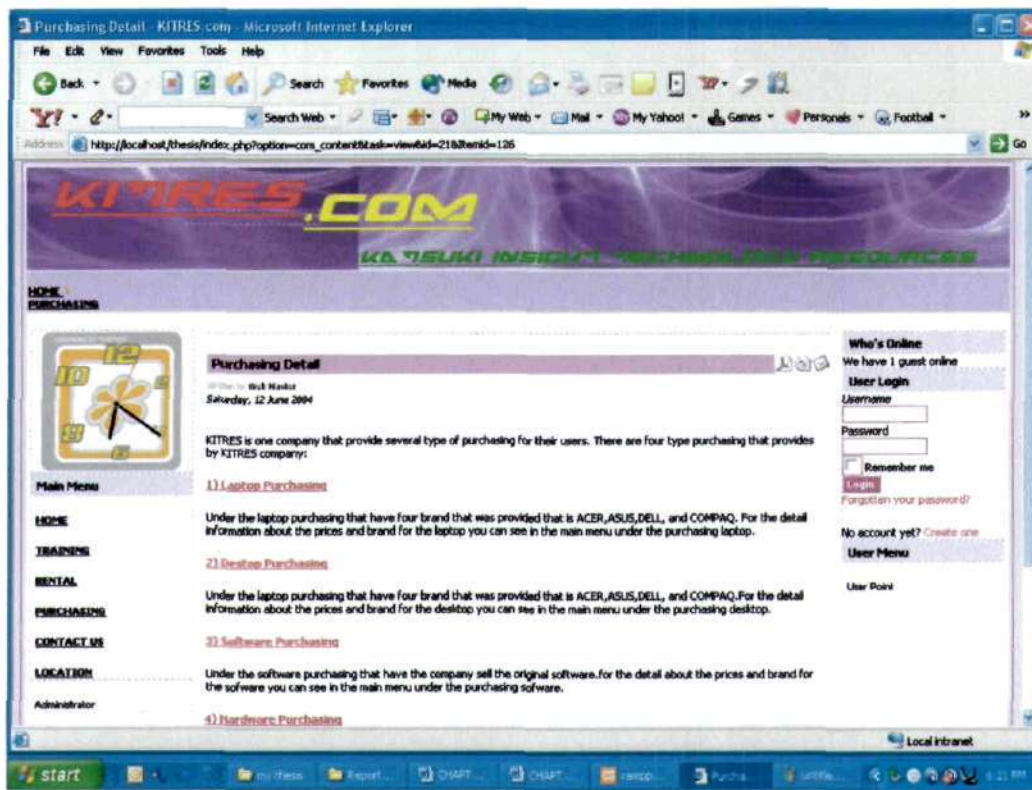


Figure 4.2.7.1 Purchasing

Figure 4.2.7.1 show the purchasing interface services that provide by the company. The services that provided is laptop purchasing, desktop purchasing, software purchasing and hardware purchasing. From this page users can link to this entire services page for more detail explanation.

