

UNIVERSITY OF THE PHILIPPINES MANILA
COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF PHYSICAL SCIENCES AND MATHEMATICS

CYBERSTORE AND CYBERADS

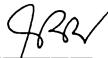
A Special Problem
In Partial Fulfillment for the Degree of
Bachelor of Science in Computer Science

Submitted By

Loraine Enerva
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Acceptance Sheet

The Special Problem entitled "Cyberstore and Cyberads", prepared and submitted by Loraine A. Enerva in partial fulfillment of the course requirements for the degree of Bachelor of Science in Computer Science has been examined and is recommended for acceptance.

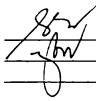


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
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ABSTRACT

E-commerce is the buying and selling of goods and services across the Internet. An e-commerce site can be as simple as a catalog page with a phone number, or it can range all the way to a real-time credit card processing site where customers can purchase downloadable goods and receive them on the spot. Electronic commerce merchants can range from the small business with a few items for sale all the way to a large on-line retailer such as Amazon.com.

Building an e-commerce site that is customized to a merchants needs is very expensive. This is the reason why many small time businessmen think twice in participating in e-commerce. This special project is a dynamic website that can be customized by merchants to the specific products that they want to sell. It would provide as a tool for small-time or even big-time businessmen to set-up their business on the web.

Most e-commerce websites if not all have banner advertisements to add to their income. Existing e-commerce sites in the Philippines process their banner advertisements offline – meaning – they hire extra people to do the jobs for the processing of banner advertisements. Banner advertisers usually fax or send the requirements before they can advertise in a website. This special project has a real-time banner advertisement processor. All the banner advertisers have to do is to give the necessary requirements through the web. Thus, the need to hire extra people to do this particular job would no longer be required.

This software also accepts free advertisements to attract more surfers. However, free advertisements are in text mode only.

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CYBERSTORE AND CYBERADS

I. INTRODUCTION

A. Background of the Study

Merriam-Webster Collegiate Dictionary defines commerce as the “exchange and selling of commodities on a large scale involving transportation from place to place”.¹ Essentially, commerce is just the “exchange of good and services, usually for money”. One experiences commerce from day to day in various forms like when buying something at a grocery store.²

With the new development in technology, e-commerce has emerged. E-commerce is basically similar to commerce, the only difference is that transactions are done over the Internet. E-Commerce is an “emerging concept that describes the exchange of products, services, information, or money with the support of computers and networks. Its main purpose is to link suppliers, buyers, and sellers through the Internet and other networking technologies”.³ It is the main ingredient of e-business or business in the Internet. In our modern world, the new trend in business is through cyberspace. This development has manifested in trades in products and services through the Internet reaching \$22 billion in 1998, increasing by 714.8% over 1996 level of \$2.7 billion.⁴

E-commerce is a big break for small businesses. In the real world, large corporations tend to overthrow the tiny businesses with huge advertisements and big stores, which the latter cannot afford. Through e-commerce, both small and big corporations have the same façade. Consumers need not be blinded by the giant corporate buildings large businesses have. Hence, both kinds of businesses have a fair chance of doing business.⁵

B. Statement of the Problem

The trend to offer goods and services over the Internet has made the greatest change to businesses throughout the world. Large corporations as well as small-time businessmen want to take part in this latest craze – the e-commerce. But making an e-commerce site is expensive. Thus, small time businessmen are not able to afford to hire programmers that develop a customized website suitable to their needs.

Today, existing e-commerce sites in the Philippines that accept banner advertisement usually transact offline. This means that merchants would have to hire customer representatives to take care of the offline banner transactions. Thus, the income that would be generated from the banner advertisements would be “shared” to these customer representatives.

C. Objectives

The objective of this special project is to come up with a system, “Cyberstore and Cyberads”, that is capable of doing the following

1. To be able to make a site that sells its own products It should have system administrators that would take care of the updating of products that the site sells.
2. To be able to sell products with different sizes and colors if applicable.
3. To be able to automate banner advertisement.
4. To be able to make a site that allows people to place their ads over the Internet for free.
5. To be able to simulate an online payment system by using a hypothetical bank.

D. Significance of the Study

“Cyberstore and Cyberads” is a dynamic e-commerce site that would allow small-time businessmen to customize the products that they want to sell. Hence, allowing them to participate in the e-commerce with minimum costs.

Since websites usually have banner advertisements which the owner of the site uses for added income, it is imperative that an e-commerce site would accept banner advertisements. But with the limited budget of the small-time businessmen, they will not be able to afford to employ extra bodies that would take care of banner advertisement processing. This site offers the solution for this problem by automating the banner advertisement process. These merchants would not need to hire added employees. Manual processing of banner advertisements takes a long time since the banner advertiser has to submit the banner advertisement requirements offline to the merchants and the merchants, in turn, would need to encode or do whatever it is that is usually done in these cases before the banner advertisement can be displayed in the website. With the automation of this process, these offline transactions would be eliminated since banner transactions would be real-time. The banner advertiser would even be able to specify the date by which the banner should be first posted.

Selling products and services and accepting banner advertisements are not enough in an e-commerce site. It is wise to add a free service to attract more people. This site allows anyone to advertise for free. It will serve as a medium between free advertisers and viewers of free advertisements. The viewer or prospective customer would be able to contact the free advertiser if he is interested with the product or service that the advertiser has advertised. The prospective customer would be able to email the free advertiser directly by using the site’s free email service. The prospective customer simply has to click the free advertiser’s email address that is displayed together with his advertisement and the email service of the site would appear.

“Cyberstore and Cyberads” provides a tool for different entrepreneurs to set up their business in the web as well as to automate the advertising of banner.

E. Scope and Limitation

a. Virtual Store

1. Only clients with credit cards may transact in this site.
2. Products with same item ID regardless of its size and color will have the same prizes in a given time.
3. The system administrators are in-charge of ordering stocks from suppliers bearing in mind that his order would not exceed the total fund.

$$0 \leq \text{INVESTMENT} + \text{SALES} + \text{BANNER PROFIT} - \text{REORDER} - \text{OVERHEAD}$$

4. Only products with available stocks would be posted in the Cyberstore.
5. It is assumed that there will always be a supplier for all the products that the site sells
6. Customers can only return products (defective products or change size and/or color of products) within two (2) days of delivery.
7. Only delivered products can be returned for change of color or sizes.
8. All products returned with available stocks in the web products or stockroom products whether it is “defective” or “change items” will be automatically delivered.
9. Actual delivery of products will not be covered by this system although the delivery date is needed in various modules (since only delivered products can be returned by the customer).

b. Free Advertisements

1. Free advertisers should have a valid email address for their registration to be processed.
2. “Cyberstore and Cyberads” lets entrepreneurs advertise their products and services for free. However, free advertisements will be text mode – meaning –

a number of lines will be provided for them so they can put on the products and services they are selling and their description.

c. Banner Advertisements

1. Banner Advertisers are assumed to have their own websites where the banners would be linked (Uniform Resource Locator or URL).
2. Banner Advertisers should provide the image file for their banners in jpg/gif format and preferably in 460 x 75 image size.
3. Banner Advertisers should have a credit card to pay for their advertisements.

d. Others

1. "Cyberstore and Cyberads" will not be concerned with response time, network traffic and server capacity that can affect the performance of the developed website
2. Functions in adding, editing and deleting the application database will be provided. However, database backup should be done manually.

II. REVIEW OF RELATED LITERATURE

E-Commerce

Pier.com's article, entitled *Internet Market: How Big It Is* says that the websites over the Internet is growing tremendously. In December 1994, there were over 10,000 web servers on the Internet. After a year, in January 1996, it grew to 100,000 websites. In January 1997, there were 626,000 websites and, by January 1998, 1,600,000 websites. ⁶

Another article entitled *E-Commerce* reveals that the Internet technology has changed the old trade paradigm into a flourishing linked worldwide. E-commerce doesn't only concentrate on the trade of products and services online, it can also contain the entire "sales process including buying, selling, fulfillment, marketing, support, and communication to an end-to-end trade cycle." Sites vary in its design. It can be a simple design that acts as an announcement board for a company, or it can be a complex design that has "real-time credit processing site where buyers can buy downloadable products" and receive them instantly. Normally, an e-commerce relates merchants and shoppers without the condition of "physical co-location" during the transaction. ⁷

The websites on the Internet are mostly for e marketing, e tailing, e-payment processing, and e-service. E marketing includes advertising over the Internet as well as e branching. E-tailing, on the other hand, is selling products and services on web stores, web storefront product exhibition and online ordering. Another task of e-commerce is e-payment processing that collects and processes payment over the Internet and other web-based payment methods like credit card, smart card, cash, cybercoin and the likes. E-service includes web-based technical support, web-based product support, web-based customer support, and web-based order and shipping tracking. ⁸

There are several factors to consider in designing a website. It should be quick, striking and user-friendly. Users prefer websites that are easy to use and faster to

download. That is why, in web site design, the designer should balance the need for speed and beauty of the site ⁹

Existing E-Commerce Sites in the Philippines

MyAyala.com is the leading online shopping mall in the Philippines today. It offers the most choices in fashion, gadgets, gifts, leisure and entertainment. "MyAyala.com is a 50/50 joint venture of Ayala Land, Inc. and iAyala Co., Inc., a wholly owned subsidiary of the Ayala Corporation. iAyala was formed in early 2000 to carry the Ayala Group's interests in Internet and information technology ventures. MyAyala.com, Inc. has an initial authorized stock of P100 million and initial paid-up capitalization of P50 million. The joint venture was formed to pursue various opportunities in e-commerce, among them B2C (business to consumer) and online shopping. This foray into online shopping is intended to tap the strengths of the Ayala Group in Commercial Centers Management, in particular, its long-standing relationship with mall merchants". MyAyala.com aspires to provide Filipinos with "fresh, exciting, up-to-date consumer choices of world-class standards" and bring out the broadest variety of goods and services to go well with every "need and lifestyle". MyAyala.com offers the following services: online shopping mall; online cinema ticket reservation for all movies currently showing in Glorietta; and online polls, cash cards, gift wrapping, personalized message or gift tags, and soon chat room and coupon gallery ¹⁰

Another e-commerce site is BOOMBayan.com. BOOMBayan.com is an online mall that allows eligible chosen entrepreneurs, who yearns to have a cost-effective, substitute location to market their products on the Internet. It seeks to be the number one "online mall of a community of merchants and Filipino consumers, offshore and local". It is developed and hosted by Zeus Technologies, Inc. BOOMBayan features a broad selection of online stores that market goods and services. The listing of the different department names can be seen in the right part of its Home Page. Stores under the department will appear once the department name is clicked. Customers who wish to order from any of the BOOMBayan merchant stores must first have a customer account.

The customer's personal information (age, birthday, etc.), contact information (address, phone number, etc.) and account information (username and password) must be provided. The customer will receive a confirmation e-mail containing his account information and other significant details regarding online shopping in BOOMBayan once his registration is processed. The store from which the customer has purchased his order is entirely in-charge of the shipping and delivery. It has its own delivery agents to make sure that the customer's orders reach its destination undamaged and on time. ¹¹

Not all e-commerce sites are online mall. Some sell their own specialty products like Zuellig Pharma. It "is a regional distributor of pharmaceutical and healthcare products in the Asia-Pacific region." It is the industry leader in providing distribution, marketing and manufacturing services. It supplies "over 125 multinational research-based pharmaceutical manufacturers in 14 countries and more than 80,000 customers including hospitals, clinics, doctors and pharmacies". Zuellig Pharma claims that that it has set the standard of excellence in pharmaceutical distribution across the Asia-Pacific region for more than 60 years. It is incorporated in 1939, a majority owned business of the Zuellig Group, and a private conglomerate based in Asia. Its "core business activities include distribution, sales and promotion, product management, and management information. These services are offered in support of its customers and principals in the Philippines, Thailand, Singapore, Malaysia, Brunei, the People's Republic of China, Hong Kong, Macau, Taiwan, Vietnam, New Zealand, Korea, and the Indochina countries of Myanmar, Laos and Cambodia." In addition to over 50 branch offices, it also maintains a regional office in Hong Kong. Zuellig Pharma "provides a full range of services across ten key markets in the Asian Pacific region." It is augmented by its "leading edge use of the latest information technology systems that give both" its "customers and principals up-to-the-minute information on stock levels, key demand areas, and market movements". Zuellig Pharma offers the following services: Distribution (including logistics, retail sales forces, collections and information technology); Pharma Link, and E-Commerce. It also assists its principal's planning and research, assessing the best future opportunities, working with government regulators and health authorities, and opening up new vertical market areas". ¹²

Other E-Commerce Site

Buy.com is an e-commerce site that offers a convenient and informative shopping experience. It also serves as an advertising medium for merchants. The latter just needs to mail its proposal to its online advertising proposal or to its traditional media-advertising proposal. Targeted merchandising and promotion opportunities permit merchants and advertising partners to benefit on a crowd of active, online shoppers. Buy.com has a single online setting where buyers, salespersons, and advertisers come together.¹³

Existing Payment Processing Solution

Operating an online business is an arduous task since it requires merchants to master many tasks such as Web site development and design, maintaining the confidentiality and security of consumer data and accepting and processing payments. “VeriSign takes the headache out of payment processing by managing a secure, reliable and low-cost solution for accepting payments”. VeriSign's Payment Services provides the ideal payment transaction platform for merchants who want to conduct business on the Internet. One's Internet needs may be limited to entering customer orders and processing transactions, or one may be conducting a large-scale e-commerce enterprise solely on the Internet. Regardless of one's business size or demands, VeriSign delivers the right solution: a fast, scalable, and reliable Internet payment platform that enables companies to authorize, process, and manage multiple payment types. VeriSign Payment Services brings affordability, flexibility, and convenience to Internet payment processing by combining a flat-fee monthly pricing model with a growing menu of services and solutions for merchants, financial institutions, resellers, and developers. As soon as one sets up a merchant account and implements VeriSign's services, he will be able to accept payments through credit cards, debit cards, Automated Clearing House (ACH) and electronic checks. And as one's business expands and changes, VeriSign's portfolio of services enables to adopt ones site's payment processes to ones changing needs.¹⁴

Existing Database Management System

Paul Zikopoulos, a database specialist with the International Business Machine (IBM) Database 2 (DB2) sales support team wrote in his article that there has been a number of reported security breaches particularly credit card hackings which undermined customer confidence in the past years. Security is of vital importance for any business that uses a database management system. And, as more businesses participate in the e-space, it becomes particularly important to separate private from public data. He also states that collecting, storing, and analyzing data ranging in nature from public to private is usually what database system at any given company does. It "must enable Database Administration (DBA) to grant and restrict access appropriately. And it must offer ways to keep unauthorized users from accessing classified data. But sometimes, database security information is hard to come by or difficult to understand. Although one often hears about how scalable and robust DB2 Universal Database (UDB) is, how often does one hears details about DB2's security features? Because securing data is one of the most important DBA responsibilities, one should not try to learn about database security by trial and error. Securing one's database involves. inhibiting unauthorized access to classified data, inhibiting unauthorized users from committing mischief through deliberate deletion or tampering of data; and keeping track of user access of data through auditing techniques. Zikopolous claims that trusting its database engine would mean a better night's sleep for those in charge of database security.¹⁵

Magazine

The programmer's first-hand information knows for a fact that Buy & Sell Magazine is a free classified ads paper. It cost Php 20 and has two issues every week. Anyone can advertise his ad by calling hotline 6363333, going to his business center or through his website. A call can be made from Mondays through Sundays, 8:00 am to 6:00 p.m. The operator answers the call and asks the caller his name, telephone number and the details of the products and services he is going to advertise. It also contains a swapping corner. This area contains the products and services that will be swapped as

well as what it should be swapped for in return. Buy & sell also has a looking for area and employment ads.

Over the past year, the Internet has gone from the province of academics to the cutting edge of business. A large part of this has been driven by the growth of the Web with its graphical browsers and high media profile. The change from static Hypertext Markup Language (HTML) pages to dynamic, user interactive presentations has been achieved largely through the introduction of scripting technologies. Websites with the usual markup language of a web page, without language enables clients to download specific information from their servers, and their powers, is sure to receive important user input in order to process and display data as focused. ¹⁴

Joseph defines e-commerce as the "practice of buying and selling products and services over the Internet, utilizing technologies such as the Web, electronic data interchange, email, electronic fund transfer, and smart cards".¹⁵ The infrastructure must be correctly in place for e-commerce to be successful. Particularly, it is crucial that transactions be electronically workable without impediments or errors. Online payment "must be secure and convenient, as well as fast and inexpensive to process". Support services for specific services must be in place. Finally, appropriate privacy and strategy that considers legal, technological, and other requirements is necessary. ¹⁶

According to Davis, information systems (IS) refer to computer-based information processing systems which are designed to support the operations, management, and decision functions of an organization. It is an integrated, real-time system providing information to support the operations, management, and decision-making functions of an organization. An information system/technology comprises a hardware, software, database, procedure, and operating personnel. A user of an IS has access to an extensive database and to a rapid back computing of analysis through processing models, decision models, planning models and others. The numerous applications of the system is evident so that the productive time is immediate and there is a possibility of "convergence" between the user and the application application.¹⁷

III. THEORETICAL FRAMEWORK

Over the past years, the Internet has gone from the preserve of academics to the cutting edge of business. A large part of this has been driven by the growth of the Web, with its graphical browsers and high media profile. The change from static Hyper Text Markup Language (HTML) pages to dynamic, user interactive presentations has been achieved largely through the introduction of scripting technologies. Working with the usual markup language of a web page, scripting language enables clients to demand specific information from their servers, and their servers, in turn, to receive important user input in order to process and display data on demand.¹⁶

Joseph defines e-commerce as the “practice of buying and selling products and services over the Internet, utilizing technologies such as the Web, electronic data interchange, email, electronic fund transfers, and smart cards”.¹⁷ The infrastructure must be correctly in place for e-commerce to be successful. Particularly, it is crucial that transactions be executable worldwide without impediments or errors. Online payments “must be secure and convenient, as well as fast and inexpensive to process”. Support services for specific activities must be in place. Finally, appropriate planning and strategy that considers legal, technological, and other requirements is necessary.¹⁸

According to Davis, information systems (IS) refer to computer-based information processing systems which are designed to support the operations, management, and decision functions of an organization. It is an integrated, man/machine system providing information to support the operations, management, and decision-making functions in an organization. An information system structurally comprises of hardware, software, database, procedures, and operating personnel. A user of an IS has access to an extensive database and to a model bank comprising of analysis models, processing models, decision models, planning models and others. For numerous applications, the “access is online so that the response time is immediate and there is a possibility of ‘conversation’ between the user and the computer application”.

Before developing any website, there are components that must be present. Ipiet.com's article entitled *Major Components of E-Commerce* enumerates the major components that must be present in an e-commerce site. The first component is the Web-based client server system. Another is the Internet network like Transmission Control Protocol/Internet Protocol (TCP/IP) based network system, the Internet or intranet. Network security is also one of its mechanisms (web server supports Secure Socket Layer or SSL, web client supports HTTP secure server or HTTPS, firewall). A secured online payment processing should also be present. In order to integrate the information that has been collected to the forms, there should be a web to database linking and integration. And of course, the forms that gather information must also be present.¹⁹

According to an article in media3.net, the components that must be present in an e-commerce site are: hosting account; storefront; SSL certificate; payment gateway; and merchant bank account. A hosting account is where the website and storefront of the e-commerce site is stored. The storefront is where merchants build the interactive elements of the site. It is where customers choose items and place it in a virtual cart. SSL certificate protects the credit card number of the merchant's customer from hackers as they transfer over the web to the merchant's payment gateway and merchant bank account. The payment gateway is responsible for verifying the credit card by communicating with the merchant's storefront and merchant bank account. Merchant bank account is the credit card company that processes the credit card orders and communicates with the gateway.²⁰

E-Commerce Exchange has a brief article that talks about the critical components of e-commerce. The first component is a website. A Website is the merchant's online link to both his prospective customers and customers. There are numerous places on the web to get "free website". Some may require the merchant to post advertisements. E-Commerce exchange states that website design is crucial for the success of the merchant's business. It is imperative that the website should look professional and legitimate or else, no one will buy from the merchant's website regardless of the products

that the merchant is offering. It is recommended that the merchant should learn how to make e-commerce sites or he should employ programmers that specialize in that field. Another component is the Merchant Account. Merchant Account is a bank authorized account which allows merchant to accept online payments, be it major credit cards, electronic check or any other online payment system. Since doing business on the Internet is classified to be high risk on some banks, it would be hard to find a bank that would provide merchant accounts. Should a merchant find a merchant account provider, he should be cautious and “watch out for hidden fees, high set up fees, and other unscrupulous business practices”. Another component is Payment Transaction Software. It is a software that sends necessary data provided by the customer to a credit card authorization network for verification. It usually compares the billing address of the credit card holder and the shipping address of the customer. Inconsistency would possibly mean that the credit card has been stolen. Secure Server Connection is also a component of e-commerce. It is a connection to a special computer which encrypts confidential ordering data for customer protection. A URL that has “https://” indicates that a website has a secure server. The last component is the Shopping Cart. It is a software that allows customers to place orders of different products from an e-commerce site. It also computes the total amount of the customer’s orders.²¹

TCP/IP is a set of protocols developed by a community of researchers centered on the Advanced Research Projects Agency Network (ARPANET) to allow cooperating computers to share across a network. It is a sort of software that is the means by which various machines and different operating systems talk to each other. It is an open protocol and independent from specific computer hardware or operating system. Both Wide Area Network (WANS) and Local Area Networks (LANS) can use TCP/IP. It is a collection of protocols that is used to allow various computers to interact to one another. This protocol piled in layers and does several functions that are needed to convert the signals of a computer into signal that another computer can comprehend. These layers can work on its own without any help of other layers and hands to the connecting layer the data that have been summarized with instructions for the matching layer at the target. There are four layers that are used typically by TCP/IP applications. The first layer is an application

protocol such as mail. Next is a protocol such as TCP that provides services needed by many applications. Another is IP that provides the basic services of getting datagrams to their destination. Lastly is the protocol to manage a specific medium, such as Ethernet or a point-to-point line.²²

Different servers like Network News Transfer Protocol (NNTP) and HTTP are used to access data from a web client program. The latter was developed specifically for the web and employs a system of messages that supports sending documents from the server to browser and vice versa. Get and Post are two of the ways to send data (methods) between a client and server. Get is a method wherein data are passed within the query string of the URL. Post, on the other hand, is a more complex method wherein data are sent as a message body that follows the server.²³

Numerous web sites contain static content like articles or academic papers. These web pages consist of simple-text, images and hyperlinks to other web pages. Simple client-side technologies usually meet the requirements for this type of web sites. "HTML and Cascading Style Sheets (CSS) provide the means to structure and present page content, and JavaScript allows one to spice it up a bit if desired. Nonetheless, for web sites that are used as applications (most of which incorporate databases) HTML and CSS will not suffice "These sites and applications are dynamic, because their content will vary according to the data involved and the actions of the user". An effective scripting language would be needed like Personal Home Page (PHP): "By running PHP programs on the server, one can create very powerful applications that with a database and generate content dynamically".²⁴

PHP is supported by many UNIX-like operating systems as well as Microsoft's operating systems that support the Win32 environment. Yet, PHP cannot do much without a web server. Thus, installing PHP on a platform would also mean the taking of consideration of the web server that would be used. "On the UNIX front, Apache is the web server of choice for most installations. PHP is rated the second most popular Apache module, where it is found to perform very well. PHP can be compiled as an Apache

module. Apache is also available on the Windows platform and PHP is supported for this combination". PHP can use other web servers, such as Xitami. But, it must also be remembered that Apache is the only web server for which PHP can be compiled as a module – the rest are Common Gateway Interface (CGI) interpreter installations.²⁵

When PHP is compiled as an Apache module, as Figure 1 shows, it runs in the same address space as that of the web server process itself and hence provides a significant performance improvement over traditional CGI interpreters that are separate processes.²⁵

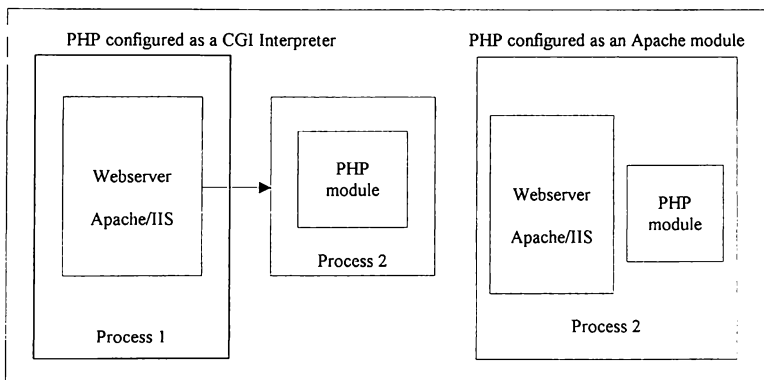


Figure 1: PHP Compiled as CGI Interpreter and as an Apache Module

Yequalp, in his article entitled "Stress Testing," wrote that load testing and stress testing websites are both "arts and sciences". These processes can be overwhelming and complicated for several site administrators. Lack of comprehension of "how to test and what areas to test" is one of the primary reasons why many site administrators neglect to carry out meticulous testing. The "areas to test" will be discussed below as well as the "methods of front-end testing". Majority of individuals think the chief measure of "site

capacity is bandwidth". This is a fact because the "most powerful server in the world is a paperweight" without bandwidth. However, its existence does not guarantee a smooth operation for "internal bottlenecks that prevent pages from getting served up or processed fast enough" may still be present.²⁵

Testing a website often refers to the terms *load testing* and *stress testing*. These are not interchangeable. Load testing is an assessment of "system performance" under ordinary circumstances, "all the way up to the maximum number of users supported by the configuration. Stress testing is a determination of how the system behaves when pushed 'over the edge', including how well it recovers from being pushed in this fashion".²⁵

Executing a load test on a website allows site administrators to know "how much a site can take until it breaks". It would perhaps provide a clue on the approximate number of maximum users the site can cope with simultaneously. However, it would not at all times inform the reason of the site malfunction. Hence, it is not likely that something could be done except perhaps in the "most rudimentary ways. Of course, load testing to the breaking point enters the realm of stress testing".²⁵

Listed below are few of the "reasons why websites choke".

1 Bandwidth Limit

The most apparent reason why "high-traffic sites have trouble is bandwidth" There are "first- and third-party tools" on almost all platforms for measuring bandwidth. From time to time the available physical bandwidth cannot match the "demand for the site", "and the only solutions available are" to limit the "number and speed of inbound connections", or to purchase a "bigger pipe or more pipes".

2. Memory Leaks

Memory leaks are the curse of many sites, and at most times because of “one of three things: sloppy programming practices, poorly written third-party components, or older components in the operating system or software layers (such as an earlier version of the Perl interpreter engine)”.

It might have to do with a “component growing until it crashes and re-spawns” which is not good for a site for a “crashed component forces” everybody to hang on until it “restarts. The worst-case scenario is a component that uses up more and more system memory (or worse, kernel memory) without exiting, until the entire system finally grinds to a halt.”

“One of the worst things about memory leaks” is that they are frequently hard to separate, particularly “if they take place in a relatively generic component. In other words, one knows that component X is leaking, but one is not sure *where* the exact leak is--if it's due to bad code, some unbounded buffer condition, or the fault of the component itself. “

The usual approach to test for memory leaks is to keep an eye on memory usage throughout the site's peak. Should there be a problem, “the testers can script actions that will systematically stress each component or page until the leak reveals itself dramatically”. This in turn reduces the source of the leak, “but it means that every part of the site has to be stressed one by one, until the leak pokes its head up”. Since memory leak testing is tiresome and time-consuming, numerous “programmers and site project schedules don't take the time to bombard a given component to see if it leaks”. It is regularly “something that's only fixed when it becomes a problem, not something that's checked preemptively before going live”

3. Resource Locking

It is the common term “for when a particular resource--such as a database record or a file--becomes unavailable for prolonged periods of time” due to a specific “site component which has an exclusive hold on it. Resource locking can also take place on an operating-system level, although the effects of Operating System (OS) resource locking generally aren't visible unless one is dealing with extremely large sites. One will see the effects of resource locking on an application level far sooner, and they will be far more immediately debilitating. Resource locking often happens in databases, where records are ‘locked’ against being modified so that reliable results can be returned. Generally speaking, the more sophisticated the database product, the less resource locking, but this is not something one can rely on as an escape hatch. Good programming practices are typically the best way to avoid resource locking, which means being intimately familiar with how resources are locked and handled on the platform/language in question”.

This does not mean that one can totally get away with resource locking for it is a “necessary evil” Sometimes there is a “need to lock a resource for exclusive access”. On the other hand, faulty locking practices would bring about a site to crash “under heavy loads, and such practices may not readily surface as the culprit. The programmer's rule of thumb is ‘open late, release early’--meaning one lock and then unlock resources as quickly as possible. If only a few lines of code on a high-traffic page don't honor this rule, they will turn what was once an almost invisible problem into a massive roadblock as the same piece of code runs dozens of times consecutively.”

4 Bottlenecks

It is the common term “in hardware or software” wherein the flow of data in a certain region in system operation is constrained which naturally brings about deceleration of the system. “A system with a fast central processing unit (CPU), fast memory bus, fast graphics adapter and a slow hard drive will usually wind up waiting on the hard drive more than anything else in the system (assuming the workload has a fair

amount of disk activity)". This could easily be remedied by upgrading the disk subsystem to reach a more stable system performance.

Software bottlenecks in website programming can occur when a specific component that is utilize to direct a large quantity of data is unable to act in response that is quick enough to requests. "This can happen pretty much anywhere in the system: in the Web service, in the data service (or services), or in auxiliary services such as a logging or statistics-gathering service". CPU/memory subsystem can also be the bottleneck when one has a slow CPU or not enough memory, or one "requires a server-class with a larger Language Point #2 (L2) cache" to handle one's "baseline load of queries".

"When troubleshooting a bottleneck, it often isn't that hard to find the source of a problem. A software component that lags behind everything else will usually use up a disproportionate amount of CPU time, for instance. Remedying the problem, however, is frequently much harder". A certain amount of detective work is required if one is utilizing the latest "version of a component and it's lagging horribly for no visible reason. Are the wrong parameters being passed? Is the data not being formatted or constrained correctly? Is the component being called in the wrong context or with the wrong credentials? Are buffer lengths not being honored? Are variables not being strictly typed? And so on"

An example is by using Microsoft Access as the database server in a website which is not advisable since Access is not designed to handle more than one user simultaneously. "Access can also serve as an example for resource-locking problems, since the way it handles row and table locking is only meant for one user at a time".

5. Transactional Problems

It is the common term "that encompasses a broad spectrum of things". In general, transactional processing comprises "some kind of detailed interchange of information

between the site and its user, and often involves something that is processed in several distributed steps on the backend”.

“Credit card processing is a good example of this. The user at the front end submits his credit card information and waits, and if all goes well, he gets an approval (or a rejection notice). On the backend, however, the process involves several different machines often in several different locations, all of which have to wait for and confirm each step of the process. Only after every single machine in the chain signs off on the transaction is it finally approved or denied”.

A drawback in transactional processing is on “how the system handles aborted or unsuccessful transactions”. Should the user aborts his transaction or if for some reason the transaction fails, “the system is left with the responsibility of cleaning up. This could be anything from freeing up allocated memory to disposing of temporary database tables used to hold the transactional data. A site that has, say, one out of every fifty transactions fail, and handles tens of thousands of transactions an hour, *and* isn't cleaning up correctly, is headed for disaster”.

6. Hardware Limitations

At times, the hardware on hand is not sufficient to support the work one needs to do. In spite of all the optimizations and smart coding one can “cram into the box”, one may just “need bigger iron”. However, it ought to be the “absolute last possible consideration on the list, since changing servers is expensive and cumbersome--not to mention horribly inconvenient” Then again, “with some good upfront planning”, one can possibly “install a server that is highly scalable, permitting additional processors, drives that can be hot-inserted into a Redundant Array of independent Disks (RAID) array, and much more memory. Or buy a server with much more horsepower than initially required. At the high-end we would see very large MP systems, server clusters, and SANs that can be scaled up as needed”.²⁵

There is, to be sure, no shortage of programs for testing a site. Not to mention companies that provide the same services or do the same thing on a for-hire basis. What is important is to choose an instrument that would be suited and would be able to conduct an effective test in the areas that should be tested. "If a site is primarily designed to serve static pages and is not doing much backend processing, a simple tool will probably be more suited" to one's needs. ²⁵

Existing Laws in E-Commerce in the Philippines

The Electronic Commerce Act of 2000, otherwise known as Republic Act 8792, specifies the rules and regulations in domestic and international exchange of information, transactions, agreements, contracts and storage of information through e-commerce. Messages in such transactions are protected by law as to confidentiality and have the "legal effect, validity or enforceability as any other document or legal writing". When sent through e-commerce devices as messages, they have the effect of documents in writing for as long as the electronic system maintains its integrity and the message contents are unaltered. Classed as electronic commerce devices are computers, fiber optics, satellite, and wireless and other broadband telecommunication mediums. Unauthorized access or hacking or "interference in a computer system," stealing, or destruction of information has been sanctioned. ²⁶ For such crimes, the guilty party shall be penalized with a minimum fine of P100,000.00 and a maximum commensurate with the damage caused, and imprisonment of up to three (3) years See Appendix A for the detailed Republic Act 8792. ²⁷

Definition Of Terms

Authorization Level -- determines the web pages that a system administrator can access

Bandwidth -- the amount of information (web pages, text graphics, video, sound, etc.) that is downloaded through the connection. ²⁸

Banner -- an interactive ad placed on a web page that is linked to an external advertiser's website or another internal page within the same website ²⁸

Card Not Present Merchant Account -- an account that allows merchants to process credit cards without a face-to-face transaction with the purchaser.²⁸

Commerce -- trade of goods and properties between states or nations.⁴

Cyberads -- compose of two modules, the banner advertisement module and the free advertisement module.

Cyberstore -- virtual store module (customer order transactions and inventory system).

Domain Name -- the unique name of an Internet website.²⁸

Download -- the transfer of information from the Internet to the browsing computer.²⁸

Dynamic -- mark by usually continuous and productive activity or change.

E-Commerce -- buying and selling of goods and services across the Internet.²⁸

E-Marketing -- includes advertising over the Internet as well as e-branching.⁸

E-Payment Processing -- collects and processes payment over the Internet and other web-based payment methods like credit card, smart card, cash, cybercoin and the likes.⁸

E-service -- includes web-based technical support, web-based product support, web-based customer support, and web-based order and shipping tracking.⁸

E-Tailing -- is selling products and services on web stores, web storefront product exhibition and online ordering.⁸

Electronic Software Distribution -- software that can be purchased and downloaded directly from the Internet.²⁸

Encryption -- processing and altering data so only the intended recipient can read or use it. The recipient of the encrypted data must have the proper decryption key and program to decipher the data back to its original form.²⁹

GET -- is a method wherein data are passed within the query string of the URL.²³

Hack -- to break into or use a computer network or use a system without authorization.¹⁰

Hardware -- The generic term dealing with physical items as distinguished from its capability or function such as equipment, tools, implements, instruments, devices, sets, fittings, trimmings, assemblies, subassemblies, components, and parts. The term is often used in regard to the stage of development, as in the passage of a device or component from the design stage into the hardware stage as the finished object.³¹

Home Page -- the first page through which a viewer usually enters a website. ²⁸

Hyper Text Markup Language (HTML) -- is the standardized language which allows web browsers to interpret websites. ²⁸

Hyper Text Transfer Protocol (HTTP) -- is a protocol which allows computers to communicate with each other. ²⁸

Internet -- is a worldwide collection of computer networks linked together.

Load Test -- is an assessment of system performance under ordinary circumstances, all the way up to the maximum number of users supported by the configuration. ²⁵

Merchant Account -- a "bank account" established with a payment processor for the settlement of credit card transactions. Any merchant who wants to take credit card orders must establish a merchant account. Internet merchants need a "Card Not Present Merchant Account". ²⁸

Order Confirmation -- an email message notifying a customer that an order has been received and will be processed. ²⁸

Primary Key -- uniquely identifies a record.

POST -- is a more complex method wherein data are sent as a message body that follows the server. ²³

PHP Hypertext Preprocessor (PHP) -- is a server side embedded scripting language. ²⁴

Real Time Credit Card Processing -- online authorization of a credit card number in real time informing merchant that the card has been approved ²⁸

Refill -- stock from stockroom to web products

Restock -- stock from supplier to stockroom

Secure Socket Layer (SSL) -- is an encryption technology on the server that scrambles important data such as credit card numbers and order information when it is being stored or passed from one computer to another ²⁸

Shipping Confirmation -- an email message that notifies a customer that an order has been shipped. ²⁸

Shopping Cart -- is a piece of software that acts as an online store's catalog and ordering process

Simulation -- the imitative representation of the functioning of one system or process by means of the functioning of another. ³²

Software -- A set of computer programs, procedures, and associated documentation concerned with the operation of a data processing system; *e.g.*, compilers, library routines, manuals, and circuit diagrams. ³¹

Stress Test -- is a determination of how the system behaves when pushed over the edge, including how well it recovers from being pushed in this fashion. ²⁶

System -- any organized assembly of resources and procedures united and regulated by interaction or interdependence to accomplish a set of specific functions. ³¹

TCP/IP -- is the protocol that holds the Internet together. It is the type of software that is the means by which different machines and different operating systems talk to one another. It is an open protocol independent from specific computer hardware or operating system. ³³

Uniform Resource Locator (URL) -- describes the address for a document on the Internet. ²⁸

IV. DESIGN AND IMPLEMENTATION

The trend to offer goods and services over the Web or Internet has made the greatest change to businesses throughout the world. Most businesses want to transform their Web site into a profit center. This is because of the many success stories about the Internet and e-commerce.

There are existing e-commerce sites in the Philippines that sell different products and services. Most accept banner advertisements that serve as an extra income. These banner advertisements are transacted offline. Some e-commerce sites provide online processing payment while others do not.

