DEVELOPMENT OF A WEB BASED ELECTRONIC COMMERCE SITE

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CERTIFICATION

This project title "Development of a Web Based Electronic Commerce Site" meets the requirement for the award of postgraduate Diploma in Computer Science by the Federal University of Technology, Minna.

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DEDICATION

I dedicate this project to God, the Almighty for His grace upon me, Also to my well wishes, and all lovers of justices.

ABSTRACT

Electronic Commerce is a new form of marketing with a predicted explosive growth in the near future. This research work is aimed at sensitizing and creating awareness on the transaction of business within the Internet.

The original idea behind the WWW was to take the huge resources of the Internet and provide ways to access as little or as much of it as someone might want. It requires designing the hypertext pages for cross-reference. Information can be made available to as many that has access to the Internet.

Because the Internet provides a flexible and dynamic market place to exchange goods, services and information with consumers and business partners, it is becoming increasingly important for business to use the Internet to reach new market – E-commerce.

ACKNOWLEDGEMENT

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CHAPTER ONE

1.0 INTRODUCTION

1.1 OVERVIEW OF E-COMMERCE

The importance of commerce to a Country cannot be overemphased. Commerce is the buying and selling of goods and services. In modern usage, domestic commerce is generally referred to as marketing, foreign commerce as international trade.

Man has engaged in trade throughout recorded history. The most important advances in marketing system, however, have occurred in the United State in the past 150 years. The telegraph, introduced in the 1840's sped up the flow of product order, greatly aiding the marketing process. A further advance in communications came in the 1870's with the invention of the telephone. The increasing use of television after World War II greatly increased the flow of information and advertising to the consuming public.

Since World War II, the computer has played an essential part in the development of marketing concept. With the use of computer, it is possible to store vast quantities of information, calculate quickly and accurately, simplifies routine operations and make possible analysis that a company could not afford to do otherwise.

Recently, there has been a move-away from the traditional trading methods to automated trading methods. With the advancement of computer microprocessor, electronic handling of commerce has been more and more available to people. The growth of the Internet has also make communication between two computers system easier.

The Internet is a network of computers; a very wide collection of inter-connected information resources. Satellite and digital communications make Internet access easier and quicker compared to the traditional telephone line access. Satellite has the unique advantages making it possible to transmit data from other locations to an unlimited number of other locations anywhere.

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The mainstream has moved beyond the experimental stages of the Internet. No longer is the goal merely to have a Web presence. One of the first items is to force the web to cost-justify itself, just like any other business ventures if the site does nothing more than continue to offer static information; its on going presence will consume money. What does it answer in return? The answer is Electronic Commerce.

While Internets and network computing promise production efficiency and cost saving, the hottest Internet frontier is Electronic Commerce on the Web, where money can be made and not just saved.

Electronic Commerce can open up a new virtual sales channel to capture incremental revenue. It can also help to build stronger business-to-business relationship.

E-Commerce (electronic Commerce) is the buying and selling of goods and services on the Internet, especially the World Web. E-commerce technology enable enterprises to exchange information instantaneously, eliminate paper work, and advertise their products and services to a global market.

1.2   AIM AND OBJECTIVES OF THE PROJECT

The aim of this project is to sensitize and create awareness on the transaction of business within the Internet.

OBJECTIVES

The objectives of the project includes:

1.   Educating people on how the Web can really serve a business purpose.
2.   Assisting people in feasibility study on how to make the web a place for shopping and making purchases.
3.   Providing a quick-way to reach the right people in a company for immediate information.
4.   Breaking long chain of protocols involved in business transactions.
5.   Avoiding bulkiness in paper transactions.
6.   Handling and transferring of cash electronically.

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7.   To aid economic and technological development.

1.3   SCOPE OF STUDY

This project is intended to give an overview of the most important concepts in electronic commerce.   The Internet and its connectivity, commerce, payment methods and security issues are discussed in this project.   A Website is developed to demonstrate how the Internet is being used as a sales outlet electronic commerce. It equally covers Internet programming.

1.4   DEFINITION OF KEY TERMS

Access provider-company that sells Internet connections are known as Internet Access or Service Providers (IAP's or ISP's)

Browser- Program, such as Netscape or Internet Explorer that allows you to download and display Web documents.

Server-   Computer that make services available on a network.

Homepage- Either the first page loaded by your browser at startup, or the main Web document for a particular group, or organization or person.

WWW- World Wide Web- can browse information and view graphics, video, audio and other information.

FTP- File Transfer Protocol, it is used to transfer files across the Internet

E-mail-Electronic Mail.   It is used to send messages from one person to another into their personal mailbox.

Telnet-Used to connect to other networks through the Internet, enabling the user to run a command session on the remote computer.

Internet Relay Chat- Used to communicate in real time between Internet users.

Explorer- The file system navigation tool for microsoft's windows 95 and NT 4.0 operating system.

File Server-A network computer that runs the network operating system and services requests form the work stations

File System- File system is the network operating system's rules for handling and storing files.

Host- File that is accessed by clients. In a TCP/IP network, any computer connected to the network is considered a host.

TCP/IP- (Transmission control protocol/Internet Protocol). An industry standard set of protocols used to connect computers within a network, as well as external networks such as WANs and the internet, TCP/IP is the most widely-used networking protocol and can be used to connect many different types of computers for cross-platform communication.

URL (Uniform Resource Locator) The URL provides the address to a document on the World Wide Web.

User Account- An account on a network designed for a particular user. Based on user account options, a person has access to specific files and services.

User- Any person who accesses the network.

User Name- A name used by a user to logon to a computer system.

Protocol- A set of rules of formatting and interaction, used to permit machines to communicate across a network.   Networking software usually supports multiple level of protocols. Windows NT supports several protocols. Windows NT supports several protocols, including TCP/IP.

Password- The key to access the network during logon.

Network- Two or more computers linked together so that they can communication.

Logon (or **Login)** The procedure for checking on to the network so that you can access files and other network information when you have access to the network, you are said to be logon. When you exit the network, you log out.

Modern- A device used to translate digital signals from the computer into analog signals that can travel across a telephone line.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 WHAT IS INTERNET

The Internet (or Net) is a network of computers that shares a common communication protocol (TCP/IP), which enables computers of different types to exchange information. It is this cross-platform compatibility that makes the Net so powerful and has caused it to grow at such an exponential rate.

So, what is a network? It's more than just linking things together; it is the way they are linked together. In the case of the Internet, it's the way thousands of computers are linked together. This seems very basic, and people use the term "Network" everyday, but few people understand the concept, imagine you had four computers and that each computer had a line running to each other computer, as in figure 2.1. Each computer could transfer information to any other computer, but the cables get messy and expensive. It's similar to having a separate telephone for each person you call, rather than having one telephone by which you could call any other.

2.2 A SIMPLIFIED COMPUTER NETWORK

Imagine that computer "C" wants some information from computer "A", computer "C" sends a message like "computer "A" send me file xxx12" Although the other computers have access to the request, they ignore it because it's addressed to "A". This addressing scheme is called a protocol. The Internet protocol (the IP and TCP/IP) uses a series of numbers to designate an address. This is called the IP address, and each computer connected to the Net has an IP address.

2.3 INTERNET OVERVIEW

Many believes the Internet is a new concept, but it actually originated in the 1960's as the

Advance Research Projects Agency Network (ARPAnet), funded by the Department of Defense. ARPAnet enabled a global network of government personnel, scientists, and researchers to collaborate and exchange critical information with each other.

The idea was that by sharing research, scientist from different disciplines could avoid reinventing the wheel. This is to say that a group working on a new type of rocket engine could, rather than requesting literature via mail or conducting research themselves, simply connect to a different computer and download the information they wanted on, say ignition switches.

In the 1980's, the ARPAnet a complete upgrade by implementing a more modern, higher-speed network. This upgraded architecture was given the name **Internet**, which linked government supercomputers, educational institutions, and research facilities. As a whole, the Internet functioned as a broad-based educational and research network.

There were originally four basic functions on the Internet; e-mail, Usenet, Telnet, and file transfer.

E-Mail- E-mail is, obviously, electronic mail. Is allows Internet users to send messages back and forth. Each individual on the Internet has an account set up on an e-mail server. The address is the user's e-mail account name and the host name of the e-mail server. An example of an e-mail address is **User@provider.com**. E-mail messages are delivered in a matter of seconds. Figure 2.2 shoes out look express.

Files Transfer:- Many times users on the Internet are downloaded or transferring files to their computer form other computers on the Internet. File Transfer Protocol (FTP) is the protocol used to transfer files across the Internet to your computer. You can download documents, programs, information, audio, video, or just about anything.

Telnet- With telnet you can connect to another computer, or log on to the computer across the Internet. To do this, you need to know the computer's address. The address can be either the TCP/IP (192.43.51.189) address of the host name machine of the domain address (home. base.)

Usenet – Usenet is an electronic bulletin board, a public forum where people can post and view messages.

As it stands now, the Internet is an international Network connecting tens of millions of people around the world. Government, universities, Private citizens and, of course, businesses use the Net everyday for communication, education, entertainment, and commerce.

2.4 GETTING CONNECTED

To be connected to the Internet is quite easy. The following are the requirements

i) **A Computer**

This is normally a personal computer (Pc) running any versions of windows, but may be compatible or any other type of operate an e-mail account, a 386 processor, 4MB memory and 10MB free disk space is recommended.

ii) **A Telephone Line**

Any standard NITEL Telephone line is satisfactory. Provided the signal is clear without cross talk or noise. International Direct Dialling (IDD) may not be required if there is a dia-up access possible through service provider.

iii) **A Modem**

This device converts what is typed on a personal computer into signals that can be transmitted across standard telephone wires or data line. One of the most important features of a modem is its band rate-speed at which the information travels through it. If advanced Internet functions are anticipated a modem supporting higher transmission speeds is recommended (the speed is between 14,000bps and 28,800bps).

iv) **A hard Disk**

A hard disk on which to store files of information taken off the Internet is also essential. Hard disk space is always at a premium.

v) **An Internet Software**

The Internet software permits computer to sent data across a modem. This allows the user to send e-mail, browse the web, read newsgroups, and transfer files. To view the variety of content on the World Wide Web, you need

software known as browser. There are two types of browsers test and graphical. The predominant browser is the graphical browser. Lynx is a text browser that allows a user to navigate the web using the arrow keys to move and highlight links to move form site to site.