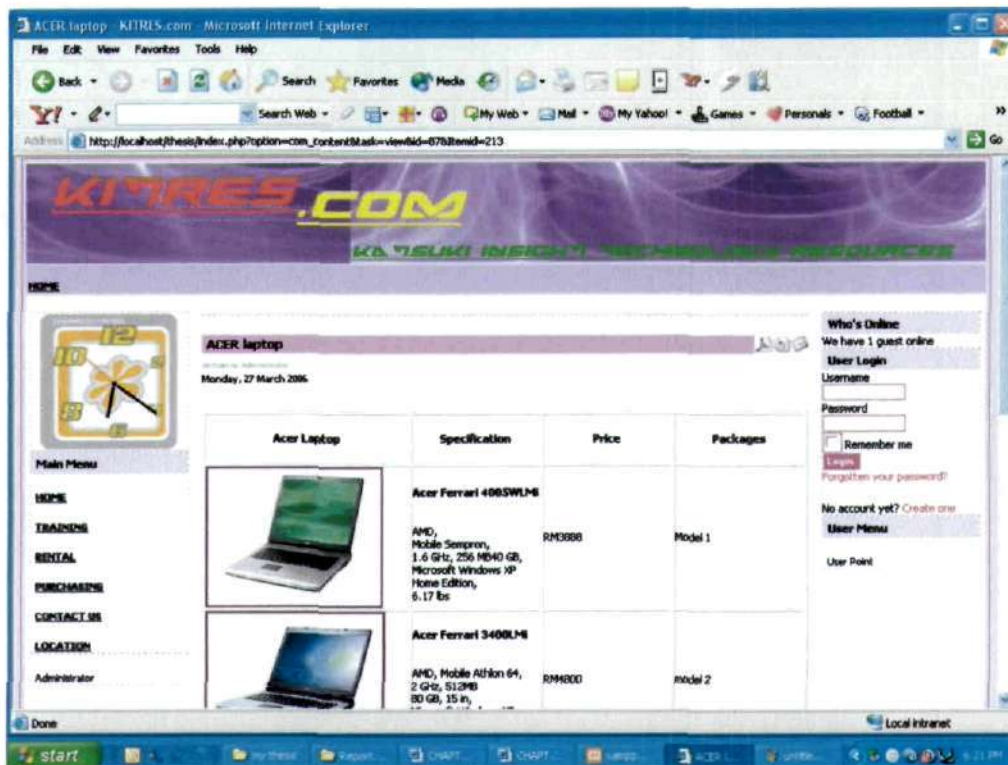


Figure 4.2.7.2 laptop Purchasing

Figure 4.2.7.2 show the laptop purchasing interface. In this page user can choose the brand that they want. There are having four brands that was provided Acer, Compaq, Asus and Dell. User can choose the model they want and click the laptop picture to get more detail about the brand. Then user can buy it with link to laptop purchasing form.

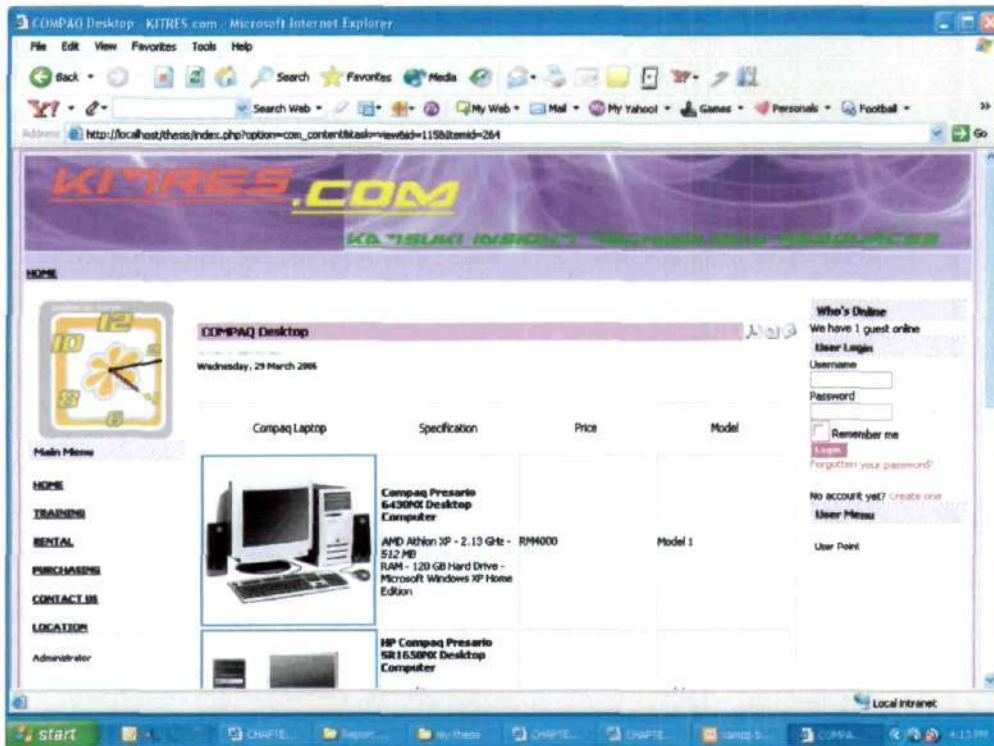


Figure 4.2.7.3 desktop purchasing

Figure 4.2.7.3 show the desktop purchasing interface. In this page user can choose the brand that they want. There are having four brands that was provided Acer, Compaq, Asus and Dell. User can choose the model they want and click the desktop picture to get more detail about the brand. Then user can buy it with link to laptop purchasing form.