The Entity Relationship Diagram (See Figures 2-6) focuses on the hierarchy of programming modules that is generated as part of the software architecture. There are four major modules in "cyberstore and cyberads" that will be seen in Figure 2. These are the virtual store, free advertisement, banner advertisement and system administrator. It shows the relationships of these four modules. Virtual store module is comprised of eleven (11) entities namely: customer, hypothetical bank, orders, products, web stocks, colors, sizes, categories, subcategories, cash available/receivable and shopping profits that can be seen on Figure 3. The free advertisement module contains 3 entities. They are free advertiser, advertisement, categories (See Figure 4) There are five (5) entities in the banner advertisement module (banner advertiser, archive, rates, banner profit, cash available/receivable) which can be seen in Figure 5. The supplier, system administrator, products, cash available/receivable, stockroom, web stocks, orders, colors, sizes, defective item, change item are the entities that are included in the system administrator maintenance module (See Figure 6)

Entity Relationship Diagram

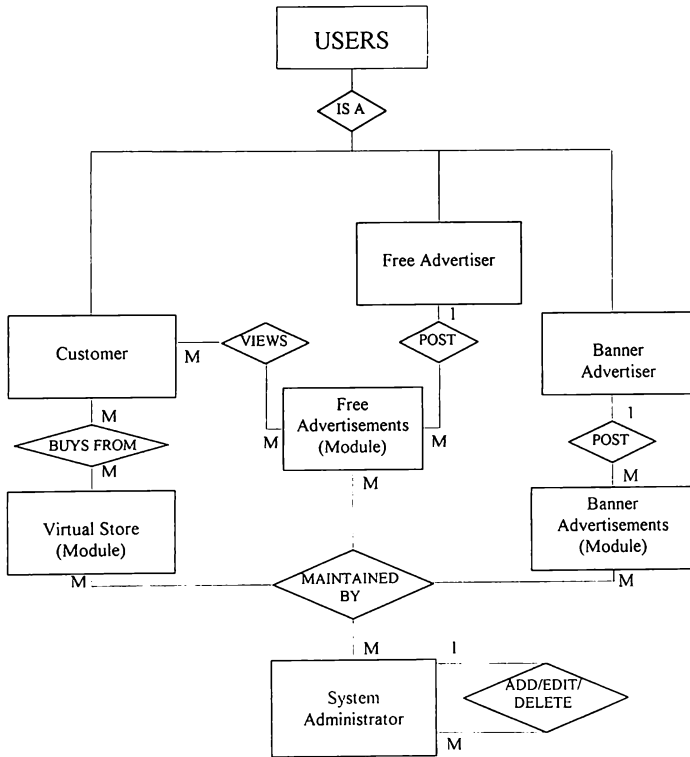


Figure 2. Entity-Relationship Diagram, Cyberstore and Cyberads

Virtual Store (Module)

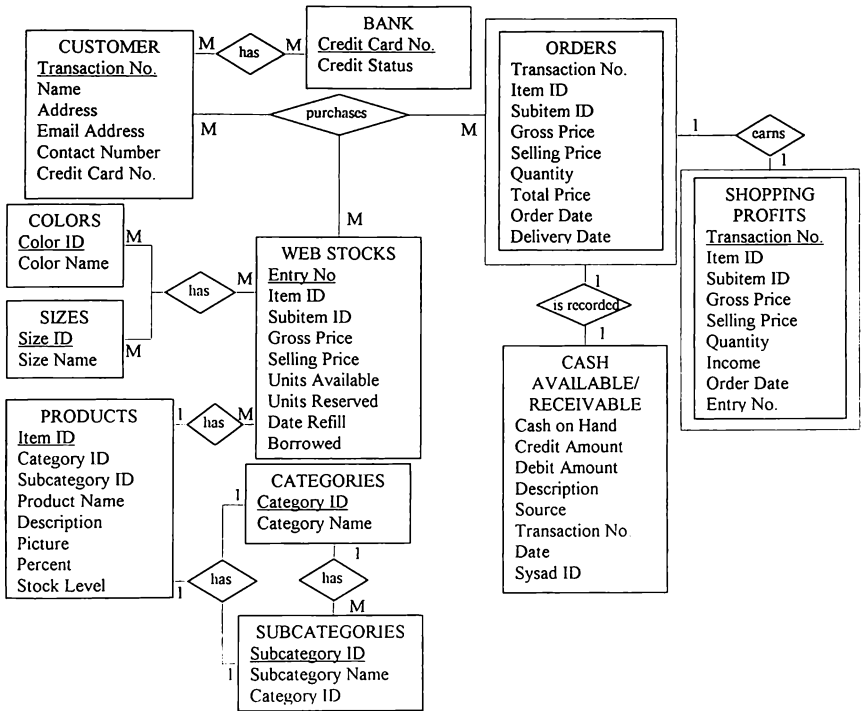


Figure 3: ERD of Online Mall Module, Cyberstore and Cyberads

Free Advertisement (Module)

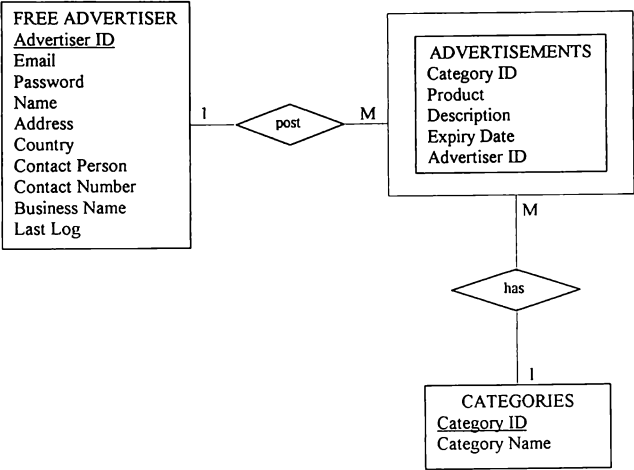


Figure 4: ERD of Free Advertisement Module, Cyberstore and Cyberads

Banner Advertisements (Module)

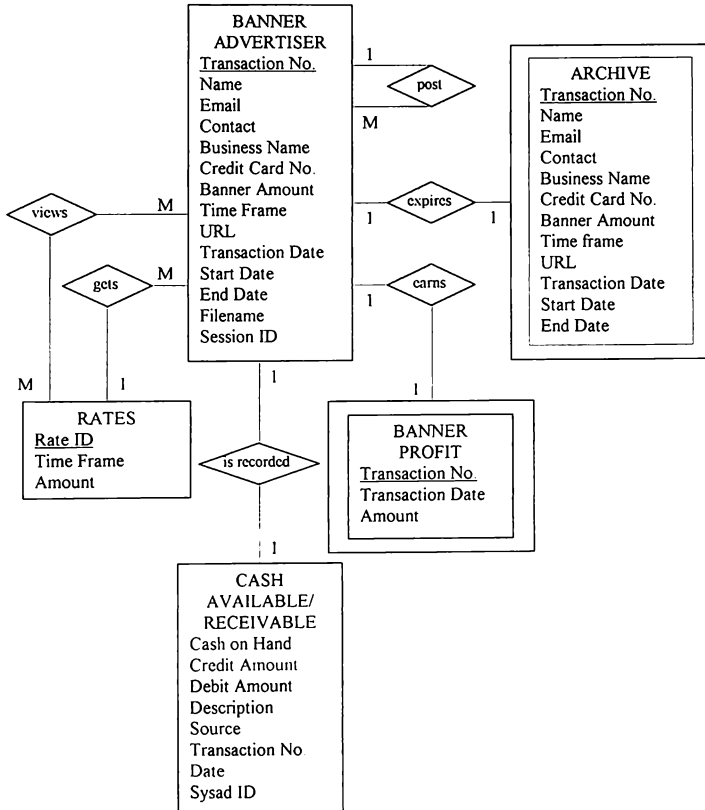


Figure 5. ERD of Banner Advertisement Module, Cyberstore and Cyberads

System Administrator Maintenance

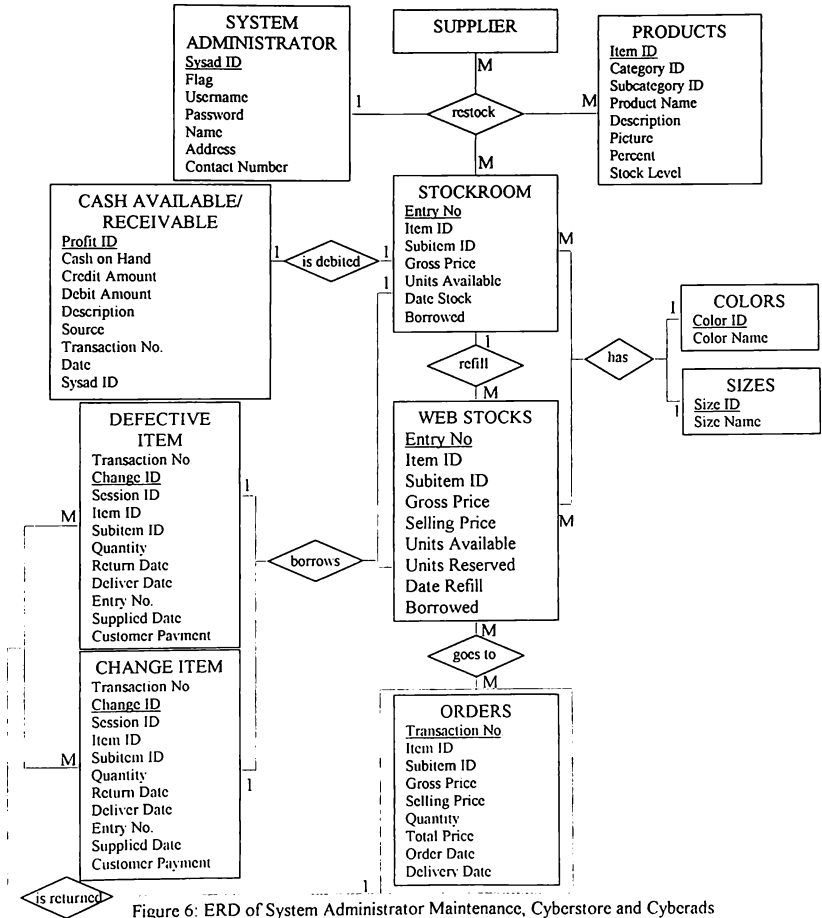


Figure 6: ERD of System Administrator Maintenance, Cyberstore and Cyberbrads

The context diagram as shown in Figure 7 represents the entire “Cyberstore and Cyberads”. It is composed of the customer, free advertiser, banner advertiser, system administrator and the hypothetical bank.

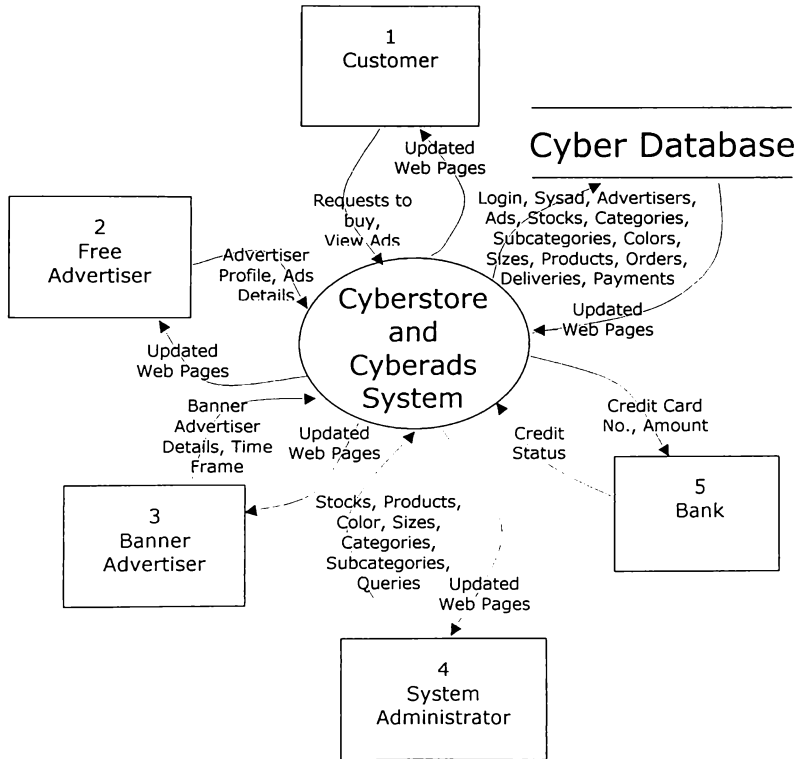


Figure 7: Context Diagram, Cyberstore and Cyberads

The data flow diagram of cyberstore and cyberads (see Figure 8) represents the highest-level of the major functions within the system. There are five (5) major processes namely: process free advertisements, view free advertisements, process banner advertisements, view/buy products and maintaining the site.

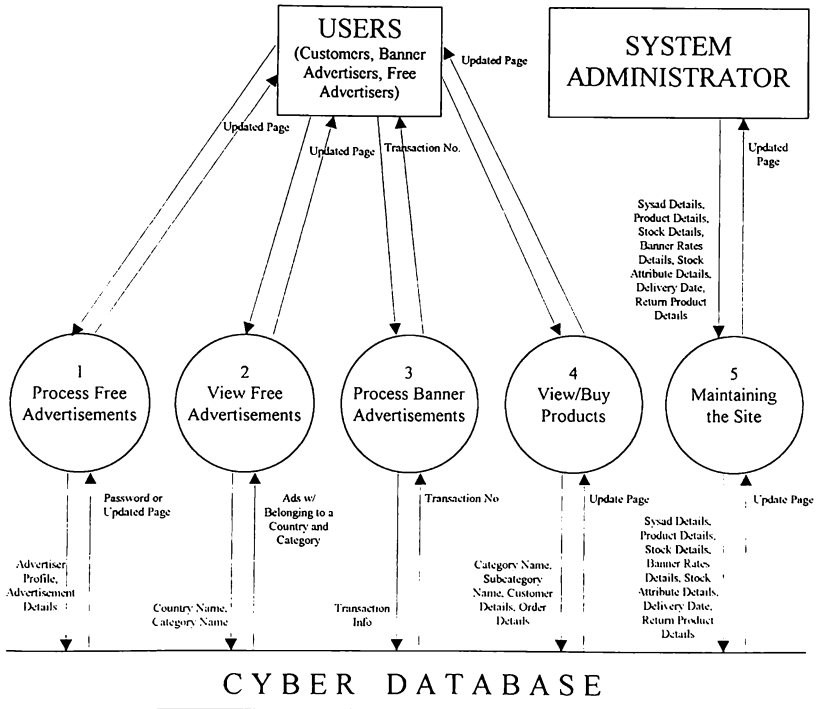


Figure 8: Top Level Diagram, Cyberstore and Cyberads

Figure 9 is the sub-explosion of process 1 (process free advertisement). Check user (bubble 1.1), update profile (bubble 1.2) and add advertisement (bubble 1.3) are the three (3) major processes involved.

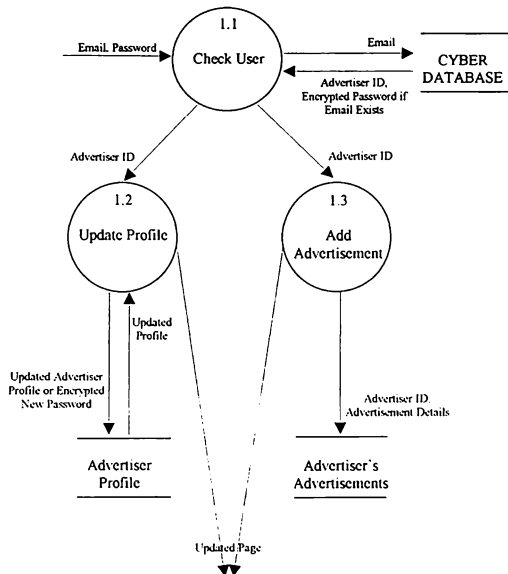


Figure 9: Sub-Explosion of Process 1: Process Free Advertisement, Cyberstore and Cyberads

Bubble 1.1 from Figure 9 is further sub-exploded to show how free advertisers create an account (bubble 1.1.4 – 1.1.7) and how they are able to login (See Figure 10).

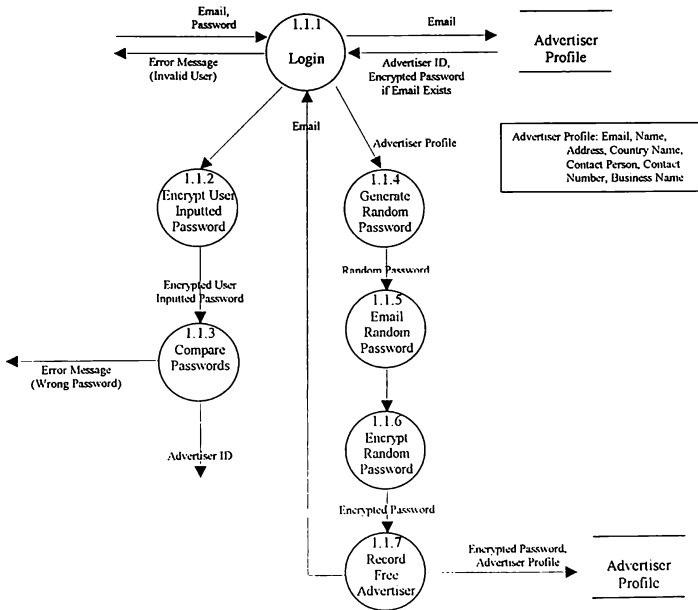


Figure 10. Explosion of Process 1.1: Check User, Cyberstore and Cyberads

Figure 11 is the sub-exploration of bubble 1.3 from Figure 9 which shows free advertisers can either update his profile or change his password.

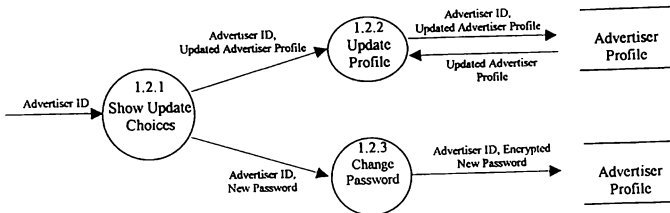


Figure 11: Sub-Explosion of Process 1.3: Update Profile, Cyberstore and Cyberads

Process view free advertisement (bubble 2) from Figure 9 is further sub-exploded in Figure 12.

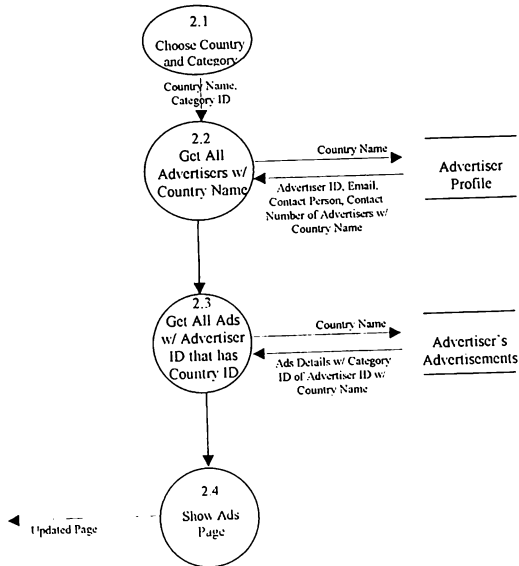


Figure 12: Sub-Explosion of Process 2: View Free Advertisements, Cyberstore and Cyberads

Figure 13 is the sub-explosion of process banner advertisement (bubble 3) from Figure 9. The process starts with the showing of the banner form. This is where the banner advertiser fills out needed information and upload needed files for him to be able to advertise in the website. It also shows how the system checks the credit card of the advertiser in the hypothetical bank and the where the transaction is recorded.

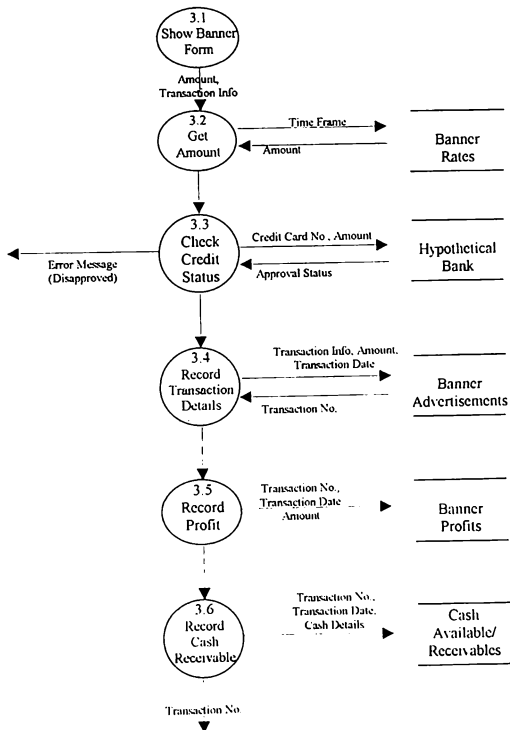


Figure 13: Sub-Explosion of Process 3: Process Banner Advertisements

Figures 14-17 shows the sub-explosions of the process view/buy product (bubble 4 of Figure 9). It shows the detailed flow of data when a customer views or buys product/s from the website.

Initially, the system queries all the categories available and displays them to the home page. Customers may choose different categories and subcategories and the system will automatically look up products with available stocks with the particular category or subcategory chosen. The customers may choose to add these products to his shopping cart. After which they may choose to view their cart or keep on adding products to their cart. They may also edit the quantity or even delete the products they had chosen from their shopping cart or opt to buy everything in their shopping cart as shown in Figure 14.

Figure 15 shows the sub-explosion of the add to cart bubble (bubble 4.5) where the system gets the "add to cart" page details like the quantity, size and color available for the product chosen and the "record in cart" bubble once customers choose to buy the products.

Figure 16 shows the detailed data flow when customers opt to buy the products in their shopping cart or when the system has to inform the customer that the stock is not enough therefore making the customer edit the quantity of the product he has chosen to buy so as to match the available quantity of the products.

The "check if stock is available" bubble (bubble 4.7.2) is further sub-explored in Figure 17 where the system gets the available quantity of the particular product chosen and puts it in a "shopping cart buffer" table to check if the available stock is suffice to the quantity of products chosen by the customer to purchase. This is where the system decides if the customer should edit his shopping cart or not go on with the purchase if the stock is not enough or complete the transaction.

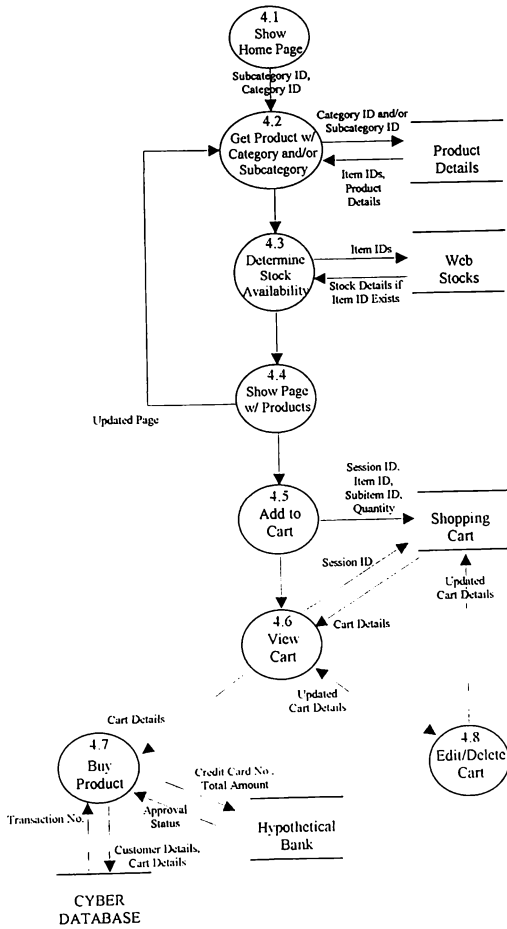


Figure 14: Sub-Explosion of Process 4: View/Buy Products, Cyberstore and Cyberads

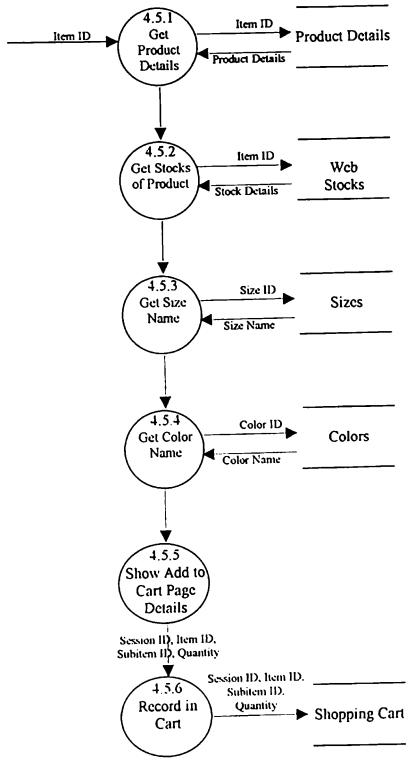


Figure 15. Sub-Explosion of Process 4.5: Add to Cart, Cyberstore and Cyberads

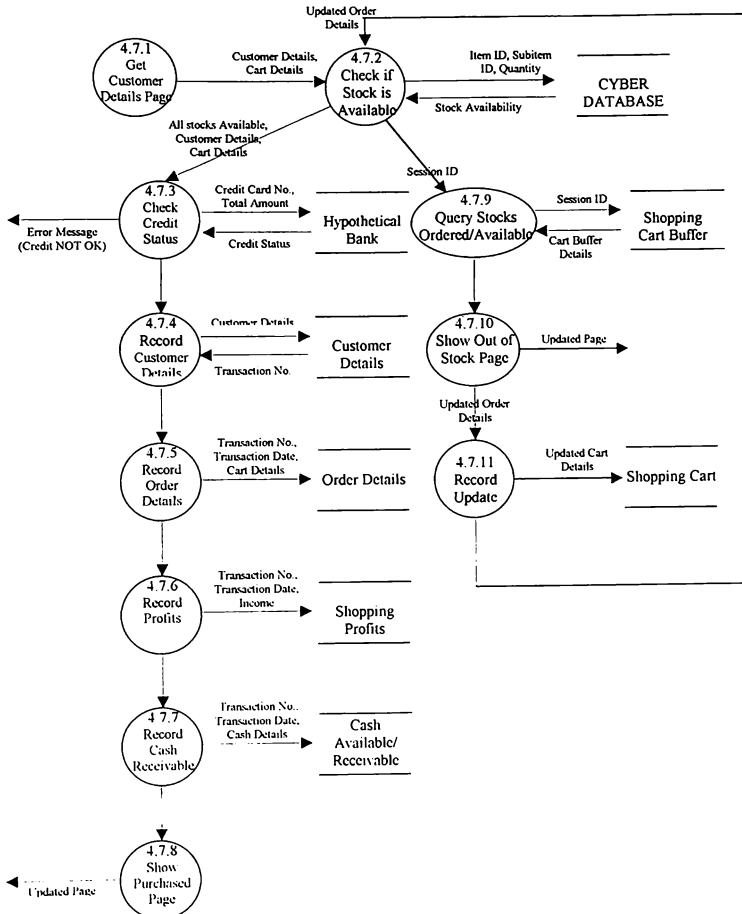


Figure 16: Sub-Explosion of Process 4.7: Buy Product, Cyberstore and Cyberads

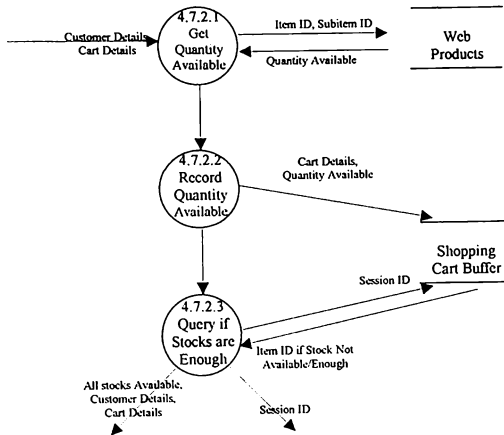


Figure 17: Sub-Explosion of Process 4.7.2: Check if Stock is Available, Cyberstore and Cyberads

The sub-explosion of the process maintaining the site (bubble 5) in Figure 9 can be seen in Figure 18 where there are 8 sub-processes namely login of system administrator (see Figure 19 for further sub-explosion), basic sysad jobs (see Figure 18-30 for further sub-explosion), restock products and refill web stocks (see Figure 31-39 for further sub-explosion), deliveries (see Figure 40-42 for further sub-explosion), return products (see Figure 43-48 for further sub-explosion), view reports (see Figure 49-53 for further sub-explosion), view banner transaction details (see Figure 54-56 for further sub-explosion), and view free advertiser/advertisements (see Figure 57 for further sub-explosion).

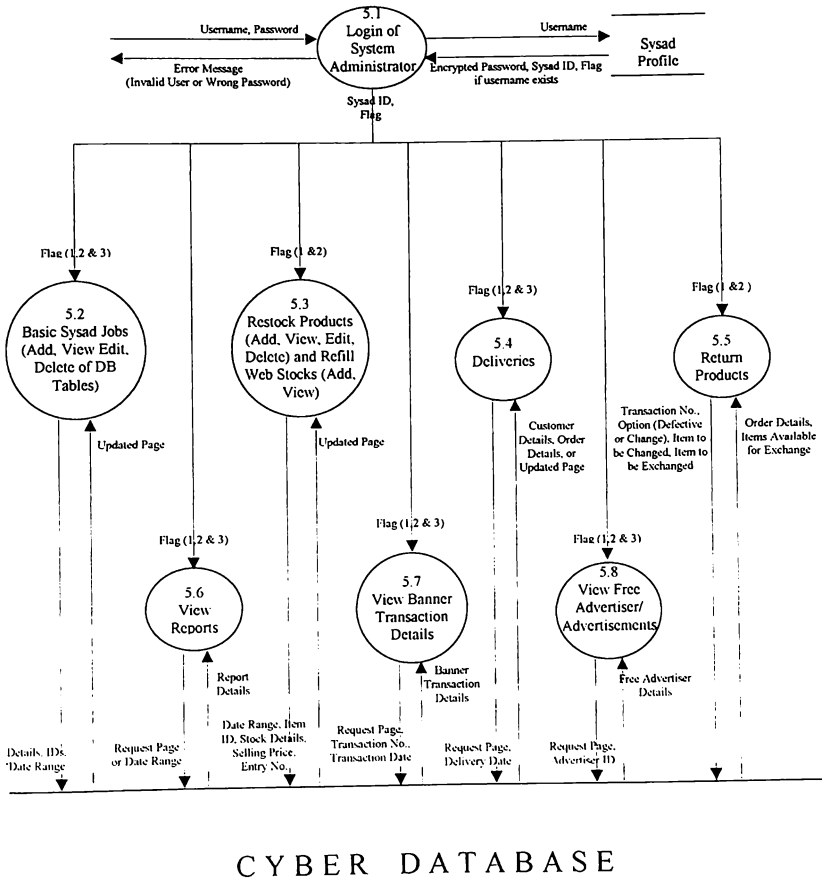


Figure 18: Sub-Explosion of Process 5: Maintaining the Site, Cyberstore and Cyberads

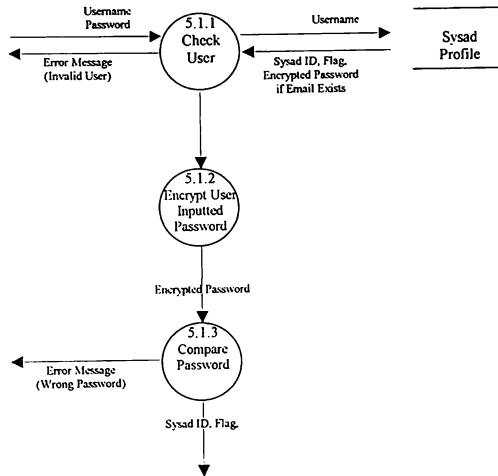


Figure 19: Sub-Explosion of Process 5.1: Login of System Administrator, Cyberstore and Cyberads

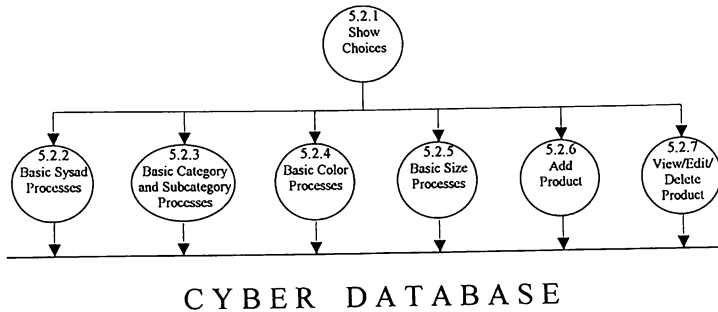


Figure 20: Sub-Explosion of Process 5.2: Basic Sysad Jobs, Cyberstore and Cyberads

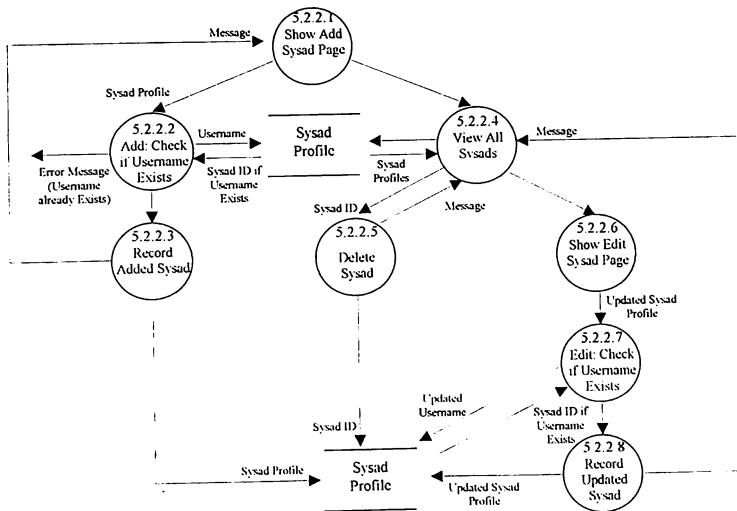


Figure 21: Sub-Explosion of Process 5.2.2: Basic Sysad Processes, Cyberstore and Cyberads

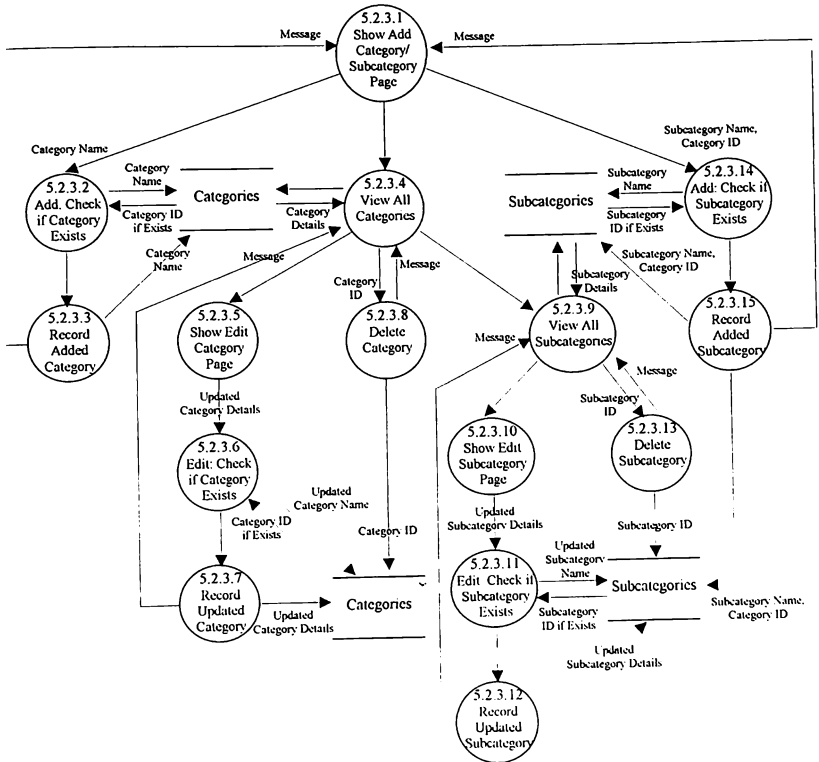


Figure 22: Sub-Explosion of Process 5.2.3: Basic Category and Subcategory Processes, Cyberstore and Cyberads

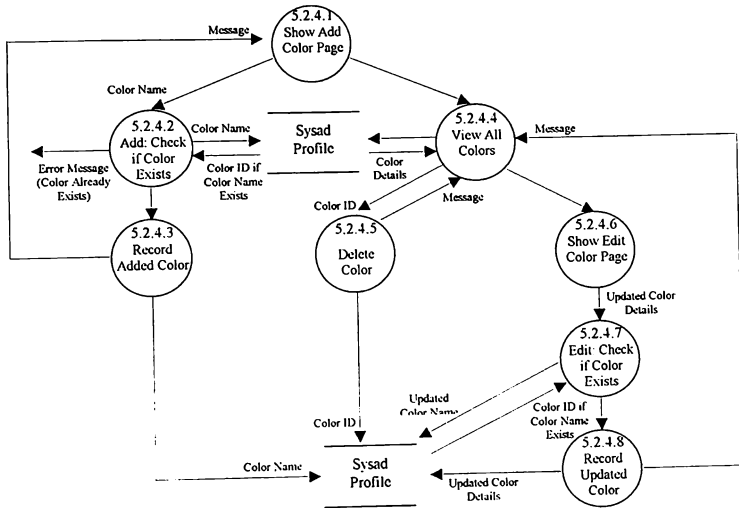


Figure 23. Sub-Explosion of Process 5.2.4: Basic Color Processes, Cyberstore and Cyberads

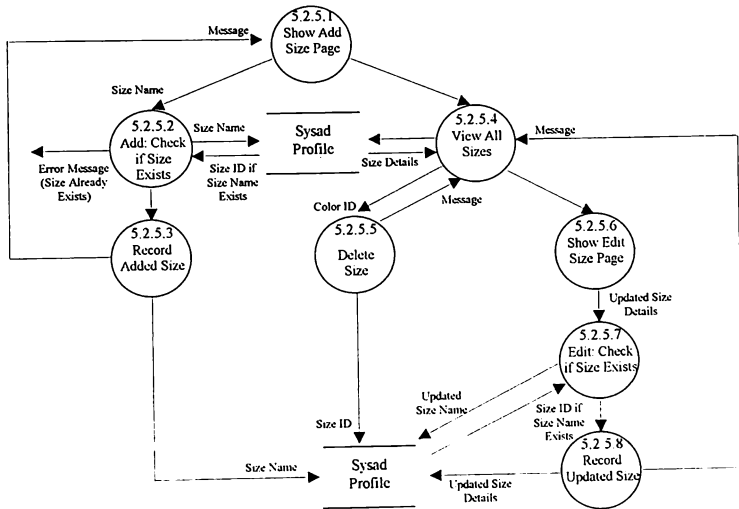


Figure 24: Sub-Explosion of Process 5.2.5: Basic Size Processes, Cyberstore and Cyberads