A graphical browser allows users to point and click with their mouse to navigate the web. Netscape Navigator and Microsoft Internet explorer are the most commonly used browsers on the web today.

2.5   DEVELOPMENT OF ELECTRONIC COMMERCE

Electronic commerce today is where websites were two years ago. At that time companies were debating the merits of publishing plain-old static marketing information on the web. Today, a web presence is given for many companies but the merit of electronic commerce are still under scrutiny. According to industry experts, this reluctance is beginning to fade, and electronic commerce is on its way becoming an accepted means of transacting business. (Bort 1997).

Infact, by the 2000, Forrester Research incorporated predicted that the amount of money companies will spend electrifying their sales will turn the Internet commerce software market a gargantuan $3.2 billion revenue producer compare with a mere $22.4 million in 1996. It's also a tremendous opportunity for VARs (Value-added resellers) as many of these companies will be hiring experts to implement electronic commerce sites. Web sales of products and services are expected to account for $1.5 trillion worldwide through the year 2002, according to the 1997 Real Numbers Net Profits report by Active Media Inc., an Internet Commerce Market research firm.

Without doubt, On-line commerce is a gathering wave, (Gilster, 1997). New York- based Jupiter Communications, in a recent report pointed out that some $3.5 billion went into some kind of network assisted transaction in 1996;the firm projects that amount will rise to $14 billion by the years 2000.Much of today's Net dollar is going into advertising. Jupiter sees web advertising passing the $5 billion mark by the year 2000, passing radio-advertising revenue in process. With huge growth possible

in consumer spending, the total numbers for advertising revenues are, however, still forecast to lag behind TV and newspaper: $36.3 billion were spent on television advertising in 1996; $11 billion went into print venues. An interesting picture should start to emerge shortly after the turn of century as higher bandwidth data pipes help the Internet merge with broadcast television. In such a world, companies will have to target their advertisements in both directions.

Some analysts forecast that an even greater boom will occur as businesses set up electronic shop between themselves and their business partners, (Kern, 1997). And Allen (1997) says the Internet is where 90 percent of business commerce will take place by the year 2000.

The Internet, the World Wide Web, HTML, JAVA, and net browsers have all begun to shape a new model for the way business is done in America and around the globe. The number of potential customers and customer dollars continues to draw more and more businesses to the Internet and electronic commerce as a way to transact daily business, (Kennedy, 1998).

Financial service organisations have to invest in e-business as an act of faith with a view that it is going to have a massive impact on the industry. It is clear that a lot is going to happen over the next 12 months and no-one wants to be left behind, (Hislop, 2000). The survey indicated the speed and size of the rush online meant many financial service organisations were losing touch with their customer base.

Meaningfully Studies and Research findings have shown that the Internet and Electronic commerce will transform traditional business, the global market and consumer life. These studies have been vindicated by the statistical profile of Internet users worldwide. The profile shows that an overwhelming majority of Net users are on the average "wealthy, educated, young, urban and male". This is a vivid representation of core business (market) around the world.

The Internet has, therefore, become the ultimate platform and lifeline for business continuity, socio-economic development, sustainable growth and global competitiveness. Indeed, it more than revalidate the concept of advertising for business development and continuity.

2.6 THE OPERATION OF E-COMMERCE IN SOME COUNTRIES

During the past 10 years THE Internet has grown from roughly 100,000 to more than 15 million hosts worldwide. The Inter net has become a huge enterprise and some countries have adopted the use of the Internet for business transactions. Such countries include Malaysia, Singapore, Philippines, Indonesia, Canada and the United States. However, Nigeria has tapped into the technology.

2.6.1 ELECTRONIC COMMERCE IN CANADA

Founded in early 1993, e-commerce is one of Canada's most experienced firms offering website and Internet application development and messaging/workflow systems. Leading corporations such as Federal Express Canada, Famous Players Limited, Inco Limited, TorontoDominion Bank, Mc Graw Hills, and Rogers Communications are among its Canadian Business 500-type clients. Recently e-commerce designed and developed what is perhaps the largest website in Canada for SEDAR (System for Electronic Document Analysis and Retrieval) at www.sedar.com. Currently over 100,000 documents are in the database. Hundreds of document links are updated daily with no manual administration. More than 8000 company and mutual fund profiles are accessible through the website. With its four core areas of expertise- Software Programming, System Integration, Publishing and creative Design- e-commerce delivers functional long-term solutions.

2.6.2 SINGAPORE AS A CENTRE FOR ELECTRONIC COMMERCE

Singapore is a centre for international commerce activity, building on its strength as an international trading hub and its business competitiveness. Singapore has the necessary infrastructure to support an international transaction hub. It is well connected, with Internet links to the major regional cities. A good set of e-commerce services is available, including online payment services, security services, and bureau services.

The legal foundation for electronic commerce is also in place. Electronic records can be used as evidence in court. Contracts formed electronically and electronic signatures are recognised.

Singapore has an IT (Information Technology) literate and Internet savvy population. Some 41% homes have PCs, and there are about 470,000 Internet users (or 15% of the population). The workforce includes 31,000 It professionals, with 7 tertiary institutes offering IT studies and 6 research and development centres. Businesses are highly computerised, due to a 17-year history of computerisation in the public and private sector. More recently, the Singapore ONE initiative has also brought a variety of multimedia and interactive services on the Internet.

The Government is committed to make Singapore a competitive place for international electronic commerce. A masterplan has been formed to deliver this vision. Business is invite to consider Singapore as their place of business for international transactions. Schemes have been designed to make this an attractive proposition.

Laws

The Electronic Transactions Act was enacted in July 1998 to provide the foundation for electronic records, contracts and digital signatures. Intellectual Property rights Laws now comparative with international levels.

The Masterplan has a 5-point strategy:

- To jumpstart Singapore as an e-commerce hub,
- To expedite industry's adoption of e-commerce, and
- To build an internationally linked infrastructure to support businesses with global reach,
- To harmonise cross-border law and policy to allow parties to trade confidently, and
- To promote local usage.

Connectivity

The Singapore Telecom Internet exchange (STIX) is the Asian Internet Hub, connecting more than 15 countries in the Asia Pacific Rim. STIX has a total of 34

Mbps in links to the Asia Pacific region, the USA and the European Internet backbone. In addition, STIX has a direct connection (2 Mbps) to the European Intent backbone and operates two T3 (45 Mbps) direct connections to the US Internet backbone.

The Internet Service Providers also have dedicated overseas links, for example Pacific Internet's Asia Internet Holdings (AIH) connects to US via Japan for a total of about 4.0 Mbps, and cyber way has a 128 kbps link to the US via Japan.

2.6.3 NIGERIA'S PARTICIPATION IN ELECTRONIC COMMERCE

A full- blown Electronic Commerce website for Nigerian business concerns and corporate organisations flags off September 1, 1999. It is likely to be an answer to the Internet revolution that is creeping throughout the world says Aragba-Akpore (1999). The website designed and built by solix.

Technologies Limited, an information solution provider, is likened to the Cairo, Egypt-based Pharoah.Com, and perhaps second only to the commerce site in Johannesburg, South Africa

The Solix Technologies e-trade site has pages for real estate business, automobiles, hospitals and health care clubs, banks and financial institutions, hotels, airlines and flights among others.

The website will offer Nigerians both at home and abroad, including foreigners the opportunity to browse the Internet to do the following and check for:

- Local listings of flights and make reservations for those flights, local and international;
- Hotel listings in different cities including Abuja, Lagos, Port Harcourt, Enugu, Warri Kano, Kaduna and make reservations in those hotels;
- Browse for automobiles available in the local market and make inquires as to cost and how they can be got;
- Get up to minute news on the local secure;
- Peruse different real estate properties that are available in different metropolitan areas including major cities;

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- Peruse different educational institutions, primary, secondary and tertiary and make inquires or reservations and others.

Solix will work in collaboration with cross cultured, an Atlanta, Georgia, United States based company to enable Nigerians, particularly those in diaspora to check and select different African news and dishes for preparation. The e-commerce site will give a checklist of events on a weekly basis in different cities. Companies will also have the opportunity to advertise their product offerings to the world at different sites.

Solix also plans real time on-line banking support for the banks that are interested. It has developed websites for various retailers, which it plans to integrate into the e-commerce mould for transactionary purposes.

The sites will continuously be upgrade and this will go in line with the corporate policy of being in touch and providing the latest technology to clients. Clients will have value for their money. The company's effort is a monumental task, which has taken a lot of man-hours of programming and creative design.

Nigerians, ever competitive, are ready for the future; e-commerce will increase the efficiency of businesses in the country, and grant many the opportunity to really realise the enormous potential of the Internet.

2.7 OVERVIEW OF ELECTRONIC COMMERCE

Business is one of the numerous practical applications on the Internet. To many people, the Internet means business. Electronic commerce takes care of the following activities when conducting business on the Net: order-taking, handling cash transactions, collecting demographics, providing customer to business transactions, handling business to business transactions.

Full E-commerce sites have interactive forms that allow online transactions. For example, online shopping enables shoppers to purchase items immediately.

Customer Support allows users to access the company interactively and online. This can assist with order entry and tracking. To assist with customer support, a Frequently Asked Questions (FAQ) list can be created. In this list are answers to

questions that are frequently asked by the customers, in a simple and attractive format. Users can often solve problems on their own after accessing the FAQ list. To be useful, this FAQ list has to be updated regularly. The Internet has also brought about ways of doing international business. The Net allows a company in Ghana to provide services for customers in USA, e.g. software development.

Online payment on the Net is through the use of credit cards (online or offline), digital cash, or by traditional means such as cheque. Digital cash is a new concept, which is gradually gaining ground. It is an alternative to requiring customers to enter credit card on the Internet. It is essentially a system by which online shoppers swap real money for Internet "money".

CHAPTER THREE

3.0 SYSTEM ANALYSIS AND DESIGN

System Analysis is a complete study on existing system with the view to developing a new system or modifying the existing system to the best interest of the organization in focus.