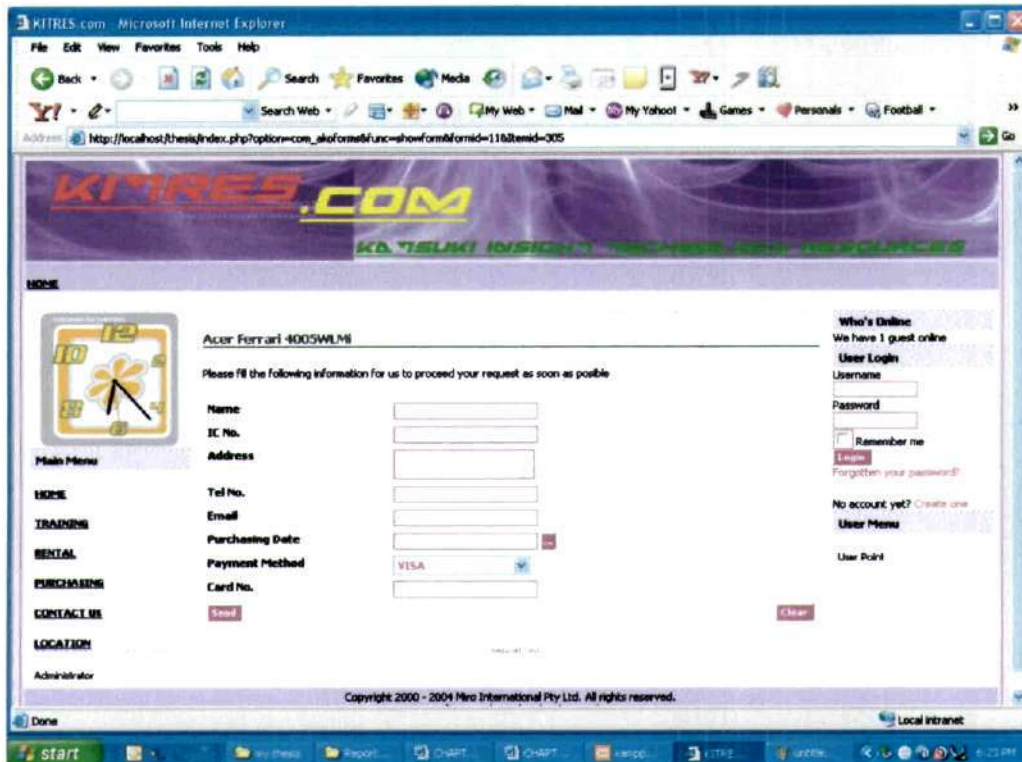


Figure 4.2.7.4 purchasing form

Figure 4.2.7.4 show the purchasing form interface for the desktop and laptop purchasing users need to fill the form to purchase the product.