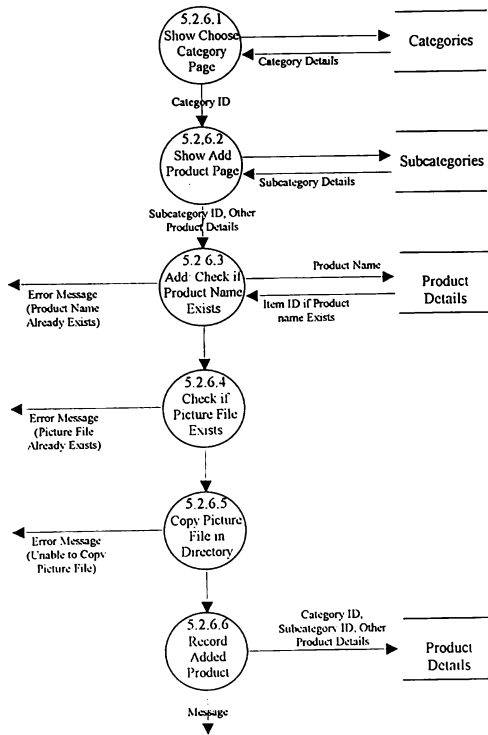


Figure 25: Sub-Explosion of Process 5.2.6: Add Product, Cyberstore and Cyberads

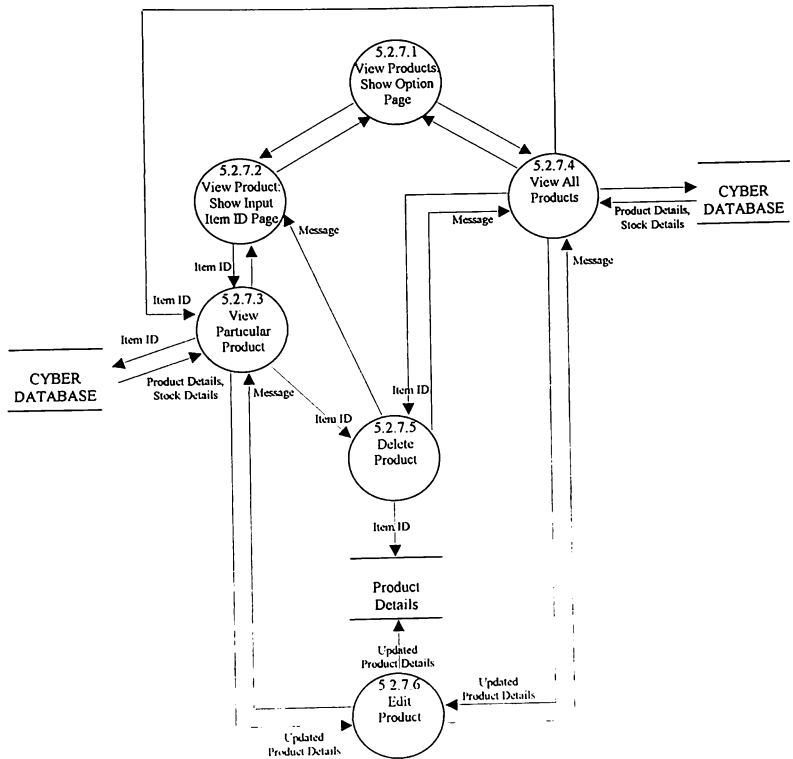


Figure 26: Sub-Explosion of Process 5.2.7. View/Edit/Delete Product, Cyberstore and Cyberads

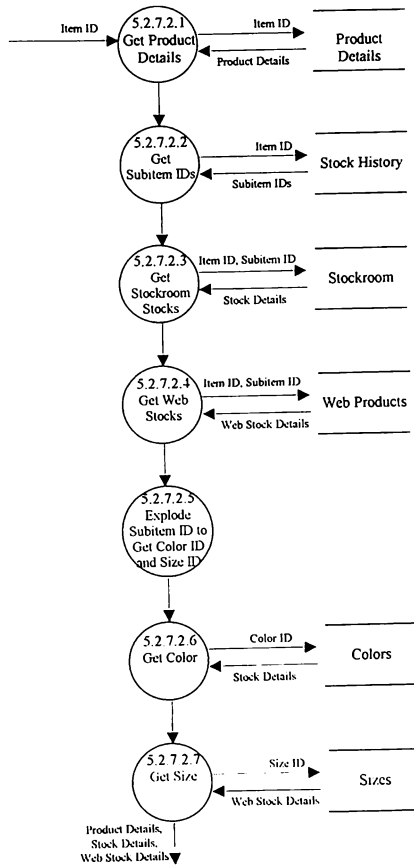


Figure 27: Sub-Explosion of Process 5.2.7.2: View Particular Product, Cyberstore and Cyberads

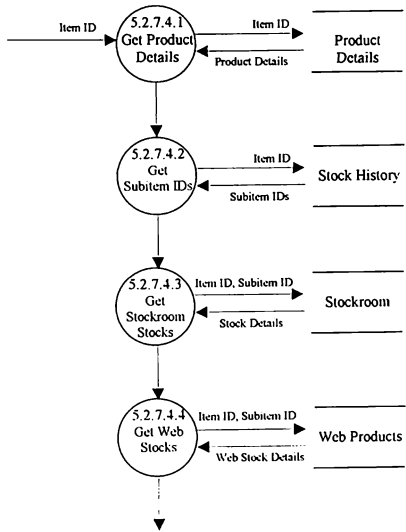


Figure 28. Sub-Explosion of Process 5.2.7.4: View All Products, Cyberstore and Cyberads

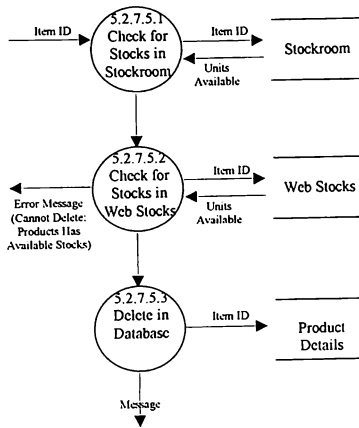


Figure 29: Sub-Explosion of Process 5 2 7.5: Delete Product, Cyberstore and Cyberads

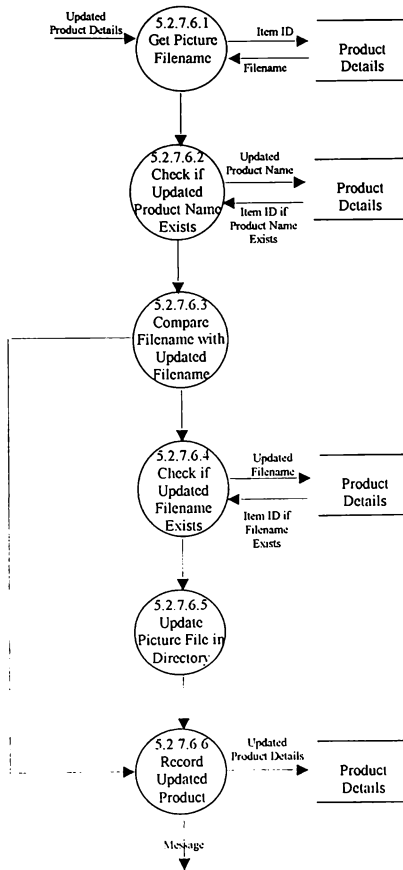


Figure 30: Sub-Explosion of Process 5.2.7.6: Edit Product, Cyberstore and Cyberads

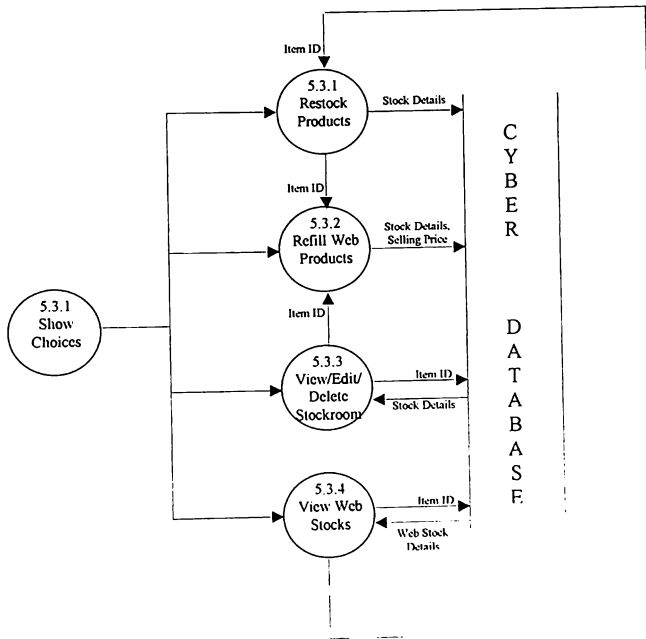


Figure 31: Sub-Explosion of Process 5.3: Restock Products and Refill Web Product, Cyberstore and Cyberads

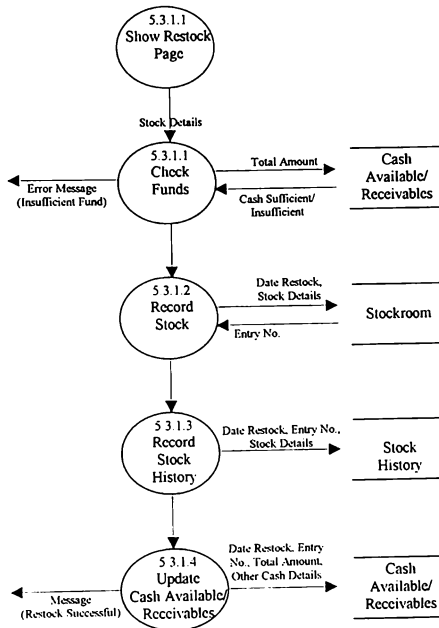


Figure 32: Sub-Explosion of Process 5.3.1: Restock Products, Cyberstore and Cyberads

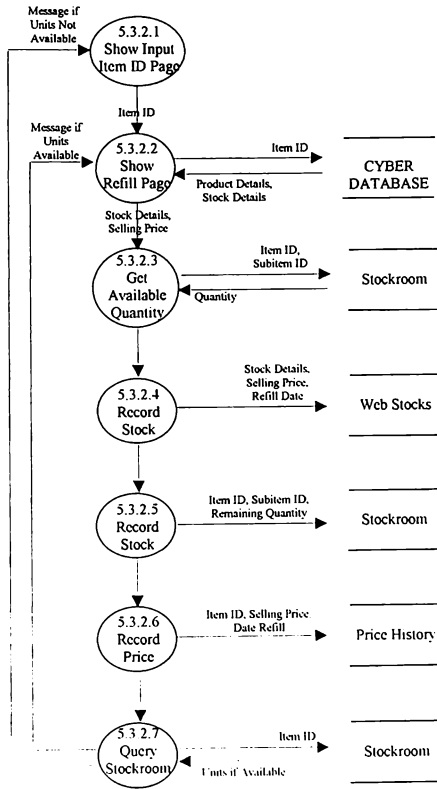


Figure 33: Sub-Explosion of Process 5.3.2: Refill Web Products, Cyberstore and Cyberads

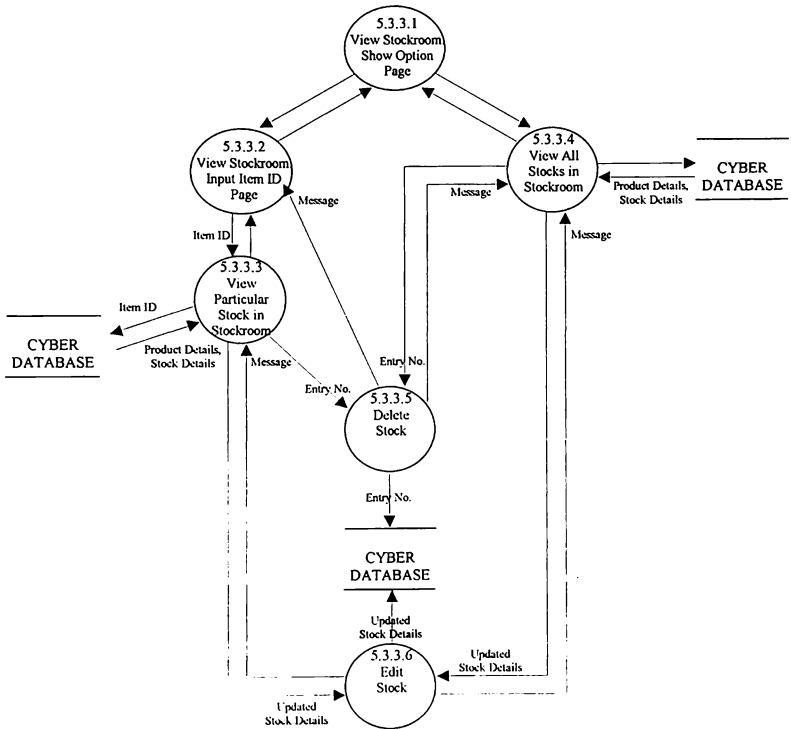


Figure 34: Sub-Explosion of Process 5.3.3: View/Edit/Delete Stockroom, Cyberstore and Cyberads

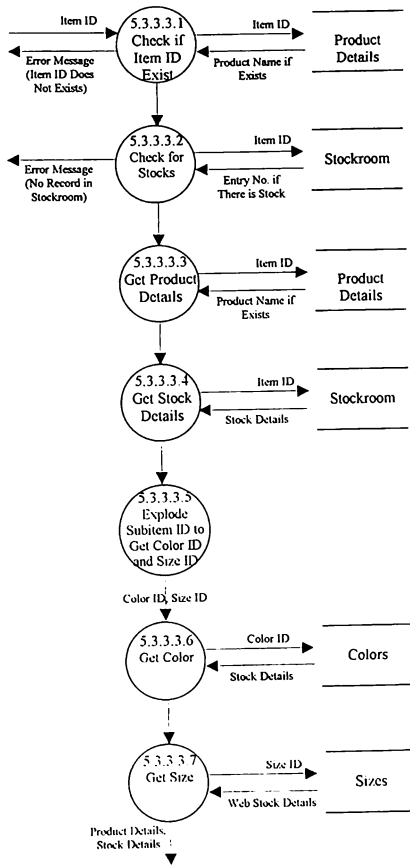


Figure 35: Sub-Explosion of Process 5.3.3.3: View Particular Stock in Stockroom, Cyberstore and Cyberads

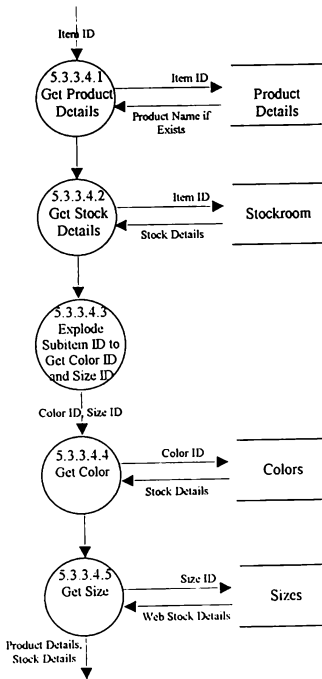


Figure 36: Sub-Explosion of Process 5.3.3.4: View All Stocks in Stockroom, Cyberstore and Cyberads

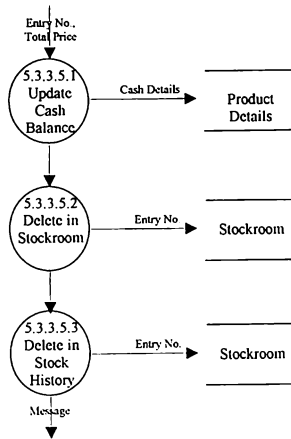


Figure 37: Sub-Explosion of Process 5.3.3.5: Delete Stock, Cyberstore and Cyberads

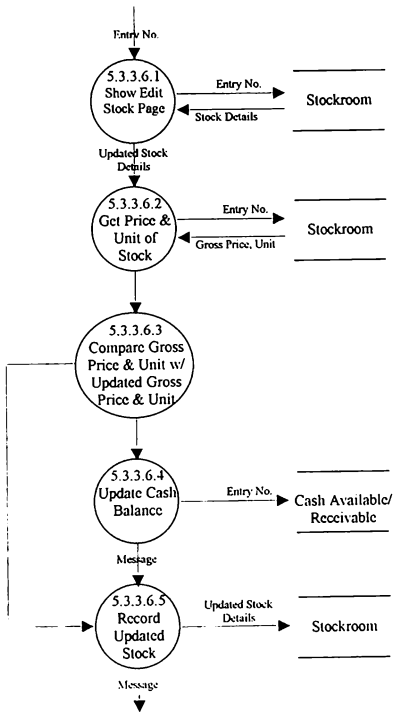


Figure 38. Sub-Explosion of Process 5.3.3.6: Edit Stock, Cyberstore and Cyberbards

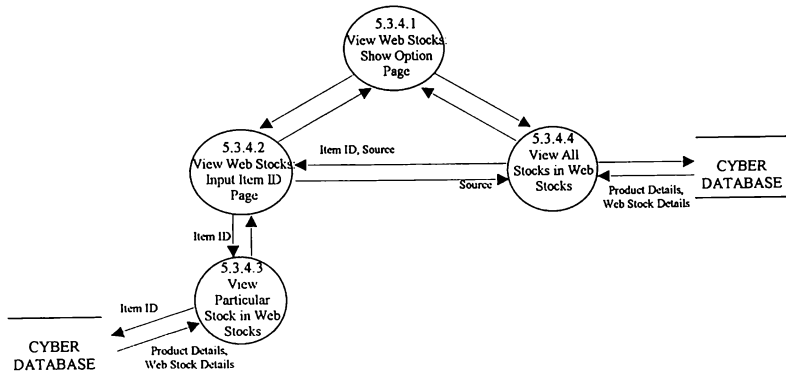


Figure 39: Sub-Explosion of Process 5.3.4: View Stockroom, Cyberstore and Cyberads

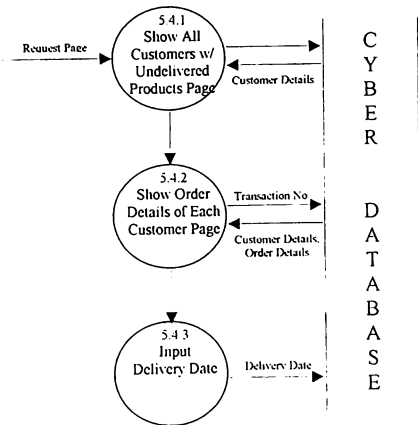


Figure 40: Sub-Explosion of Process 5.4: Deliveries, Cyberstore and Cyberads

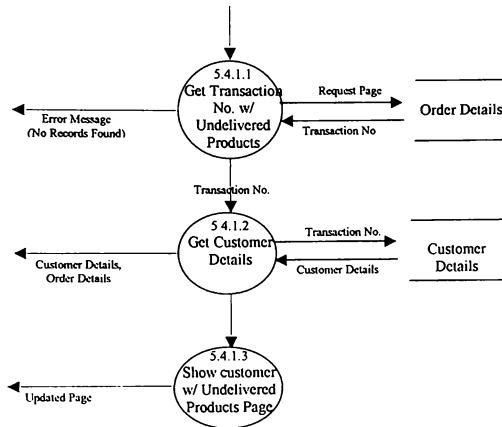


Figure 41: Sub-Explosion of Process 5.4.1: Show All Customers w/ Undelivered Products Page, Cyberstore and Cyberads

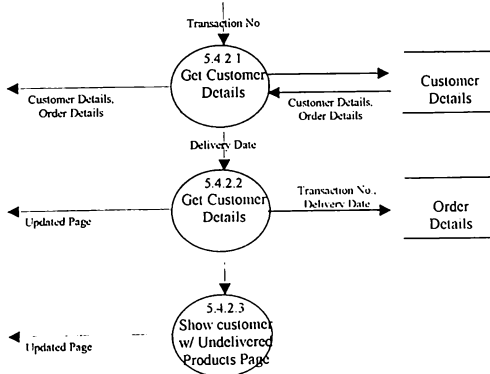


Figure 42: Sub-Explosion of Process 5.4.2: Show Order Details of Each Customer Page, Cyberstore and Cyberads

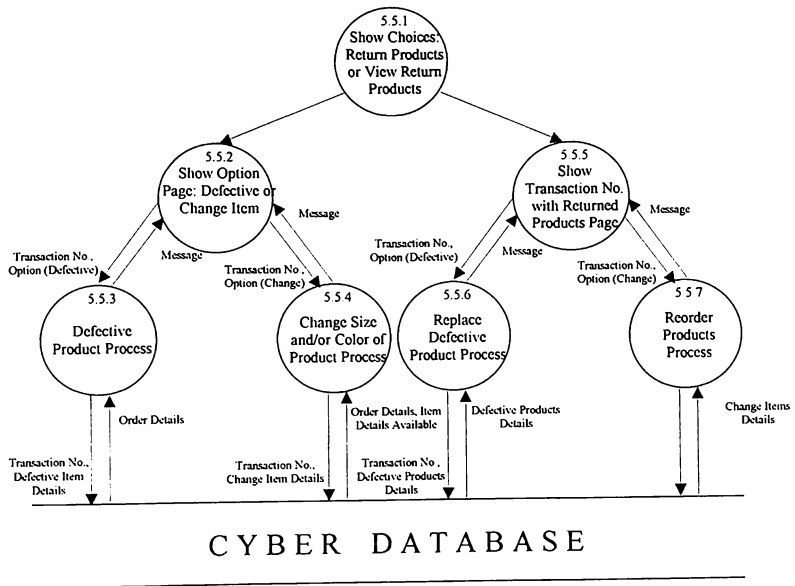


Figure 43: Sub-Explosion of Process 5.5. Return Products, Cyberstore and Cyberbrads

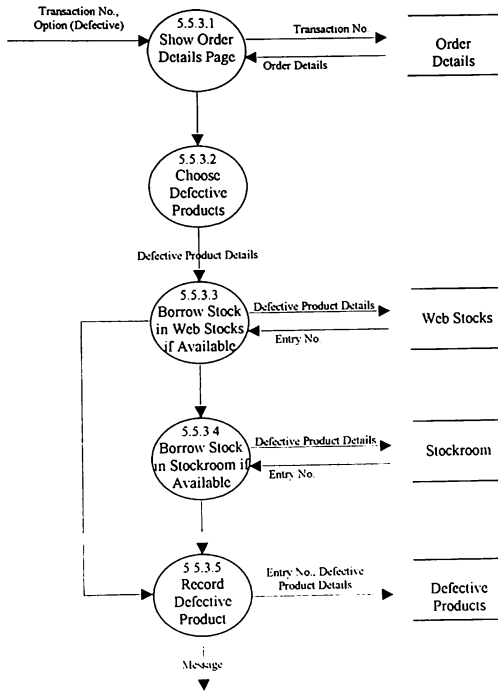


Figure 44: Sub-Explosion of Process 5.5.3: Return Defective Products, Cyberstore and Cyberads

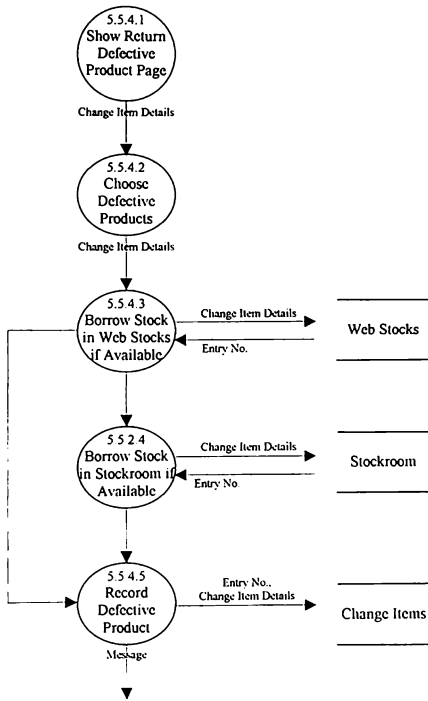


Figure 45: Sub-Explosion of Process 5.5.4: Change Products, Cyberstore and Cyberads

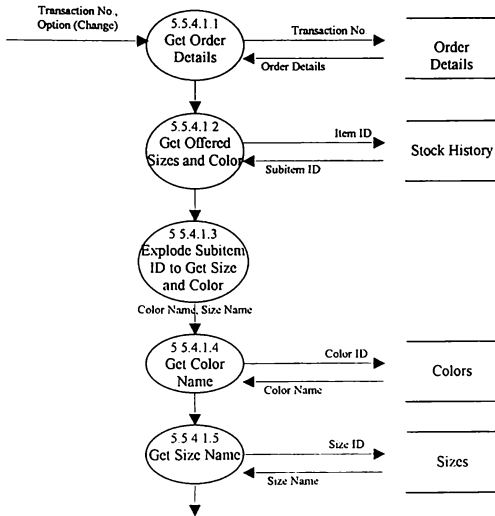


Figure 46: Sub-Explosion of Process 5.5.4.1: Show Return Defective Product Page, Cyberstore and Cyberads

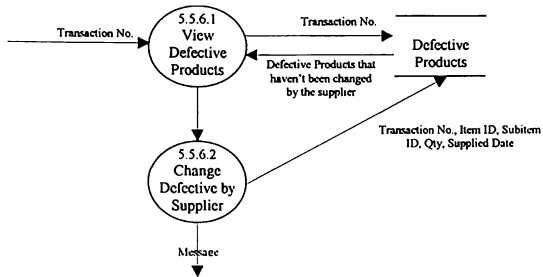


Figure 47. Sub-Explosion of Process 5.5.6: Replace Defective Products, Cyberstore and Cyberads

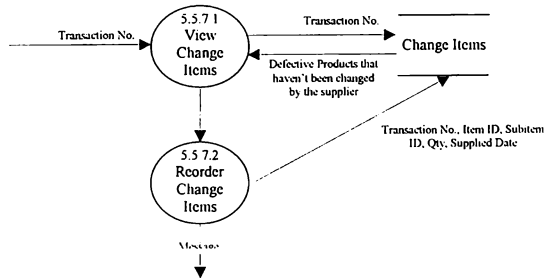


Figure 48. Sub-Explosion of Process 5.5.7: Reorder Change Items, Cyberstore and Cyberads

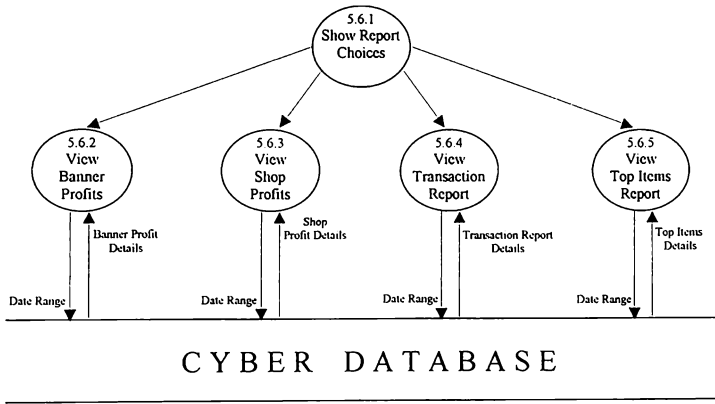


Figure 49. Sub-Explosion of Process 5.6: Reorder Change Items, Cyberstore and Cyberads

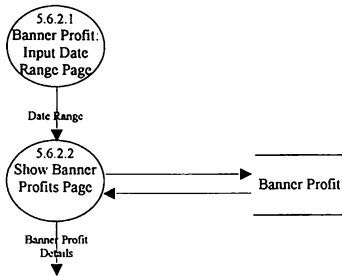


Figure 50: Sub-Explosion of Process 5.6.2: View Banner Profits, Cyberstore and Cyberads

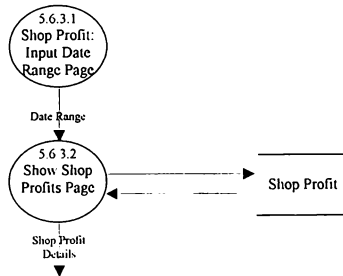


Figure 51: Sub-Explosion of Process 5.6.3: View Shop Profits, Cyberstore and Cyberads

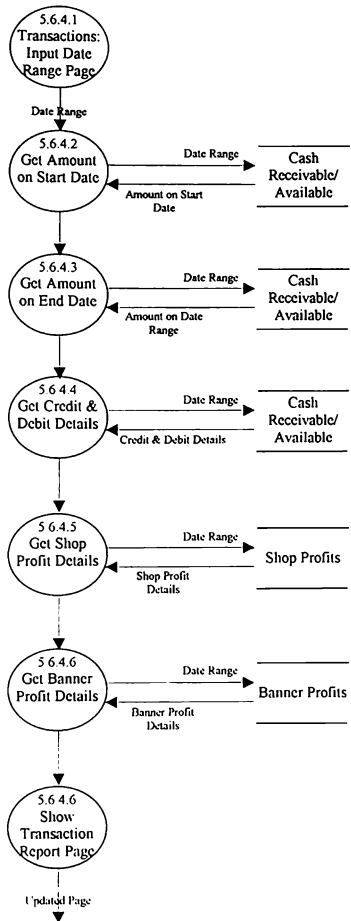


Figure 52: Sub-Explosion of Process 5.6.4: View Transaction Report, Cyberstore and Cyberads

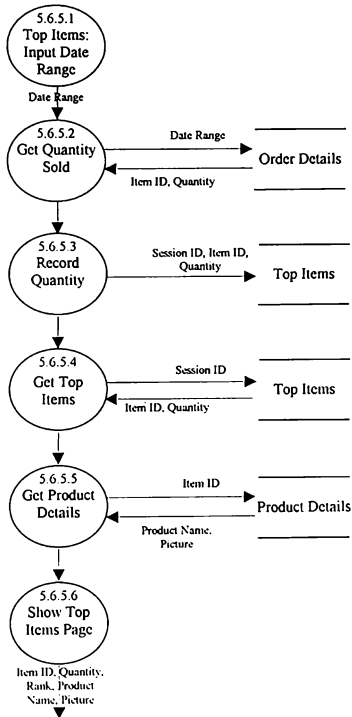


Figure 53: Sub-Explosion of Process 5.6.5: View Reports, Cyberstore and Cyberads

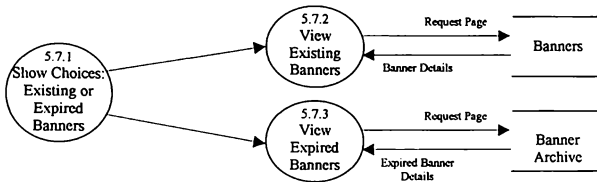


Figure 54: Sub-Explosion of Process 5.7: View Banners, Cyberstore and Cyberads

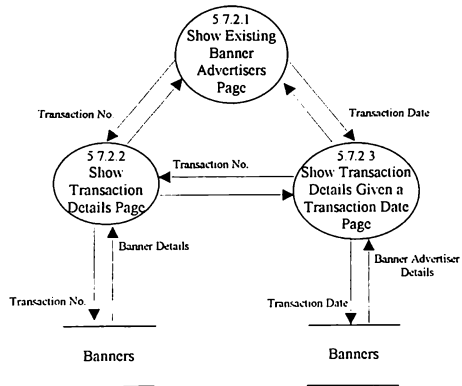


Figure 55: Sub-Explosion of Process 5.7.2: View Existing Banners, Cyberstore and Cyberads

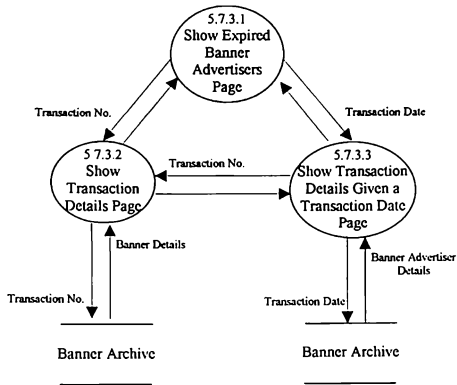


Figure 56: Sub-Explosion of Process 5.7.3: View Expired Banners, Cyberstore and Cyberads

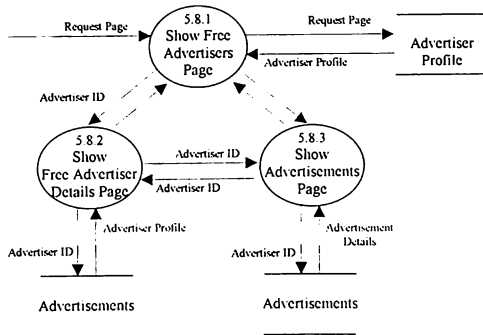


Figure 57: Sub-Explosion of Process 5.8. View Free Advertisers/Advertisements, Cyberstore and Cyberads

Table 1: Data Dictionary, Cyberstore and Cyberads

shopping_products				
-list of products and its description				
Key	Field Name	Field Type	Field Attributes	Description
Primary	itemid	int (10)	auto increment	identification number of a product
Foreign	categoryid	int (10)		identification number of a category of the product
Foreign	subcategoryid	int (10)		identification number of a subcategory of the product
	product_name	varchar (30)	unique product name	name of the product
	product_desc	text		short description of the product
	picture	varchar (100)	unique file name	picture of the product in jpg/gif
	percent	float	default: 1.2	determines the selling price of the product
	stock_level	tinyint(4)	default: 20	minimum number of stock before a reorder or refill is made (10% of stock level)
shopping_categories				
-list of categories				
Key	Field Name	Field Type	Field Attributes	Description
Primary	categoryid	int (10)	auto increment	identification number a category
	category_name	varchar (50)	unique category name	name of the category
shopping_subcategories				
Key	Field Name	Field Type	Field Attributes	Description
Primary	subcategoryid	int (10)	auto increment	identification number of a subcategory
	subcategory_name	varchar (50)	unique subcategory name	name of a subcategory
Foreign	categoryid	int (10)		category identification number of a subcategory
shopping_stocks				
-stocks entered to the stockroom from the supplier				
Key	Field Name	Field Type	Field Attributes	Description
Primary	entryno	bigint (20)	auto increment	identification number of a stock
Foreign	itemid	int (10)		identification number of a product
	sub_itemid	varchar (10)		determines the size and color of a product
	gross_price	float		price of the product when bought from supplier
	units	tinyint (4)		number of units stocked
	date	bigint(14)		date the stock was encoded
	borrowed	tinyint (4)		number of units borrowed for defective products
shopping_audit_trail_stocks				
-history of all stocks that entered the stockroom				
Key	Field Name	Field Type	Field Attributes	Description
Foreign	entryno	bigint (20)		identification number of a stock
Foreign	itemid	int (10)		identification number of a product
	sub_itemid	varchar (10)		determines the size and color of a product
	gross_price	float		price of the product when bought from supplier
	units	tinyint (4)		number of units stocked
	date	bigint(14)		date of stock

(Table 1 -- Continued)

shopping_web_products				
-stocks available in the web				
Key	Field Name	Field Type	Field Attributes	Description
Primary	entryno	bigint (20)	auto increment	identification number of web products
Foreign	itemid	int (10)		ID of a product
	sub_itemid	varchar (10)		determines the size and color of a product
	gross_price	float		price of the product when bought from supplier
	selling_price	float		selling price of a product
	units_available	tinyint (4)		number of units of a product that are available
	units_reserved	tinyint (4)		number of units of a product that is already reserved to customers
	date	bigint(14)		date of refill
	borrowed	tinyint(4)		number of units borrowed for defective products
shopping_prices				
-history of prices of all products				
Key	Field Name	Field Type	Field Attributes	Description
Foreign	itemid	int (10)		identification number products
	amount	float		selling price of products
	date	bigint (14)		date of refill
shopping_cart				
-temporary storage of orders of customers				
Key	Field Name	Field Type	Field Attributes	Description
	customerid	varchar (50)		session identification number of a customer
Foreign	itemid	int (10)		identification number of a product
	sub_itemid	varchar (10)		determines the size and color of a product
	quantity	tinyint (4)		quantity of product ordered
shopping_cart_buffer				
-temporary storage of orders of customers and each order's available stock				
Key	Field Name	Field Type	Field Attributes	Description
	customerid	varchar (50)		session identification number of a customer
Foreign	itemid	int (10)		identification number of a product
	sub_itemid	varchar (10)		determines the size and color of a product
	quantity	tinyint (4)		quantity of product ordered
	avlb	tinyint (4)		available stocks in web products
	stock	tinyint (4)	default: 0	returns 1 if stock is not enough/available
shopping_top_items				
-temporary storage for the most selling items				
Key	Field Name	Field Type	Field Attributes	Description
	viewid	varchar (50)		session id of system administrator
Foreign	itemid	int (10)		identification number of a product
	units	tinyint(4)		number of units sold in a particular date range
shopping_customer_reservation				
-contains all the personal information of customers				
Key	Field Name	Field Type	Field Attributes	Description
Primary	transactionno	bigint (20)	auto-increment	sales transaction number
	customer_name	varchar (30)		name of the customer
	address	text		address of the customer
	contact_number	varchar (20)	optional	contact number of a customer
	email	varchar (50)	optional	email address of a customer
	creditcard	bigint (16)		credit card number of a customer