3.1 ANALYSIS OF THE EXISTING SYSTEM

3.1.1 TRADE AND COMMERCE

The exchange of goods and services to satisfy the needs of consumers is known as trade or commerce. Trade refers to the exchange of a particular product. The word commerce covers all aspects of trading. In many Countries there is a department of government that is responsible for seeing that trade goes smoothly. People have preference in what they buy. They buy only what they want and can pay for. This is called consumer demand. The struggle to remain productive causes people to seek more efficient ways of using resources through specialization, trade and Technology. Concentrating on producing a few product means a greater output of the product. This can then be exchanged for different goods produced in other places. An exporter is a person who sells a product from one Country to a buyer in another Country. The buyers is called an importer. The importer inturn, sells to a wholesaler. The wholesaler specializes in selling a certain type of goods to consumers.

There are other group of persons engaged in trade and commerce. These are the people who provide such services like transportation, ships and truck and some means of transportation needed to carry on trade and commerce. It is necessary for ship-owners, exporters, importers and wholesalers to insure their properties as a protective measures against loss or accident. Moreso, consumers do not know what kinds of goods are available or how much they cost unless they are told. Keeping consumers informed about all the latest products is the job of advertising. Money acts as a common medium of exchange. Money is accepted in return for the goods

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and services rendered. With money, you get the goods and services you want. This is called monetary economy.

3.2 INTERNATIONAL TRADE

International trade means commercial exchanges between residents of different sovereign political units. It is clearly different from Local or domestic trade. International trade is the exchange of goods and services among Countries. A Country can also use the income received from the sale of their products to buy the product of other Countries.

3.2.1 BALANCE OF PAYMENTS

The record of all of a Country's transactions with other Countries is called the balance of payments. The difference between what a Country exports and what its imports in a given year is called its balance of trade. If the monetary value of its exports is greater than the cost of its imports, a Country is said to have a surplus in its balance of payments. If a Country pays more for its imports than it receives for its exports, it has a deficit.

3.2.2 TARIFFS AND OTHER TRADE BARRIERS

Government sometimes set up barriers to international trade. One of these is import duty, a tax on foreign goods that makes them more expensive to buy. All of one Country's import duties are known as its Tariff. Some Countries also charge a duty on goods that are exported. Imported. Import and export duties are sometimes called customs duties. A Country may also place a quota on other Country's products. A quota limits the quantity of a particular product that can be brought into a Country in one year.; Countries usually impose tariffs and other barriers to trade to protect their own industries, particularly if they are new and cannot compete with foreign industries.

3.3.0 LOCAL TRADE

This is exchange, buying and selling of goods and services within a Country. Local trade is also known as internal or domestic is generally referred to as marketing. Marketing in a free enterprise economy, the business activities that bring about a flow of goods and services form producers to consumers. Wholesaler and retailers are mostly involved in domestic trade.

3.4 THE NEED FOR A NEW SYSTEM

Because the Internet provides a flexible and dynamic marketplace to exchange goods services, and information with consumers and business partners, it is becoming increasingly important for business to use the Internet to reach new markets. The greatest business advantage of being outline is the ability to market products both locally and globally. Globally, approximately 50 million people have access to the World Wide Web. quite simply, there are a few businesses that can ignore a market of this size. The following list offers some reasons to put a business on the World Wide Web:

- To establish a presence:- In the new future, having a E-mail address and web site will be like having a phone number and a business card

- To network:- By linking your pages with those of your networked contacts, you are referring clients back and forth. If, for instance, your product complements, is used within or uses a product from another manufacturer, a potential client can get a complete package of information with just a few clicks of a mouse.

- To provide 24-hour, 7-day accessibility A FAX may come in from TOKYO at 2:00 in the morning. By the time someone comes in to open the office, the sale is lost. By accessing your WWW system, however, the same potential client could have surveyed your brochure and place and order-for less than it cost to sent the FAX.

- To open international Markets:- With a Web site, you can open up dialogue with international markets as easily as with company across the

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street. Also if your company has offices overseas, it can access the home office's information for the price of a local phone call. So the Internet and Web make possible easier international communications within a company as well.

- To save money:- Say you company prints 10,000 copies of a brochure. You sent 2,000 out via the mail give 2,000 to the sales staff, and put 6,000 in a warehouse for late use. Over the next few months, you add new products/services, or you move offices or you add partners. You now have thousands of outdated brochures.

- To sell:- E-commerce provides a high degree of sales support. Your client can find you, review your information in text, pictures, and even sound and video, contact your sales staff, and place an order from their own desks within a matter of minutes, 24-hours a day.

3.5.1 ANALYSIS OF PROPOSED SYSTEM
UNDERSTANDING ELECTRONIC COMMERCE

Electronic commerce is a means of enabling and supporting the exchange of information, goods, and services between companies or between companies and their customers. It enables companies to be more efficient in their internal operation and more responsive to the needs and expectations of their customers. E-commerce technologies enable enterprises to exchange information instantaneously eliminate paper-work, and advertise their products and services to a global market.

3.6 TYPES OF E-COMMERCE

E-commerce is divided into two categories business-to- consumer and business –to-business commerce.

Business-to-Consumer Commerce

In business –to- consumer commerce, businesses create electronic storehouse that offers information, goods, and services to consumers. Internet "shopping malls" on the Web sell consumer goods ranging from cakes and wine to

computers and cars. An example of a business –to-consumer site is (htt://www.argosco.\\)

Business-to-Business Commerce

Business -to- Business Commerce includes online wholesaling, in which business sell goods and services to other business on the web. Business to business commerce is transacted by using Electronic Data interchange (EDI) technologies. EDI defines the formats, date types, and routing instructions for the electronic exchange of business documents between companies' computer systems. An example of a business-to-business commerce site is openmarket.com (htt.//www.openmarket.com).

3.6.1 THE NEED FOR E-COMMERCE

Business the Internet provides a flexible and dynamic marketplace to exchange goods, services and information with consumers and business partners, it is becoming increasingly important for businesses to use the Internet to reach new market products both locally and globally. The following list offers some reasons for companies to build commerce-enable Web sites.

(i) **Low entry cost:** A company can establish itself on the Internet, and open for business, with a relatively small investment. Thousands of companies operate simple, inexpensive sites that are successful in their markets.

(ii) **Reduced transaction costs:** Dealing with customers over the Web, whether to process order or to attend to customers support, is cheaper than traditional marketing method.

(iii) **Access to the global market:** With a traditional business the target market may be the local community or, with a higher advertising budget, it may extend to neighbouring communities. The Web extends the reach of even the smallest business by allowing them to market products globally.

(iv) **Online distribution:-**The web enables business to distribute data and software online.

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3.6.2 HOW E-COMMERCE WORKS

The e-commerce process works as follows:-

(i)   A consumer uses a web browser to connect to the Home page of a merchant's Web site on the Internet

(ii)   The consumer browses the catalog of products featured on the site and selects items to purchase the selected items are placed in the electronic equivalent of a shopping cart.

(iii)   When the consumer is ready to complete the purchase of selected items, she provides a bill-to- and ship-to address for purchase and delivery.

(iv)   When the merchant's Web server receives this information, it computes the total cost of the order including tax, shipping, and handling charges, and then displays the total to the customer.

(v)   The consumer can now provide payment information, such as a credit card number, and then submit the order.

(vi)   When the credit card number is validated and the order is completed at the commerce server site, the merchant's site displays a receipt confirming the customer's purchase.

(vii)   The commerce server site then forwards the order to a processing Network for payment processing and fulfillment.

3.6.3 REQUIREMENTS OF A GOOD E-COMMERCE SITE

To attract outline shoppers, it is necessary to keep the site simple and professional, ensure that pages download quickly, and sell goods that people want to buy online. You must also provide the followings.

(i)   Promotional and searchable format. Such catalogs should also promote special price and product offers.

(ii)   Shopping Cart online stores should provides "shopping Cart" into which shoppers can place their selections. This product selection feature should allow shoppers to add or remove product from their cart and indicate quantity and per unit cost of the items in the cart

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(iii)   Shopper management: Businesses need to engage both their customers and business partners who are visiting and purchasing via their site. To do this, businesses can gather information.

3.7   **THE WORLD WIDE WEB (WWW)**

The core of the world wide Web (WWW or Web) is a special language and set of protocols for receiving, sending and displaying information via the Internet. This is called HTTP (Hyper text Transfer Protocol). Contrary to what many people imagine, the web is not a physical entity. A good analogy might be to think of the Internet as the telephone system, and the WWW as the way in which you use the telephone. The Internet is the physical network, and the www is one of the ways it is used.

The term "Web" sterms from the way in which HTML (Hyper Text Markup Language, the language of the WWW) works. Hypertext is a system that enables a programmer to make simple text interactively.

The original idea behind the WWW was to take the huge resources of the Internet and provide ways to access as little or as much of it as someone might want. It required the people designing the hypertext "pages" (the files that contained the information) to seek out and provide links to other "pages" for cross-reference. Because of the vastness if the Internet, this is no small task.

3.7.1   **INTERNATIONAL MARKETS**

As the names imply, the Internet and World Web (w.w.w) are international forms of communication. Anywhere there is a decent phone system, there can be some form of Internet access, and direct satellite communication is available almost everywhere. So, as mentioned earlier in this book, your Web site will be available globally.

Once you start checking your logs, you will notice some funny-looking computer names, ending with things like .nz, uk and .nl. These are the codes for the Country of origin (New Zealand, United Kingdom and the Netherlands, in this

example, and tell you the world is looking at your site or your pages. If you are selling something of interest, the world may even be buying from your Web site.

There are three things you need to consider if you are entering overseas markets specifically language, access, and Transactions.

Language Barriers

Well, first of all, we need to point out that English is the language of the Internet. Only a ting fraction of the WWW is in any other language, and this is simply the way things have evolved. The vast majority of Internet access are from the United States furthermore, many other accesses are from satellite offices (sales offices and manufacturing plants) of companies based in English-speaking countries.

So, do you really need to design HTML pages specifically for any other language? Probably not, but that will depend on your goals. If someone were trying to sell you something, and they were forcing you to deal with them in a language you were uncomfortable with or didn't understand at all, you would need to be pretty motivated to want to deal with them at all.