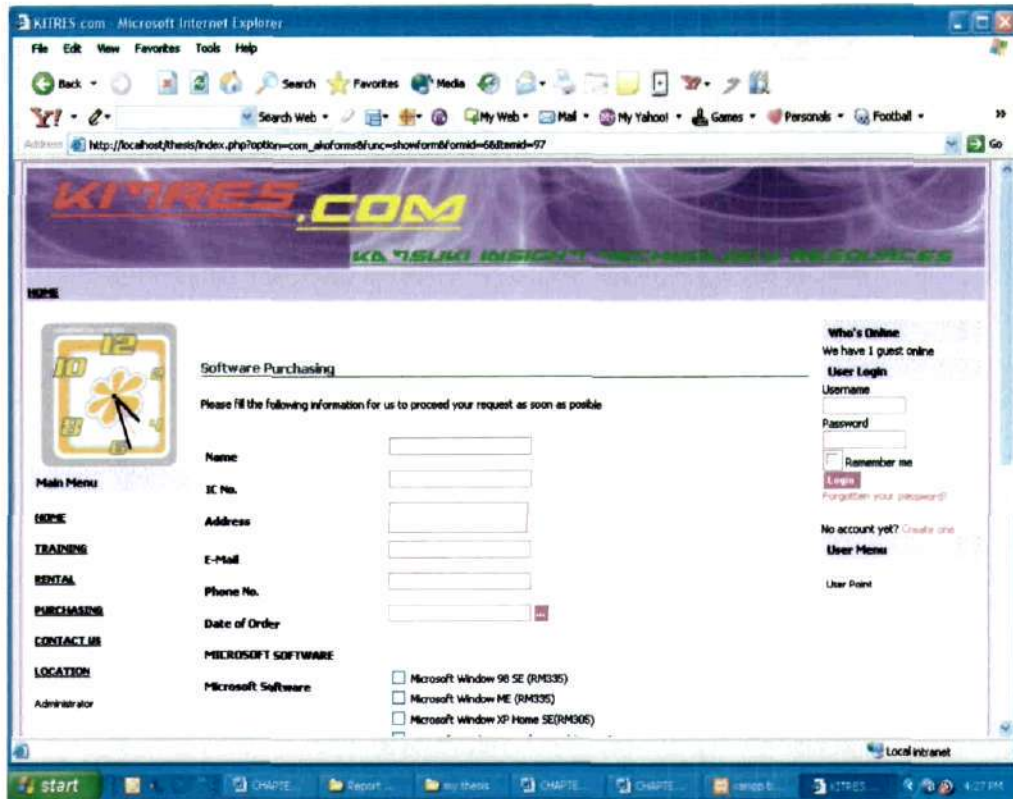


Figure 4.2.7.5 software purchasing

Figure 4.2.7.5 is show the software purchasing interface that provides Microsoft software to purchase by the uses. With this page users can directly purchase the product by using credit card.