(Table 1 – Continued)

shopping_reserved_products				
-permanent storage of orders of customers				
Key	Field Name	Field Type	Field Attributes	Description
Foreign	transactionno	bigint (20)		sales transaction number
Foreign	itemid	int (10)		identification number of a product
	sub_itemid	varchar (10)		determines the size and color of a product
	gross_price	float		price of the product when bought from supplier
	unit_price	float		selling price of a product
	quantity	tinyint (4)		quantity of a product
	total_price	float		total price of the transaction
	order_date	bigint(14)		date of a transaction
	deliver_date	bigint(14)		delivery date of product/s
	returned	tinyint (1)	default: 0	returns 1 if a product is returned
shopping_defective_products				
-storage for returned products that are defective				
Key	Field Name	Field Type	Field Attributes	Description
Primary	id	int (20)		identification number of changed items
	updateid	varchar (50)		session id
Foreign	transactionno	bigint (20)		sales transaction number
Foreign	itemid	int (10)		determines the identification number of a product
	sub_itemid	varchar (10)		determines the size and color of a product
	quantity	int (5)		quantity of a product
	return_date	bigint(14)		returned date of product
	deliver_date	bigint(14)		delivery date of product
Foreign	entryno	bigint (20)		identification number of a stock in web products or stockroom
	table_borrowcd	varchar (10)		tells the table where the stock was borrowed
shopping_change_items				
-storage for change items products				
Key	Field Name	Field Type	Field Attributes	Description
Primary	id	int (20)		identification number of changed items
	updateid	varchar (50)		session id
Foreign	transactionno	bigint (20)		sales transaction number
Foreign	itemid	int (10)		identification number of a product
	sub_itemid	varchar (10)		determines the size and color of a product
	quantity	int (5)		quantity of a product
	return_date	bigint(14)		returned date of product
	deliver_date	bigint(14)		delivery date of product
Foreign	entryno_stocks	bigint (20)		identification number of a stock in web products or stockroom
	supplied_date	bigint(14)		date the supplier supplied the product
	customer_payment	float		payment of customer in a particular item
bank				
Key	Field Name	Field Type	Field Attributes	Description
Primary	Acctno	bigint (16)		account number of a customer
	Creditlimit	double		available balance of a customer's credit card

(Table 1 – Continued)

colors				
Key	Field Name	Field Type	Field Attributes	Description
Primary	colorid	int (10)	auto increment	identification number of a color
	color_name	varchar (25)	unique color name	name of color
sizes				
Key	Field Name	Field Type	Field Attributes	Description
Primary	sizeid	int (10)	auto increment	identification number of a size
shopping profits				
Key	Field Name	Field Type	Field Attributes	Description
Foreign	transactionno	bigint (20)		sales transaction number
Foreign	itemid	int (10)		identification number of a product
	sub_itemid	varchar (10)		determines the size and color of a product
	gross_price	float		price of the product when bought from supplier
	selling_price	float		selling price of a product
	income	float		income of each product
	date_transact	bigint (14)		date of a transaction
Primary	entryno	bigint (20)		identification number of profits
	size_name	varchar (25)	unique size name	name of size
rates				
Key	Field Name	Field Type	Field Attributes	Description
Primary	rateid	tinyint (4)	auto increment	identification number of a rate
	time_frame	tinyint (4)		time frame of banner ads in days
	amount	float		banner amount
banners				
-storage for banner advertiser transactions that are still active				
Key	Field Name	Field Type	Field Attributes	Description
Primary	CTransactNo	bigint (20)	auto increment	banner transaction number
	BanName	varchar (50)		name of client
	BanEmail	varchar (50)	optional	email address of client
	BanContact	varchar (20)	optional	contact number of client
	BanBusiness	varchar (50)	optional	business name of client
	CCard	bigint (16)		credit card number of client
	BanAmount	float		amount of banner advertisement
	TFrame	tinyint (4)		time frame of banner advertisements in days
	URL	varchar (50)		link to an external client's website
	DateTrans	bigint (14)		transaction date
	DateS	bigint (14)		start date of banner ads
	DateE	bigint (14)		end date of banner ads
	ImportedFile	varchar (100)		banner file in jpg/gif
	session_id	varchar (50)		session id of a customer

(Table 1 – Continued)

banner_archive				
- storage for banner advertiser transactions that are expired				
Key	Field Name	Field Type	Field Attributes	Description
Primary	CTransactNo	bigint (20)	auto increment	banner transaction number
	BanName	varchar (50)		name of client
	BanEmail	varchar (50)	optional	email address of client
	BanContact	varchar (20)	optional	contact number of client
	BanBusiness	varchar (50)	optional	business name of client
	CCard	bigint (16)		credit card number of client
	BanAmount	float		amount of banner advertisement
	TFrame	tinyint (4)		time frame of banner advertisements in days
	URL	varchar (50)		link to an external client's website
	DateTrans	bigint (14)		transaction date
	DateS	bigint (14)		start date of banner ads
	DateE	bigint (14)		expiry date of banner ads
banner_profit				
-list of income got from banner advertisements				
Key	Field Name	Field Type	Field Attributes	Description
Primary	transactionno	bigint (20)		banner transaction number
	transact_date	bigint (14)		transaction date
	amount	float		banner amount
profits				
-contains all credit and debit transactions				
Key	Field Name	Field Type	Field Attributes	Description
Primary	profit_id	bigint(20)		identification number of transactions
	cash on hand	float		cash available/receivable
	credit amount	float		amount credited in each transaction
	debit amount	float		amount debited in each transaction
	description	text		description of credit/debit amount
	source	varchar (20)		source of the credit/debit amount
Foreign	transactionno	varchar (20)	default: na	transaction no if applicable
	date	bigint (14)		date of credit/debit amount
Foreign	sysadid	bigint (20)	default: na	system administrator ID who is responsible for the transaction if applicable
free_ads_profile				
-personal information of free advertisers				
Key	Field Name	Field Type	Field Attributes	Description
Primary	AdvertiserID	bigint (20)	auto increment	identification number of free advertisers
	Email	varchar (50)	unique	email address of free advertisers
	Password	varchar (20)		password of free advertiser
	Name	varchar (50)		name of free advertiser
	Address	text		address of free advertiser
Foreign	Country	varchar (30)		country of free advertiser
	ContactPerson	varchar (20)		name of contact person to be placed in advertisements
	ContactNumber	varchar (50)	optional	contact number to be placed in advertisements
	BusinessName	varchar (50)	optional	business name of free advertiser if any
	LastLog	bigint (14)		date of last log (determines if a free advertiser should be deleted from database)

(Table 1 – Continued)

free_advertisements				
-storage of free advertisements of free advertisers				
Key	Field Name	Field Type	Field Attributes	Description
Foreign	Category	int (10)		identification number of category of an ad
	Product	varchar (20)		name of an ad
	Description	varchar (50)		description of an ad
	Price	text		price of an ad
	ExpiryDate	bigint (14)		expiry date of an ad
Foreign	AdvertiserID	bigint (20)		identification number of free advertisers
Login				
-contains personal information of all system administrators				
Key	Field Name	Field Type	Field Attributes	Description
	flag	smallint (1)		authorization level of system administrator
	username	varchar (50)		username of system administrator
	password	varchar (20)		password of system administrator
	name	varchar (50)		name of system administrator
	address	text		address of system administrator
	contact	varchar (20)	optional	contact number of system administrator
Primary	sys_id	bigint (20)	auto increment	identification number of a system administrator

Program Design

Programming Language, Database and Web Server

This site is developed using PHP as its programming language and a little JavaScript for minor designs, MYSQL for its database and Apache as its Web server.

Installing Merlin Desktop will install and configure PHP, MYSQL and Apache Web Server.

Modules

This special program is composed of different modules. These are:

1. Sales Module
2. Post Advertisement Module
3. Banners Module

4. System Administrator Module

- a. Shop
- b. Free Advertisements
- c. Banners
- d. Reports

Technical Architecture

The system uses PHP triad: PHP4 as its scripting language, MYSQL as database management system (DBMS), and Apache as its server. The computer server should have the following specifications:

SYSTEM REQUIREMENTS	MINIMUM	PREFERRED
Memory	16 MB RAM	64 MB RAM
Processor	486	Pentium 2
Harddisk	5 Gigabyte	80 Gigabyte
Internet Connection	Any Internet Connection	DSL
Modem	Depends on internet connection	Modem provided by DSL
Mouse	Any	Any
Monitor	640 x 480 256 color SVGA	800 x 600 256 color SVGA

Using the system requirements of the “minimum” column is enough for an e-commerce site to run but for the site to work more efficiently the “preferred” column should be used. Alternatively, with some good upfront planning, it is better to install a server that is highly scalable, permitting additional processors, drives that can be hot-inserted into a RAID array, and much more memory. Or one may buy a server with much more horsepower than initially required.

The system requirements of the client must at least have a Pentium-based PC or higher, 16 MB RAM or higher, a dial-up modem (preferably 56 kbps) and an Internet connection.

V. RESULTS

The home page as shown in Figure 58 contains all the products and its description that can be bought in the site which could be viewed by clicking the categories or subcategories. Should a customer decide to order an item, he should click the “place order” button.

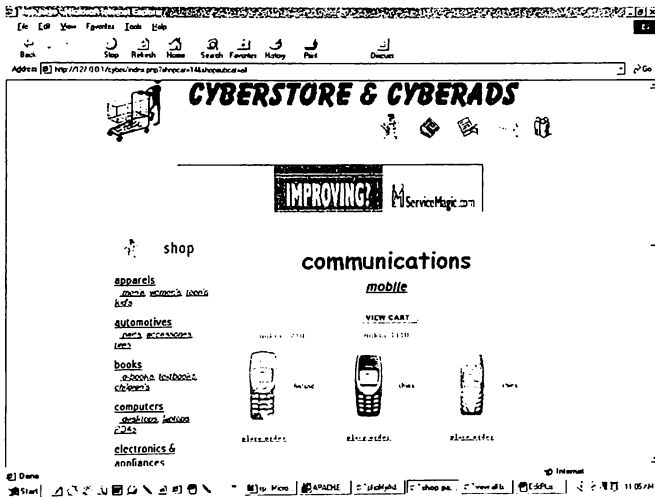


Figure 58. Home Page of the Site, Cyberstore and Cyberads

A customer can indicate the number of units he wants to buy by choosing a quantity in the drop down menu and by checking the check box that corresponds to the item. Size and color if available is also specified here. The item will be automatically added to the shopping cart and page will go back to the home page once the customer clicks the “add to cart” button. The “clear” button will clear all selected checkboxes and drop down menus (see Figure 59).

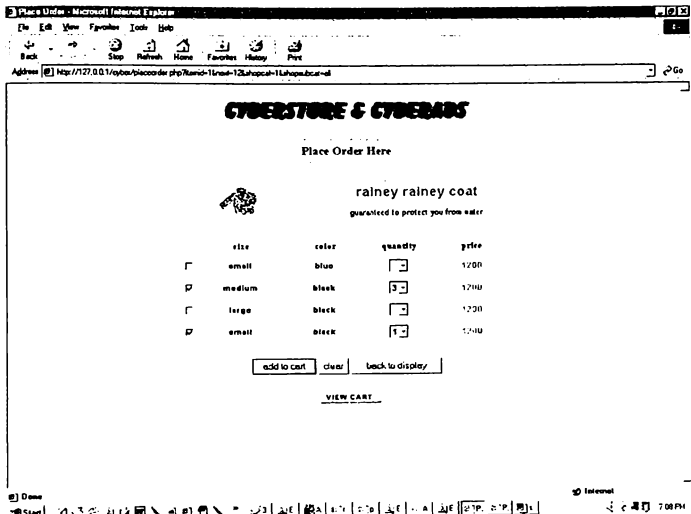


Figure 59: Order Form, Cyberstore and Cyberads

The page on the top in Figure 60 will emerge once “view cart” button is clicked. It contains all the products that the customer has ordered as well as the total amount of his orders. Should a customer decide to change the quantity of his order, he may do so by clicking the “update quantity” button and the page on the bottom will appear. The drop down menu in the quantity column contains the number of units available in the stock. Clicking the “save changes” will update his shopping cart as well as update the total amount of his orders. If a customer wants to purchase his shopping cart, he should click the “purchase items” button.

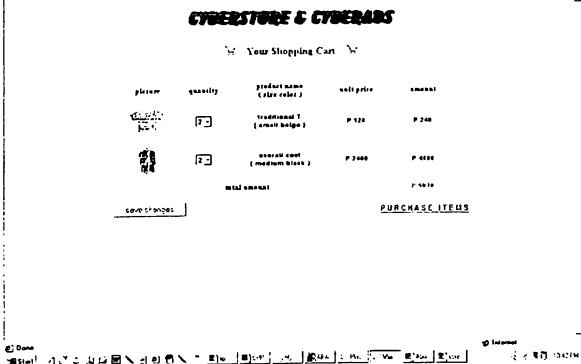
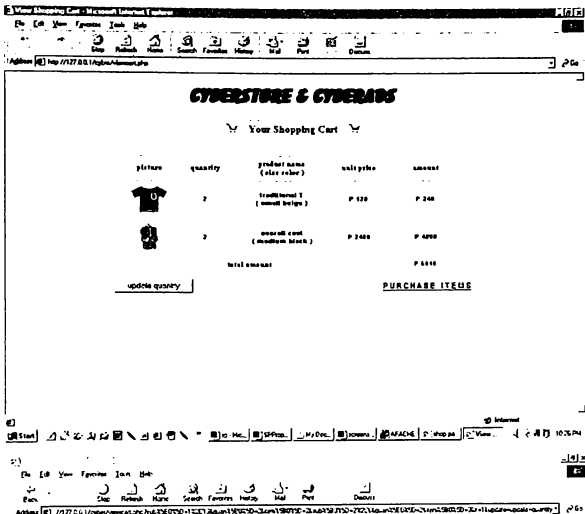


Figure 60: Shopping Cart, Cyberstore and Cyberads

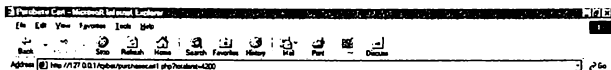
The customer's personal information will be needed to complete his transaction. The "submit" button will submit the customer's personal information and shopping cart for processing. While the "back to cart" button will allow the user to view again his shopping list (See Figure 61).

The screenshot shows a web browser window with the following details:

- Browser: Firefox 3.0.1
- Address Bar: http://172.0.1.1/cyberstoreandcard.php?cid=74401
- Page Title: CYBERSTORE & CYBERADS
- Form Section: Shopping Information
- Form Fields:
 - Name:
 - Address:
 - Contact Number:
 - Email Address:
 - Credit Card No.:
- Buttons: , ,

Figure 61: Customer Details, Cyberstore and Cyberads

The page on top of Figure 62 would appear if a product in the shopping cart of a customer does not have enough stocks. The customer has to update the quantity of the products that he wants to order depending on the availability of the stock. The bottom page will emerge if a transaction is completed – meaning, all products in the shopping cart is available.



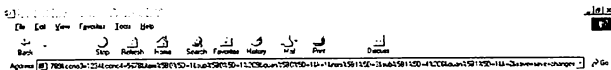
CYBERSTORE & CYBERADS

Shopping Information

Customer
nald magcalas
Delivery Address
7 c road 9 cor road 2 bagong pagasa qc
Contact Number 9267778 E-mail naldgm@yahoo.com

Some Products Do Not Have Enough Stock,
Please make Necessary Changes

qty	qty available	product name (size color)	unit price	amount
3	<input type="text" value="3"/>	tenag rotary tool (small silver)	P 500	P 1500
1	<input type="text" value="1"/>	nerall enal (extra large black)	P 200	P 200
size changes			total purchased amount	P 1700



CYBERSTORE & CYBERADS

Shopping Information

Transaction No
6 Customer
nald magcalas
Delivery Address
7 c road 9 cor road 2 bagong pagasa qc
Contact Number 9267778 E-mail naldgm@yahoo.com

Purchased Items

qty	product name (size color)	unit price	amount
3	nerall enal (extra large black)	P 200	P 600
1	tenag rotary tool (small silver)	P 100	P 100
total purchased amount			P 700

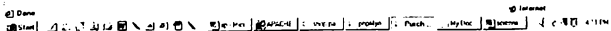


Figure 62: Purchase Shopping Cart, Cyberstore and Cyberads

All Free Advertisers must have an account before they can advertise in this site that is why they should first fill-out an application form as shown in Figure 63. A valid email address is required.

The screenshot shows a web browser window with the address bar displaying 'http://172.8.0.1/cyberstore/new.php'. The page content includes a 'FREE' logo, the text 'post ads', and the title 'new advertiser's application form'. There are two links: 'old advertiser' and 'new advertiser'. A 'PLEASE READ' section contains instructions: 'PLEASE READ: Make sure to fill your correct email address because it is required to send you messages, correct all required fields. Copy the fields email addresses, contact person, contact number and business name and the telephone number of your business for the free 14-day trial period. You will receive an amount of your choice. Then you the choosing to a year or so long.' Below this is a form with the following fields: 'E-mail Address', 'Name', 'Address', 'Country' (a dropdown menu), 'Contact Person', 'Contact Number' (with '(optional)' text), and 'Business Name' (with '(optional)' text). At the bottom of the form are 'submit' and 'cancel' buttons. The browser's status bar at the bottom shows 'Done' and '100%' zoom.

Figure 63: Free Advertiser's Application Form, Cyberstore and Cyberads

Figure 64 shows the login page of the free advertisers. A free advertiser should provide his email address and password for him to be able to access the service of the site

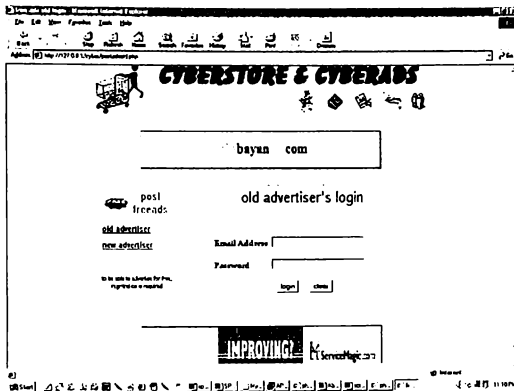


Figure 64: Free Advertiser's Login Page, Cyberstore and Cyberads

A free advertiser can advertise his products as shown in Figure 65. All advertisements should be categorized by choosing a category.

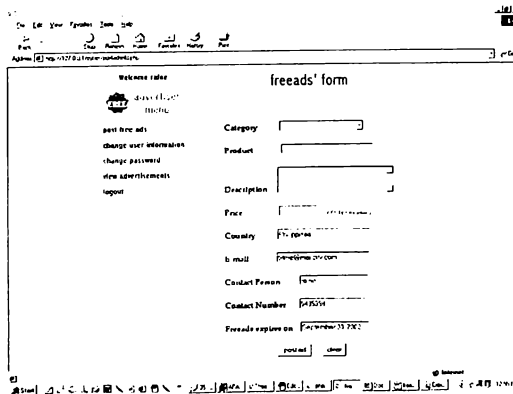


Figure 65: Free Advertisement Form, Cyberstore and Cyberads

An advertiser can change his personal information (Refer to Figure 66) and his password anytime (Refer to Figure 67).

advertiser info

paid free ads
change user information
change password
view advertisements
logout

Update Your Personal Information

Email Address:

Name:

Address:

Country:

Contact Person: (optional)

Contact Number: (optional)

Business Name: (optional)

Figure 66: Change Advertiser Profile, Cyberstore and Cyberads

advertiser info

paid free ads
change user information
change password
view advertisements
logout

Update Your Personal Information

New Password:

Verify Password:

Figure 67: Change Password of Advertiser, Cyberstore and Cyberads

An advertiser may view all his advertisements anytime (See Figure 68).

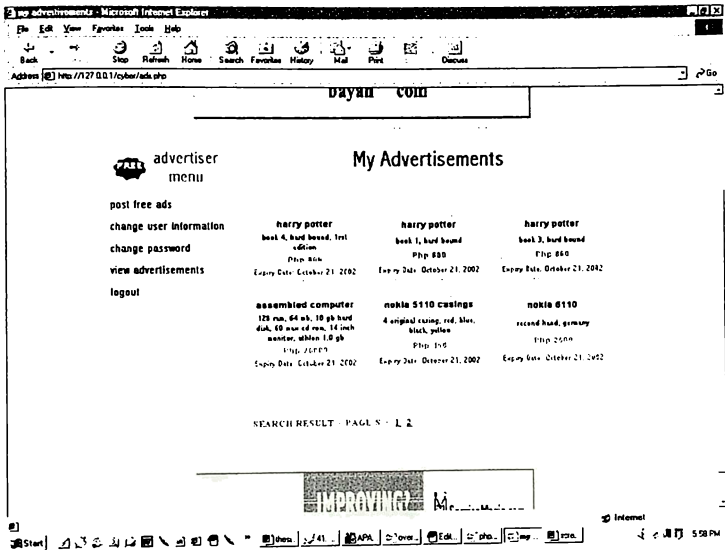


Figure 68. View Advertiser's Advertisements, Cyberstore and Cyberads

Everyone can view all the advertisements provided they choose a country and a category as shown in Figure 69. Once a country and category is chosen, all advertisements that satisfies the search criteria would be displayed (Refer to Figure 70). Visitors can email free advertisers if they choose using this site as shown in Figure 71.

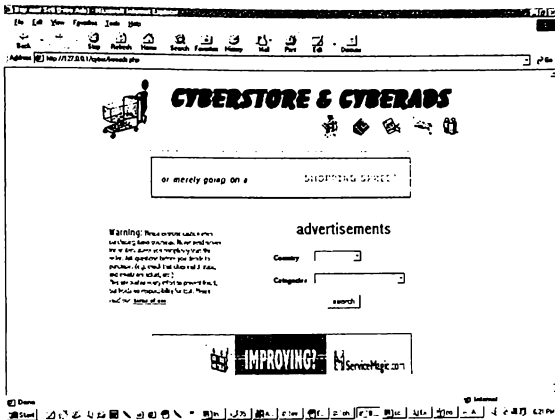


Figure 69: Choose Country and Category to View Advertisements, Cyberstore and Cyberads

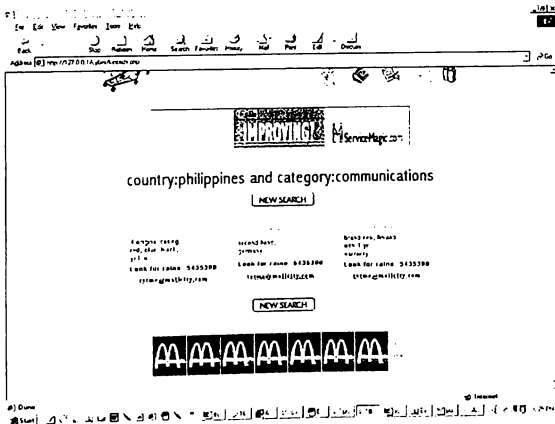


Figure 70: View Ads Given Search Criteria, Cyberstore and Cyberads

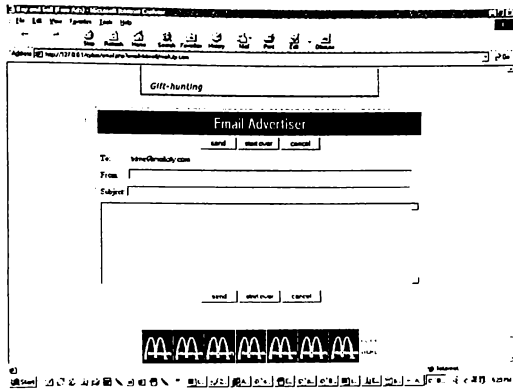


Figure 71: Email Free Advertiser, Cyberstore and Cyberads

Any entrepreneurs who can afford to pay banner advertisements can advertise using Figure 72. They must provide their personal information and the banner details

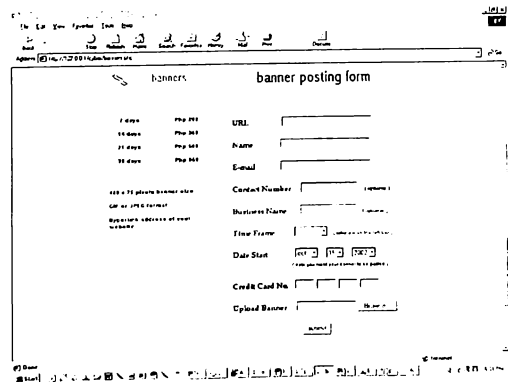


Figure 72: Post Banner Advertisements, Cyberstore and Cyberads

Figure 73 shows the page where the different system administrators with various authority levels log in.

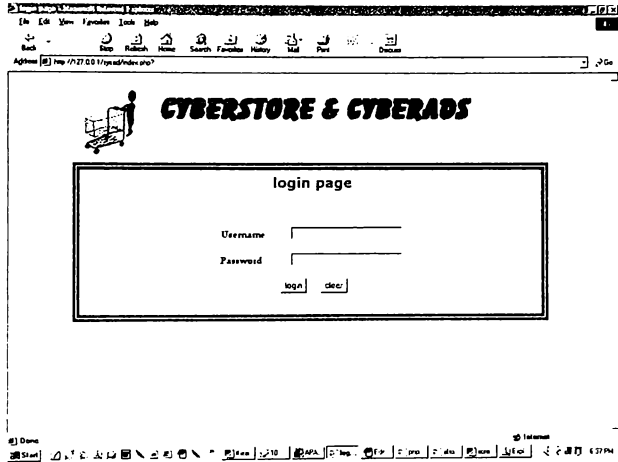


Figure 73: Login Page of System Administrator, Cyberstore and Cyberads

Category should first be chosen before a system administrator can add a product. Once a category of a product is chosen, all the other details of a product should be inputted in this page like its subcategory, product name, its description, picture (picture file), percentage (determines the selling price) and stock reorder level (See Figure 74).

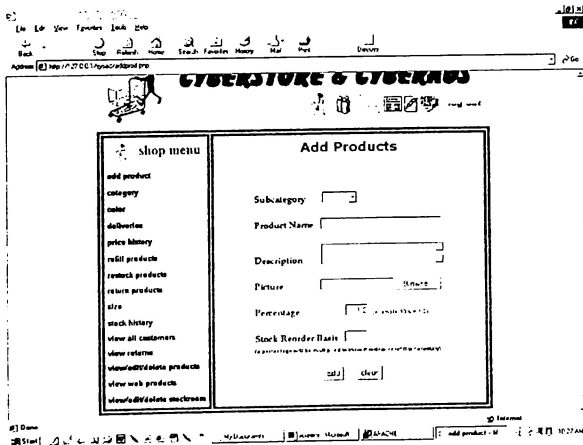
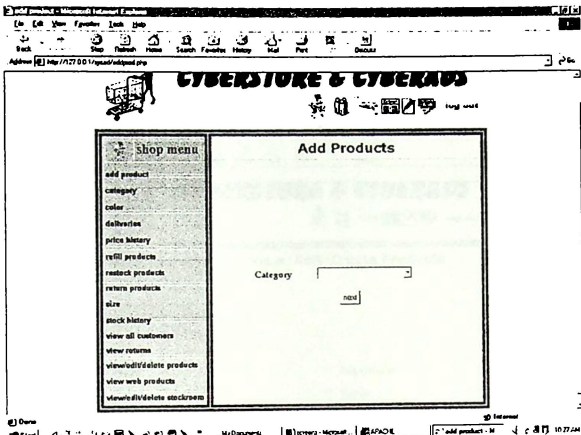


Figure 74: Add Product, Cyberstore and Cyberads

The system administrator has the option to view the items by item id or to view all the products as shown in Figure 75.

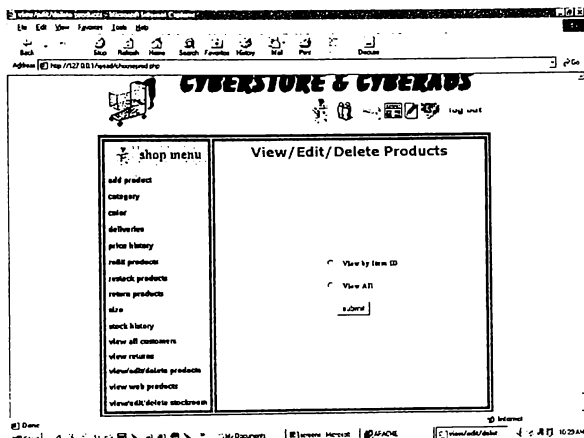


Figure 75: View/Edit/Delete Products -- Choose Option (All or By Item ID).
Cyberstore and Cyberads

The system administrator has to enter the item id of the product in the top page before the bottom page will appear. The system administrator can edit or delete the products here. All products with existing stocks (whether in the stockroom or web stocks) cannot be deleted (Refer to Figure 76).

The screenshot shows a web browser window displaying the 'View/Edit/Delete Products' page on the Cyberstore & Cyberads website. The page layout includes a sidebar menu on the left and a main content area on the right. The sidebar menu contains the following items: 'shop menu', 'add product', 'category', 'color', 'delivery', 'price history', 'return products', 'restock products', 'return products', 'size', 'stock history', 'view all customers', 'view returns', 'view/edit/delete products', 'view web products', and 'view/edit/delete stockroom'. The main content area is titled 'View/Edit/Delete Products' and features a search box labeled 'Enter Item ID'. Below the search box, there is a 'NEW SEARCH' button and a message: 'generated to print - you have never using price: gross price * 1.2'. A table with columns 'size', 'web', 'stockroom', 'units', 'return', and 'restock' is displayed, showing data for sizes small, medium, and large.

size	web	stockroom	units	return	restock
small		5	0		
small		5	0		
small		7	0		
medium		4	0		
medium		4	0		
medium		4	0		
large		4	0		
large		4	0		

Figure 76 View/Edit/Delete Products -- Option (By Item ID), Cyberstore and Cyberads

Figure 77 contains all the products that the site sells. The system administrator can edit or delete the products here. All products with existing stocks (whether in the stockroom or web stocks) cannot be deleted.

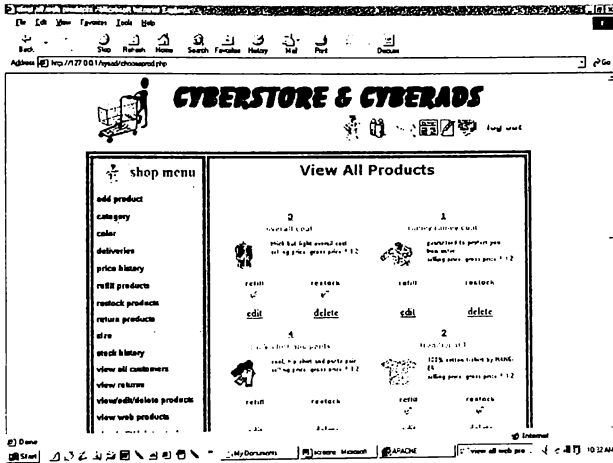


Figure 77: View/Edit/Delete Products -- Option (All), Cyberstore and Cyberads

The system administrator simply has to input the category name and click its corresponding "add" button to add a category. To add a subcategory, the system administrator should first choose the category then input the subcategory name and click its corresponding "add" button (See Figure 78).

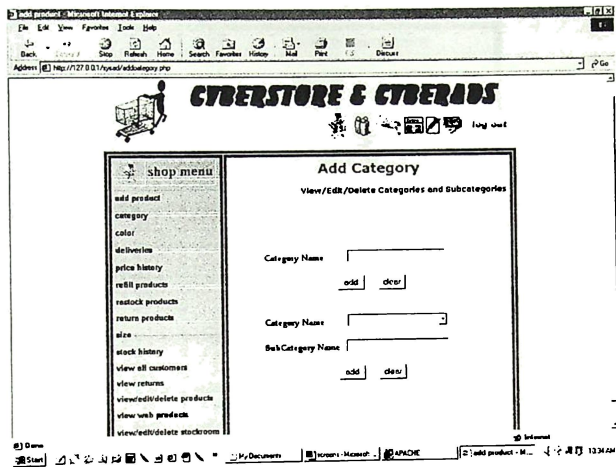


Figure 78: Add Category/Subcategory, Cyberstore and Cyberads

The top page of Figure 79 contains the list of all the categories. Pressing the “delete” button will delete the corresponding category as well as its subcategory. To edit a category, the system administrator has to click the “edit” button and the bottom page will emerge. Figure 80 contains all the subcategories of a given category. Pressing the “delete” button will delete the corresponding subcategory. To edit a subcategory, the system administrator has to click the “edit” button and the bottom page will emerge

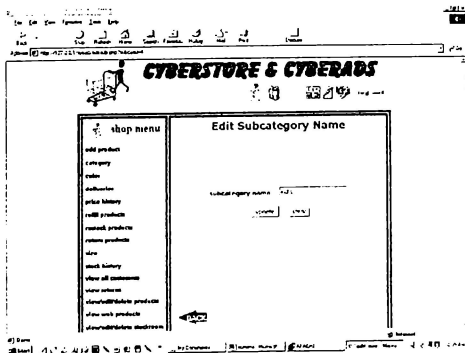
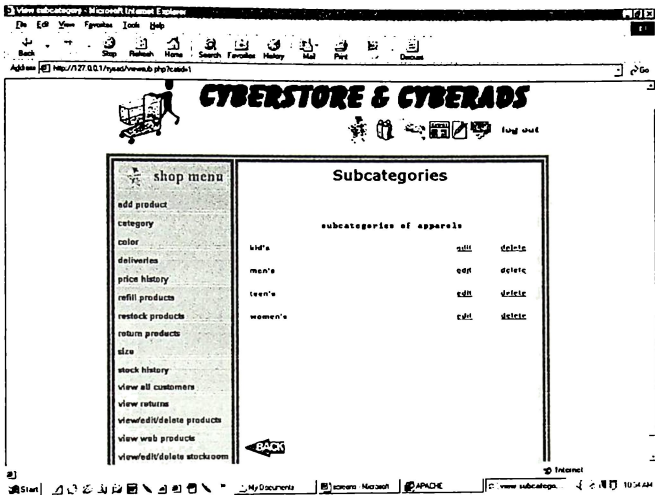


Figure 80. View/Edit/Delete Subcategories, Cyberstore and Cyberads

The system administrator has to input the color name and press the “add” button to add a color as shown in Figure 81. The top page of Figure 82 contains all the colors available. Pressing the “delete” button will delete the corresponding color. To edit a color, the system administrator has to click the “edit” button and the bottom page will emerge.

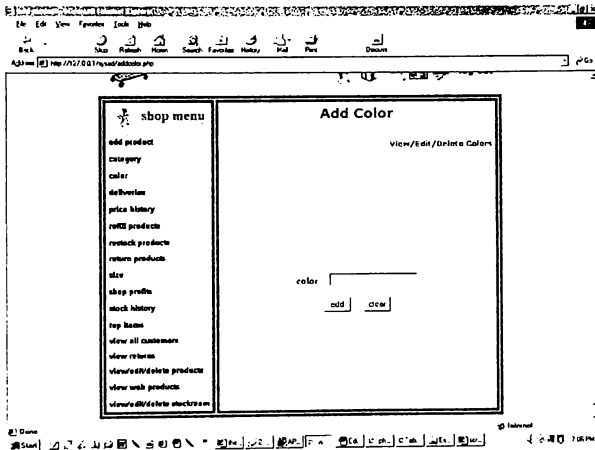


Figure 81 Add Color, Cyberstore and Cyberads

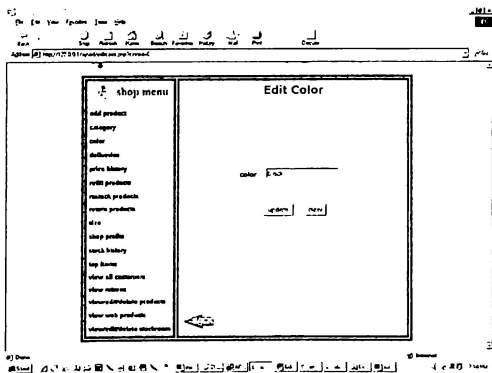
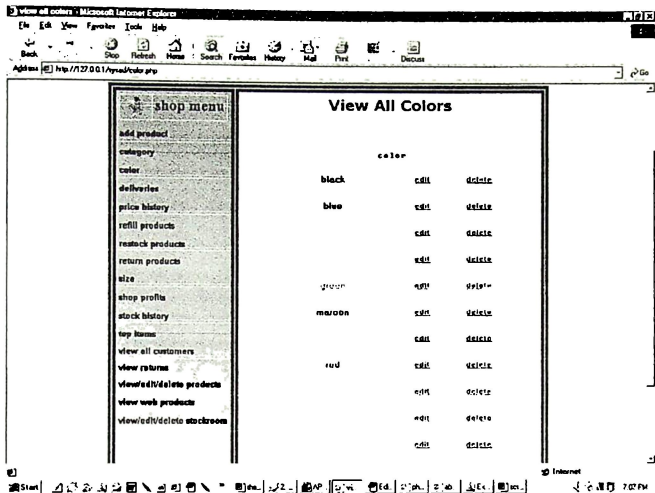


Figure 82: View/Edit/Delete Colors, Cyberstore and Cyberads

The system administrator has to input the size name and press the “add” button to add a size as shown in Figure 83. The top page of Figure 84 contains all the sizes available. Pressing the “delete” button will delete the corresponding size. To edit a size, the system administrator has to click the “edit” button and the bottom page will emerge. The system administrator can then now edit the size name and has to click the “update” button to save the changes made.

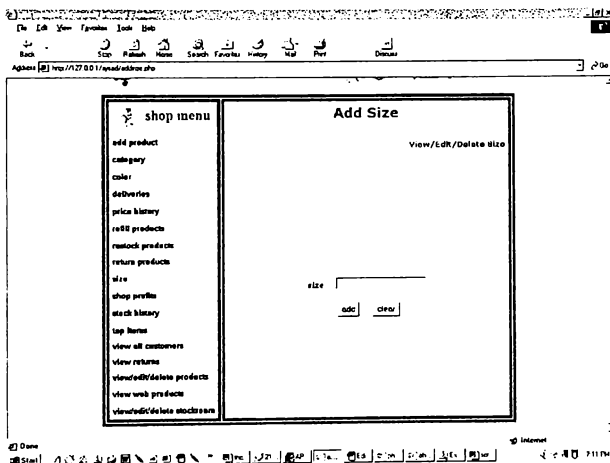


Figure 83: Add Size, Cyberstore and Cyberads

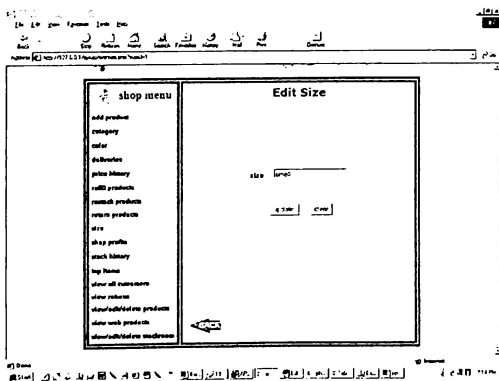
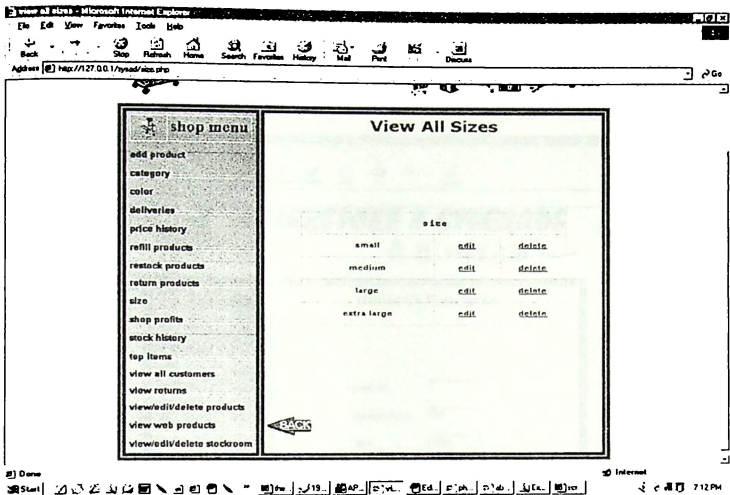


Figure 84: View/Edit/Delete Sizes, Cyberstore and Cyberads

Figure 85 is where the system administrator inputs the stock details of all products ordered from the supplier.