Translating

Ok, so if you can write in Greek (or whatever language you're working toward) you don't have much of a problem, but what if you don't know the language you're trying to design for? Aren't there programs that will translate for you? Well, sorry but no such luck.

There are many companies working on translation software, and some are making great headway. You can translate single words and even phrases fairly accurately, but it will be a while before you can rely on a software application to take your thoughts and translate them into another language. Basically, you'll need to find a professional translator for each language. Furthermore, you will want to check this translation with someone familiar with both your company and the language itself. This is definitely a headache, but it unfortunately the only way to provide reliable translation of your communication.

Access

The speed and quality of Internet access is something that we have had to take into account constantly in our design. The bandwidth bug is a limitation we just can't get away from, and in international market, things get even more difficult.

You can assume with some level of certainty that most people will be accessing your site with a minimum speed of 14.4kbps. This is in the United States and Canada. Outside of North America, however, this lowest common denomination may be as low as 9.66ps, as we have heard from a few sources that some of their European customers access at this speed.

3.7.2 INTERNATIONAL TRANSACTIONS.

There are entire industries based around the legalities and practices of international commerce, and it is way beyond the scope of this book to discuss tariffs, international banking global shipping and the multitude of other stumbling blocks involved in this type of trade. A good starting point for information of this type would be a search for the keywords international, Business, trade, and commerce on any of the major search engines.

The way some companies escape many of the technical problems associated with international trade is to simply use credit cards, ship via mail, and to leave the payment of customs and tariffs in the hands of the buyer. The credit card is simply billed in U.S dollars (if it's a U.S complay), and merchant banks handles the conversations.

If you (or your client) are considering selling any technology products, or are considering overseas sales of much size, it will be in your best interest to hire an international trade consultant and /or international trade attorney to look things over and instruct you. You do not want to have $10,000 in product sitting in a customs office because you didn't know about some special tax (or how to avoid it).

3.7.4 **MAIL DELIVERY SYSTEMS**

Electronic Mail (e-mail) a system whereby a computer user can exchange messages and files with other computer users (or group of users) via a communications network is one of the most popular uses of the Internet. This faces of the Net was one of the first uses and continues to be a powerful communications tool.

Using E-mail to Your Advantage

By collecting viewers' names and e-mail addresses (in addition to other information) at your site, you can develop an e-mail mailing list. You can also develop this list by requesting this information on service calls product registration postcards, sales calls via online forms and so on. Basically, think of an e-mail address the same way you do phone number-as necessary information.

Why would you want to do this? To save money. How do you do that? By converting much of your existing direct mail and print campains to an e-mail campain. There are many advantages to using e-mail over print, some of which are:

- Saving on print, bindery, postage, fulfillment and other costs
- Nearly instant delivery (as opposed to that of the postal service, which has become known as "snail mail")
- The ability to update information quickly and with minimal cost.

Developing Mailing Lists

So the first step in developing your e-mail list it to get the viewer to fill out an online form. You could do this by simply asking viewers to fill out you online form to be added to your mailing list. But if you want to develop large lost, you need to entice the viewers a bit more.

3.8   SYSTEM DESIGN

Figure 3.1 below shows the structure of the system (E-commerce)
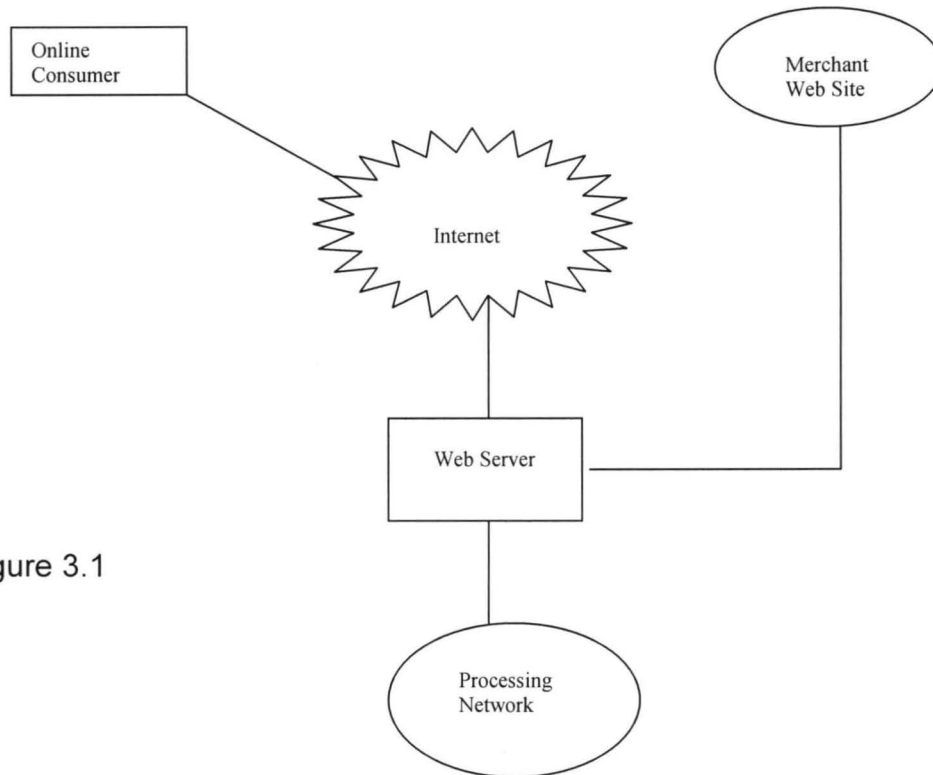
Figure 3.1

Before a customer could have access to the merchant web site for business transaction, he must first of all logon to the Internet. i.e He must have an Internet access Account with an Internet service provider (ISP). When customers logon to a merchant web site e.g (htt://www. Argos. Com), he is expected to see a home page introducing the customer to the merchant site, the needed information to guide you through the transaction and the list of goods available in the site. This study is limited to the items bellows:

- Electronics
- Furniture
- Jewelries
- Place order
- Order information

If a customer selects Electronics from the list items in the menu, it displays list of electronics as shown in figure 3.2

FIG. 3.2
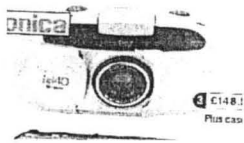
Code=elec001

price= £19.99
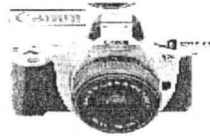
Code=elec002

price= £29.99

Code=elec003

price= £39.99

Code=elec005

price= £74.95
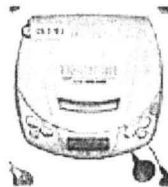
Code=elec006

price= £59.99
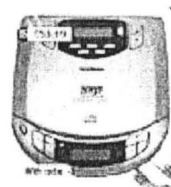
Code=elec007

price= £59.99

Code=elec009

Code=elec010
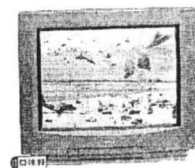
Code=elec011

price= £199.99   price= £169.99   price= £39.99
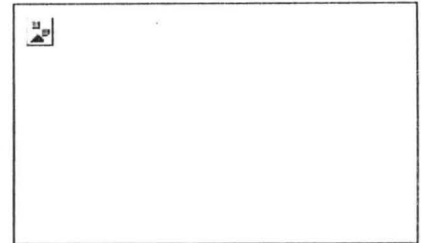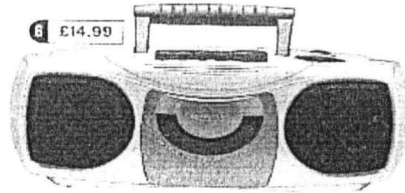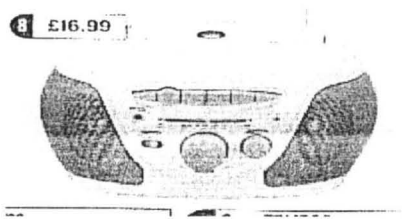
Code=elec009   Code=elec010   Code=elec011

price= £199.99   price= £169.99   price= £39.99

Figure 3.3   showing the list of furniture, if furniture is selected from the menu items.

FURNITURE
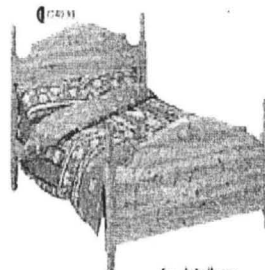
Code=jew001   Code=jew002

price= £17.99   price= £29.99
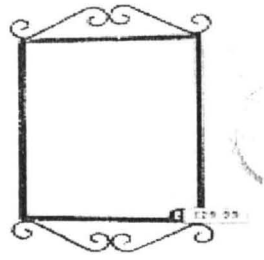
Code=jew001

price= £17.99

Code=jew002

price= £29.99

Figure 3.4   shows list of Jewelries if jewelries is selected from the menu items.

Code=jew009

price= £17.99

Code=jew010

price= £29.99
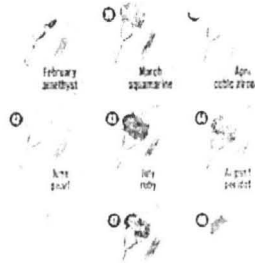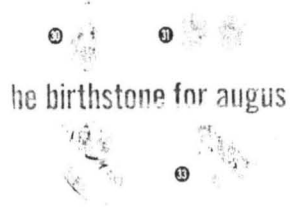
February amethyst · March aquamarine · April cubic zircon · pearl · ruby · August peridot

he birthstone for augus

Code=jew011

Code=jew012

price= £17.99

price= £29.99

BACK   *NEXT*

WATCHES

Code=jew001   Code=jew002   Code=jew003   Code=jew004

price= £17.99   price= £29.99   price= £39.99   price= £49.99
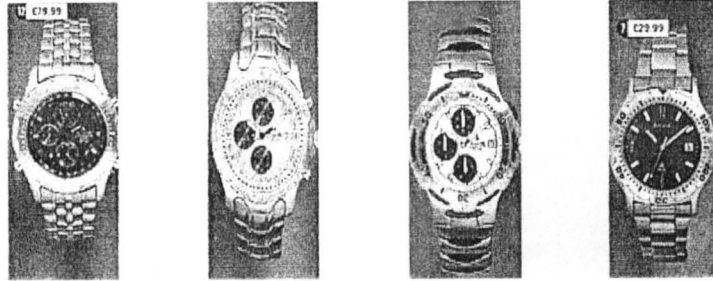
Code=jew005	Code=jew006	Code=jew007	Code=jew008
price= £64.99	price= £69.99	price= £79.99	price= £89.99

NEXT

3.8.1 INPUT DESIGN

Figure 3.6   below is a sample online order form that shows the customer what to do after browsing through a merchant site and is ready to make purchase.