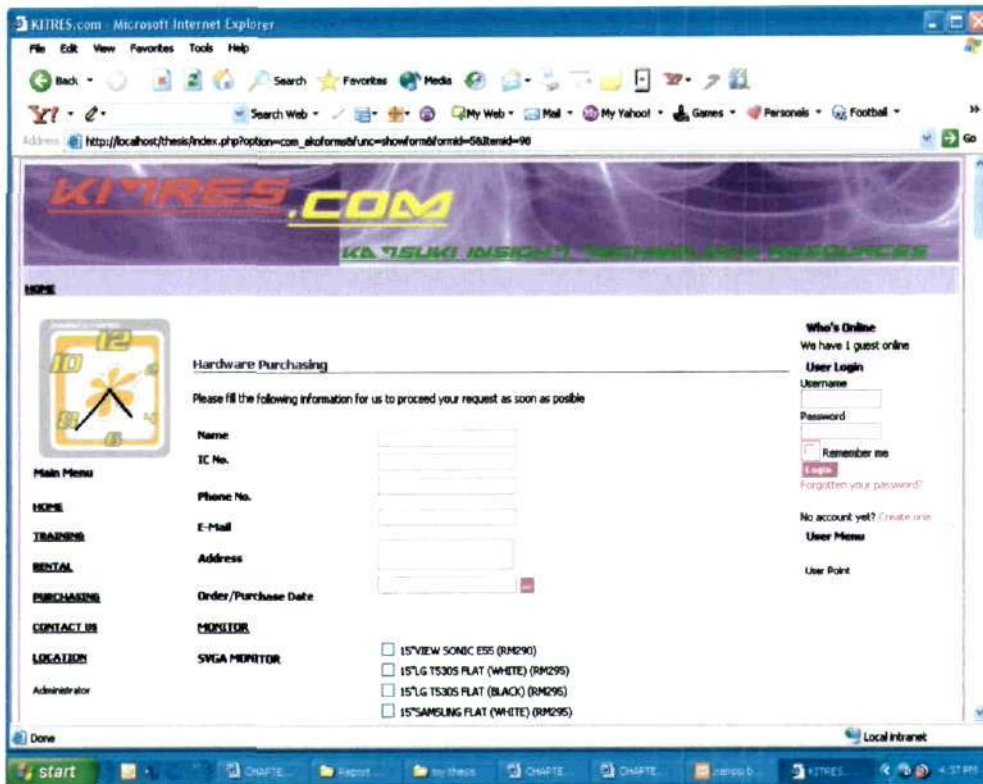


Figure 4.2.7.6 Hardware Purchasing

Figure 4.2.7.6 show the Hardware purchasing interface that provides hardware product to the users. With this page users can directly purchase the product by using credit card.

4.2.8 Contact Us

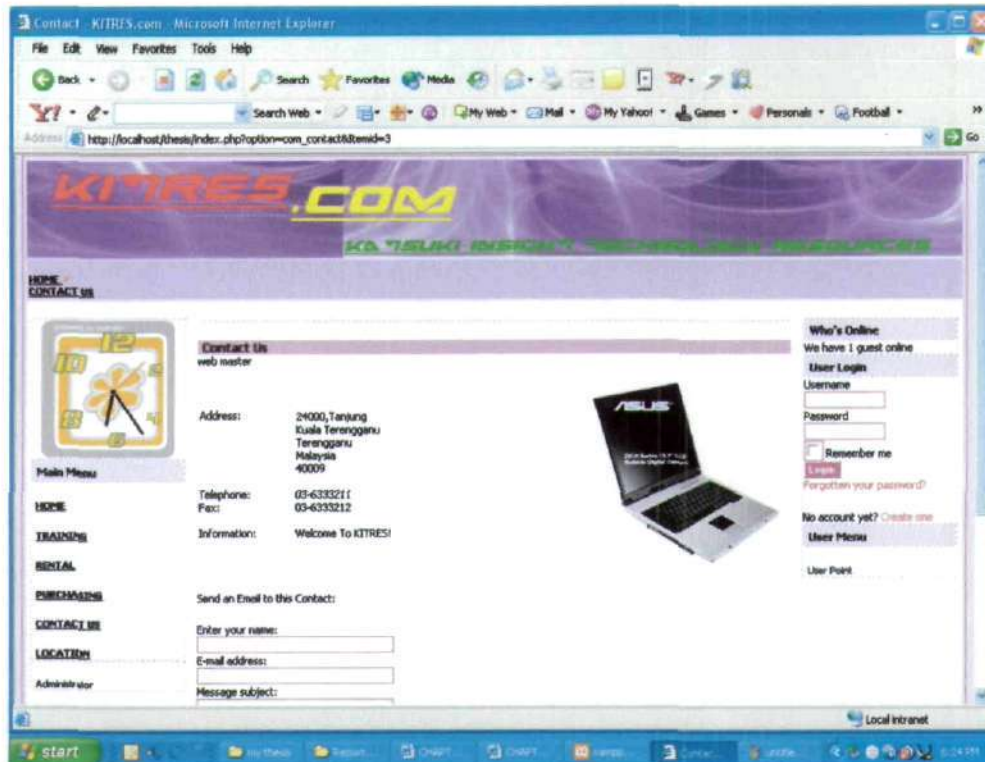


Figure 4.2.8.1 contact us

Figure 4.2.8.1 show the contact us interface for the user to contact the company if happen some mistakes in fill the form or want to cancel their request in the services that the company provided.