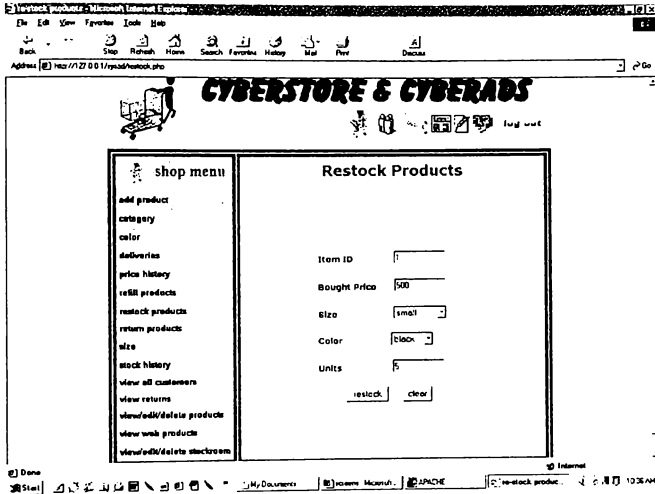


Figure 85: Restock Products, Cyberstore and Cyberads

If a system administrator commits an error in encoding the stocks in the stockroom, he still has a chance to edit or even delete it. He has the option to view the stocks by item id or view all of it as shown in Figure 86

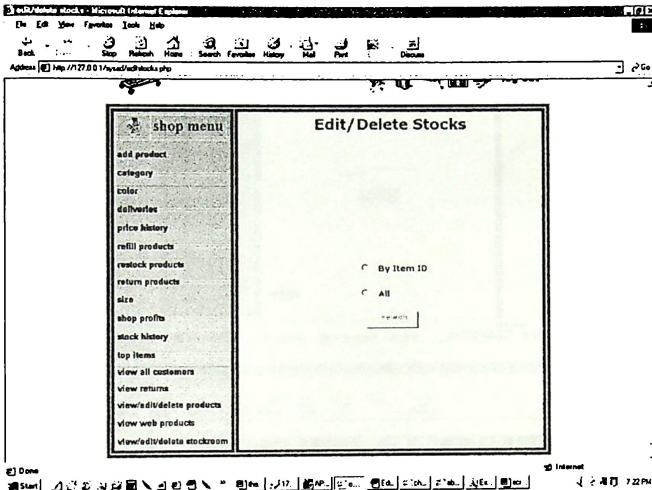


Figure 86: View/Edit/Delete Stocks – Option (All or By Item ID),
Cyberstore and Cyberads

The system administrator must first enter the item id in the top page before the bottom page will emerge. The bottom page contains all the stocks with the given item id in the stockroom. He can edit or delete it (Refer to Figure 87).

The screenshot displays a web browser window with the address bar showing 'http://172.0.0.1/typo3/stockedit.php'. The website header includes the logo 'CYBERSTORE & CYBERADS' and navigation icons. The main content area is titled 'Edit/Delete Stocks' and contains a 'shop menu' on the left and a form for editing stock details on the right.

shop menu

- add product
- category
- color
- deliveryfee
- price history
- refill products
- restock products
- return products
- size
- stock history
- view all customers
- view returns
- view/edit/delete products
- view web products
- view/edit/delete stockroom

Edit/Delete Stocks

Item ID:

Item ID: 4 Product Name

19711 T N V shirt and pants

color	size	gross price	units	date order	edit	delete
	medium	1000	1	Oct 26, 2002	Cannot edit/delete	

The browser's status bar at the bottom shows the file path 'My Documents \screens - Mapout \APACHE' and the URL 'http://172.0.0.1/typo3/stockedit.php'.

Figure 87: View/Edit/Delete Stocks -- Option (By Item ID), Cyberstore and Cyberads

Figure 88 contains all the stocks that are in the stockroom. A system administrator can edit, delete or refill it.

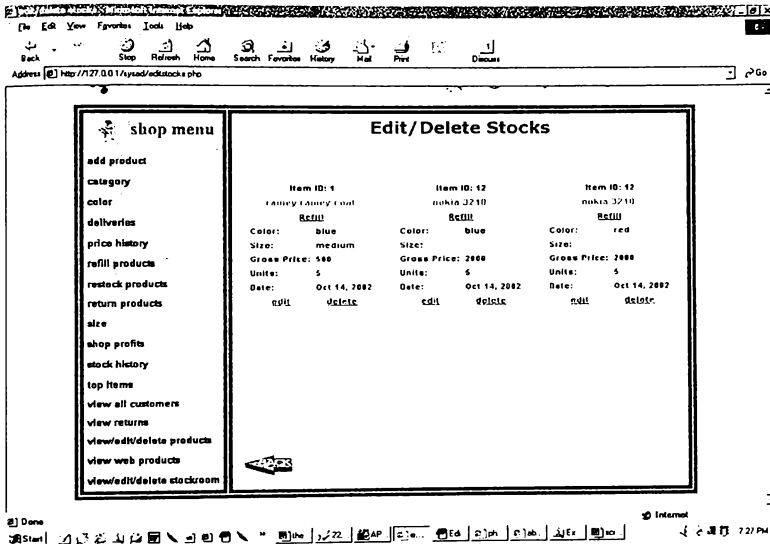


Figure 88. Edit/Delete Stocks -- Option (All), Cyberstore and Cyberdas

The top page of Figure 89 asks the system administrator for the date range of the stocks that he wants to view. When he clicks the "search" button, the bottom page will emerge.

The screenshot shows a web browser window displaying the 'Stock History' page for 'CYBERSTORE & CYBERADS'. The browser's address bar shows 'http://172.0.0.1/ryasad/stock.php'. The page layout includes a 'shop menu' sidebar on the left with various product categories, a main content area with a search bar and a table of stock entries, and a footer with navigation links.

shop menu

- add product
- category
- color
- deliveries
- price history
- refill products
- restock products
- return products
- size
- stock history
- view all customers
- view returns
- view/edit/delete products
- view web products

Stock History

From [Jan] [1] [2002]
To [Feb] [14] [2003]

SELECT DATE RANGE TO VIEW ENTERED PRODUCTS.

NEW SEARCH

(January 1, 2002 - February 22, 2003)

entry no	item id	name	size	color	price	units	date time
34	16	nokia 8810			15000	5	Feb 22, 2003 11:16:04 am
33	13	nokia 3210		blue	3500	5	Feb 22, 2003 09:08:18 am
32	2	traditional T	medium		1000	5	Jan 3, 2002 02:34:26 am
31	2	traditional T	extra large		100	5	Jan 2, 2002 01:35:54 am
30	2	traditional T	extra large	black	100	5	Jan 2, 2002 01:35:04 am
29	2	traditional T	extra large		100	5	Jan 2, 2002 01:35:41 am

Figure 89. Stock History, Cyberstore and Cyberads

To refill stocks in the web products from the stockroom, the system administrator must first input the item id of the product in the top page. The bottom page contains all the stocks with the given item id in the stockroom. The suggested selling price will also be seen here. The system administrator has the option if he wants to change the selling price of an item (see Figure 90).

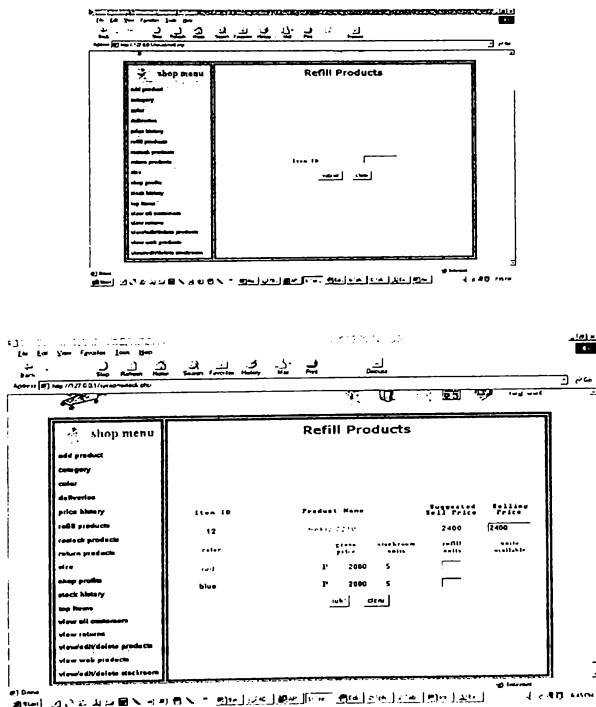


Figure 90: Refill Products, Cyberstore and Cyberads

The system administrator can view the stocks of the “web products” by item id or view all the stocks of the “web products” as shown in Figure 91.

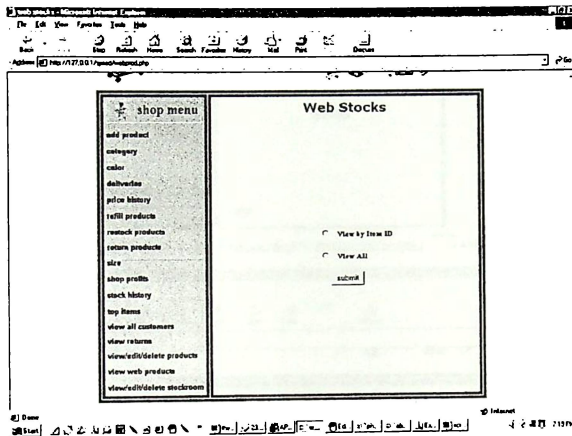


Figure 91: View Web Stocks – Option (All or By Item ID), Cyberstore and Cyberads

The system administrator must first enter the item id of the stock that he wants to view in the top page. Once he clicks the “submit” button, the bottom page will appear. It contains all the stocks in the “web products” as well as in the stockroom with the given item id. The system administrator can also see here if an item should be refilled from the stockroom or be reordered from the supplier. It also has a link to “refill products” and “restock products” (refer to Figure 92).

Figure 93 contains all the stocks in the “web products” as well as in the stockroom. The system administrator can also see here if an item should be refilled from the stockroom or be reordered from the supplier. It also has a link to “refill products” and “restock products”.

The screenshot shows a web browser window with the following elements:

- Browser Title Bar:** Internet Web Stocks - Microsoft Internet Explorer
- Address Bar:** http://172.00.1.1/stock-warehouse
- Left Sidebar (shop menu):**
 - add product
 - category
 - color
 - deliveries
 - price history
 - refill products
 - restock products
 - return products
 - size
 - shop profits
 - stock history
 - top items
 - view all customers
 - view returns
 - view/edit/delete products
 - view web products
 - view/edit/delete stockroom
- Main Content Area (View All Web Stocks):**

itemid	selling price	units available	units reserved	refill	restock
1	606	14	2	<input type="checkbox"/>	<input type="checkbox"/>
2	128	1	4	<input type="checkbox"/>	<input type="checkbox"/>
2	2489	13	2	<input type="checkbox"/>	<input type="checkbox"/>
1	1286	14	1	<input type="checkbox"/>	<input type="checkbox"/>

Figure 93: View Web Stocks -- Option (All), Cyberstore and Cyberdas

The top page of Figure 94 asks the system administrator for the date range and the item id of the price history of a product that he wants to view. When he clicks the “search” button, the bottom page will materialize.

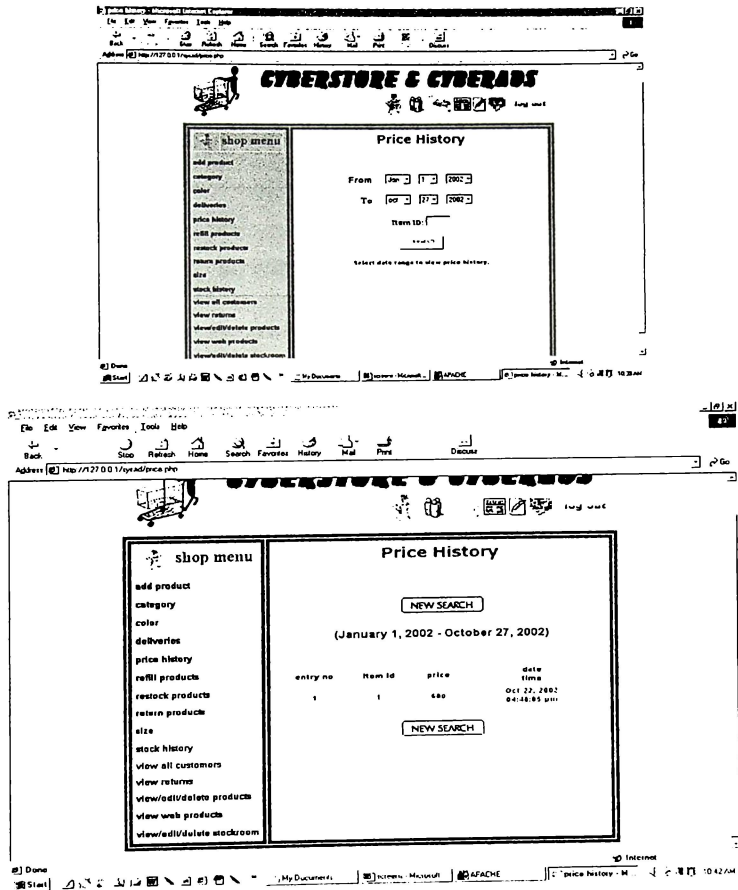


Figure 94: Price History, Cyberstore and Cyberads

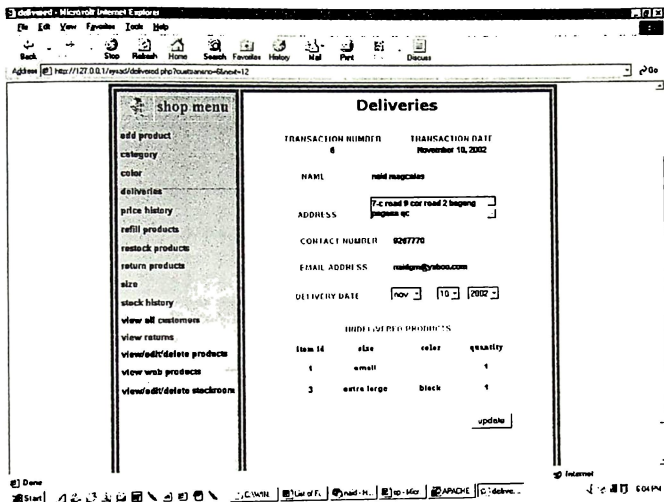


Figure 96: Undelivered Products of Customers, Cyberstore and Cyberads

The top page of Figure 97 contains the list of all the customers who bought products in the site. Clicking the “order details” button will allow the system administrator to view the transaction details of each customer that can be seen on the bottom page.

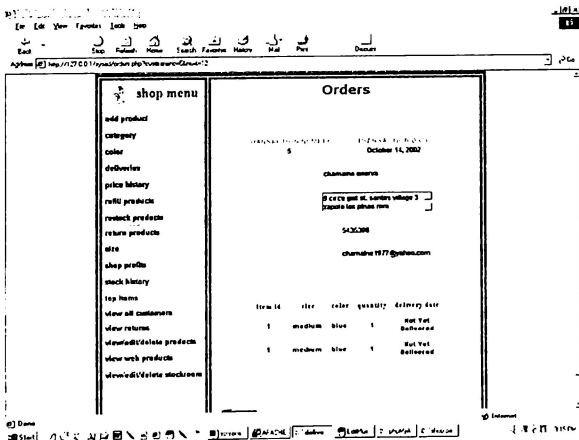
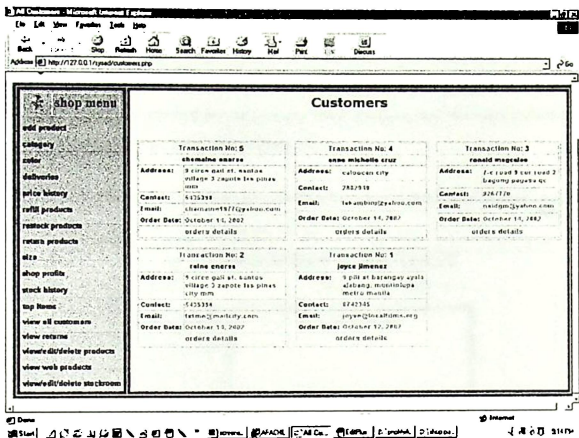


Figure 97. List of All Customers and their Order Details, Cyberstore and Cyberads

A customer may return the products he bought if it is defective or if he wants to change the product's size and/or color provided it is returned within 48 hours after the delivery date. The system administrator must input the transaction number and indicate if it is a defective product or a change item (See Figure 98).

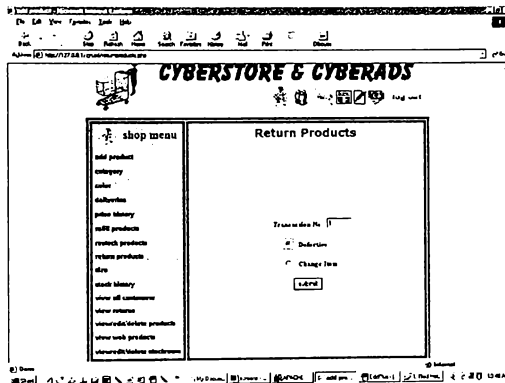


Figure 98: Return Products -- Option (Defective or Change Item), Cyberstore and Cyberads

Once the system administrator enters the transaction number and the option for defective product, the system will check if the products are still returnable (return date has not yet lapsed). If it is returnable, the order details of the transaction will be listed and the system administrator has to mark the check box corresponding the product that is defective and press the "submit defective" button as shown in Figure 99.

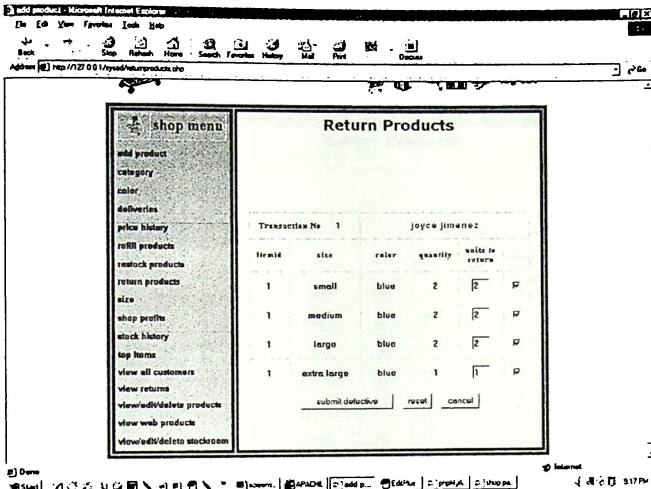


Figure 99: Return Products -- Option (Defective)

Once the system administrator enters the transaction number and the option for change item, the system will check if the products are still returnable (return date has not yet lapsed). If it is returnable, the order details of the transaction will be listed as well as the available sizes and colors to be exchanged. The system administrator has to mark the check box corresponding the product and the replacement for the product and press the "submit change" button (See Figure 100)

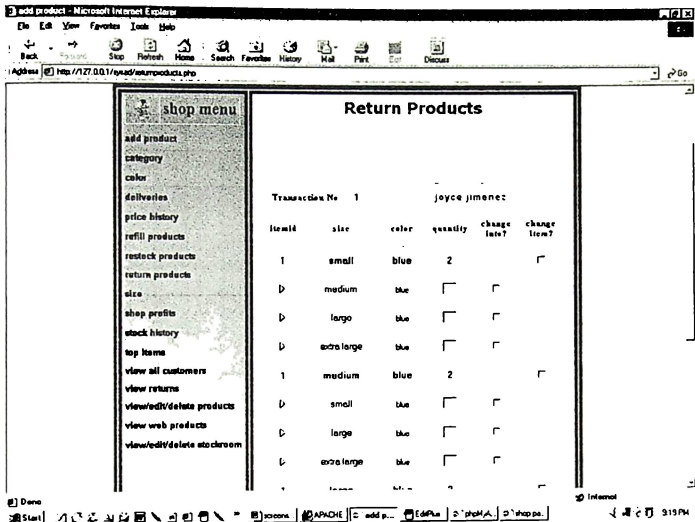


Figure 100: Return Products -- Option (Change Item), Cyberstore and Cyberdas

When "view returns" is clicked in the shop menu, Figure 101 will appear. It contains the transaction numbers of both defective products and change item. The system administrator simply has to click the transaction number listed to view the returned products of the transaction

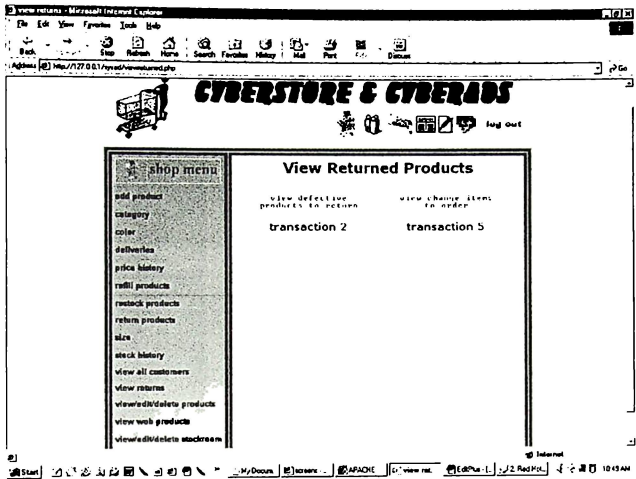


Figure 101: View Returned Products (Defective and Change Item), Cyberstore and Cyberads

Figure 102 contains the returned defective products of a given transaction number. All defective products that have not been changed by the supplier will be displayed here. The system administrator's job is to mark the corresponding item and input its quantity when the supplier changes the defective product

View Returned Products

(VIEW DEFECTIVE PRODUCTS)

Note: check items that were changed by supplier, and delivered to the customer.

Transaction No: 2

Item id	color	quantity	order to return	return change dollar
3	medium	black	1	<input type="checkbox"/>

submit

Figure 102: View Returned Products (Defective), Cyberstore and Cyberads

Figure 103 contains the returned change items of a given transaction number that has to be reordered from the supplier since there is no available stock at the time the product was returned. The system administrator has to input the quantity, gross price, and mark the corresponding check box of the item.

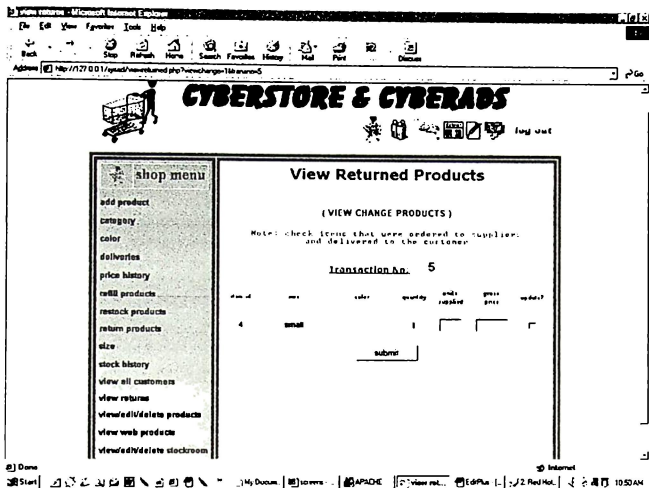


Figure 103: View Returned Products (Change Item), Cyberstore and Cyberads

Figure 104 is where a system administrator adds another system administrator. The flag or the authority level, user name, password, name, address and contact number (optional) will be asked.

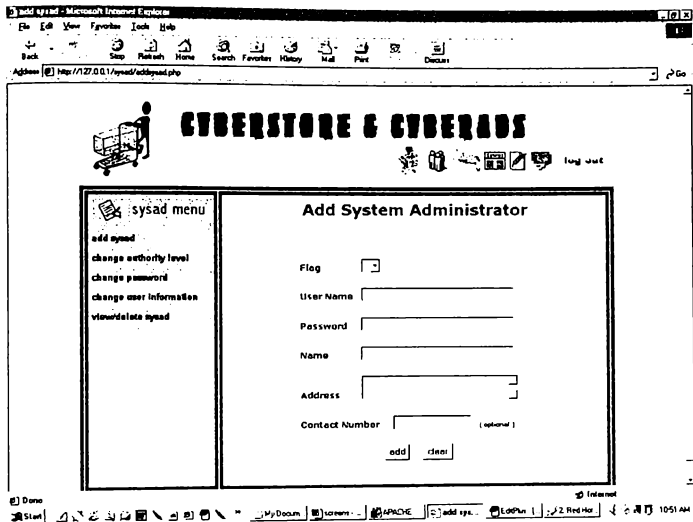


Figure 104: Add System Administrators, Cyberstore and Cyberads

Only system administrators with authority level one (1) can access this page. This is the page where a system administrator changes the authority level of another system administrator (See Figure 105).

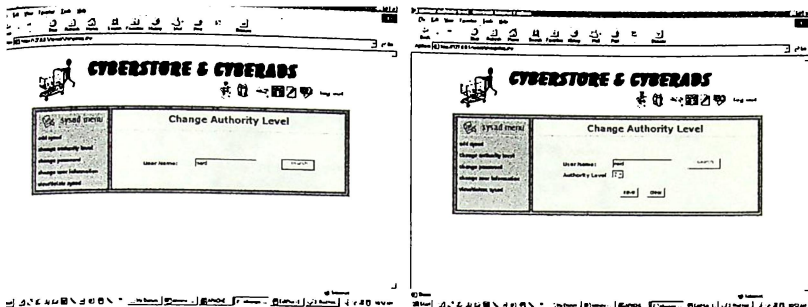


Figure 105: Change Authority Level of System Administrators, Cyberstore and Cyberads

The system administrator can change his password (Refer to Figure 106) and can update his personal information anytime as shown in Figure 107.

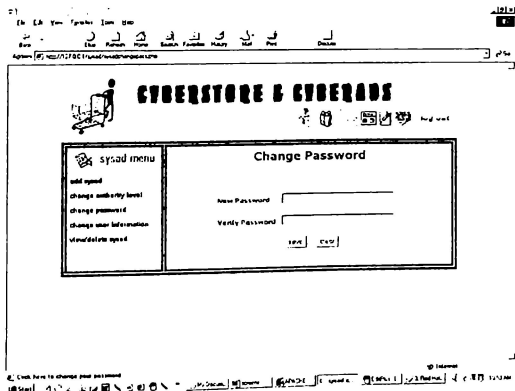


Figure 106: Change Password of System Administrators, Cyberstore and Cyberads

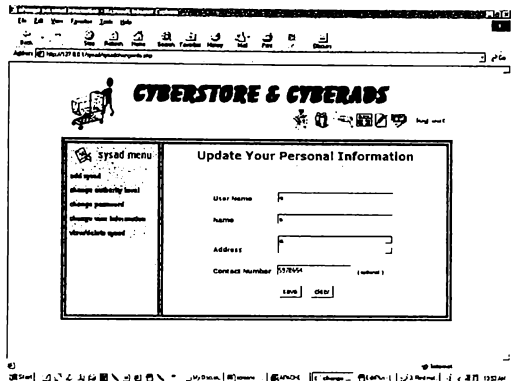


Figure 107: Change Personal Information of System Administrators, Cyberstore and Cyberads

Figure 108 is the page where the system administrator can view the username, authority level and the name of all the system administrators. Clicking the username of a system administrator will allow the him to see Figure 109. Figure 109 contains the personal information of a particular system administrator. If the system administrator accessing this page has authority level one (1), he can delete the particular system administrator he is viewing

Figure 110 is where a system administrator adds banner rates. He has to input the time frame and its amount.

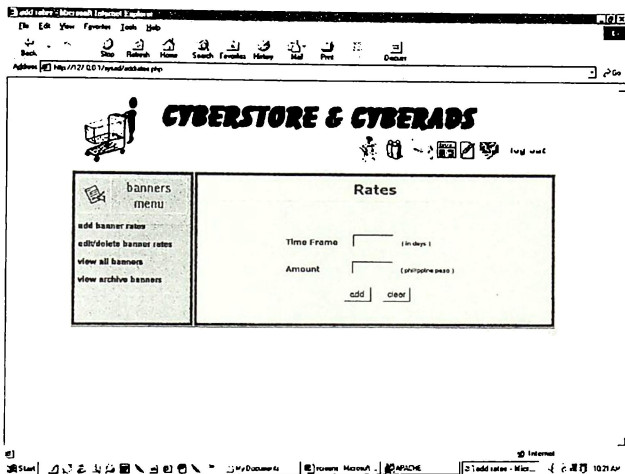








Figure 110: Add Banner Rate, Cyberstore and Cyberads


Figure 111 shows where a system administrator can view, edit or delete banner rates. To view, edit or delete a particular banner rate, the system administrator has to choose the time frame of a banner in the drop down menu and press the “search” button. Should a system administrator chooses to view all the banner rates, he just have to leave the drop down menu and press the “search” button

Internet Explorer 5.0 (Internet Explorer) [Cyberstore & Cyberads]
 File Edit View Favorites Tools Help
 Back Forward Stop Refresh Home Search Favorites History Mail Print
 Address http://172.85.116/joomla/banners.php



CYBERSTORE & CYBERADS







[log out](#)

<p> banners menu</p> <p>add banner rates</p> <p>edit/delete banner rates</p> <p>view all banners</p> <p>view archives banners</p>	<h3 style="text-align: center;">Rates</h3> <p style="text-align: center;">Time Frame: <input type="text" value=""/> <input type="text" value=""/></p>
---	---






© Click here to search, edit, or delete banner rates


My Documents | My Recent | My Places | My Favorites | My History | My Mail | My Print | My Search

Internet Explorer 5.0 (Internet Explorer) [Cyberstore & Cyberads]
 File Edit View Favorites Tools Help
 Back Forward Stop Refresh Home Search Favorites History Mail Print
 Address http://172.85.116/joomla/banners.php



CYBERSTORE & CYBERADS






[log out](#)

<p> banners menu</p> <p>add banner rates</p> <p>edit/delete banner rates</p> <p>view all banners</p> <p>view archives banners</p>	<h3 style="text-align: center;">Rates</h3> <p style="text-align: center;"><input type="button" value="NEW SEARCH"/></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Time Frame: 1 days</td> <td style="width: 33%;">Time Frame: 11 days</td> <td style="width: 33%;">Time Frame: 21 days</td> </tr> <tr> <td>Amount: 250 php</td> <td>Amount: 250 php</td> <td>Amount: 250 php</td> </tr> <tr> <td>edit delete</td> <td>edit delete</td> <td>edit delete</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Time Frame: 26 days</td> <td style="width: 33%;"></td> <td style="width: 33%;"></td> </tr> <tr> <td>Amount: 450 php</td> <td></td> <td></td> </tr> <tr> <td>edit delete</td> <td></td> <td></td> </tr> </table> <p style="text-align: center;"><input type="button" value="NEW SEARCH"/></p>	Time Frame: 1 days	Time Frame: 11 days	Time Frame: 21 days	Amount: 250 php	Amount: 250 php	Amount: 250 php	edit delete	edit delete	edit delete	Time Frame: 26 days			Amount: 450 php			edit delete		
Time Frame: 1 days	Time Frame: 11 days	Time Frame: 21 days																	
Amount: 250 php	Amount: 250 php	Amount: 250 php																	
edit delete	edit delete	edit delete																	
Time Frame: 26 days																			
Amount: 450 php																			
edit delete																			

© Done

My Documents | My Recent | My Places | My Favorites | My History | My Mail | My Print | My Search

Figure 111: View/Edit/Delete Banner Rates, Cyberstore and Cyberads

Figure 122 contains the list of all the existing banner customers while Figure 113 contains the transaction details of a particular transaction.

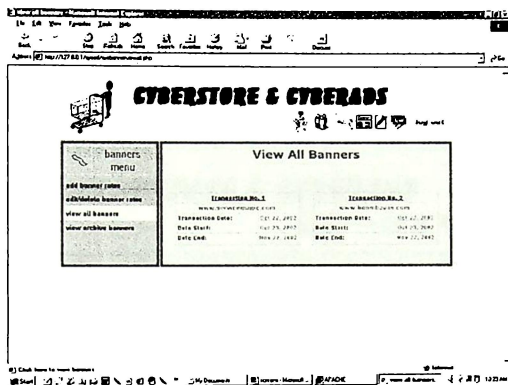


Figure 112: View All Banner Customers, Cyberstore and Cyberads

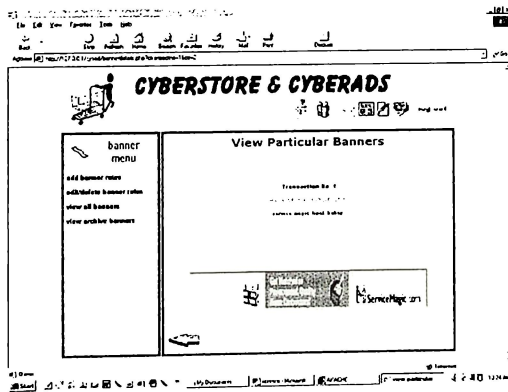


Figure 113: View Particular Banner Customer, Cyberstore and Cyberads

The system administrator has the option to view all the transactions in a given date as shown in Figure 114 and Figure 115 contains the list of banner customers with expired banner advertisement.

The screenshot shows a web browser window with the following elements:

- Browser Title Bar:** Transaction Date - Microsoft Internet Explorer
- Address Bar:** http://172.0.0.1/ypoad/bannerdash.asp?date=102626070&act=2
- Page Header:** CYBERSTORE & CYBERADS
- Navigation Menu (Left):**
 - banner menu
 - add banner rates
 - edit/delete banner rates
 - view all banners
 - view archive banners
- Main Content Area:**

Transaction Date: October 22, 2002

Transaction No. 1	Transaction No. 2
www.venturonic.com	www.bonmagan.com
service magic ipat bakuy	kean bayan online mall
Group: System user	Site No: 20020602000000
Contact No: 5670945	Time Frame: 30 days
Expiry: October 23, 2002	Expiry: October 23, 2002
Expiry: October 23, 2002	Expiry: October 23, 2002

SEARCH RESULT - PAGE 5 - 1
- Taskbar (Bottom):** Shows 'My Documents', 'Internet Explorer', and 'Transaction Date' with a system clock of 10:24 AM.

Figure 114: View All Banner Customers in a Given Transaction Date, Cyberstore and Cyberads

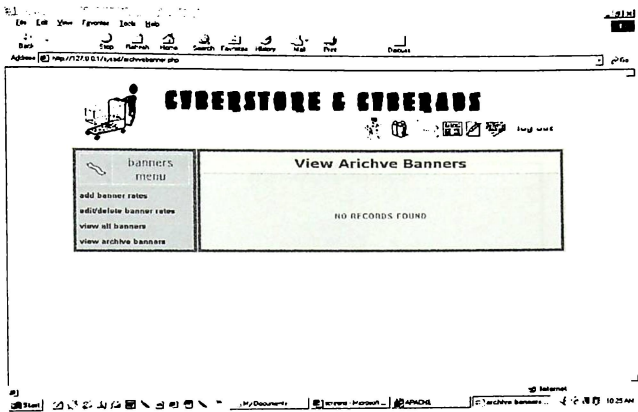


Figure 115: View Archive Banners Customers, Cyberstore and Cyberads

Figure 116 contains the list of all free advertisers. The system administrator can view the free advertiser's profile or all the advertiser's existing advertisements by clicking the "Advertiser ID" button or the "view advertisement" button. Figure 117 shows where the system administrator can view the existing advertisements of a free advertiser.

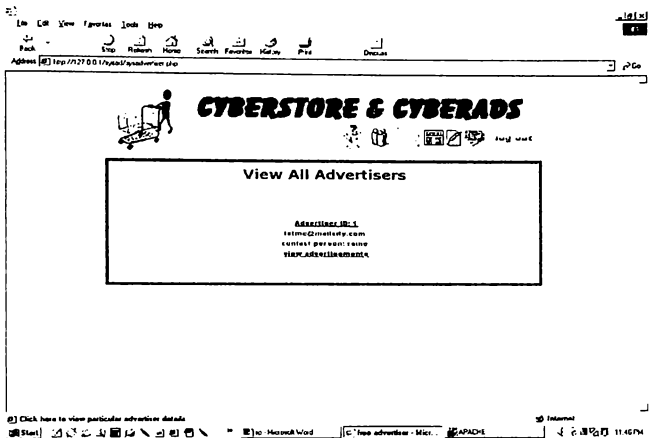


Figure 116: View Free Advertisers, Cyberstore and Cyberads

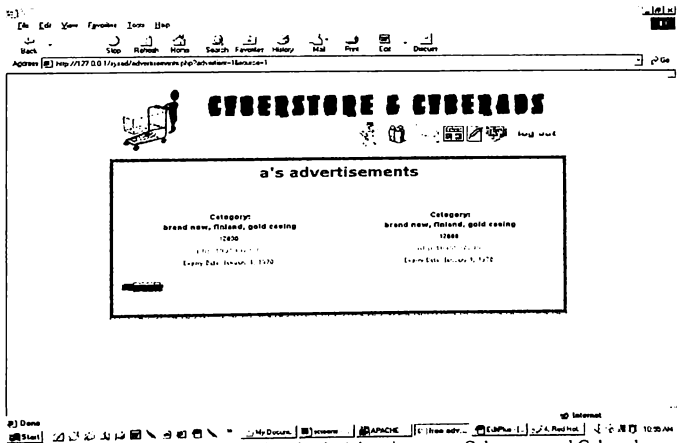


Figure 117: View Free Advertiser's Advertisements, Cyberstore and Cyberads

The top page of Figure 118 asks the system administrator for the date range of the banner profits that he wants to view. When he clicks the "search" button, the bottom page will emerge.