Figure 3.6

Thank you for visiting our e-megaplaza shop on the Internet We hope you check us again

Your goods will be delivered to you in a weeks time thanks

PLACE ORDER

CODE	QUANTITY	PRICE	TOTAL PRICE

TotalPrice

Add 7% forTax

Payment Method

⊂ Check (Click <u>here</u> for remittance address. Order will be shipped upon reciept of order.

⊂ Credit Card

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If Paying By Credit Card:

Card Type: MasterCard ▼

Card Number:

Expiration Date (MM/DD):

Name as it appears on card:

Customer ID

☐ **Send Order**

Submit information | reset

place order

ORDER INFO

Finalizing Your Order is Easy

You can place your order online without transmitting your credit card over the Internet! However, you must first complete the online ordering forms.

1. **What is your e-mail address?**

2. **Your Name**

3. **What is your URL?**

4. **Your Postal address**

5. **Your Telephone number**

6. **Place your Order**

Submit information

3.8.2 OUTPUT DESIGN

It is important to consider the type of output required in a program before deciding on how to produce it gives the format of the output required from the input date.

Figure 3.7   is a sample output showing the format of the expected output.

S/No	E-mail address	Guest Name	Address	Telephone	Card Type

Finalizing Your Order is Easy

You can place your order online without transmitting your credit card over the Internet! However, you must first complete the online ordering forms.

7. **What is your e-mail address?**

8. **Your Name**

9. **What is yourURL?**

10. **Your Postal address**

11. **Your Telephone number**

12. **Place your Order**

```
Submit information
```

3.9   PROGRAMMING LANGUAGE USED

This web site is developed using combination of languages like Java-Scripts, Visual Basic Scripts and HTML (Hypertext Makeup Language).

HYPERTEXT TRANSFER PROTOCOL (HTTP). HTTP information is a specially encoded document that tells the browser how to display the page on the screen. The document is that tells the browser how to display the page on the screen. The document is filled with formatting information, links to other pages graphics, font information, link to other pages, graphics, font information, and positioning information Web pages are designed in what is known as HYPERTEXT MAKEUP LANGUAGE(HTML).

To navigate the web, Internet users have to know the uniform Resource Locator (URL) for a web site. the URL was developed to help users navigate the web more easily. An example of URL is http://www.microsoft.com the part of the URL before the colon represents the protocol or how the information will be addressed. The two slashes immediately after the colon specify a hostname.

The text below shows a portion of an HTML document.

```
<html>
<head>
<metal http-equrv ="content –type">
content ="text/html;
<body bycolor =ffffff">
<p align ="center"> welcome to the world wide web>
<body>
```

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SUMMARY OF THE CHAPTER

In this chapter, we have been able to analysed the existing traditional trading system. Also we have discovered that there is an alternative way of transacting business right in your living room. With just few clicks of mouse, you can order your goods or make purchases of any kind. All you need to do as a producer or merchant is to have a telephone line, an Internet Service Provider who will link you up to your clients throughout the world by hosting your web site.

CHAPTER FOUR

4.0 SYSTEM DOCUMENTATION AND IMPLEMENTATION

4.1 CUSTOMER SERVICE ONLINE

Many people have gotten the idea that whatever information they may have, whatever odd service or product they offer, whatever strange fetish or hobby they enjoy not only deserves to be on the WWW, but will be astronomically profitable once it is published online. The idea of "sell, sell, sell!" is bolstered by the almost constant Internet "symposiums" taking place, and the news media's superhype of the information superhighway.

Sales are certainly the primary goal of business, but it is often good customer service that generates sales-especially repeat sales. Many of the most successful companies on the Web have made customer service a primary goal of their site and for good reason. Poor customer service is often a great downfall of business.

The WWW and Internet are excellent tools for customer service. First of all, much of customer service is simply providing information. As you know, the Web provides constantly updatable, cross-referenable, graphical, interactive communications. Furthermore, the on-demand, 24-hour, 7-day nature of the Web tends itself well to answering customer needs immediately (think of how the ATM has changed the concept of customer service in banking).

4.2 HOW SHOULD I DO IT?

The concept of clear communication, good site design, and user friendliness all go hand-in-hand with providing customer service. In the following sections, we discuss some key communications goals you may wish to approach in your own customer service endeavours. How you go about presenting an effective customer service site will depend on your company and the needs of your clients. Your best starting point is to find out what is and is not working in your current customer service efforts. What is it that client want? What can be streamlined? What types of people are requesting customer service?

4.2.1 **PROVIDING INFORMATION**

Suppose that your company makes vacuum cleaners, and you get a huge volume of calls asking how to replace the bags. Obviously, you'll want to include this information on your Web site.

4.2.2 **BUILDING A COMMUNITY**

People like to belong. If you intend to include customer service information on your web site remember this point. In order to generate brand loyalty, repeat sales, and word-of-mouth advertising, it is in you best interest to foster a sense of community o you Web site. this also helps to promote your product/services to new customers in that they can see what they are missing. You web page design will already have given your system a personality. The best way to achieve a sense of belonging is to have a link right off of your main page. The link can lead to an "existing customer" site, which can have its own navigation, graphics, and so on. The customer service site should be labeled in a way to give the impression of exclusivity, information, and interaction. Other headings you might include on your customer site would be common questions and Answers. Technical Information, Accessories, service locations Feedback, and contacting customer service.

4.2.3 **KEEPING ON TOP OF THINGS**

No matter how well you design your   customer site (or customer portion of your sited, you will probably not meet all of your clients needs. Luckily, you'll be able to customize your design based on the feedback you et from your client with ways to communicate with you-via e-mail, response forms, phone, telephony (that phone or other digital voice communications), chat, regular mail, and so on and you will need to track those communication. There are two reasons for doing so: You will be keeping your customers happy, and you will be decreasing the burden on customer serviced reps (who have to answer the same question over and over again).

4.3 CREATING A SUCCESSFUL ONLINE SYSTEM.

There are many facets in the creation of a successful online ordering system, and many more things to take into account aside from the obvious technical issues. Here are some guidelines you should consider, which will help you along the way:

(i) **Keep you pricing competitive:-** Don't get greedy; Yes online shoppers are generally more well-of than the general public, but this does not mean they will pay a premium just for the convenience of ordering online. In fact, it would serve you well to discount your rates slightly for online customers, this will encourage people to order from your site rather than using your costly traditional distribution channel.

(ii) **Don't skimp out:-** offer a fully representative product line. Don't just offer a few of your products online to save time. Customers will visit your site looking for one of your products-if it is not there, don't count on them sticking around to buy something else. (Not finding something also leads them to believe that your site is not useful, and for that reason they may never return.

(iii) **Establishing a feeling of personal contact:-** The only good way to establish a feeling of personal contact via e-mail is to answer your e-mail quickly (the faster the better) you should have a sales person standing by at all times to answer e-mail questions as soon as they come in that way, the customer begins to know them by name, knows a specific person to contact if they have further questions, and this, in general, fosters a feeling of friendship between your company and this customer.

(iv) **Don't forget to close the deal:-** In other words, don't just answer prospects' questions and forget about them. Save their e-mail addressed, keep them informed (by adding their name to a mailing list), and close that deal.

(v) **Please Don't Forget Delivery of the Goods:-** This is not just a matter of the shipping alone. You must consider how the billing and shipping information will arrive at their required destinations (your shipping and/or billing departments) quickly.

To Develop an online ordering system, follow these steps:-

1.   Decide what type of payment you will accept no sweat, you can skip the credit card section of this chapter and don't have to worry about the security of your customer's credit card numbers.

2.   If you plan to take credit card orders, be prepared to make your site secure.

3.   Program your online ordering system. This can be as simple as an online form or as complex as a full shopping cart application.

4.   Validate your credit card orders.

4.4   CREDIT CARDS

This transaction is not secure. If you have ordered a product via the Internet using your credit card, you have to adopt security measures to ensure that your customer's credit card number sent via the Net are not stolen by hackers. Business-to-business commerce have companies routinely move finds through automatic deposit, EDI systems and EFT (Electronic Funds Transfer). The difference between these methods and the Internet is that they ordinarily use point-to terminal connections or secure (private) networks via private communications lines. Someone would need to physically tap into that connection to monitor the transaction on the other hand, the Internet is not private, it is susceptible to hackers wanting to intercept a stream of information sent along the network. Therefore, we recommend using a credit card with a good protection policy. For a network transaction to be secure, you must provide the following:

1.   **PRIVACY:** The private communications between two parties should be protected from eavesdropping at both ends, and at every step along the way. This is satisfied when the browser and server can exchange information in a secure manner.

2.   **MESSAGE INTEGRITY:-** Once a message is written, it cannot be changed or duplicate.

3.   **TRANSACTION AGREEMENT:-** Neither party can deny the existence of the transaction once it has been accepted by both parties.

4.5   CREDIT CARD SERVICES

Once a customer sends you credit card information requesting a product, you must of course process the sale through a merchant banking system (to make sure this is a valid card, and that the customer has credit available, just as you do through other distribution channels (unless you are using a system that automatically does this for you. The best way to do this is through specialized software provided by service companies like Techom.

4.5.1 CASH

Credit cards work great for companies selling products that cost more than #15, but what is you want to sell very low-cost items? Credit cards quickly turn to "too much trouble" for a customer wanting to purchase an item for, say #2 Not only do credit customers find it a pain to full out their card number and information for small items.