4.2.9 Location

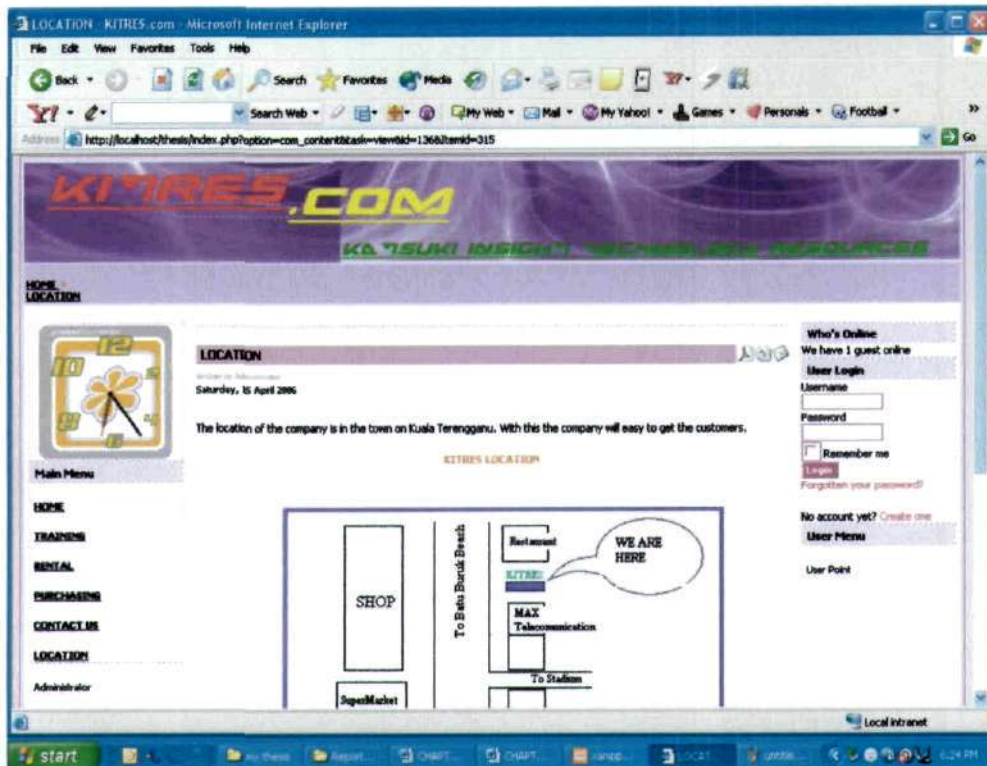


Figure 4.2.9.1 location

Figure 4.2.9.1 show the location interfaces for the company. With this page user can used that map has been given to find the company location.

4.3 Conclusion

In this chapter, the result of the project was mentioned. The features of each screen have been discussed according to the screen design. This chapter can be use as user guide in using this project.

CHAPTER 5

CONCLUSIONS

5.0 Introduction

In this chapter we will discuss on the overview of project, benefits and recommendations to the project for future planning.

5.1 Benefits

5.1.1 Benefit to the KITRES Company

Benefit of the project to the company fall into several main categories, as describe in the following list.

1. Expand the market place. With the minimal capital outlay, a company can easily and quickly locate more customers, the best supplier and the most suitable business partner nationally or worldwide.
2. Offers significant cost saving. With this system, companies no longer need to bear the cost of creating, processing, distributing, storing, and retrieving paper based information.
3. Improve business organization and process.
4. Promotes interactively. The system allows company to interact with their customer and business partner and to receive quick and accurate feedback.

5.1.2 Benefit to consumer

Benefit of the project to the consumers fall into several main categories, as describe in the following list.

1. Allow consumers to shop or perform others transaction year round, 24 hours a day, from almost any location.
2. Consumer can locate relevant and detail product and services information and conduct comparison in seconds, rather than in days or weeks.
3. Allow for quick delivery.
4. Ability to buy customized product and personalized services at very reasonable cost.

5.2 Recommendations

This project can be further inquired. Among better work this can be done to improve this project is:

1. The KITRES Company needs to provide more product and services in the future to compete with the other e-commerce company.
2. By the developing this project the KITRES Company does not have to used the old manual system to increasing their business funding.

5.3 Conclusion

This project is about an e- business development. As e-business has become today's number one medium to connect business and people, it is hope that people can use this project has a guideline to develop their own e-business

application. KITRES has benefit a lot from this project and it is hope that it can benefit more in the future parallel with expansion of IT technology. Student could learn a lot about web-base application and explore more about web development. What is more important that this project has help KITRES Company in develop an excellent platform for its business. It is recommended that future researchers could enhance the application of web-base application to a wireless application

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