The top screenshot shows the initial search page for Banner Profits. It features a search form with fields for 'From' (01/01/02) and 'To' (10/27/02), and a 'SEARCH' button. Below the form is a prompt: 'Select date range to view banner profits.' The left sidebar contains a 'report menu' with options: 'cash on hand', 'banner profits', 'shop profits', 'transaction reports', and 'top items'.

The bottom screenshot shows the results page after a search. It displays the date range '(January 1, 2002 - October 27, 2002)' and a table of transactions. A 'NEW SEARCH' button is visible above and below the table. The left sidebar is identical to the search page.

transaction no	date	size
1	01/27, 2002 05:42:44 pm	658
2	01/27, 2002 05:15:42 pm	658
TOTAL PROFIT		php 1316

Figure 118: View Banners Profits, Cyberstore and Cyberads

The system administrator has to specify the date range of the transaction report that he wants to view as shown in Figure 120.

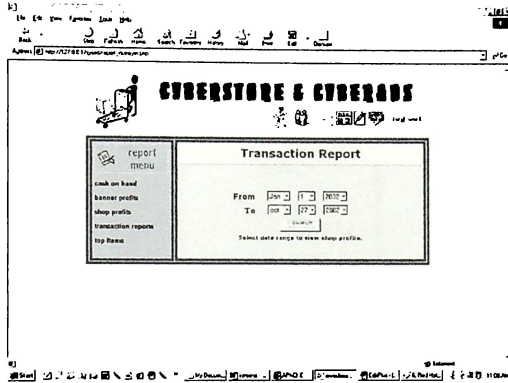


Figure 120: Transaction Reports – Input Date Range, Cyberstore and Cyberads

Figure 121 contains the summary of all the transaction in the site in a given date range.

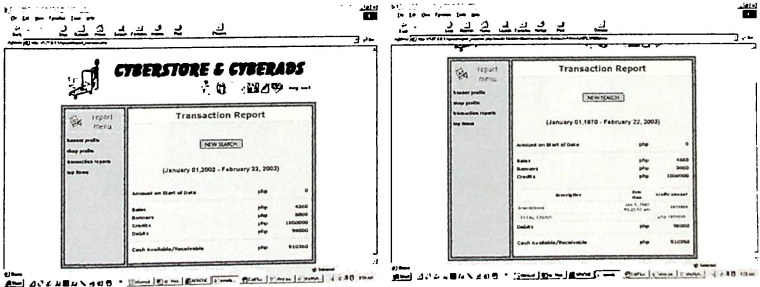


Figure 121: Transaction Reports, Cyberstore and Cyberads

The top page of Figure 122 asks the system administrator for the date range of the hot items that he wants to view. When he clicks the “search” button, the bottom page will emerge. The hot items are the top selling products in a given date range. The quantity each item sold can also be seen here.

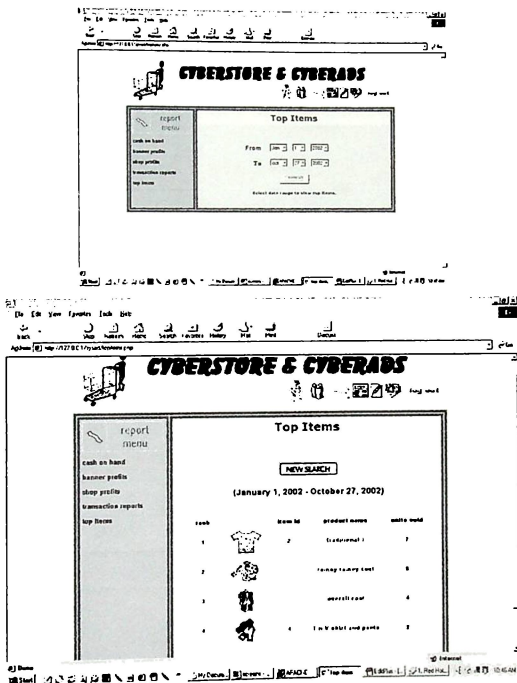


Figure 122: Top Selling Items, Cyberstore and Cyberads

Figure 123 is where the system administrator with authority level one (1) can input the investment for the site while Figure 124 is where the system administrator with authority



Figure 125: Logout, Cyberstore and Cyberads

VI. DISCUSSIONS

“Cyberstore and Cyberads” is a site that sells its own products and accepts paid and free advertisements.

Products that can be sold in the system belong to different categories and subcategories and have sizes and colors that can be customized by the system administrator since it is dynamic.

Before a stock can be ordered, an “investment” should first be made since all stock cost should not exceed the total investment.

Stocks ordered from the supplier will first be stored in the “stockroom” before it is placed in the “web products”. This is done so that if an error in encoding should be made by the system administrator in the stock details (i.e., item id, price of product bought from supplier, units or even size and color), it can still be edited or deleted. If all stocks were directly placed in the “web products”, the site owner might lose in revenues due to this error in encoding.

The selling price of the product is inputted once the stocks from the stockroom are “refilled” to the web products. The multiplier inputted by the system administrator in each product (percentage – 1.2 will mean 20% of the price of product bought from supplier will be added to its bought price) will determine its suggested retail price. The system administrator is in-charge if he wants the suggested retail price to be the selling price or he can put a different selling price. Products with the same item ID can only have one selling price at a given time.

Customers can browse through the online shops and go to the item of his choice. To know the available size and color of the product, the customer can click the “place order” button or the image of the product. The available number of units are displayed so the customer can choose the quantity he wants to order. Once the “add to cart” button is

clicked, the item will be automatically added to his shopping cart. Clicking the “view cart” button will enable to customer to view or change the items he clicked. The shopping cart also includes the total amount of his orders. The customer has the option to add more orders, remove products or purchase his shopping cart. The customer will then be asked for his personal information (i.e., name, address, email address, contact number and credit card number) to complete his transaction. If all goes well (credit card has been verified and all products ordered have enough stocks) the system will output a transaction number, the customer personal information and his order list. At this point, a customer is no longer allowed to cancel his orders because his Bank has already deducted from his account the purchase that he had made.

Should the stock be insufficient (this happens when another customer, say customer B purchases the same item and completes his transaction before customer A completes his), an error message will emerge containing the customer’s order details as well as the updated available stock. The customer has the option to change his orders or can terminate his transaction. If the credit card number inputted by the customer does not exist or his credit status is below the total amount of his purchase, an error message will also pop out.

Once a transaction is completed, the units available of the web products will be deducted and the units reserved will increment depending on the quantity of the customer order. Once the orders are delivered, the units reserved in the web stocks will be deducted. Web Stocks that have zero (0) units available, zero (0) units reserved and zero (0) units borrowed will be automatically deleted by the system

It is assumed that a customer can return his order/s by calling the customer support in cases of defective products or change of size and/or color within 48 hours of receipt of purchased goods.

Defective products will be changed by exactly the same item. The customer has to provide the transaction number, its product name and its quantity, size and color. The

system will automatically search the product for existing stocks, first in the web products and if not available, to the stockroom and the item will be delivered. The system will mark the stock borrowed until the supplier has changed the item. Should there be no stock, the customer has to wait for the supplier to change the item before it can be delivered.

The customer can also exchange an item to a different size and/or color provided the size and color has been offered in the past. The process is basically the same with defective products only if there is no stock, the system administrator must reorder from the supplier. In such case, once the system administrator receives the order from the supplier, he must access the “change items returned page” and input necessary information like the product’s bought price so necessary changes in the profit and cash available/receivable can be updated.

Once return products are made, the system will automatically adjust the income and other financial details that would be affected in such a scenario.

The system also generates different reports like the summary of all debit and credit transactions, total income on shop and banners and the likes in a given time range.

Banner advertisers can post their products for a certain fee depending on its time frame. All banners will be placed on different pages of the website. Clicking the banner itself will make another window open with the banner advertiser’s inputted URL. The time frame (in days) and its corresponding amount (in Philippine peso) can be edited or deleted anytime by the system administrator since it is dynamic. Banner advertiser can place his banner ads by going to the “post banners” page where he can input his personal information (name, business name, email address, contact number, credit card number) as well as the banner information (URL, time frame, starting date when a banner will be posted, image file in jpg/gif preferably 480 x 75 in size). Clicking the submit button will complete the transaction. If the credit card number exists and has sufficient funding, a transaction number will pop out.

The system advertiser can view the banner advertiser's transaction details anytime. Once the banner expires, its transaction details will be placed on a separate table and its image file will be deleted. This is done to conserve hard disk space.

Anyone can place a text mode advertisement in this site provided they have an email address. The free advertiser should first create an account by going to the "new advertisers" page. The advertiser will be asked his personal information (email address, name, address, country, contact person, contact number, business name). A random password will be generated by the system and will be automatically sent to the email address he submitted. He can now log in once he receives the email sent by the system.

Once logged in, he can post his advertisements, change his password, change his personal information or view his advertisements. To post his advertisements, the advertiser should click the "post free ads" in his menu. He can then select a category, and input its product name, description, and its price.

Free advertisements will be posted for only a week and will be deleted from the database by the system.

The account of a free advertiser who does not log in for two months will be terminated (removed from the database).

As we all know, the Internet has transformed the way we live nowadays. It made our lives easier by letting us accomplish things without even leaving the comfort of our homes. Banking, researching and even shopping can now be done with the use of the Internet.

With the growing market on the Internet, merchants tend to set up their businesses online. "Cyberstore and Cyberads", is an e-commerce site that not only sells its own

products and services but also accepts banner advertisements and also allows anyone to post free advertisements.

“Cyberstore and Cyberads” is a dynamic software that can be customized by the system administrator depending on the products the owner of the site wants to market provided it is not an electronic software distribution. Each product may have different sizes and color if applicable.

The system is also composed of paid and free advertisements. The paid advertisements are for banner advertisements while the free advertisements are advertisements that are in text mode. This system also provides a real-time online processing of banner advertisements. The banner advertisements in “Cyberstore and Cyberads” is automated unlike in the existing e-commerce sites in the Philippines that manually transact banner advertisements.

Real Time Credit Card Processing is supported with the use of a hypothetical bank.

VII. CONCLUSIONS

“Cyberstore and Cyberads” is a site that can sell its own products and services. It has system administrators that take care of updating of products that the site sells. The products that require different sizes and colors can be sold in this site. It accepts paid and free advertisements. Banner or paid advertisements are transacted online. “Cyberstore and Cyberads” also has a hypothetical bank that provides as a real-time processing payment system.

VIII. RECOMMENDATIONS

In light of the foregoing, it is the programmer's considered recommendation that customers and banner advertisers should have the option to create an account in the site to save time in the inputting of their personal information every time a transaction is made. This will as well save database space should a customer returns for another transaction.

The programmer also recommends that mode of payment should also include cash on delivery (COD) so that the business would not be limited to those people with credit card. Thus, making it available to the general public.

Prices of the same products should also vary depending on its size and/or color.

Since this special project uses a hypothetical bank in processing online payments, the programmer strongly recommends the implementation of a secure, real-time connectivity from the site's storefront to the financial network of the appropriate banks.

Security on transactions should also be included like the encryption technology of the SSL.

Order confirmation and shipping confirmation should also be included in the cyberstore module.

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APPENDIX A

Republic Act No. 8792 IMPLEMENTING RULES AND REGULATIONS OF THE ELECTRONIC COMMERCE ACT

Pursuant to the provisions of Section 34 of Republic Act No. 8792, otherwise known as the Electronic Commerce Act (the "Act"), the following implementing rules and regulations (the "Rules") are hereby promulgated:

PART I DECLARATION OF POLICY AND PRINCIPLES FOR ELECTRONIC COMMERCE PROMOTION

Chapter I

Declaration of Policy

Section 1. Declaration of Policy. - The State recognizes the vital role of information and communications technology (ICT) in nation-building, the need to create an information-friendly environment which supports and ensures the availability, diversity and affordability of ICT products and services; the primary responsibility of the private sector in contributing investments and services in ICT; the need to develop, with appropriate training programs and institutional policy changes, human resources for the information age, a labor force skilled in the use of ICT and a population capable of operating and utilizing electronic appliances and computers; its obligation to facilitate the transfer and promotion of technology; to ensure network security, connectivity and neutrality of technology for the national benefit; and the need to marshal, organize and deploy national information infrastructures, comprising in both communications network and strategic information services, including their interconnection to the global information networks, with the necessary and appropriate legal, financial, diplomatic and technical framework, systems and facilities.

Section 2. Authority of the Department of Trade and Industry and Participating Entities. - The Department of Trade and Industry (DTI) shall direct and supervise the promotion and development of electronic commerce in the country with relevant government agencies, without prejudice to the provisions of Republic Act. 7653 (Charter of Bangko Sentral ng Pilipinas) and Republic Act No. 8791 (General Banking Act).

Chapter II

Declaration of Principles for Electronic Commerce Promotion

Section 3. Principles. - Pursuant to the mandate under Section 29 of the Act to direct and supervise the promotion and development of electronic commerce in the country, the following principles are hereby adopted as Government policy on electronic commerce:

- (a) *Role of the Government.* - Government intervention, when required, shall promote a stable legal environment, allow a fair allocation of scarce resources and protect public interest. Such intervention shall be no more than is essential and should be clear, transparent, objective, non-discriminatory, proportional, flexible, and technologically neutral. Mechanisms for private sector input and involvement in policy making shall be promoted and widely used.
- (b) *Role of the Private Sector.* - The development of electronic commerce shall be led primarily by the private sector in response to market forces. Participation in electronic commerce shall be pursued through an open and fair competitive market.
- (c) *International Coordination and Harmonization.* - Electronic commerce is global by nature. Government policies that affect electronic commerce will be internationally coordinated and compatible and will facilitate interoperability within an international, voluntary and consensus-based environment for standards setting.
- (d) *Neutral Tax Treatment.* - Transactions conducted using electronic commerce should receive neutral tax treatment in comparison to transactions using non-electronic means and taxation of electronic commerce shall be administered in the least burdensome manner.
- (e) *Protection of Users.* - The protection of users, in particular with regard to privacy, confidentiality, anonymity and content control shall be pursued through policies driven by choice, individual empowerment, and industry-led solutions. It shall be in accordance with applicable

laws. Subject to such laws, business should make available to consumers and, where appropriate, business users the means to exercise choice with respect to privacy, confidentiality, content control and, under appropriate circumstances, anonymity.

(f) *Electronic Commerce Awareness.* - Government and the private sector will inform society, both individual consumers and businesses, about the potentials of electronic commerce and its impact on social and economic structures.

(g) *Small and Medium-Sized Enterprises.* - Government will provide small and medium-sized enterprises (SMEs) with information and education relevant to opportunities provided by global electronic commerce. Government will create an environment that is conducive to private sector investment in information technologies and encourage capital access for SMEs.

(h) *Skills Development.* - Government shall enable workers to share in the new and different employment generated by electronic commerce. In this regard, the Government shall continue to promote both formal and non-formal skills-development programs.

(i) *Government as a Model User.* - Government shall utilize new electronic means to deliver core public services in order to demonstrate the benefits derived therefrom and to promote the use of such means. In this regard, the Government will be a pioneer in using new technologies. In particular, the Government Information System Plan (GISP), which is expected to include, but not be limited to, online public information and cultural resources, databases for health services, web sites at local, regional and national levels and public libraries and databases, where appropriate, will be implemented in accordance with the provisions of the Act and RPWEB.

(j) *Convergence.* - Convergence of technologies is crucial to electronic commerce and will be supported by appropriate government policies. Government will work closely with business in preparing for and reacting to changes caused by convergence.

(k) *Domain Name System.* - The Government supports initiatives to ensure that Internet users will have a sufficient voice in the governance of the domain name system.

(l) *Access to Public Records.* - Government shall provide equal and transparent access to public domain information.

(m) *Dispute Mechanisms.* - Government encourages the use of self-regulatory extra-judicial dispute settlement mechanisms such as arbitration and mediation as an effective way of resolving electronic commerce disputes.

Chapter III

Objective and Sphere of Application

Section 4. *Objective of the Act.* - The Act aims to facilitate domestic and international dealings, transactions, arrangements, agreements, contracts and exchanges and storage of information through the utilization of electronic, optical and similar medium, mode, instrumentality and technology to recognize the authenticity and reliability of electronic documents related to such activities and to promote the universal use of electronic transactions in the government and by the general public.

Section 5. *Sphere of Application.* - The Act shall apply to any kind of electronic data message and electronic document used in the context of commercial and non-commercial activities to include domestic and international dealings, transactions, arrangements, agreements, contracts and exchanges and storage of information.

PART II

ELECTRONIC COMMERCE IN GENERAL

Chapter I

General Provisions

Section 6. *Definition of Terms.* - For the purposes of the Act and these Rules, the following terms are defined, as follows:

(a) "*Addressee*" refers to a person who is intended by the originator to receive the electronic data message or electronic document, but does not include a person acting as an intermediary with respect to that electronic data message or electronic document.

(b) "*Commercial Activities*" shall be given a wide interpretation so as to cover matters arising from all relationships of a commercial nature, whether contractual or not. The term shall likewise refer to acts.

events, transactions, or dealings occurring between or among parties including, but not limited to, factoring, investments, leasing, consulting, insurance, and all other services, as well as the manufacture, processing, purchase, sale, supply, distribution or transacting in any manner, of tangible and intangible property of all kinds such as commodities, goods, merchandise, financial and banking products, patents, participations, shares of stock, software, books, works of art and other intellectual property.

(c) "*Computer*" refers to any device or apparatus singly or interconnected which, by electronic, electro-mechanical, optical and/or magnetic impulse, or other means with the same function, can receive, record, transmit, store, process, correlate, analyze, project, retrieve and/or produce information, data, text, graphics, figures, voice, video, symbols or other modes of expression or perform any one or more of these functions.

(d) "*Convergence*" refers to technologies moving together towards a common point and elimination of differences between the provisioning of video, voice and data, using digital and other emerging technologies; the coming together of two or more disparate disciplines or technologies; the ability of different network platforms to carry any kind of service; and the coming together of consumer devices such as, but not limited to, the telephone, television and personal computer.

(e) "*Electronic data message*" refers to information generated, sent, received or stored by electronic, optical or similar means, but not limited to, electronic data interchange (EDI), electronic mail, telegram, telex or telecopy. Throughout these Rules, the term "*electronic data message*" shall be equivalent to and be used interchangeably with "*electronic document*."

(f) "*Information and Communications System*" refers to a system for generating, sending, receiving, storing or otherwise processing electronic data messages or electronic documents and includes the computer system or other similar device by or in which data is recorded or stored and any procedures related to the recording or storage of electronic data message or electronic document.

(g) "*Electronic signature*" refers to any distinctive mark, characteristic and/or sound in electronic form, representing the identity of a person and attached to or logically associated with the electronic data message or electronic document or any methodology or procedures employed or adopted by a person and executed or adopted by such person with the intention of authenticating or approving an electronic data message or electronic document.

(h) "*Electronic document*" refers to information or the representation of information, data, figures, symbols or other modes of written expression, described or however represented, by which a right is established or an obligation extinguished, or by which a fact may be proved and affirmed, which is received, recorded, transmitted, stored, processed, retrieved or produced electronically. Throughout these Rules, the term "*electronic document*" shall be equivalent to and be used interchangeably with "*electronic data message*."

(i) "*Electronic key*" refers to a secret code, which secures and defends sensitive information that crosses over public channels into a form decipherable only by itself or with a matching electronic key. This term shall include, but not be limited to, keys produced by single key cryptosystems, public key cryptosystems or any other similar method or process, which may hereafter, be developed.

(j) "*Intermediary*" refers to a person who in behalf of another person and with respect to a particular electronic data message or electronic document sends, receives and/or stores or provides other services in respect of that electronic data message or electronic document.

(k) "*Non-Commercial Activities*" are those not falling under commercial activities.

(l) "*Originator*" refers to a person by whom, or on whose behalf, the electronic data message or electronic document purports to have been created, generated and/or sent. The term does not include a person acting as an intermediary with respect to that electronic data message or electronic document.

(m) "*Person*" means any natural or juridical person including, but not limited to, an individual, corporation, partnership, joint venture, unincorporated association, trust or other juridical entity, or any governmental authority.

(n) "*Service provider*" refers to a provider of -

i. Online services or network access, or the operator of facilities therefore, including entities offering the transmission, routing, or providing of connections for online communications, digital or otherwise, between or among points specified by a user, of electronic data message or electronic documents of the user's choosing, or

ii. The necessary technical means by which electronic data message or electronic documents of an originator may be stored and made accessible to a designated or undesignated third party. Such service providers shall have no authority to modify or alter the content of the electronic data message or electronic document received or to make any entry therein on behalf of the originator, addressee or any third party unless specifically authorized to do so, and shall retain the electronic data message or electronic document

in accordance with the specific request or as necessary for the purpose of performing the services it was engaged to perform.

Chapter II Legal Recognition of Electronic Data Messages And Electronic Documents

Section 7. *Legal Recognition of Electronic Data Messages and Electronic Documents.* - Information shall not be denied validity or enforceability solely on the ground that it is in the form of an electronic data message or electronic document, purporting to give rise to such legal effect. Electronic data messages or electronic documents shall have the legal effect, validity or enforceability as any other document or legal writing. In particular, subject to the provisions of the Act and these Rules:

- (a) A requirement under law that information is in writing is satisfied if the information is in the form of an electronic data message or electronic document.
- (b) A requirement under law for a person to provide information in writing to another person is satisfied by the provision of the information in an electronic data message or electronic document.
- (c) A requirement under law for a person to provide information to another person in a specified non-electronic form is satisfied by the provision of the information in an electronic data message or electronic document if the information is provided in the same or substantially the same form.
- (d) Nothing limits the operation of any requirement under law for information to be posted or displayed in specified manner, time or location, or for any information or document to be communicated by a specified method unless and until a functional equivalent shall have been developed, installed, and implemented.

Section 8. *Incorporation by Reference.* - Information shall not be denied validity or enforceability solely on the ground that it is not contained in an electronic data message or electronic document but is merely incorporated by reference therein.

Section 9. *Use Not Mandatory.* - Without prejudice to the application of Section 27 of the Act and Section 37 of these Rules, nothing in the Act or these Rules requires a person to use or accept information contained in electronic data messages, electronic documents, or electronic signatures, but a person's consent to do so may be inferred from the person's conduct.

Section 10. *Writing.* - Where the law requires a document to be in writing, or obliges the parties to conform to a writing, or provides consequences in the event information is not presented or retained in its original form, an electronic document or electronic data message will be sufficient if the latter:

- (a) maintains its integrity and reliability, and
- (b) can be authenticated so as to be usable for subsequent reference, in that:
 - (i) It has remained complete and unaltered, apart from the addition of any endorsement and any authorized change, or any change which arises in the normal course of communication, storage and display; and
 - (ii) It is reliable in the light of the purpose for which it was generated and in the light of all relevant circumstances.

Section 11. *Original.* - Where the law requires that a document be presented or retained in its original form, that requirement is met by an electronic document or electronic data message if:

- (a) There exists a reliable assurance as to the integrity of the electronic document or electronic data message from the time when it was first generated in its final form and such integrity is shown by evidence aliunde (that is, evidence other than the electronic data message itself) or otherwise; and
- (b) The electronic document or electronic data message is capable of being displayed to the person to whom it is to be presented. (c) For the purposes of paragraph (a) above:
 - (i) The criteria for assessing integrity shall be whether the information has remained complete and unaltered, apart from the addition of any endorsement and any change which arises in the normal course of communication, storage and display; and (ii) The standard of reliability required shall be assessed in the light of the purpose for which the information was generated and in the light of all relevant circumstances.

An electronic data message or electronic document meeting and complying with the requirements of Sections 6 or 7 of the Act shall be the best evidence of the agreement and transaction contained therein.

Section 12. *Solemn Contracts.* - No provision of the Act shall apply to vary any and all requirements of existing laws and relevant judicial pronouncements respecting formalities required in the execution of documents for their validity. Hence, when the law requires that a contract be in some form in order that it may be valid or enforceable, or that a contract is proved in a certain way, that requirement is absolute and indispensable.

Legal Recognition of Electronic Signatures

Section 13. Legal Recognition of Electronic Signatures. An electronic signature relating to an electronic document or electronic data message shall be equivalent to the signature of a person on a written document if the signature:

(a) is an electronic signature as defined in Section 6(g) of these Rules; and
(b) is proved by showing that a prescribed procedure, not alterable by the parties interested in the electronic document or electronic data message, existed under which:

(i) A method is used to identify the party sought to be bound and to indicate said party's access to the electronic document or electronic data message necessary for his consent or approval through the electronic signature;

(ii) Said method is reliable and appropriate for the purpose for which the electronic document or electronic data message was generated or communicated, in the light of all circumstances, including any relevant agreement;

(iii) It is necessary for the party sought to be bound, in order to proceed further with the transaction, to have executed or provided the electronic signature; and, (iv) The other party is authorized and enabled to verify the electronic signature and to make the decision to proceed with the transaction authenticated by the same.

The parties may agree to adopt supplementary or alternative procedures provided that the requirements of paragraph (b) are complied with.

For purposes of subparagraphs (i) and (ii) of paragraph (b), the factors referred to in *Annex "2"* may be taken into account. Section 14. *Presumption Relating to Electronic Signatures.* - In any proceeding involving an electronic signature, the proof of the electronic signature shall give rise to the rebuttable presumption that: (a) The electronic signature is the signature of the person to whom it correlates; and (b) The electronic signature was affixed by that person with the intention of signing or approving the electronic data message or electronic document unless the person relying on the electronically signed electronic data message or electronic document knows or has notice of defects in or unreliability of the signature or reliance on the electronic signature is not reasonable under the circumstances.

Modes of Authentication

Section 15. *Method of Authenticating Electronic Documents, Electronic Data Messages, and Electronic Signatures.* - Electronic documents, electronic data messages and electronic signatures, shall be authenticated by demonstrating, substantiating and validating a claimed identity of a user, device, or another entity in an information or communication system.

Until the Supreme Court, by appropriate rules, shall have so provided, electronic documents, electronic data messages and electronic signatures, shall be authenticated, among other ways, in the following manner:

(a) The electronic signature shall be authenticated by proof that a letter, character, number or other symbol in electronic form representing the persons named in and attached to or logically associated with an electronic data message, electronic document, or that the appropriate methodology or security procedures, when applicable, were employed or adopted by a person and executed or adopted by such person, with the intention of authenticating or approving an electronic data message or electronic document;

(b) The electronic data message or electronic document shall be authenticated by proof that an appropriate security procedure, when applicable was adopted and employed for the purpose of verifying the originator of an electronic data message or electronic document, or detecting error or alteration in the communication, content or storage of an electronic document or electronic data message from a specific point, which, using algorithm or codes, identifying words or numbers, encryptions, answers back or acknowledgement procedures, or similar security devices

Section 16. *Burden of Authenticating Electronic Documents or Electronic Data Messages.* - The person seeking to introduce an electronic document or electronic data message in any legal proceeding has the

burden of proving its authenticity by evidence capable of supporting a finding that the electronic data message or electronic document is what the person claims it to be.

Modes for Establishing Integrity

Section 17. *Method of Establishing the Integrity of an Electronic Document or Electronic Data Message.* In the absence of evidence to the contrary, the integrity of the information and communication system in which an electronic data message or electronic document is recorded or stored may be established in any legal proceeding, among other methods: (a) By evidence that at all material times the information and communication system or other similar device was operating in a manner that did not affect the integrity of the electronic document or electronic data message, and there are no other reasonable grounds to doubt the integrity of the information and communication system; (b) By showing that the electronic document or electronic data message was recorded or stored by a party to the proceedings who is adverse in interest to the party using it; or (c) By showing that the electronic document or electronic data message was recorded or stored in the usual and ordinary course of business by a person who is not a party to the proceedings and who did not act under the control of the party using the record.

Admissibility and Evidential Weight

Section 18. *Admissibility and Evidential Weight of Electronic Data Messages and Electronic Documents.* - For evidentiary purposes, an electronic document or electronic data message shall be the functional equivalent of a written document under existing laws. In any legal proceeding, nothing in the application of the rules on evidence shall deny the admissibility of an electronic data message or electronic document in evidence:

- (a) On the sole ground that it is in electronic form; or
- (b) On the ground that it is not in the standard written form.

The Act does not modify any statutory rule relating to the admissibility of electronic data messages or electronic documents, except the rules relating to authentication and best evidence. In assessing the evidential weight of an electronic data message or electronic document, the reliability of the manner in which it was generated, stored or communicated, the reliability of the manner in which its originator was identified, and other relevant factors shall be given due regard. Section 19. *Proof by Affidavit and Cross-Examination.* - The matters referred to in Section 12 of the Act on admissibility and evidentiary weight, and Section 9 of the Act on the presumption of integrity of electronic signatures, may be presumed to have been established by an affidavit given to the best of the deponent's or affiant's personal knowledge subject to the rights of parties in interest to cross-examine such deponent or affiant as a matter of right. Such right of cross-examination may likewise be enjoyed by a party to the proceedings who is adverse in interest to the party who has introduced the affidavit or has caused the affidavit to be introduced. Any party to the proceedings has the right to cross-examine a person referred to in Section 11, paragraph 4, and subparagraph (c) of the Act.

Retention of Electronic Data Message and Electronic Document

Section 20. *Retention of Electronic Data Message and Electronic Document.* - Notwithstanding any provision of law, rule or regulation to the contrary:

- (a) The requirement in any provision of law that certain documents be retained in their original form is satisfied by retaining them in the form of an electronic data message or electronic document which:
 - (i) Remains accessible so as to be usable for subsequent reference;
 - (ii) Is retained in the format in which it was generated, sent or received, or in a format which can be demonstrated to accurately represent the electronic data message or electronic document generated, sent or received; and,
 - (iii) Where applicable, enables the identification of its originator and addressee, as well as the determination of the date and the time it was sent or received.
- (b) The requirement referred to in paragraph (a) is satisfied by using the services of a third party, provided that the conditions set forth in subparagraphs (i), (ii) and (iii) of paragraph (a) are met.
- (c) Relevant government agencies tasked with enforcing or implementing applicable laws relating to the retention of certain documents may, by appropriate issuances, impose regulations to ensure the integrity, reliability of such documents and the proper implementation of Section 13 of the Act.

Chapter III

Communication of Electronic Data Messages And Electronic Documents

Section 21. *Formation and Validity of Electronic Contracts.* Except as otherwise agreed by the parties, an offer, the acceptance of an offer and such other elements required under existing laws for the formation and perfection of contracts may be expressed in, demonstrated and proved by means of electronic data message or electronic documents and no contract shall be denied validity or enforceability on the sole ground that it

is in the form of an electronic data message or electronic document, or that any or all of the elements required under existing laws for the formation of the contracts is expressed, demonstrated and proved by means of electronic documents. Section 22. *Consummation of Electronic Transactions with Banks* - Electronic transactions made through networking among banks, or linkages thereof with other entities or networks, and vice versa, shall be deemed consummated under rules and regulations issued by the Bangko Sentral under the succeeding paragraph hereunder, upon the actual dispensing of cash or the debit of one account and the corresponding credit to another, whether such transaction is initiated by the depositor or by an authorized collecting party; Provided, that the obligation of one bank, entity, or person similarly situated to another arising therefrom shall be considered absolute and shall not be subjected to the process of preference of credits; Provided, however, that the foregoing shall apply only to transactions utilizing the Automated Teller Machine switching network. Without prejudice to the foregoing, all electronic transactions involving banks, quasi-banks, trust entities, and other institutions which under special laws are subject to the supervision of the Bangko Sentral ng Pilipinas shall be covered by the rules and regulations issued by the same pursuant to its authority under Section 59 of **Republic Act No. 8791 (The General Banking Act)**, Republic Act No. 7653 (the Charter of the Bangko Sentral ng Pilipinas) and Section 20, Article XII of the **Constitution**. Section 23 *Recognition by Parties of Electronic Data Message*. - As between the originator and the addressee of an electronic data message or electronic document, a declaration of will or other statement shall not be denied legal effect, validity or enforceability solely on the ground that it is in the form of an electronic data message or electronic document.

Attribution of Electronic Data Message and Electronic Document

Section 24. *Origin of Electronic Data Message*. - An electronic data message or electronic document is that of the originator if it was sent by the originator himself. Section 25. *Origin of Electronic Data Message Not Personally Sent by an Originator*. - As between the originator and the addressee, an electronic data message or electronic document is deemed to be that of the originator if it was sent:

(a) by a person who had the authority to act on behalf of the originator with respect to that electronic data message or electronic document; or (b) by an information and communications system programmed by, or on behalf of the originator to operate automatically.

Section 26. *When an Originator May Be Bound By an Electronic Data Message*. - As between the originator and the addressee, an addressee is entitled to regard an electronic data message or electronic document as being that of the originator, and to act on that assumption, if:

(a) in order to ascertain whether the electronic data message was that of the originator, the addressee properly applied a procedure previously agreed to by the originator for that purpose; or (b) the electronic data message or electronic document as received by the addressee resulted from the actions of a person whose relationship with the originator or with any agent of the originator enabled that person to gain access to a method used by the originator to identify electronic data messages or electronic documents as his own

The provisions of this Section do not exclude other instances or circumstances when an originator may be bound by the reliance and consequent action of an addressee respecting an electronic data message, which purports to have been that of the originator. Section 27. *When an Originator May Not Be Bound By an Electronic Data Message*. - As between the originator and the addressee, an addressee is not entitled to regard an electronic data message as being that of the originator, and to act on that assumption:

(a) as of the time when the addressee has both received notice from the originator that the electronic data message or electronic document is not that of the originator, and has reasonable time to act accordingly; or (b) in a case within paragraph (a) Section 26 of these Rules, at any time when the addressee knew or should have known, had it exercised reasonable care or used any agreed procedure, that the electronic data message or electronic document was not that of the originator.

The provisions of this Section do not exclude other instances or circumstances when an originator may not be liable for the reliance and consequent action of an addressee respecting an electronic data message, which purports to have been that of the originator.

Separate Receipt of and Error on Electronic Data Message and Electronic Document

Section 28. *Assumption Regarding Receipt of Separate Electronic Data Messages*. - The addressee is entitled to regard each electronic data message or electronic document received as a separate electronic data message or electronic document and to act on that assumption, except to the extent that it duplicates another electronic data message or electronic document and the addressee knew or should have known, had it exercised reasonable care or used any agreed procedure, that the electronic data message or electronic document was a duplicate.

Section 29. Error on Electronic Data Message or Electronic Document. - The addressee is entitled to regard the electronic data message or electronic document received as that which the originator intended to send, and to act on that assumption, unless the addressee knew or should have known, had the addressee exercised reasonable care, used the appropriate procedure or applied an agreed procedure:

- (a) That the transmission resulted in any error therein or in the electronic data message or electronic document when the latter enters the designated information and communications system; or
- (b) That electronic data message or electronic document is sent to an information and communications system which is not so designated by the addressee for the purpose.

Dispatch and Receipt of Electronic Data Message and Electronic Document

Section 30. Agreement on Acknowledgment of Receipt of Electronic Data Messages or Electronic Documents. - The following rules shall apply where, on or before sending an electronic data message or electronic document, the originator and the addressee have agreed, or in that electronic document or electronic data message, the originator has requested, that receipt of the electronic document or electronic data message be acknowledged:

- (a) Where the originator has not agreed with the addressee that the acknowledgment be given in a particular form or by a particular method, an acknowledgment may be given by or through any communication by the addressee, automated or otherwise, or any conduct of the addressee, sufficient to indicate to the originator that the electronic data message or electronic document has been received.
- (b) Where the originator has stated that the effect or significance of the electronic data message or electronic document is conditional on receipt of the acknowledgment thereof, the electronic data message or electronic document is treated as though it has never been sent, until the acknowledgment is received.
- (c) Where the originator has not stated that the effect or significance of the electronic data message or electronic document is conditional on receipt of the acknowledgment, and the acknowledgment has not been received by the originator within the time specified or agreed or, if no time has been specified or agreed, within a reasonable time, the originator may give notice to the addressee stating that no acknowledgment has been received and specifying a reasonable time by which the acknowledgment must be received; and if the acknowledgment is not received within the time specified, the originator may, upon notice to the addressee, treat the electronic document or electronic data message as though it had never been sent, or exercise any other rights it may have.

Section 31. Time of Dispatch of Electronic Data Message or Electronic Document. - Unless otherwise agreed between the originator and the addressee, the dispatch of an electronic data message or electronic document occurs when it enters an information and communications system outside the control of the originator or of the person who sent the electronic data message or electronic document on behalf of the originator. **Section 32. Time of Receipt of Electronic Data Message or Electronic Document.** - Unless otherwise agreed between the originator and the addressee, the time of receipt of an electronic data message or electronic document is as follows:

- (a) If the addressee has designated an information and communications system for the purpose of receiving electronic data message or electronic document, receipt occurs at the time when the electronic data message or electronic document enters the designated information and communications system; Provided, however, that if the originator and the addressee are both participants in the designated information and communications system, receipt occurs at the time when the electronic data message or electronic document is retrieved by the addressee. (b) If the electronic data message or electronic document is sent to an information and communications system of the addressee that is not the designated information and communications system, receipt occurs at the time when the electronic data message or electronic document is retrieved by the addressee. (c) If the addressee has not designated an information and communications system, receipt occurs when the electronic data message or electronic document enters an information and communications system of the addressee.

These rules apply notwithstanding that the place where the information and communications system is located may be different from the place where the electronic data message or electronic document is deemed to be received.

Section 33. Place of Dispatch and Receipt of Electronic Data Message or Electronic Document. - Unless otherwise agreed between the originator and the addressee, an electronic data message or electronic document is deemed to be dispatched at the place where the originator has its place of business and received at the place where the addressee has its place of business. This rule shall apply even if the originator or addressee had used a laptop or other portable device to transmit or receive his electronic data message or electronic document. This rule shall also apply to determine the tax situs of such transaction to

the extent not inconsistent with Philippine situs rules and the regulations which may be promulgated by the Bureau of Internal Revenue (BIR) relating to the tax treatment of electronic commerce transactions. For the purpose hereof:

- (a) If the originator or the addressee has more than one place of business, the place of business is that which has the closest relationship to the underlying transaction or, where there is no underlying transaction, the principal place of business. (b) If the originator or the addressee does not have a place of business, reference is to be made to its habitual residence; or (c) The "usual place of residence" in relation to a body corporate, which does not have a place of business, means the place where it is incorporated or otherwise legally constituted.