4.5.2 CHECKS

A number of Internet check services allow you to accept checks as payment online it works like this. Rather than mailing a check to you via the mail, customers can provide their check information once to a check service. This information generally includes the customer's name, e-mail address, phone number, mailing address, and the routing number from the bottom of the check. When your customer places an order by filling out your online order form, only the customer's username and password need be entered (no check information is required). This information is then transmitted securely to the check service which responds by sending on e-mail to both the customer and you containing a copy of the order. The check service then creates a check (just like the one in the customer's a check book), and deposits that check into your account.

4.6   COST BENEFIT ANALYSIS

Most of the main processes handled by e-commerce systems today are purchase orders, transfer of payment, and invoices. Many companies that implement e-commerce systems will do away with paper purchase orders and invoices in the first place.

In addition paperless business transactions mean far fewer errors because information no longer has to be rekeyed. The business benefits include lower cost and more flexible systems, enabling closer and more efficient relationships with a wider range of suppliers, partners and customers. It can substantially transform and improve productivity and maximize profitability. This can be achieved through the dynamics of lower production, transaction, marketing and delivery costs.

The financial implication of this software is analysed below:

Feasibility study	N200,000.00
Software Design	N300,000.00
Program writing and testing	N500,000.00
Telephone connectivity	N50,000.00
Internet connectivity	N50,000.00
Web Site Hosting	N800,000.00
Totals	**N1,900,000.00**

SUMMARY OF THE CHAPTER

In this chapter, we have discuss how goods can be ordered through the Internet and the different method of payments which could either be cash or cheques or credit card. Credit card is necessary which huge amount of money is involved. Also, cares must be taken to ensure that credit card number are not available to the hackers.

CHAPTER FIVE

5.0 CONCLUSION

5.1 SECURITY ISSUES

With the growth in use of the Internet for business transactions, the need for confidentiality and positive identification of all parties involved is increasingly important.

There is a widely perceived risk attacked to payments made via the Internet, and this perception is in some circumstances justified. This is not like making a phone call or sending a fax. The information sent from the customer to the web server may pass through may different stages before being delivered. The information is in digital form, and at any stage an unauthorised individual may scan every message looking for credit card numbers.

Security is related when some person or persons succeed in retrieving data without authorisation. Security is also destroy or alter data belonging to others, making retrieval of the original data impossible.

5.1.1 DIGITAL SIGNATURES AND AUTHENTICATION

The simplest form of authentication is the password and user identification system that is used when one logs on to the Internet through a service provide. The user ID is one that has been chosen by the services, the password is purely provide and known only to the user.

Moreover, password security isn't tight on the individual level. This being the case, encryption is used to create a so-called digital signature that proves conclusively that the person who person. In the real world, a person's signature provides that guarantee, but forgery remains a possibility in the digital word, when properly implemented, a digital signature is unforgettable. Making electronic standardizing such signatures and the various ways of validating information that flow of them.

5.1.2 DIGITAL CERTIFICATE

There is need for a way of verifying not just a single person's identity, but the identity of the organisations involved in a transaction. Digital certificates are ways of verifying the identity of both consumer and merchant. It is the certificate that ensures that a particular public key is associated with a genuine organisation or a specific person. Digital signature is an individual identifier, whereas digital certificates make the entire transaction a trusted third party.

5.1.3 ENCRYPTION

The threat of sniffing is a very real one and it can only be defended against by creating a situation where the data or information that travels over the Internet is unreadable. This is done through the use of encryption. If data is encrypted, then anyone looking at it will be unable to actually read it. The most popular encryption technique is one that uses asymmetrical keys. In such a system a host system creates a public key and a private key. Anyone wanting to communicate with the host simply encrypts the data using the public key. The data received by the host is then decrypted using the private key.

5.1.4 FIREWALLS

An Internet firewall is a security mechanism that allows limited access to site from the Internet, allowing approved traffic in and out according to a through-out plan. This lets select the services appropriate to business needs, while barring others which may have significant security holes. They can protect against unauthorised access, loss of service, sniffing, and viruses. There are two basic types of firewall available today packet filters, or application gateways.

1. *Packet filtering*: making decisions based on information contained within each network "packet". If the packet meets the security policy set forth by the business then it will be sent on to its destination.

2. *Application gateways*: also known as proxy gateways, control connections rather than individual packets. At that point where a connection is requested, the proxy

for the given protocol will check the firewall's security policy and decide whether the connection will be allowed to take place. If the connection is permitted the application gateway or prorcy server acts as an intermediary for all transactions taking place. It protects direct connection to a business computer systems. Connections by the through the application gateway or prorcy server.

5.1.5 VIRUSES

Virus threats are also very real whenever files or e-mail are communicated via the Internet. It is important to comply some type of virus scanning and cleaning soft ware on all networked connected systems, clients and servers alike, to reduce the threat to a virus attack. In addition, the virus software deployed should be upgraded periodically. The software should be installed so as to automatically scan all files that have been received via e-mail on the Internet when opened to ensure proper protection.

5.1.6 SECURE ELECTRONIC TRANSACTIONS (SET)

The SET standard has been developed to protect payment instructions in transit. SET is a system for making payments security over the Internet. It was developed by credit card issues and some major software and computer companies in the US. It uses encryption to make the transactions secure, and digital signatures to identify both merchants and buyers.

5.2   CONCLUSION

Electronic commerce is a new form of marketing with a predicted explosive growth over the merit few years. The technology underlying the market is quite complex, and will become more so as new payment methods and web technologies come on stream. The marketing approach is also new and different. The key to success is to find innovative ways to use that technology to attract customers and build business.

The Internet provides a level of higher visibility in which to sell products. Distance is no longer an issue. The Internet provides a better outlet to garner business, it has streamlined business by increasing the level of communications and making information accessible instantaneously. Essentially, the Internet connects people to people and business to business, while improve productivity.

5.3   RECOMMENDATION

With the convergence of Internet over mobile phones, the prospects and capabilities of electronic commerce are greatly enhanced. Internet current has relatively low penetration level in Nigeria and electronic commerce is largely unheard of incidentally, these are common place issues in developed and developing economics. If the young ones in Nigeria must compete with the counterparts from these other economics in the emerging global market place, then education must as soon as possible incorporate computer education, Internet appreciation and electronic commerce.

The Internet allows individuals, businesses, organisations and government to Internet and transact business in an efficient and effective way. Now is a good time to enter this market at a relatively low cost, to learn how the market works, and be ready to take advantage of new opportunities as they arise.

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```
┌─────────────────────────┐
│ ║  Electronics         ║ │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│ ║  Funiture            ║ │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│ ║  Jewellries          ║ │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│ ║  Place Order         ║ │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│ ║  Order Info.         ║ │
└─────────────────────────┘
```

```
        ┌─────────────────────┐
        │     Jewellries      │
        └─────────────────────┘
                   │
                   ▼
           ╱─────────────╲
          │  Display List  │
          │   of Items     │
           ╲─────────────╱
                   │
                   ▼
          ╱──────────────╱
         ╱  Select Item  ╱
        ╱──────────────╱
                   │
                   ▼
        ┌─────────────────────┐
        │   Close             │
        │   Transaction       │
        └─────────────────────┘
                   │
                   ▼
            ╱───────────╲
           │    Stop     │
            ╲───────────╱
```

```
            ┌──┬──────────┬──┐
            │  │ Funiture │  │
            └──┴─────┬────┴──┘
                     │
                     ▼
            ╱────────────────╲
           ╱  Display List     ╲
           ╲  of Items         ╱
            ╲────────────────╱
                     │
                     ▼
             ╱─────────────╱
            ╱  Select Item ╱
           ╱─────────────╱
                     │
                     ▼
            ┌─────────────────┐
            │  Close          │
            │  Transaction    │
            └─────────────────┘
                     │
                     ▼
                 ╱───────╲
                │  Stop   │
                 ╲───────╱
```

```
        ┌─┬──────────────┬─┬─┐
        │ │  Electronics │ │ │
        └─┴──────────────┴─┴─┘
                  │
                  ▼
         ┌──────────────────┐
        <   Display List     >
         \    of Items      /
          └────────────────┘
                  │
                  ▼
         ╱──────────────────╱
        ╱    Select Item    ╱
       ╱──────────────────╱
                  │
                  ▼
        ┌──────────────────┐
        │   Close          │
        │   Transaction    │
        └──────────────────┘
                  │
                  ▼
            ╭──────────╮
           (    Stop    )
            ╰──────────╯
```

```
                    ┌─┬─────────────────┬─┐
                    │ │   Place Order   │ │
                    └─┴─────────────────┴─┘
                              │
                              ▼
                    ⟨  Display input    ⟩
                    ⟨  screen           ⟩
                              │
                              ▼
                     ╱─────────────────╱
                    ╱  Enter item      ╱
                   ╱   purchased      ╱
                  ╱─────────────────╱
                              │
                              ▼
                     ╱─────────────────╱
                    ╱  Write  item to  ╱
                   ╱   file          ╱
                  ╱─────────────────╱
                              │
                              ▼
                        ⟮   Stop   ⟯
```
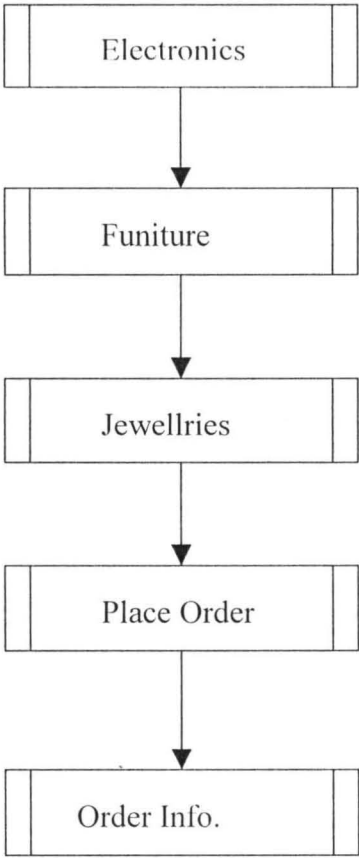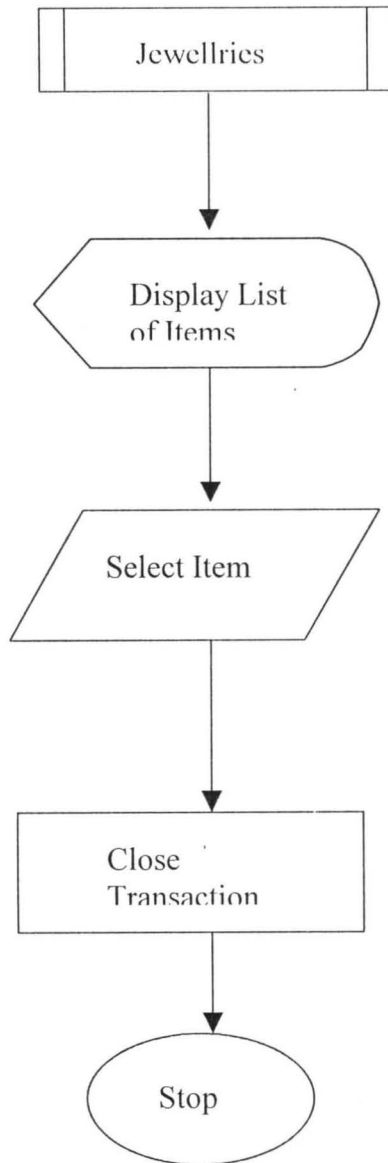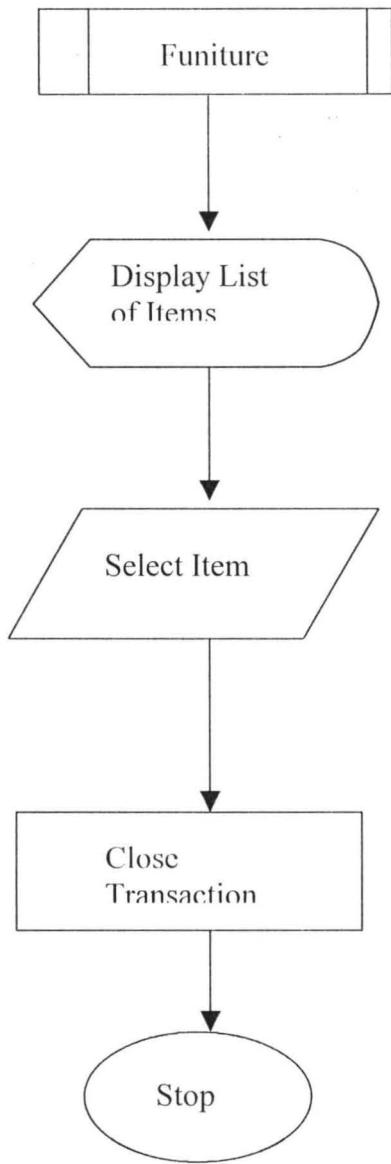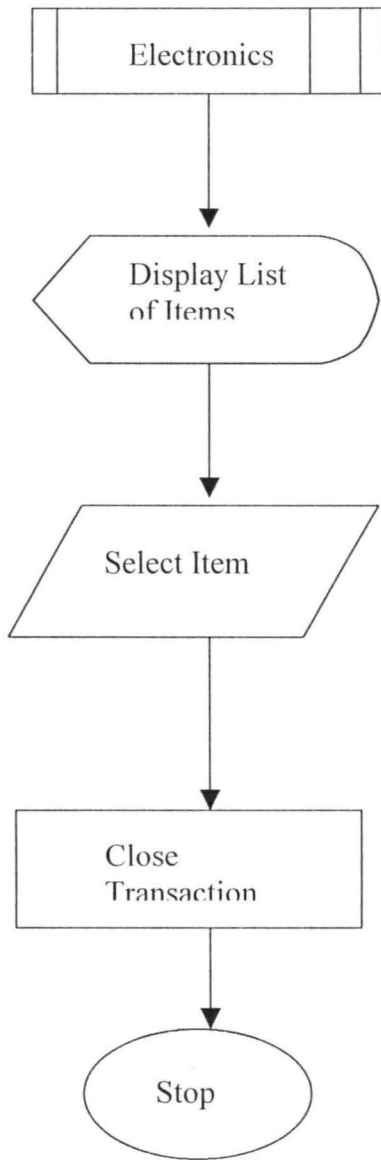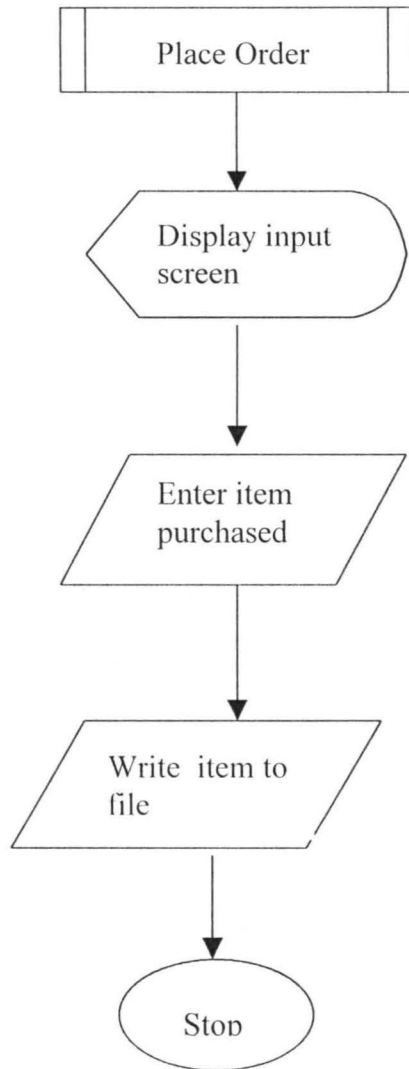
* Order Information Design Form *
****

```asp
<!-- noprod -->
<% @language=vbscript %>
<html>
<head>
<TITLE> Replace this text with the page title.</TITLE>
</head>
<body bgcolor="WHITE" text="#000000">


<%
      IF request.form ("address")="True" THEN
      stremail=request.form("FirstTextBox")
      strname=request.form("SecondTextBox")
      strURL=request.form("ThirdTextBox")
      straddress=request.form("FirstMemoBox")
  strtelephone=request.form("FourthTextBox")
  IF straddress = "" THEN
    iLenaddress=255
      ELSE
    iLenaddress = Len(straddress)
  END IF

      'strProvider="Driver={Microsoft Access Driver (*.mdb)}; DBQ=" &
Server.MapPath("iisadmin") & "\website\guest\guestform11.mdb;"
      strDSN="FILEDSN=cust1.dsn"
      set cn = server.createobject("ADODB.Connection")
  cn.Open strDSN
      set cm = Server.CreateObject("ADODB.Command")
      set cm.ActiveConnection = cn
      set str=server.CreateObject("ADODB.Recordset")
      cm.CommandText ="INSERT INTO custTable
(email,guestname,URL,address,telephone) VALUES (?,?,?,?,?)"

      'First Text Box Parameter Statement
      set objparam=cm.createparameter(, 200, , 255, stremail)
      cm.parameters.append objparam
      'Second Text Box Parameter Statement
      set objparam=cm.createparameter(, 200, , 255, strname)
      cm.parameters.append objparam
      'Third Text Box Value Parameter Statement
      set objparam=cm.createparameter(, 200, , 255, strURL)
      cm.parameters.append objparam
      'Fourth Text Box Parameter Statement
      set objparam=cm.createparameter(, 201, , ilenaddress, straddress)
      cm.parameters.append objparam
      'First Memo Box Parameter Statement
      set objparam=cm.createparameter(, 200, , 255, strtelephone)
      cm.parameters.append objparam
```

```
<input type=reset id=button2 name=button2 style="HEIGHT: 24px; WIDTH:
100px" value="reset">
</form></DIV></CENTER>
<%End if%>
</BODY>
</HTML>
```

```
* Place Order Information Form Design  *
************************************
<!-- noprod -->
<% @language=vbscript %>
<html>
<head>
<TITLE> Replace this text with the page title.</TITLE>
</head>
<script language="javascript">
<!-- hide from old browsers
function totalprice(text1,text2){
  total=text1*text2;
  return total;
}


function price(a,b,c,d,e,f,g,h,i,j,k,l){
total1=totalprice(a,b)+totalprice(c,d)+totalprice(e,f)+totalprice(g,h)+totalprice
(i,j)+totalprice(k,l);
return total1;
}

function tax(m){
tax1=totalprice(m,0.07)+totalprice(m,1);
return tax1;
}

-->
</script>

<body bgcolor="WHITE" text="#000000">


<%
      IF request.form ("address")="True" THEN
      strcustID=request.form("FirstTextBox")
      strToTalPrice=request.form("SecondTextBox")
      strCardtype=request.form("ThirdTextBox")
      strCardno=request.form("FourthTextBox")

      'strProvider="Driver={Microsoft Access Driver (*.mdb)}; DBQ=" &
Server.MapPath("iisadmin") & "\website\guest\guestform11.mdb;"
      strDSN="FILEDSN=cust21.dsn"
      set cn = server.createobject("ADODB.Connection")
   cn.Open strDSN
      set cm = Server.CreateObject("ADODB.Command")
      set cm.ActiveConnection = cn
      set str=server.CreateObject("ADODB.Recordset")
      cm.CommandText ="INSERT INTO cust2
(custID,ToTalPrice,Cardtype,Cardno) VALUES (?,?,?,?)"
```

```asp
        cm.execute
        response.write("Thank you!")
        %>

        <a href="finalform.asp">place order</a>

        <%
ELSE%>


<form name=custform1.asp  action="custform2.asp"  method="POST">
<center>
<img src="orderinfoicon.gif" border=0 height="100" width="350" ></center>
<font color="#000000" face="Times New Roman"><b>Finalizing Your Order is
Easy</b></h3>
You can place your order online without transmitting your<br>
credit card over the Internet! However, you must first <br>complete the online
ordering forms.<br>
<br>
<OL>
 <b><LI>What is your e-mail address? </b><br><br>
 <INPUT type="text" name="FirstTextBox">
<b><li>Your Name</li></b></b><br><br>
<INPUT type="Text" name="SecondTextBox" maxlenght=40>
<b><li>What is yourURL?</li></b><br><br>
<INPUT type="text" name="Thirdtextbox">
<b><li>Your Postal address</li></b><br><br>
<textarea name="FirstMemoBox" rows=6 cols=70></textarea></P>
<b><li>Your Telephone number</li></b><br><br>
<INPUT type="text" name="FourthTextbox"></P>
<b><LI>Place your Order</b><br><br>
<input  type="HIDDEN" name="address" value="True">
<input type="submit" value="Submit information" id=submit1 name=submit1>
</form>
<%End if%>
</BODY>
</HTML>
```