Nothing in this Section shall be deemed to amend the rules of private international law.

Security Methods

Section 34. *Choice of Security Methods.* - Subject to applicable laws and/or rules and guidelines promulgated by the Department of Trade and Industry and other appropriate government agencies, parties to any electronic transaction shall be free to determine the type and level of electronic data message or electronic document security needed, and to select and use or implement appropriate technological methods that suit their needs.

PART III

ELECTRONIC COMMERCE IN CARRIAGE OF GOODS

Section 35. *Actions Related to Contracts of Carriage of Goods.* - Without derogating from the provisions of Part Two of the Act, this Part of the Rules applies to any action in connection with, or in pursuance of, a contract of carriage of goods, including but not limited to:

- (a) (i) furnishing the marks, number, quantity or weight of goods;
(ii) stating or declaring the nature or value of goods;
(iii) issuing a receipt for goods;
(iv) confirming that goods have been loaded;
- (b) (i) notifying a person of terms and conditions of the contract;
(ii) giving instructions to a carrier;
- (c) (i) claiming delivery of goods;
(ii) authorizing release of goods;
(iii) giving notices of loss of, or damage to goods;
- (d) giving any other notice or statement in connection with the performance of the contract; (e) undertaking to deliver goods to a named person or a person authorized to claim delivery; (f) granting, acquiring, renouncing, surrendering, transferring or negotiating rights in goods; (g) acquiring or transferring rights and obligations under the contract.

Section 36. *Transport Documents.* - (1) Subject to paragraph (3), where the law requires that any action referred to in the immediately preceding Section be carried out in writing or by using a paper document, that requirement is met if the action is carried out by using one or more electronic data messages or electronic documents. The transport documents referred to herein shall include, but not be limited to, those enumerated in *Annex "I"* hereof. Concerned agencies such as, but not limited to, the DTI, Department of Finance, DOTC, Philippine Ports Authority and other port authorities, shall, within their respective mandates, issue appropriate rules and guidelines with respect to transport documents as provided herein. (2) Paragraph (1) applies whether the requirement therein is in the form of an obligation or whether the law simply provides consequences for failing either to carry out the action in writing or to use a paper document. (3) If a right is to be granted to, or an obligation is to be acquired by, one person and no other person, and if the law requires that, in order to effect this, the right or obligation must be conveyed to that person by the transfer, or use of, a paper document, that requirement is met if the right or obligation is conveyed by using one or more electronic data messages or electronic documents: Provided, That a reliable method is used to render such electronic data messages or electronic documents unique. (4) For the purposes of paragraph (3), the standard of reliability required shall be assessed in the light of the purpose for which the right or obligation was conveyed and in the light of all the circumstances, including any relevant agreement. (5) Where one or more electronic data messages or electronic documents are used to effect any action in subparagraphs (f) and (g) of Section 25 of the Act, no paper document used to effect any such action is valid unless the use of electronic data message or electronic document has been terminated and replaced by the use of paper documents. A paper document issued in these circumstances shall contain a statement of such termination. The replacement of electronic data messages or electronic documents by paper documents shall not affect the rights or obligations of the parties involved. (6) If a rule

of law is compulsorily applicable to a contract of carriage of goods which is in, or is evidenced by, a paper document, that rule shall not be inapplicable to such a contract of carriage of goods which is evidenced by one or more electronic data messages or electronic documents by reason of the fact that the contract is evidenced by such electronic data message or electronic document instead of a paper document.

PART IV
ELECTRONIC TRANSACTIONS IN GOVERNMENT

Chapter I

Government Use of Data Messages, Electronic Documents and Electronic Signatures

Section 37. *Government Use of Electronic Data Messages, Electronic Documents and Electronic Signatures.* - Notwithstanding any law to the contrary, within two (2) years from the date of the effectivity of the Act, all departments, bureaus, offices and agencies of the government, as well as all government-owned and-controlled corporations, that pursuant to law require or accept the filing of documents, require that documents be created, or retained and/or submitted, issue permits, licenses or certificates of registration or approval, or provide for the method and manner of payment or settlement of fees and other obligations to the government, shall:

(a) accept the creation, filing or retention of such documents in the form of electronic data messages or electronic documents;

(b) issue permits, licenses, or approval in the form of electronic data messages or electronic documents;

(c) require and/or accept payments, and issue receipts acknowledging such payments, through systems using electronic data messages or electronic documents; or (d) transact the government business and/or perform governmental functions using electronic data messages or electronic documents, and for the purpose, are authorized to adopt and promulgate, after appropriate public hearing and with due publication in newspapers of general circulation, the appropriate rules, regulations, or guidelines, to, among others, specify:

(1) the manner and format in which such electronic data messages or electronic documents shall be filed, created, retained or issued;

(2) where and when such electronic data messages or electronic documents have to be signed, the use of a electronic signature, the type of electronic signature required;

(3) the format of an electronic data message or electronic document and the manner the electronic signature shall be affixed to the electronic data message or electronic document;

(4) the control processes and procedures as appropriate to ensure adequate integrity, security and confidentiality of electronic data messages or electronic documents or records or payments;

(5) other attributes required of electronic data messages or electronic documents or payments; and (6) the full or limited use of the documents and papers for compliance with the government requirements;

Provided, That the Act shall by itself mandate any department of the government, organ of state or statutory corporation to accept or issue any document in the form of electronic data messages or electronic documents upon the adoption, promulgation and publication of the appropriate rules, regulations, or guidelines. Nothing in the Act or the Rules authorizes any person to require any branch, department, agency, bureau, or instrumentality of government to accept or process electronic data messages, conduct its business; or perform its functions by electronic means, until the adoption, promulgation and publication of the afore-mentioned appropriate rules, regulations or guidelines. Such rules, regulations or guidelines as well as the underlying technologies utilized in the implementation of the Act and these Rules shall conform to the principles set forth in the immediately succeeding section.

Section 38. *Principles Governing Government Use of Electronic Data Messages, Electronic Documents and Electronic Signatures.* - The following principles shall govern the implementation of Section 27 of the Act and shall be mandatory upon all departments, bureaus, offices and agencies of the government, as well as all government-owned and-controlled corporations:

(a) *Technology Neutrality.* - All solutions implemented shall neither favor a particular technology over another nor discriminate against or in favor of particular vendors of technology. (b) *Interoperability.* - All implementation of technological solutions shall ensure the interoperability of systems forming part of the government network. (c) *Elimination of Red Tape.* - Government processes shall be re-examined and if appropriate, simplified or re-engineered to maximize the functionality of technology and to eliminate unnecessary delays in the delivery of governmental services. (d) *Security Measures.* -

Government shall implement appropriate security measures to guard against unauthorized access, unlawful disclosure of information, and to ensure the integrity of stored information. (c) *Auditability*. - All systems installed shall provide for an audit trail.

Section 39. *Government Information System Plan (GISP)*. - It is hereby mandated that the GISP shall be adjusted, modified and amended to conform to the provisions and requirements of the Act, RPWEB and these Rules.

Chapter II RPWEB

Section 40. *RPWEB To Promote the Use Of Electronic Documents and Electronic Data Messages In Government and to the General Public*. - Within two (2) years from the effectivity of the Act, there shall be installed an electronic online network in accordance with Administrative Order 332 and House of Representatives Resolution 890, otherwise known as RPWEB, to implement Part IV of the Act to facilitate the open, speedy and efficient electronic online transmission, conveyance and use of electronic data messages or electronic documents amongst all government departments, agencies, bureaus, offices down to the division level and to the regional and provincial offices as practicable as possible, government-owned and -controlled corporations, local government units, other public instrumentalities, universities, colleges and other schools, and universal access to the general public.

The RPWEB network shall serve as initial platform of the government information infrastructure to facilitate the electronic online transmission and conveyance of government services to evolve and improve by better technologies or kinds of electronic online wide area networks utilizing, but not limited to, fiber optic, satellite, wireless and other broadband telecommunication mediums or modes.

Section 41. *Implementing Agencies*. - To facilitate the rapid development of the government information infrastructure, the Department of Transportation and Communications, National Telecommunications Commission and the National Computer Center shall in coordination with each other, promulgate the appropriate issuances in accordance with their respective mandate to aggressively formulate, promote and implement a policy environment and regulatory or non-regulatory framework that shall lead to the substantial reduction of costs of including, but not limited to, leased lines, land, satellite and dial-up telephone access, cheap broadband and wireless accessibility by government departments, agencies, bureaus, offices, government-owned and -controlled corporations, local government units, other public instrumentalities and the general public, to include the establishment of a government website portal and a domestic internet exchange system to facilitate strategic access to government and amongst agencies thereof and the general public and for the speedier flow of locally generated internet traffic within the Philippines. Section 42. *Cable Television and Broadcast as Telecommunications*. - The physical infrastructure of cable and wireless systems for cable TV and broadcast excluding programming and content and the management thereof shall be considered as within the activity of telecommunications for the purpose of electronic commerce and to maximize the convergence of ICT in the installation of the government information infrastructure.

Chapter III Delineation of Functions

Section 43. *Delineation of Functions and Coordination by the DTI*. - In the implementation of the Act, the following government agencies shall have the functions stated hereunder:

(a) The Department of Trade and Industry shall:

- (i) Supervise and coordinate the full implementation of Section 27 of the Act. For this purpose, all government agencies intending to comply with the said provision of law shall coordinate with the DTI in order to ensure adherence with the principles provided for in Section 38 of these Rules. Observance of all laws and regulations on public bidding, disbursements and other restrictions, including COA policies, shall be mandatory.
- (ii) Install an online public information and quality and price monitoring system for goods and services aimed in protecting the interests of the consuming public availing of the advantages of the Act.
- (iii) Establish a voluntary listing system for all businesses or entities involved in electronic commerce including, but not limited to, value-added service (VAS) providers as this term is understood in Republic Act No. 7925, banks, financial institutions, manufacturing companies, retailers, wholesalers, and on-line exchanges. The list of electronic commerce entities shall be maintained by the DTI and made available electronically to all interested parties.
- (iv) Review, study and assess all legal, technical and commercial issues arising in the field of electronic commerce which may be directed to the DTI and if necessary, convene the

appropriate government agencies in order to discuss, deliberate on and resolve the same and in the proper cases, promulgate additional rules and regulations to implement the Act.

(b) The Bangko Sentral ng Pilipinas shall exercise and perform such functions as mandated under the Act including the promulgation of the rules and regulations to implement the provisions of the Act with respect to banks, quasi-banks, trust entities, and other institutions which under special laws are subject to the Bangko Sentral ng Pilipinas supervision. (c) The Department of Budget and Management shall identify the fund source for the implementation of Sections 37, 39 and 40 of the Rules, consistent with the provisions of the annual General Appropriations Act, and in its capacity in managing the budget execution and accountability processes of government, shall be responsible for putting such core processes on-line.

PART V FINAL PROVISIONS

Section 44. *Extent of Liability of a Service Provider.* - Except as otherwise provided in this Section, no person or party shall be subject to any civil or criminal liability in respect of the electronic data message or electronic document for which the person or party acting as a service provider as defined in Section 6(n) of these Rules merely provides access if such liability is founded on:

(a) The obligations and liabilities of the parties under the electronic data message or electronic document;

(b) The making, publication, dissemination or distribution of such material or any statement made in such material, including possible infringement of any right subsisting in or in relation to such material:

Provided, That -

(i) The service provider: (1) does not have actual knowledge, or (2) is not aware of the facts or circumstances from which it is apparent, that the making, publication, dissemination or distribution of such material is unlawful or infringes any rights subsisting in or in relation to such material, or (3) having become aware, advises the affected parties within a reasonable time, to refer the matter to the appropriate authority or, at the option of the parties, to avail of alternative modes of dispute resolution; (ii) The service provider does not knowingly receive a financial benefit directly attributable to the unlawful or infringing activity; and (iii) The service provider does not directly commit any infringement or other unlawful act and does not induce or cause another person or party to commit any infringement or other unlawful act and/or does not benefit financially from the infringing activity or unlawful act of another person or party.

Provided, further, That nothing in this Section shall affect

(a) Any obligation founded on contract; (b) The obligation of a service provider as such under a licensing or other regulatory regime established under written law; (c) Any obligation imposed under any written law; or (d) The civil liability of any party to the extent that such liability forms the basis for injunctive relief issued by a court under any law requiring that the service provider take or refrain from actions necessary to remove, block or deny access to any material, or to preserve evidence of a violation of law.

Lawful Access

Section 45. *Lawful Access to Electronic Documents, Electronic Data Messages, and Electronic Signatures.* - Access to an electronic file, or an electronic signature of an electronic data message or electronic document shall only be authorized and enforced in favor of the individual or entity having a legal right to the possession or the use of the plaintext, electronic signature or file and solely for the authorized purposes.

Section 46. *Lawful Access to Electronic Keys.* - The electronic key for identity or integrity shall not be made available to any person or party without the consent of the individual or entity in lawful possession of that electronic key. The testimonial disclosure of an electronic key in any proceeding shall be limited by the Constitutional right against self-incrimination. Section 47. *Obligation of Confidentiality.* - Except for the purposes authorized under the Act, any person who obtained access to any electronic key, electronic data message, or electronic document, book, register, correspondence, information, or other material pursuant to any powers conferred under the Act, shall not convey to or share the same with any other person.

Penal Provisions

Section 48. *Hacking.* - Hacking or cracking which refers to unauthorized access into or interference in a computer system/server or information and communication system; or any access in order to corrupt, alter, steal, or destroy using a computer or other similar information and communication devices, without the knowledge and consent of the owner of the computer or information and communications system, including

the introduction of computer viruses and the like, resulting in the corruption, destruction, alteration, theft or loss of electronic data messages or electronic document shall be punished by a minimum fine of one hundred thousand pesos (P100,000.00) and a maximum commensurate to the damage incurred and a mandatory imprisonment of six (6) months to three (3) years. Section 49. *Piracy*. - Piracy or the unauthorized copying, reproduction, dissemination, distribution, importation, use, removal, alteration, substitution, modification, storage, uploading, downloading, communication, making available to the public, or broadcasting of protected material, electronic signature or copyrighted works including legally protected sound recordings or phonograms or information material on protected works, through the use of telecommunication networks, such as, but not limited to, the internet, in a manner that infringes intellectual property rights shall be punished by a minimum fine of one hundred thousand pesos (P100,000.00) and a maximum commensurate to the damage incurred and a mandatory imprisonment of six (6) months to three (3) years. The foregoing shall be without prejudice to the rights, liabilities and remedies under Republic Act No. 8293 or Intellectual Property Code of the Philippines and other applicable laws. Section 50. *Other Penal Offenses*. - Violations of the Consumer Act or Republic Act No. 7394 and other relevant or pertinent laws through transactions covered by or using electronic data messages or electronic documents, shall be penalized with the same penalties as provided in those laws. Section 51. *Other Violations of the Act*. - Other violations of the provisions of the Act, shall be penalized with a maximum penalty of one million pesos (P1,000,000.00) or six-(6) years imprisonment.

Miscellaneous Provisions

Section 52. *Statutory Interpretation*. - Unless otherwise expressly provided for, the interpretation of these Rules and the Act shall give due regard to the Act's international origin - the UNCITRAL Model Law on Electronic Commerce - and the need to promote uniformity in its application and the observance of good faith in international trade relations. The generally accepted principles of international law and convention on electronic commerce shall likewise be considered. Section 53. *Variation by Agreement*. - Any provision of the Act may be varied by agreement between and among parties; Provided that such agreement involves only the generation, sending, receiving, storing or otherwise processing of an electronic data message or electronic document. Nothing shall authorize contracting parties to agree upon stipulations or covenants, which defeat the legal recognition, validity and admissibility of electronic data messages, electronic documents, or electronic signatures. Section 54. *Reciprocity*. - All benefits, privileges, advantages or statutory rules established under this Act, including those involving practice of profession, shall be enjoyed only by parties whose country of origin grants the same benefits and privileges or advantages to Philippine citizens. Inasmuch as the Act merely contemplates the legal recognition of electronic forms of documents and signatures and does not amend any law governing the underlying substantive validity of acts or transactions, this provision shall be subject to existing Constitutional and statutory restrictions relative to activities which are reserved to Philippine citizens or juridical entities partially or wholly-owned by Philippine citizens. Section 55. *Oversight Committee*. - There shall be a Congressional Oversight Committee composed of the Committees on Trade and Industry/Commerce, Science and Technology, Finance and Appropriations of both the Senate and House of Representatives, which shall meet at least every quarter of the first two years and every semester for the third year after the approval of this Act to oversee its implementation. The DTI, DBM, Bangko Sentral ng Pilipinas, and other government agencies as may be determined by the Congressional Committee shall provide a quarterly performance report of their actions taken in the implementation of this Act for the first three (3) years. Section 56. *DTI's Continuing Authority to Implement the Act and Issue Implementing Rules*. - Among others, the DTI is empowered to promulgate rules and regulations, as well as provide quality standards or issue certifications, as the case may be, and perform such other functions as may be necessary for the implementation of this Act in the area of electronic commerce. Section 57. *Separability*. - If any provision in these Rules or application of such provision to any circumstance is held invalid, the remainder of these Rules shall not be affected thereby. Section 58. *Effectivity*. - These Rules shall take effect fifteen (15) days from the complete publication thereof in a newspaper of general circulation Done this ___ day of July, 2000.

MANUEL A. ROXAS II BENJAMIN E. DIOKNO Secretary Secretary Department of Trade and Industry
Department Of Budget and Management RAFAEL B. BUENAVENTURA Governor Bangko Sentral ng
Pilipinas

ANNEX I

UNIFORM CUSTOMS AND PRACTICE. 500 (UCP)

- Art. 23. Marine/Ocean bill of Lading
 - 23.1. Late delivery, Misrouting, Mishandling, Loss and Damage
 - 23.2 Customs Duties and Taxes
 - 23.3 Port Charges i.e. Arrastre Wharfage
 - 23.4 Inbound Shipment-Cargo Handler/Operator
 - 23.4.1 Warehouse Operator
- Art. 24. Non-Negotiable Seaway Bill
 - 24.1. Claim- *ibid*
 - 24.2. Customs Duties and Taxes
 - 24.3 Port Charges *i.e.*, Arrastre Wharfage
 - 24.4 Inbound Shipment-Cargo handler/operator
 - 24.4.1 Warehouse Operator
- Art. 25. Charter Party/Bill of Lading
 - 25.1 Claim - *ibid*.
 - 25.2 Customs Duties & Taxes
 - 25.3 Port Charges *i.e.*, Arrastre Wharfage
 - 25.4 Inbound shipment-cargo handler/operator
 - 25.4.1 Warehouse Operator
- Art. 26 Multi-Modal Transport Docs.
 - 26.1 late delivery, misrouting, mishandling, loss and damage
 - 26.2 Customs, duties, and taxes
 - 26.3 Port charges i.e. arrastre wharfage
 - 26.4 Inbound shipment-cargo handler/operator
 - 26.4.1. Warehouse operator
- Art. 27. Airport Transport Documents
 - 27.1. Claim-*ibid*
 - 27.2 Customs duties & taxes
 - 27.3 Airport charges
 - 27.4 inbound shipment-cargo handler/operator
 - 27.4.1. Warehouse operator
- Art. 28. Road, Rail, or Inland Waterway Transport Documents
 - 28.1 Claim- *ibid*
 - 28.2 Customs Duties & taxes
 - 28.3 Terminal charges
 - 28.4 Inbound shipment-cargo handler/operator
 - 28.4.1. Warehouse operator
- Art 29 Courier and Post Receipts
 - 29.1 Late delivery, misrouting, mishandling, loss & damage
 - 29.2 Customs duties & taxes
 - 29.3 Postal authority charges
 - 29.4 Inbound shipment-cargo handler/operator
 - 29.4.1. Warehouse operator
- Art. 30. Transport Documents issued by freight forwarders
 - 30.1. Claim - *ibid*
 - 30.2 Customs duties & taxes
 - 30.3 Port charges i.e. arrastre wharfage
 - 30.4 Inbound shipment- cargo handler/operator
 - 30.4.1. warehouse operator

ANNEX II

a) the sophistication of the equipment used by each of the parties; b) the nature of their trade activity; c) the frequency at which commercial transactions take place between the parties; d) the kind and size of the transaction; e) the function of signature requirements in a given statutory and regulatory environment; f) the capability of communication systems; g) compliance with authentication procedures set forth by intermediaries; h) the range of authentication procedures made available by any intermediary; i) compliance with trade customs and practice; j) the existence of insurance coverage mechanisms against unauthorized messages; k) the importance and the value of the information contained in the data message; l) the availability of alternative methods of identification and the cost of implementation; m) the degree of acceptance or non-acceptance of the method of identification in the relevant industry or field both at the time the method was agreed upon and the time when the data message was communicated; and n) any other relevant factor.

APPENDIX B

SOURCE CODES

config.inc.php

```
<?php
$db = 'cyberdb';
$link = mysql_connect('localhost');
if (! $link) die (" Couldn't connect to MySQL");
mysql_select_db($db,$link) or die (" Couldn't open $db:".mysql_error()
);
?>
```

heading.php

```
<?php
echo (" <tr<td width='100%'><div align='center'><center>





```

viewbanner1.php

```
<?php
include ("config.inc.php");
Stoday =getdate();
Show = mktime(Stoday[hours],Stoday[minutes],Stoday[seconds],Stoday[
month],Stoday[mday],Stoday[year]);
$esban = mysql_query("SELECT Importedfile, URL FROM banners
WHERE Dates_ Show' and DateE_ 'Show' ORDER BY BanName");
if ($num=mysql_num_rows($esban))
{
echo("
<tr><td width='100%'><div align='center'><center>
<table border='1' cellpadding='0' cellspacing='0'
border='1'><tr><td colspan='1'>
```

```
<tr><td>
<layer id='11'><layer id='12'><div id='111'><div id='13'
align='center' style='position:relative'></div></div>
</layer></layer>
<script language='JavaScript'>
<!--
var bannerArray = new Array();
var myCount=0;
$! = 0;
while($ban=mysql_fetch_row($esban))
{
$simg_url[]=$ban[0].".$ban[1];
$!++;
brand=(float)microtime()*100000;
shuffle($simg_url);
for($j=0;$j<$!-$!+$!+){
$! = explode(" ", $simg_url[$j]);
echo("
bannerArray[$j] = <A HREF='http://$j[1]' target=other><IMG
SRC='$j[0]' border='0' width='480' height='75'></A>");
echo("
bannerRotate()");
function bannerRotate() {
if(myCount > banner.Array.length-1){myCount=0;}
if (document.all) document.all.i3.innerHTML="banner Array[myCount];
else if (document.layers){
document.layers.11.document.layers.12.document.open();
document.layers.11.document.layers.12.document.write(bannerArray[myCount]);
document.layers.11.document.layers.12.document.close();}
setTimeout("bannerRotate()", 10000);
myCount++;
}
} // --
</script>
</td></tr></table></center></div></td></tr>");}
else
{
echo("
<tr><td width='100%'><div align='center'><center><table
border='1' cellpadding='0' cellspacing='0' bgcolor='FFFFFF'
height='100%'><tr><td><img src='banners/naidbanner.gif'></td>
</tr></table></center></div></td></tr>");
?>
countrylist.php
<?php
$countries = array("Afghanistan","Albania","Algeria","American
Samoa","Andorra","Angola","Anguilla","Antarctica","Antigua And
Barbuda","Armenia","Argentina","Aruba","Australia","Austria","Azerbaijan",
"Bahamas, The","Bahrain","Bangladesh","Barbados",
"Belarus","Belgium","Belize","Benin","Bermuda","Bhutan","Bolivia", "Bosnia and
Herzegovina","Botswana","Bouvet Island","Brazil","British
Indian Territory","Brunei","Bulgaria","Burkina
Faso","Burundi","Cambodia","Cameroon","Canada","Cape Verde",
"Cayman Islands","Clad","Central African
Republic","Chile","China","China (Hong Kong S.A.R.)","China (Macau
S.A.R.)","Christmas Island","Cocos (Keeling)
Islands","Colombia","Comoros","Congo","Congo, Democratic","Cook
Islands","Costa Rica","Cote D'Ivoire","Croatia
(Hrvatska)","Cuba","Cyprus","Czech
Republic","Denmark","Djibouti","Dominica","Dominican
Republic","East Timor","Ecuador","Egypt","El
Salvador","Eritrea","Estonia","Ethiopia","Egustorial Guinea","Falkland
Islands","Faroe Islands","Fiji Islands","Finland","France","French
Guana","French Polynesia","French Southern Territories",
"Gabon","Gambia,
The","Georgia","Germany","Ghana","Gibraltar","Greece","Greenland",
```



```

(if ((or (equal "" (a-zA-Z)(a-zA-Z0-9_){0,}(\{a-zA-Z0-9-
1,1\}){0,}(\{a-zA-Z\}(\{a-zA-Z\})>S, Semail)) || Semail==))
($saveact=mysql_query("SELECT itemid,sub_itemid,quantity FROM
shopping_cart WHERE customerid='Scustid'");
while($saveact=mysql_fetch_row($saveact);
($savevibstock=mysql_query("SELECT units_available FROM
shopping_web_products WHERE itemid='Scart[0]' and
sub_itemid='Scart[1]");
$savevib=0;
while($savevibstock=mysql_fetch_row($savevibstock);
($savevib=$savevib+$savevibstock[0]);
if ($savevib>=$cart[2])
($savebuffer=mysql_query("INSERT INTO shopping_cart_buffer
(customerid,itemid,sub_itemid,quantity,avib) VALUES
('Scustid','Scart[0]','Scart[1]','Scart[2]','$savevib')");)
else
($savebuffer=mysql_query("INSERT INTO shopping_cart_buffer
(customerid,itemid,sub_itemid,quantity,avib,stock) VALUES
('Scustid','Scart[0]','Scart[1]','Scart[2]','$savevib','1')");)
$seastock=mysql_query("SELECT itemid FROM shopping_cart_buffer
WHERE customerid='Scustid' and stock='1');
$seastocknum=mysql_num_rows($seastock);
if ($seastocknum>0)
($seastocknumvib=1;
$seastocknumpurchase=2;)
else
($delbuff=mysql_query("DELETE FROM shopping_cart_buffer
WHERE customerid='Scustid'");
$seashklimit=mysql_query("SELECT creditlimit FROM bank WHERE
actno='Sceno'");
$shklimit=mysql_fetch_row($seashklimit);
if ($shklimit[0]>="")
if ($shklimit[0]>=$totalamt)
($smunusbank=$shklimit[0]-$totalamt;
$seashklimit=mysql_query("UPDATE bank SET creditlimit='Smunusbank'
WHERE actno='Sceno'");
$sdletrans=timet);
$seashlistname=mysql_query("INSERT INTO
shopping_customer_reservation
(customer_name,address,contact_number,email,creditcardno) values
('Sname','$Saddress','$Scontactnumber','$Semail','$Sceno');");
if ($seashlistname)
($seastransno=mysql_query("SELECT MAX(transactionno) FROM
shopping_customer_reservation WHERE customer_name='Sname' and
address='Saddress' and creditcardno='Sceno'");
$stransno=mysql_fetch_row($seastransno);
$seaspurchaseitem=mysql_query("SELECT itemid,sub_itemid,quantity
FROM shopping_cart WHERE customerid='Scustid'");
while($seaspurchaseitem=mysql_fetch_row($seaspurchaseitem)
($sdami=$seaspurchaseitem[2];
while($sdami>0)
($seasmintentryno=mysql_query("select MIN(date) from
shopping_web_products where itemid='Spurchaseitem[0]' and
sub_itemid='Spurchaseitem[1]' and units_available='0'");
$smintentryno=mysql_fetch_row($seasmintentryno);
if ($smintentryno[0]!="")
($seagpprice=mysql_query("SELECT
gross_price,selling_price,units_available,units_reserved FROM
shopping_web_products WHERE itemid='Spurchaseitem[0]' and
sub_itemid='Spurchaseitem[1]' and date='Smintentryno[0]");
$seagpprice=mysql_fetch_row($seagpprice);
if ($seagpprice[2]> $sdami)
($sunitsv=$seagpprice[2]-$sdami;
$sunitsv=$seagpprice[3]-$sdami;
$stotal=$sdami+$seagpprice[1];
$seasajuni=mysql_query("UPDATE shopping_web_products SET
units_available='Sunitsv',units_reserved='Sunitsv' WHERE
itemid='Spurchaseitem[0]' and sub_itemid='Spurchaseitem[1]' and
date='Smintentryno[0]");
$seasname=mysql_query("SELECT gross_price,quantity,unit FROM
shopping_reserved_products WHERE transactionno='Stransno[0]' and
itemid='Spurchaseitem[0]' and sub_itemid='Spurchaseitem[1]");

```

```

$seasname=mysql_fetch_row($seasname);
if ($seasname[0]==$seagpprice[0])
($sdami=$sdami+$seasname[1];
$seasitersprod=mysql_query("UPDATE shopping_reserved_products
SET quantity='Sprod' WHERE transactionno='Stransno[0]' and
itemid='Spurchaseitem[0]' and sub_itemid='Spurchaseitem[1]");
$seaspro=mysql_query("SELECT quantity,income FROM
shopping_profits WHERE transactionno='Stransno[0]' and
itemid='Spurchaseitem[0]' and sub_itemid='Spurchaseitem[1]' and
gross_price='Sagpprice[0]");
$seaspro=mysql_fetch_row($seaspro);
$sincome=$seaspro[1]+$sdami+$seagpprice[1]-$seagpprice[0];
$seasnewqty=$seaspro[0];
$seasincome=mysql_query("UPDATE shopping_profits SET
quantity='Snewqty',income='Sincome' WHERE
transactionno='Stransno[0]' and itemid='Spurchaseitem[0]' and
sub_itemid='Spurchaseitem[1]' and gross_price='Sagpprice[0]");
unset($supd;)}
else
($sinresprod=mysql_query("INSERT INTO shopping_reserved_products
(transactionno,itemid,sub_itemid,gross_price,unit_price,quantity,
total_price,order_date)
VALUES('Stransno[0]','Spurchaseitem[0]','Spurchaseitem[1]','$seagpprice[0]','$seagpprice[1]','$sdami','$total','$sdletrans')");
$sdami=0;
$seasuccessfulpurchase=1;}
else
($stransno=$sdami+$seagpprice[1]-$seagpprice[0];
$sinres=mysql_query("INSERT INTO shopping_profits (transactionno,
itemid,
sub_itemid,gross_price,selling_price,quantity,income,date_transacted)
VALUES
('Stransno[0]','Spurchaseitem[0]','Spurchaseitem[1]','$seagpprice[0]','$seagpprice[1]','$sdami','Sincome','$sdletrans')");
$sdami=0;
$seasuccessfulpurchase=1;}
else
($stransno=$sdami+$seagpprice[2];
$sunitsv=0;
$sunitsv=$seagpprice[3]+$seagpprice[2];
$stotal=$seagpprice[2]+$seagpprice[1];
$seasajuni=mysql_query("UPDATE shopping_web_products SET
units_available='Sunitsv',units_reserved='Sunitsv' WHERE
itemid='Spurchaseitem[0]' and sub_itemid='Spurchaseitem[1]' and
date='Smintentryno[0]");
$seasname=mysql_query("UPDATE gross_price,quantity FROM
shopping_reserved_products WHERE transactionno='Stransno[0]' and
itemid='Spurchaseitem[0]' and sub_itemid='Spurchaseitem[1]");
$seasname=mysql_fetch_row($seasname);
if ($seasname[0]==$seagpprice[0])
($sdami=$seagpprice[2]+$seasname[1];
$seasitersprod=mysql_query("UPDATE shopping_reserved_products
SET quantity='Sprod' WHERE transactionno='Stransno[0]' and
itemid='Spurchaseitem[0]' and sub_itemid='Spurchaseitem[1]");
$seaspro=mysql_query("SELECT quantity,income FROM
shopping_profits WHERE transactionno='Stransno[0]' and
itemid='Spurchaseitem[0]' and sub_itemid='Spurchaseitem[1]' and
gross_price='Sagpprice[0]");
$seaspro=mysql_fetch_row($seaspro);
$sincome=$seaspro[1]+$seagpprice[2]+$seagpprice[1]-$seagpprice[0];
$seasnewqty=$seaspro[0];
$seasincome=mysql_query("UPDATE shopping_profits SET
quantity='Snewqty',income='Sincome' WHERE
transactionno='Stransno[0]' and itemid='Spurchaseitem[0]' and
sub_itemid='Spurchaseitem[1]' and gross_price='Sagpprice[0]");
unset($supd;)}
else
($sinresprod=mysql_query("INSERT INTO shopping_reserved_products
(transactionno,itemid,sub_itemid,gross_price,unit_price,quantity,
total_price,order_date)
VALUES('Stransno[0]','Spurchaseitem[0]','Spurchaseitem[1]','$seagpprice[0]','$seagpprice[1]','$seagpprice[2]','$total','$sdletrans')");
$sinres=mysql_fetch_row($sinres);
$sincome=$seagpprice[2]+$seagpprice[1]+$seagpprice[0];
$sinres=mysql_query("INSERT INTO shopping_profits (transactionno, itemid,

```



```

Spurchaseamt=Spurchaseamt+Sum; }
echo "<br><td colspan=3 class=purchasecartext>total purchased
color=<td colspan=2 class=viewcartx2><font color=red>P
Spurchaseamt:</font></table></td></table></td>";
$statemail=mysql_query("SELECT max(date) FROM profits");
$statemail=mysql_fetch_row($statemail);
$statemail=mysql_query("SELECT cash_on_hand FROM profits WHERE
date=$statemail[0]");
$cash=mysql_fetch_row($profit);
$cash=$cash[0]+Spurchaseamt;
$statemail=mysql_query("INSERT INTO profits (cash_on_hand,
credit_amount, description,source,transacno,date) VALUES ('$cash',
'Spurchaseamt', 'saleshop','$transno[0]','$statemail[0]');");
if($stockavail=1)
{ echo "<td width=100% align=center><form
action=purchaseart1.php>
<table border=0 width=98% bgcolor=#DEB887 cellpadding=5
cellspacing=0>
<br><td colspan=2 class=purchaseform2>Customer:<BR><input
type='text' name='name' value='Sname' size=40 class=purchased
READYONLY></td></tr>
<br><td class=purchaseform2 colspan=2>Delivery Address:<BR><input
type='text' name='address' value='Saddress' size=75
class=purchased READYONLY></td></tr>
<br><td width=50% class=purchaseform2>Contact Number:<BR><input
type='text' name='contactnumber' value='Scontactnumber' size=20
class=purchased READYONLY></td><td width=50%
class=purchaseform2>E-mail:<BR>
<input type='text' name='email' value='Semail' size=35
class=purchased READYONLY><input type='hidden' name='cno1'
value='Sno1' maxlength='4' size=4><input type='hidden'
name='cno2' value='Sno2' maxlength='4' size=4><input
type='hidden' name='cno3' value='Sno3' maxlength='4'
size=4><input type='hidden' name='cno4' value='Sno4'
maxlength='4' size=4></td></tr>
<br><td colspan=2 class=errmsg>Some Products Do Not Have Enough
Stock. <br>Please make Necessary Changes</td></tr>
<br><td colspan=2 align=center><table border=1 width=99%
bgcolor=#FFFFFF cellpadding=5 cellspacing=2>
<br><td width=10% class=purchasecartext>qty available</td><td width=10%
class=purchasecartext>product name</td><td width=40%
class=purchasecartext>price</td><td width=25% class=purchasecartext>unit price</td><td width=25%
class=purchasecartext>amount</td></tr>";
$resbuffer=mysql_query("select itemid,sub_itemid,quantity,avlb from
shopping_cart_buffer where customerid='Scustid'");
$Sk=0;
while ($getincart=mysql_fetch_row($resbuffer))
{echo("<input type=hidden name=item$Sk value=$getincart[0]><input
type=hidden name=sub$Sk value=$getincart[1]>");
$stitemdetails=mysql_query("select product_name from
shopping_products where itemid=$getincart[0]");
$stitemdetails=mysql_fetch_row($stitemdetails);
$stmgkano=mysql_query("SELECT min(selling_price) FROM
shopping_web_products WHERE itemid=$getincart[0] and
sub_itemid=$getincart[1]");
$mgkano=mysql_fetch_row($stmgkano);
$Samount=$mgkano[0]*$getincart[2];
$Sarr=explode(" ", $getincart[1]);
$stsize=mysql_query("SELECT size_name FROM sizes WHERE
sizeid=$arr[0]");
$size=mysql_fetch_row($stsize);
$stcolor=mysql_query("SELECT color_name FROM colors WHERE
colorid=$arr[1]");
$color=mysql_fetch_row($stcolor);
echo("<br><td width='10%'>
class=purchasecartext2>$getincart[2]</td><td width='10%'>
class=purchasecartext2>
<select name='quan$Sk' class=placedortext
<option value='0'>0");

```

```

$sttotalunit=mysql_query("select units_available from
shopping_web_products WHERE itemid=$getincart[0] and
sub_itemid=$getincart[1]");
$sttotalunit=mysql_fetch_row($sttotalunit);
while($sttotalunit=mysql_fetch_row($sttotalunit))
{ $sttotalunit=$sttotalunit+$sttotalunit[0]; }
for ($Sua=1;$Sua<=$totalunit;$Sua++)
{echo("<option value='Sua'>");
echo("($Sua*$Sk)=$Sua")? "SELECTED":"";
echo(">Sua");}
echo("</select></td><td width='10%'> class=purchasecartext2><font
color=red>$stitemdetails[0]");
if ($size[0]!="") { $color[0]=""};
echo("</font></td><td width='20%'> class=purchasecartext2>P
$mgkano[0]</td><td width='25%'> class=purchasecartext2>P
$Samount</td></tr>";
Spurchaseamt=Spurchaseamt+$Samount;
$Sk++;
echo("<input type=hidden name=k value=$Sk>");}
echo("<br><td colspan=2 class=purchasecartext><input type='submit'
name='save' value='save changes'></td><td colspan=2
class=purchasecartext>total purchased amount</td><td></td>
class=viewcartx2><font color=red>P Spurchaseamt</font></td></td>
</table></td></table></form></td>";
$delbuf=mysql_query("DELETE FROM shopping_cart_buffer WHERE
customerid='Scustid'"); }
?>
</tr></table></center></div></td></tr></table></center></div>
</td></tr></table></td></tr></table></center></div>
</body></html>
postsadsnew.php
<?php
session_save_path("");
session_start();
?>
<html><head><title>free ads new form</title></head><body
bgcolor=#FFFFFF>
<?php
include("config.inc.php");
include("textstyle.css");
if ($Submitnewform)
{if (ereg("^[a-zA-Z][a-zA-Z0-9_]{1,10}|[a-zA-Z0-9]{1,1}|0|@|[a-
zA-Z]{1,}[a-zA-Z]{1,}$", $Email))
{ $Schekemail=mysql_query("SELECT AdvertiserID FROM
free_ads_profile WHERE Email=$Email");
$Schemail=mysql_fetch_row($Schekemail);
if ($Schemail[0]!="")
{ $Serromsg="Email is already registered.<BR>cannot be reused.");
else
{ trim($Email);trim($Name);trim($Country);trim($Contactperson);trim($Co
ntactnumber);trim($password);trim($address);
trim($Businessname);
if (empty($Email) && empty($Name) && empty($Country) &&
empty($Contactperson))
{ echo("<script language=javascript> alert('Please Input Required
Fields');</script>"); }
else
{ $Numbers=range(0,9);
$rand(double(microtime()*1000000);
shuffle($Numbers);
$password=$Numbers[0]$Numbers[1]$Numbers[2]$Numbers[3]$Numbers[
4]$Numbers[5]$Numbers[6];
if (mail($Email, "our password",
"Hello, welcome to our service. To access our site, you need your
password
username=$Email
password=$password
Thank you.
-Webmaster"))
{