```html
<OPTION VALUE="Visa">VISA
<OPTION VALUE="American Express">American Express
<OPTION VALUE="Discover">Discover</OPTION>
</SELECT></p>
 </td>
 </tr>
 <tr>
  <td style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt"
  >
  <p class=MsoNormal>Card Number:<o:p></o:p></p>
  </td>
  <td style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt"
  >
  <p class=MsoNormal><INPUT SIZE="19" TYPE="TEXT"
NAME="FourthTextbox" MAXSIZE="19" ></p>
  </td>
 </tr>
 <tr>
  <td style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt"
  >
  <p class=MsoNormal>Expiration Date (MM/DD):</p>
  </td>
  <td style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt"
  >
  <p class=MsoNormal><INPUT SIZE="5" NAME="CARD_EXP_DATE" >
</p>
  </td>
 </tr>
 <tr>
  <td style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt"
  >
  <p class=MsoNormal>Name as it appears on card:</p>
  </td>
  <td style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt"
  >
  <p class=MsoNormal><INPUT SIZE="19" NAME="CC_NAME" ></p>
  </td>
 </tr>
</table>
<p>Customer ID
<INPUT id=text type="text" name="FirstTextBox" style="HEIGHT: 22px;
WIDTH: 92px">
<b><LI>Send Order</b><br><br>
<input  type="HIDDEN" name="address" value="True">
<input type="submit" value="Submit information" id=submit1 name=submit1>
```

```
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt"
  >
<h3>Payment Method</h3>
 <p class=MsoNormal><INPUT TYPE="radio" NAME="PMTMETHOD"
VALUE="M">Check
 (Click <A href="..\My%20Documents\check.html">here</A> for remittance
 address. Order will be shipped upon reciept of order. </p>
 </td>
 </tr>
 <tr>
 <td style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt"
 >
 <p class=MsoNormal><INPUT TYPE="radio" NAME="PMTMETHOD"
VALUE="V">Credit Card</p>
 </td>
 </tr>
</table>

<DIV></DIV>

<p class=MsoNormal align=center style="TEXT-ALIGN: center"><span
 style="DISPLAY: none; FONT-FAMILY: 'Lucida Sans'; mso-hide: all"><![if !
supportEmptyParas]> <![endif]><o:p></o:p></span></p>

<div align=center>

<table border=0 cellpadding=0 style="mso-cellspacing: 1.5pt">
 <tr>
 <td style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt"
 >
 <h5>If Paying By Credit Card:<span style="FONT-SIZE: 12pt; FONT-
WEIGHT: normal"><br

   style="mso-special-character: line-break"><![if !
supportLineBreakNewLine]><br style="mso-special-character: line-break"
  ><![endif]></span></h5>
 </td>
 </tr>
 <tr>
 <td style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt"
 >
 <p class=MsoNormal>Card Type:</p>
 </td>
 <td style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt"
 >
 <p class=MsoNormal><SELECT NAME="ThirdTextBox">
<OPTION SELECTED VALUE="MasterCard">MasterCard
```

```
        style="HEIGHT: 22px; WIDTH: 92px"></TD>
      <TD><INPUT id=text16 name=text16
      onfocus=this.form.text16.value=totalprice
(this.form.text14.value,this.form.text15.value)
        style="HEIGHT: 22px; WIDTH: 92px"></TD></TR>
    <TR>
     <TD><INPUT id=text17 name=text17 onfocus="this.form.text17.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
     <TD><INPUT id=text18 name=text18 onfocus="this.form.text18.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
     <TD><INPUT id=text19 name=text19 onfocus="this.form.text19.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
     <TD><INPUT id=text20 name=text20
      onfocus=this.form.text20.value=totalprice
(this.form.text18.value,this.form.text19.value)
        style="HEIGHT: 22px; WIDTH: 92px"></TD></TR>
    <TR>
     <TD><INPUT id=text21 name=text21 onfocus="this.form.text21.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
     <TD><INPUT id=text22 name=text22 onfocus="this.form.text22.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
     <TD><INPUT id=text23 name=text23 onfocus="this.form.text23.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
     <TD><INPUT id=text24 name=text24
      onfocus=this.form.text24.value=totalprice
(this.form.text22.value,this.form.text23.value)
        style="HEIGHT: 22px; WIDTH: 92px"></TD></TR>
    <TR>
     <TD>
      <P><B>TotalPrice      
      </B></P>
      <P><B><INPUT id=text25 name=text25
onFocus="this.form.text25.value=price
(this.form.text2.value,this.form.text3.value,this.form.text6.value,this.form.text7.v
alue,this.form.text10.value,this.form.text11.value,
this.form.text14.value,this.form.text15.value,this.form.text18.value,this.form.text
19.value, this.form.text22.value,this.form.text23.value)"style="HEIGHT: 22px;
WIDTH: 92px">
</B></P></TD>
      </TR>
    <TR>
     <TD>
      <P><STRONG> Add 7% forTax<br><br>
<INPUT id=text26 name="SecondTextBox"
onFocus="this.form.text26.value=tax(this.form.text25.value)" style="HEIGHT:
22px; LEFT: 140px; TOP: 9px; WIDTH: 92px"></STRONG></P></TD></TR>
</TABLE> </h3>
 </td>
 </tr>
 <tr>
 <td style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
```

```html
      style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt">
      <P class=MsoNormal><B>QUANTITY</B><O:P></O:P></P></TD>
      <TD
      style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt">
      <P class=MsoNormal><B>PRICE</B><O:P></O:P></P></TD>
      <TD
      style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt">
  <P class=MsoNormal><B>TOTAL PRICE</B><O:P></O:P></P><BR></TD>
</TR>
    <TR>
      <TD><INPUT id=text1 name=text1 onfocus="this.form.text1.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
      <TD><INPUT id=text2 name=text2 onfocus="this.form.text2.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
      <TD><INPUT id=text3 name=text3 onfocus="this.form.text3.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
      <TD><INPUT id=text4 name=text4
      onfocus=this.form.text4.value=totalprice
(this.form.text2.value,this.form.text3.value)
      style="HEIGHT: 22px; WIDTH: 92px"></TD></TR>
    <TR>
      <TD><INPUT id=text5 name=text5 onfocus="this.form.text5.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
      <TD><INPUT id=text6 name=text6 onfocus="this.form.text6.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
      <TD><INPUT id=text7 name=text7 onfocus="this.form.text7.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
      <TD><INPUT id=text8 name=text8
      onfocus=this.form.text8.value=totalprice
(this.form.text6.value,this.form.text7.value)
      style="HEIGHT: 22px; WIDTH: 92px"></TD></TR>
    <TR>
      <TD><INPUT id=text9 name=text9 onfocus="this.form.text9.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
      <TD><INPUT id=text10 name=text10 onfocus="this.form.text10.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
      <TD><INPUT id=text11 name=text11 onfocus="this.form.text11.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
      <TD><INPUT id=text12 name=text12
      onfocus=this.form.text12.value=totalprice
(this.form.text10.value,this.form.text11.value)
      style="HEIGHT: 22px; WIDTH: 92px"></TD></TR>
    <TR>
      <TD><INPUT id=text13 name=text1 onfocus="this.form.text13.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
      <TD><INPUT id=text14 name=text14 onfocus="this.form.text14.value=""
      style="HEIGHT: 22px; WIDTH: 92px"></TD>
      <TD><INPUT id=text15 name=text15 onfocus="this.form.text15.value=""
```

```asp
            'First Text Box Parameter Statement
            set objparam=cm.createparameter(, 200, , 255, strcustID)
            cm.parameters.append objparam
            'Second Text Box Parameter Statement
            set objparam=cm.createparameter(, 200, , 255, strToTalPrice)
            cm.parameters.append objparam
            'Third Text Box Value Parameter Statement
            set objparam=cm.createparameter(, 200, , 255, strCardtype)
            cm.parameters.append objparam
            'Fourth Text Box Parameter Statement
            set objparam=cm.createparameter(, 200, , 255, strCardno)
            cm.parameters.append objparam
            cm.execute
            response.write("Thank you!")
            %>
```

            <p>Thank you for visiting our e-megaplaza shop on the Internet
            We hope you check us again</p>
            Your goods will be delivered to you in a weeks time
            thanks

```asp
            <%
ELSE%>
```

```html
<center>
<IMG border=0 height=100 src="placeordericon.gif" width=350>
</center>

<form name=finalform1.asp  action="finalform.asp"  method="POST">
 <center>
<table border=0 cellpadding=0 style="mso-cellspacing: 1.5pt">
 <tr>
  <td style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt"
  >

    <TABLE bgColor=gainsboro border=1 borderColorDark=indigo
    borderColorLight=gainsboro cellPadding=0 id=TABLE1
    style="BACKGROUND: gainsboro; BORDER-BOTTOM: 1.5pt outset;
BORDER-LEFT: 1.5pt outset; BORDER-RIGHT: 1.5pt outset; BORDER-TOP:
1.5pt outset; HEIGHT: 394px; WIDTH: 471px">

    <TR>
     <TD
     style="PADDING-BOTTOM: 0.75pt; PADDING-LEFT: 0.75pt;
PADDING-RIGHT: 0.75pt; PADDING-TOP: 0.75pt">
      <P class=MsoNormal><B>CODE</B><O:P></O:P></P></TD>
     <TD
```

ALGOS DAILY SALES 2

ID	email	guestname	address	telephone	custID	ToTalPrice	Cardtype	Cardno
1	olagun12@yahoo.co	Olagunju Toyin	C/O Dr M.A Olagunju Mathematics Department Obafemi Awolowo University Ile-Ife Osun State Nigeria	036-232421	10	£556.28	MasterCard	24(
2	nbem@alpha.linkse	Usioboh Goddy O.	National Examinations Council, P.M.B 159, Minna	066-224839	4567	£3.00	MasterCard	11111111