```



```

<tr><td width="60%" valign="top" align="center">
height=100%<font face="Arial Rounded MT Bold" size=1
color="#FF0000"></font></td></tr>;
echo("<table><center><div align=
echo("<table border=0
width=100% height=100% cellpadding=0 cellpadding=5>
<tr><td width=100% valign=top class=title
bgcolor=#FFCCFF><strong>Customers</strong></td></tr>
<tr><td width=100% bgcolor=#D9D9FF>&nbsp;&nbsp;&nbsp;<div
align=center><center>form action="" method=post>
<table border=0 width=75% cellpadding=0 cellpadding=5
bgcolor=#D9D9FF>;
include("config.inc.php");
$scout=mysql_query("SELECT transactionno, customer_name, address,
contact_number,email FROM shopping_customer_reservation ORDER
BY transactionno desc");
$sumprod=mysql_num_rows($scout);
if($sumprod==0)
{echo("
<tr><td class="errormsg height=100%>NO RECORDS
FOUND</td></tr>");}
else
{if($scout=="") $next=12;
if($scout=12)
for($i=0;$i<$next-12;$i++)
{ $getbuffer=mysql_fetch_row($scout);}
$scout=;
for($j=$next-12;$j<$next;$j++)
{if($c%4==0)
echo("<TR>");
$cr++;
$get2buffer=mysql_fetch_row($scout);
if($get2buffer[0]=="")
{echo("<td width="133%> bgcolor=#D9D9FF" height="125%><div
align="center"><center><table border=1 width="100%" cellpadding=2 cellpadding=0
height="100%">
<tr><td colspan=1 width="100%" cellpadding=0 cellpadding=2
height="100%">
<tr><td width="100%" height="10%" colspan=2
class="prodtitle"><strong><nobr>Transaction No: <font
color=black>$get2buffer[0]<font></nobr></strong></td></tr>
<tr><td width="100%" height="10%"
class="cat"><strong><nobr>$get2buffer[1]</nobr></strong></td></tr>
<tr><td width=30% class="colorchange2">
valign=top><nobr>Address:</nobr></td><td width=70%
class=bandetails">$get2buffer[2]</td></tr>
<tr><td width=30%
class="colorchange2"><nobr>Contact:</nobr></td><td width=70%
class=bandetails">$get2buffer[3]&nbsp;&nbsp;&nbsp;</td></tr>
<tr><td width=30%
class="colorchange2"><nobr>Email:</nobr></td><td width=70%
class=bandetails"><nobr>$get2buffer[4]&nbsp;&nbsp;&nbsp;</td></tr>";
$scout=mysql_query("SELECT max(order_date) FROM
shopping_reserved_products WHERE transactionno '$get2buffer[0]'");
$sdsc=mysql_fetch_row($scout);
$sdaterdate("F d Y",$sdsc[0]);
echo("
<tr><td width=30% class="colorchange2"><nobr>Order
Date:</td><td width=70% class="bandetails"><nobr>
$sdaterdate"</td></tr>";
$sdaterdate("<nobr></td></tr>";
<tr><td width="100%" height="10%" colspan=2 class="order"
onMouseOver="this.className='order'"
onMouseClick="javascript:go/orders.php?ustransno '$get2buffer[0]&nc
M $next'"><strong><nobr>orders details:<nobr></strong>
</td></tr></table></div></tr></td>";
}
if($c%4==0)
echo("</TR>");
}
echo("<table><center></div></form></tr>");

```

```

echo("<tr border=0><td width="100%" height="100%" colspan=2
bgcolor=#D9D9FF>&nbsp;&nbsp;&nbsp;</td></tr>";
if($sumprod=12)
{
echo("<tr><td width=100% height=75 align=center
bgcolor=#FFCCFF><div align=center><center>
<table border=0 width=100% height=100% cellpadding=0
cellpadding=0>
<tr><td class=searches>;
$scout= $sumprod/12;
$scout2= $sumprod%12;
if($scout2=0 && $scout==1) $scout=$scout+1;
else{ $scout=$scout-1} $scout=1;
echo("<SEARCH RESULT> PAGE/$/ &nbsp;&nbsp;&nbsp;");
for($i=1;$i<$scout;$i++)
{ $next=$i+12;echo("<a href='customers.php?next=$next">$i</a>
&nbsp;&nbsp;&nbsp;");}
echo("</td></tr></table></div></td></tr>");}
echo("</table></center></div></td></table></td></tr></table></center></div>
</body></html>");mysql_close();
?>

```

delivered.php

```

<?php
session_save_path("");
session_start();
include("jsva.php");
if($session_is_registered($sysaid) || $session_is_registered($flag)
){include("index.php");exit(0);}
else
{
$months=array("Jan","Feb","mar","apr","may","jun","jul","aug","sep","oc
t","nov","dec");
include("config.inc.php");
$scoutdetails=mysql_query("select
customer_name,address,contact_number,email from
shopping_customer_reservation where transactionno='<scoutstransno'");
$scoutdetails=mysql_fetch_row($scoutdetails);
$name=$scoutdetails[0];
$scoutno=$scoutdetails[2];
$address=$scoutdetails[1];
$email=$scoutdetails[3];
$scoutdate=mysql_query("select order_date from
shopping_reserved_products where transactionno '<scoutstransno'");
$sdaterdate=mysql_fetch_row($scoutdate);
$sdaterdate=$sdaterdate[0];
mysql_close($link);
}
if($submit)
{include("config.inc.php");
$scout=mysql_query("SELECT deliver_date FROM
shopping_reserved_products WHERE transactionno '<scoutstransno'");
$sd=mysql_fetch_row($scout);
if($sd[0]=="")
{echo(" script language javascript:alert('Cannot Resubmit
Data'); script ");include("delivered.php");exit(1)}
else
{ if($month=="&&& Sday=="&&& Syear=="")
{ $rydate=checkdate($month,$day,$year);
$delivered=mktime(0,0,0,$month,$day,$year);
if($rydate)
{ if($delivered>$orderdate1)
{ $updel=mysql_query("UPDATE shopping_reserved_products SET
deliver_date '$delivered' WHERE transactionno '<scoutstransno'");
for($y=0;$y<$del;$y++)
{ $buff=0;
while($buff==0)
{ $res1stock=mysql_query("SELECT MIN(centryno) FROM
shopping_web_products WHERE itemid='<itemid[$y]>' and
sub itemid '$subitemid[$y]' and units_reserved=0");
$stock1=mysql_fetch_row($res1stock);

```



```

echo"
<br>
<id width="100%" onMouseOver="window.status=Click here to add
system administrator, this className = 'buttonhitc'; return true"
onClick="onMouseOut('this.className = 'buttonlink'; window.status="; return
true" onMouseUp="javascript:go('addsysad.php?")">
<font face="arial" size="2" color="0000FF">
<strong><noBr>add sysad</noBr></strong></font>
</id>
</br>
);
}
if ($flag==1)
{
echo"
<br>
<id width="100%" onMouseOver="window.status=Click
here to change authority level of a system administrator, this className
= 'buttonhitc'; return true" onMouseOut="this.className = 'buttonlink';
window.status="; return true" onMouseUp="javascript:go
('changeFlag.php?")"><font face="arial" size="2"
color="0000FF"><strong><noBr>change authority
level</noBr></strong></font></td></tr>
}
}
echo"
<br>
<tr><td width="100%" onMouseOver="window.status=Click
here to change your password"; this className = 'buttonhitc'; return
true" onMouseOut="this.className = 'buttonlink'; window.status=";
return true" onMouseUp="javascript:go('sysadchangePass.
php?")"><font face="arial" size="2" color="0000FF"><strong>
<noBr>change password</noBr></strong></font></td></tr>
<tr><td width="100%" onMouseOver="window.status=Click here to
change your personal information"; this.className = 'buttonhitc'; return
true" onMouseOut="this.className = 'buttonlink'; window.status=";
return true" onMouseUp="javascript:go('sysadchangeInfo.php?")"><
font face="arial" size="2" color="0000FF"><strong><noBr>change
user information</noBr></strong></font></td></tr>
<tr><td width="100%" onMouseOver="window.status=Click here to
view or delete system administrator, this.className = 'buttonhitc';
return true" onMouseOut="this.className = 'buttonlink';
window.status="; return true" onMouseUp="javascript:go
('sysadviewall.php?")"><font face="arial" size="2" color="0000FF">
<strong><noBr>view/delete sysad</noBr></strong></font></td></tr>
);
}
}
money.php
<?php
session_save_path("");
session_start();
if (!session_is_registered('sysadid')) {session_is_registered(flag)}
{include("index.php");exit();}
else
{if ($submit)
{if (empty ($invest))
{echo "<script language = 'javascript'>alert('please enter
amount');</script>";
}
else
{if (ereg(" [0-9] - S - $", $invest))
{include("config.inc.php");
$today = getdate();
$datetrans = mktime($today[hours], $today[minutes], $today[seconds], $today
[mon], $today[mday], $today[year]);
$profit2 = mysql_query("SELECT * FROM profits");
$ccount2 = mysql_fetch_row($profit2);
if ($ccount2[0] == "")
{ $dowc1 = mktime(0,0,0, $today[mon], $today[mday], $today[year]);
$datet2 = mktime(23,59,59, $today[mon], $today[mday], $today[year]);
$rcsexinvest = mysql_query("SELECT cash on hand FROM profits
WHERE credit_amount = 'invest' and date = '$date1' and
date = '$date2'");
$rcsexinvest = mysql_fetch_row($rcsexinvest);
$sum = mysql_num_rows($rcsexinvest);
$profit = mysql_query("SELECT MAX(date) from profits");
$maxdate = mysql_fetch_row($profit);
$profit = mysql_query("SELECT cash_on_hand FROM profits WHERE
date = '$maxdate[0]'");
$cash = mysql_fetch_row($profit);
$soch = $cash[0] * $invest;
$sininvest = mysql_query("INSERT INTO profits (cash_on_hand,
credit_amount, description, source, date, sysadid) VALUES ('$soch',
'$invest', 'investment', 'investment', '$datetrans', '$sysadid')");
if ($sininvest)
{unset($soch);unset($datetrans);unset($invest);
echo "<script language = 'javascript'>alert('investment
recorded');</script>";
echo"
<script language='JavaScript'>
window.open("money.php", "_parent");
</script>;
}
exit();
}
}
else echo "<script language = 'javascript'>alert('an error occurred, please
try again later');</script>";
}}/end of if ($profit)
else
{
$soch = $invest;
$sininvest = mysql_query("INSERT INTO profits (cash_on_hand,
credit_amount, description, source, date, sysadid) VALUES ('$soch',
'$invest', 'investment', 'investment', '$datetrans', '$sysadid')");
if ($sininvest)
{
echo "<script language = 'javascript'>alert('investment
recorded');</script>";
echo"
<script language='JavaScript'>
window.open("money.php", "_parent");
</script>;
}
exit();
}
}
else echo "<script language = 'javascript'>alert('an error occurred, please
try again later');</script>";
}
}
mysql_close();
}/end of if (ereg(" [0-9] - S - $", $invest))
else echo "<script language = 'javascript'>alert('wrong amount
format');</script>";
}/end of else ng if (empty($invest))
}/end of if ($submit)
elseif ($reset)
{$invest = "";
}
}
?>
<SCRIPT language="JavaScript">
function go(url)
{
self.location url;
}
//SCRIPT>
</html -
<head>
title = invest </title -
</head>
<body bgcolor = "#FFFFFF">
<link rel="stylesheet" type="text/css" href="textstyle.css">
<div align="center"><center>
<table border="0" width="800" cellspacing="0" cellpadding="0">

```



```
echo("<tr><td class='rates' colspan=7>TOTAL SALES</td><td class='cant' colspan=1>php Stotal</td></tr></table></td></tr>");}
echo("<tr><td class=label3 ?");
if ($Shanners==0){
echo("OnMouseDown='javascript:go('report_moneyin.php?banners=1&
credit=&Sredit=&Sales=&Salesdebit=&Sdebit&search=1)&to=Stok&from=Sif
om')");}
} else ($Shanners==1 and Stotalban=0){
echo("OnMouseDown='javascript:go('report_moneyin.php?banners=0&
credit=&Sredit=&Sales=&Salesdebit=&Sdebit&search=1)&to=Stok&from=Sif
om')");}
echo(">Banners</td><td class=label4>php</td><td
class=label4>Stotalban</td></tr>");
if ($Shanners==1){
$Sresprofits=mysql_query("SELECT * FROM banner_profit WHERE
transact_date=>Sifrom' and transact_date=<=Sfo' order by transact_date");
$Numban=mysql_num_rows($Sresprofits);
if ($Numban>0){echo("<tr><td width='1'100%'& bgcolor='&#D9D9FF'
colspan=3>&nbsp;&nbsp;&nbsp;<div align='center'><center><table border='1'
width='100%'& cellpadding='0'& cellspacing='2'& bgcolor='&#D9D9FF'>
<tr><td style='font-family:Arial;font-weight:bold;font-size:8pt;color:
black;letter-spacing:1pt;text-align:center;text-indent:1px;cursor:default;
width='12%'>transact no</td><td style='font-family:Arial;font-
weight:bold;font-size:8pt;color:black;letter-spacing:1pt;text-align:center;
text-indent:1px;cursor:default; width='12%'>date</td>
<td style='font-family:Arial;font-weight:bold;font-size:8pt;color:black;
letter-spacing:1pt;text-align:center;text-indent:1px;cursor:default; width='20%'>amount</td></tr>");
Stotal=0;
while ($Scbh=mysql_fetch_array($Sresprofits)){
Stotal=Stotal+$Scbh[amount];
include('config.inc.php');
$Sarr=explode(",",$Scbh[sub_itemid]);
$Size=mysql_query("SELECT size_name from sizes where
sizeid=$arr[0]");
$Size=mysql_fetch_row($SizeSize);
$Srescol=mysql_query("SELECT color_name from colors where
colorid=$arr[1]");
$Scol=mysql_fetch_row($Srescolor);
$Sdatetrans="date('M',Y",$Scbh[transact_date]);
$Smed="date('h:i:s a',$Scbh[transact_date]);
echo("<tr><td style='font-family:Arial;font-weight:bold;font-size:8pt;
color:&#990099;letter-spacing:1pt;text-align:center;text-indent:1px;cursor:
default; width='1'100%'>Scbh[transactionno]</td><td class=
'colorchange5'& width='1'30%'><no>>$datetrans</no><br><no>>$u
med</no></td><td class='colorchange5'& width='1'10%'>
$Scbh[amount] </td></tr>");}
echo("<tr><td class=rates colspan=2>TOTAL PROFIT</td><td class=
cant colspan=1>php Stotal</td></tr></table></center></div></td>
</tr>");}
echo("<tr><td class=label3 ?");
if ($Scredit == 0)
echo("OnMouseDown='javascript:go('report_moneyin.php?credit=1&
debit=&Sdebit&hanners= $Shanners&Sales= $Sales&search=1&to=Stok&from=
$Sifom')");
} else ($Scredit == 1 && $Stotaldeb=0) echo("
OnMouseDown='javascript:go('report_moneyin.php?credit=0&debit=1&
debit&hanners= $Shanners&Sales= $Sales&search=1&to=Stok&from=$Sifom')");}
echo("<tr><td class=label4>php</td><td class=
label4>Stotaldeb</td></tr>");}
if ($Sdebit==1)
$Smedeb=mysql_num_rows($Sresdeb);
if ($Smedeb>0)
{echo("<tr><td width='1'100%'& bgcolor='&#D9D9FF'
colspan=3>&nbsp;&nbsp;&nbsp;<div align='center'><center><table border='1'
width='100%'& cellpadding='0'& cellspacing='2'& bgcolor='&#D9D9FF'>
<tr><td class='money'& width='1'60%'& description</td><td class=
'money'& width='20%'& date<br><time</td><td class='money'&
width='1'20%'& debit amount</td></tr>");
while ($Sdeb=mysql_fetch_array($Sresdeb))
{$datetrans="date('M',Y h:i:s a',$deb[date]);
echo("<tr><td class='colorchange4'& width='1'60%'>
$deb[description]</td><td class='colorchange5'& width='1'20%'>
$deb[trans</td><td class='colorchange3'& width='1'20%'>
$deb[debit amount]</td></tr>");
Stotal=Stotal-$deb[debit_amount];}
echo("<tr><td class=rates colspan=2>TOTAL SALES</td><td
class=cant colspan=1>php Stotal</td></tr></table>
</center></div></td></tr>");}
echo("<tr><td colspan=3><HR></td></tr>
<tr><td class=label3>Cash Available/Receivable</td><td class=
label4>php</td><td class=label4>Scbh[10]</td></tr>");} }
?>
<table><center></div></form><end</tr></table></td></tr>
</table></td></tr></table></center></div></tr></table></center>
</div></body></html>
```

```
<tr><td class='money'& width='1'60%'& description</td><td class=
'money'& width='20%'& date<br><time</td><td class='money'&
width='20%'& credit amount</td></tr>");
while ($Scred=mysql_fetch_array($Srescred))
{$datetrans="date('M',Y h:i:s a',$cred[date]);
echo("<tr><td class='colorchange4'& width='1'60%'>
$cred[description]</td><td class='colorchange5'& width='1'20%'>
$datetrans</td><td class='colorchange3'& width='1'20%'>
$cred[credit amount]</td></tr>");
Stotal=Stotal+$cred[credit_amount];}
echo("<tr><td class=rates colspan=2>TOTAL CREDIT</td><td
class=cant colspan=1>php Stotal</td></tr></table>
</center></div></td></tr>");}
echo("<tr><td class=label3 ?");
if ($Sdebit==0)
echo("OnMouseDown='javascript:go('report_moneyin.php?debit=1&
credit=&Sredit&hanners= $Shanners&Sales= $Sales&search=1&to=Stok&fro
m=$Sifom')");
} else ($Sdebit==1 && $Stotaldeb=0) echo("
OnMouseDown='javascript:go('report_moneyin.php?debit=0&credit=Sc
redit&hanners= $Shanners&Sales= $Sales&search=1&to=Stok&from=$Sifom')");}
echo("<tr><td class=label4>php</td><td class=
label4>Stotaldeb</td></tr>");}
if ($Sdebit==1)
$Smedeb=mysql_num_rows($Sresdeb);
if ($Smedeb>0)
{echo("<tr><td width='1'100%'& bgcolor='&#D9D9FF'
colspan=3>&nbsp;&nbsp;&nbsp;<div align='center'><center><table border='1'
width='100%'& cellpadding='0'& cellspacing='2'& bgcolor='&#D9D9FF'>
<tr><td class='money'& width='1'60%'& description</td><td class=
'money'& width='20%'& date<br><time</td><td class='money'&
width='1'20%'& debit amount</td></tr>");
while ($Sdeb=mysql_fetch_array($Sresdeb))
{$datetrans="date('M',Y h:i:s a',$deb[date]);
echo("<tr><td class='colorchange4'& width='1'60%'>
$deb[description]</td><td class='colorchange5'& width='1'20%'>
$deb[trans</td><td class='colorchange3'& width='1'20%'>
$deb[debit amount]</td></tr>");
Stotal=Stotal-$deb[debit_amount];}
echo("<tr><td class=rates colspan=2>TOTAL SALES</td><td
class=cant colspan=1>php Stotal</td></tr></table>
</center></div></td></tr>");}
echo("<tr><td colspan=3><HR></td></tr>
<tr><td class=label3>Cash Available/Receivable</td><td class=
label4>php</td><td class=label4>Scbh[10]</td></tr>");} }
?>
<table><center></div></form><end</tr></table></td></tr>
</table></td></tr></table></center></div></tr></table></center>
</div></body></html>
```

restock.php

```
~php
session save_path("");
session start();
include ("java.php");
if ($session is registered(syssid)) $session is registered(flag)
{include("index.php");exit();}
else if ($Sumbit)
{if (empty($Sitemid)) (empty($Sumits)) (empty($Sprice))
{echo("<script language='javascript'>alert('Please Enter Required
Fields:');</script>");}
} else if ($Sprevalcounter == 1)
{if (empty($Sitemid))
{echo("<script language='javascript'>alert('Please Enter Preacting
Price!');</script>");} }
else
{include("config.inc.php");
$Sub Size="";$Color;
$Today getdate();}
```



```

sub_itemid,quantity,return_date) values
(Supid,'$transno','$itemid[$j]','$subitemid[$j]','$returnunits[$j]','$datenow');}}
else { $resd2pending=mysql_query("insert into
shopping_defective_products (updateid,transaccionno,itemid,
sub_itemid,quantity,return_date) values
(Supid,'$transno','$itemid[$j]','$subitemid[$j]','$returnunits[$j]','$datenow');)}
else { $resauvstock=mysql_query("select units from shopping_stocks
where itemid='$itemid[$j]' and sub_itemid='$subitemid[$j]' and
units=0");
while ($suavstock=mysql_fetch_row($resauvstock))
{ $suav=$suav+$suavstock[0];
if ($suav==1)
{ $resminustock=mysql_query("select entryno,units from
shopping_stocks where itemid='$itemid[$j]' and
sub_itemid='$subitemid[$j]' and units=0");
while ($sminustock=mysql_fetch_row($resminustock))
{ if ($sminustock[1]<= $returnunits[$j])
{ $reschingentk=mysql_query("update shopping_stocks set
units=0,borrowed='$sminustock[1]' where entryno='$sminustock[0]'");
$resadd2dfcl=mysql_query("insert into shopping_defective_products
(updateid,transaccionno,itemid,sub_itemid,quantity,return_date,deliver_d
ate,entryno,table_borrowed) values
(Supid,'$transno','$itemid[$j]','$subitemid[$j]','$sminustock[1]','$datenow','$datenow','$sminustock[0]','$stocks');");
$returnunits[$j]=$returnunits[$j]-$sminustock[1];}
elseif ($returnunits[$j]>0 && ($sminustock[1]> $returnunits[$j]))
{ $newvalue=$sminustock[1]-$returnunits[$j];
$reschingentk=mysql_query("update shopping_stocks set
units='$newvalue',borrowed='$returnunits[$j]' where
entryno='$sminustock[0]'");
$resadd2dfcl=mysql_query("insert into shopping_defective_products
(updateid,transaccionno,itemid,sub_itemid,quantity,return_date,deliver_d
ate,entryno,table_borrowed) values
(Supid,'$transno','$itemid[$j]','$subitemid[$j]','$returnunits[$j]','$datenow','$datenow','$sminustock[0]','$stocks');");
$returnunits[$j]=0;}}
if ($returnunits[$j]>0){
$resadd2pending=mysql_query("insert into shopping_defective_products
(updateid,transaccionno,itemid,sub_itemid,quantity,return_date) values
(Supid,'$transno','$itemid[$j]','$subitemid[$j]','$returnunits[$j]','$datenow'););}
else { $resadd2pending=mysql_query("insert into
shopping_defective_products (updateid,transaccionno,itemid,
sub_itemid,quantity,return_date) values
(Supid,'$transno','$itemid[$j]','$subitemid[$j]','$returnunits[$j]','$datenow'););}}
else { // alert invalid units to return
echo ("<script language = 'javascript'>alert('invalid units to
return');</script>");}
else { // alert invalid units to return
echo ("<script language = 'javascript'>alert('invalid units to
return');</script>");}}
returnmsg = "UPDATE SUCESSFUL";
returnmsg; }
else { returnmsg = "DATA A CANNOT BE RESUBMITTED";
return 1; }
if ($submitchange)
{ $reschktable=mysql_query("select transaccionno from
shopping_change_items where updateid= '$supid' and
transaccionno='$transno' and return date '$datenow'");
$chktable=mysql_fetch_row($reschktable);
if ($chktable[0]!="")
returnmsg = "DATA CANNOT BE RESUBMITTED";
return 1; }
else { for ($j=0;$j= $cret;$j++)
if ($chkretes[$j]!="yes")
{ $itid= $itemid[$j];
$ititid= $subitemid[$j];
$qtyid= $quantity[$j];
$stotinteq=0;

```

```

$ressubsub=mysql_query("select distinct sub_itemid from
shopping_audit_trail_stocks where itemid='$itid' and
sub_itemid<='$ititid'");
while ($subsub=mysql_fetch_row($ressubsub))
{ $subbitid=$subsub[0];
$cret2=$j; $itid= $subbitid;
if ($stintokretes[$cret2]=="yes")
{ $stintoeq=$stotinteq+$stotinteq[$cret2];}
if ($stintoeq>$qtyid)
{ $returnmsg=$returnmsg."CANNOT CHANGE ItemID $itid,SubItemID
$itid<BR>+&nbspsp;&nbspsp units to change is more than purchased
quantity<BR>";}
elseif ($stintoeq==0) empty($stintoeq)
{ $returnmsg=$returnmsg."CANNOT CHANGE ItemID $itid,SubItemID
$itid<BR>+&nbspsp;&nbspsp no number of units to change specified<BR>";}
elseif ($stintoeq<=$qtyid)
{ $resqueryrrv=mysql_query("select gross_price,unit_price from
shopping_reserved_products where transaccionno='$transno' and
itemid='$itid' and sub_itemid='$ititid' and quantity='$qtyid' and
returned=0");
$queryrrv=mysql_fetch_row($resqueryrrv);
$prodgross=$queryrrv[0];
$spbycust=$queryrrv[1];
$resaddatka=mysql_query("insert into shopping_stocks
(itemid,sub_itemid,gross_price,units,date) values
($itid,$ititid,$prodgross,$stintoeq,$datenow)");
//compute unng profit na dating nadagdag sa profits
$oldincomeunit=$spbycust-$prodgross;
$stoldincome=$oldincomeunit*$stintoeq;
$profit=mysql_query("SELECT MAX(date) from profits");
$smaxdate=mysql_fetch_row($profit);
if ($smaxdate[0]!="")
{ $profit=mysql_query("SELECT cash_on_hand FROM profits where
date='$smaxdate[0]'");
$scash=mysql_fetch_row($profit);
$scash-$scash[0]-$stoldincome;
$smiace=mysql_query("INSERT INTO profits (cash_on_hand,
debit_amount,description,source,transaccionno,date,sysaidid) VALUES
($scash,$stoldincome,'returned
products','$shop','$transno','$datenow','$sysaidid');");
for ($m=1;$m<= $stintoeq;$m++)
{ $resmaxent=mysql_query("select MAX(entryno) from shopping_profits
where transaccionno='$transno' and itemid='$itid' and
sub_itemid='$ititid'");
$smaxent=mysql_fetch_row($resmaxent);
$resdelprof=mysql_query("delete from shopping_profits where
entryno='$smaxent[0]");}
$resqprv=mysql_query("select
gross_price,unit_price,order_date,deliver_date from
shopping_reserved_products where transaccionno='$transno' and
itemid='$itid' and sub_itemid='$ititid' and quantity='$qtyid' and
returned=0");
$suprv=mysql_fetch_row($resqprv);
$sewototv=$suprv[1]*$stotinteq;
$suprvprod=mysql_query("update shopping_reserved_products set
returned=1,quantity=$stotinteq,totai price=$sewototv where
transaccionno='$transno' and itemid '$itid' and sub itemid '$ititid' and
quantity '$qtyid' and returned=0");
$svces=$qtyid*$stotinteq;
$sewototv2=$suprv[1]*$svces;
if ($svces>0)
{ $resinexp=mysql_query("insert into shopping_reserved_products
(transaccionno,itemid,sub_itemid,gross_price,unit_price,quantity,total
pr,ce,order_date,deliver_date,returned) values
('$transno','$itid','$ititid','$suprv[0]','$suprv[1]','$svces','$sewototv2','$suprv[2]','$suprv[1]')");}
$ressubsub=mysql_query("select distinct sub_itemid from
shopping_audit_trail_stocks where itemid '$itid' and
sub_itemid<='$ititid'");
while ($subsub=mysql_fetch_row($ressubsub))
{ $subbitid= $subsub[0];
$cret2= $j; $itid= $subbitid;

```

```

if ($Simochkretset[Scrt2]=="yes")
{
$Slefinou-$Simounts[Scrt2];
while ($Slefinou=0)
{
$Resminweb=mysql_query("select MIN(entrno) from
shopping_web_products where itemid='Sitid' and sub_itemid='Subsitid'
and units_available>0");
$minweb=mysql_fetch_row($resminweb);
if ($minweb[0]=="")
{
$Sreslookweb=mysql_query("select entrno,units_available from
shopping_web_products where entrno='$minweb[0]'");
$lookweb=mysql_fetch_row($Sreslookweb);
if ($lookweb[1]>=$Simounts[Scrt2])
{
$Slefinou=0;
$Slefinou=$lookweb[1]-$Simounts[Scrt2];
$Srezzerweb=mysql_query("update shopping_web_products set
units_available='$Slefinou' where entrno='$lookweb[0]'");
if ($Srezzerweb)
{
$Sresprodname=mysql_query("SELECT product_name FROM
shopping_products WHERE itemid='Sitid'");
$Sprodname=mysql_fetch_row($Sresprodname);
$Sarr=explode(",",$Subsitid);
$Sreskula=mysql_query("SELECT color_name FROM colors WHERE
colorid='$arr[1]'");
$Skulay=mysql_fetch_row($Sreskula);
$Sskulay=mysql_query("SELECT size_name FROM sizes WHERE
sizeid='$arr[0]'");
$Ssize=mysql_fetch_row($Sresize);
$Ssermsg=$Ssermsg."<br>Web products supplied $Sintounts[Scrt2]
$Sprodname[0] $Skulay[0] $size[0].";
$Sresadchgitems=mysql_query("insert into shopping_change_items
(updateid,transaccio,itemid,sub_itemid,quantity,return,date,deliver_d
ate, entrno_stocks,customer_payment) values
('$upid','$Stransno','$Sitid','$Subsitid',
'$Simounts[Scrt2]','$datenow','$datenow','$lookweb[0]','$pdybcust')");
$Sresgetgrop=mysql_query("select gross_price from
shopping_web_products where entrno='$lookweb[0]'");
$Sgetgrop=mysql_fetch_row($Sresgetgrop);
$Snewincome=$Spdybcust-$Sgetgrop[0];
$Stotnewincome=$Snewincome*$Slookweb[1];
for ($Ssp=1;$Sp<=$Slookats[1];$Spp++)
{
$Sresinstats=mysql_query("insert into shopping_profits
(transaccio,itemid,sub_itemid,gross_price,selling_price,income,
date_transacted,entrno) values ('$Stransno','$Sitid','$Subsitid',
'$getgrop[0]','$pdybcust','$Stotnewincome','$datenow',
'$lookweb[0]'");
if ($Stotnewincome>0)
{
$Sprof=mysql_query("SELECT MAX(date) from profits");
$Smaxdate=mysql_fetch_row($Sprof);
if ($Smaxdate[0]=="")
{
$Sprofit=mysql_query("SELECT cash_on_hand FROM profits where
date='$maxdate[0]'");
$Scash=mysql_fetch_row($Sprofit);
$Scash[0]=$Stotnewincome;
$Smisce=mysql_query("INSERT INTO profits (cash_on_hand,
credit_amount,description,source,transaccio,date,$sysaid) VALUES
('$cash','$Stotnewincome','$changed
items','$shop','$Stransno','$datenow','$sysaid')");}
elseif ($Stotnewincome<0)
{
$Sprof=mysql_query("SELECT MAX(date) from profits");
$Smaxdate=mysql_fetch_row($Sprof);
if ($Smaxdate[0]=="")
{
$Sprofit=mysql_query("SELECT cash_on_hand FROM profits where
date='$maxdate[0]'");
$Scash=mysql_fetch_row($Sprofit);
$Stotnewincome=abs($Stotnewincome);
$Scash-$Scash[0]-$Stotnewincome;
$Smisce=mysql_query("INSERT INTO profits (cash_on_hand,
debit_amount,description,source,transaccio,date,$sysaid) VALUES
('$cash','$Stotnewincome','$changed
items','$shop','$Stransno','$datenow','$sysaid')");}
else
{
$Smiscstats=mysql_query("select MIN(entrno) from shopping_stocks
where itemid='Sitid' and sub_itemid='Subsitid' and units '0'");
$Smiscstats=mysql_fetch_row($Smiscstats);
if ($Smiscstats[0]!="")
{
$Sreslookats=mysql_query("select entrno,units from shopping_stocks
where entrno '$miscstats[0]'");
$Slookats=mysql_fetch_row($Sreslookats);
if ($Slookats[1]>=$Simounts[Scrt2])
{
$Slefinou=0;
$Slefsku=$Slookats[1]-$Simounts[Scrt2];
$Srezzerotks=mysql_query("update shopping_stocks set units '$Slefsku'
where entrno '$Slookats[0]'");
if ($Srezzerotks)

```

```

($resprodname=mysql_query("SELECT product_name FROM
shopping_products WHERE itemid='Sitid'");
$sprodname=mysql_fetch_row($resprodname);
$sr=explode(" ", $Subsitid);
$Skulay=mysql_query("SELECT color_name FROM colors WHERE
colorid=$Sarr[1]");
$Skulay=mysql_fetch_row($Skulay);
$Ssize=mysql_query("SELECT size_name FROM sizes WHERE
sizeid=$Sarr[0]");
$Ssize=mysql_fetch_row($Ssize);
$Sermng=$Sermng."<br>Stockroom products supplied $Sintounts[$Sretz2]
$Sprodname[0] $Skulay[0] $Size[0]";
$Sresadchgitems=mysql_query("insert into shopping_change_items
(updated,transactionno,itemid,sub_itemid,quantity,return_date,deliver_d
ate, entryno_stocks,customer_payment) values
($Supid, $Stransno, $Sitid, $Subsitid,
'$Sintounts[$Sretz2]', $Sdatenow, $Sdatenow, $Slookstks[0], $Spdybvcust");
$Sregsetgross=mysql_query("select gross_price from shopping_stocks
where entryno='$Slookstks[0]");
$Sgetgross=mysql_fetch_row($Sregsetgross);
$Snewincome=$Spdybvcust-$Sgetgross[0];
$Stotnewincome=$Snewincome*$Sintounts[$Sretz2];
for ($Ssp=1; $Ssp<=$Sintounts[$Sretz2]; $Ssp++)
{
$Sresinsatks=mysql_query("insert into shopping_profits
(transactionno,itemid,sub_itemid,gross_price,selling_price,income,
date_transacted,entryno) values ($Stransno, $Sitid, $Subsitid,
'$Sgetgross[0]', $Spdybvcust, $Stotnewincome, $Sdatenow,
'$Slookstks[0]');"}
if ($Stotnewincome>0)
{
$Sprof=mysql_query("SELECT MAX(date) from profits");
$Smaxdate=mysql_fetch_row($Sprof);
if ($Smaxdate[0]!="")
{
$Sprofit=mysql_query("SELECT cash_on_hand FROM profits where
date='$Smaxdate[0]");
$Scash=mysql_fetch_row($Sprofit);
$Scob=$Scash[0]-$Stotnewincome;
$Smisce=mysql_query("INSERT INTO profits (cash_on_hand,
credit_amount,description,source,transactionno,date,sysaidid) VALUES
($Scob, '$Stotnewincome','changed
items','shop','$Stransno', $Sdatenow, '$Sysaidid')");}
elseif ($Stotnewincome<0)
{
$Sprof=mysql_query("SELECT MAX(date) from profits");
$Smaxdate=mysql_fetch_row($Sprof);
if ($Smaxdate[0]!="")
{
$Sprofit=mysql_query("SELECT cash_on_hand FROM profits where
date='$Smaxdate[0]");
$Scash=mysql_fetch_row($Sprofit);
$Stotnewincome=abs($Stotnewincome);
$Scob=$Scash[0]-$Stotnewincome;
$Smisce=mysql_query("INSERT INTO profits (cash_on_hand,
debit_amount,description,source,transactionno,date,sysaidid) VALUES
($Scob, '$Stotnewincome','changed
items','shop','$Stransno', $Sdatenow, '$Sysaidid')");}}}}
else {
$Sresprodname=mysql_query("SELECT product_name FROM
shopping_products WHERE itemid='Sitid'");
$Sprodname=mysql_fetch_row($Sresprodname);
$Sarr=explode(" ", $Subsitid);
$Sreskulay=mysql_query("SELECT color_name FROM colors WHERE
colorid=$Sarr[1]");
$Skulay=mysql_fetch_row($Sreskulay);
$Sresize=mysql_query("SELECT size name FROM sizes WHERE
sizeid=$Sarr[0]");
$Ssize=mysql_fetch_row($Sresize);
$Sermng=$Sermng."<br>Stockroom products supplied $Slookstks[1]
$Sprodname[0] $Skulay[0] $Ssize[0]";
$Sresadchgitems=mysql_query("insert into shopping_change_items
(updated,transactionno,itemid,sub_itemid,quantity,return_date,deliver d

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```

ate, entryno_stocks,customer_payment) values
($Supid, $Stransno, $Sitid, $Subsitid,
'$Slookstks[1]', $Sdatenow, $Sdatenow, $Slookstks[0], $Spdybvcust");
$Sregsetgross=mysql_query("select gross_price from shopping_stocks
where entryno='$Slookstks[0]");
$Sgetgross=mysql_fetch_row($Sregsetgross);
$Snewincome=$Spdybvcust-$Sgetgross[0];
$Stotnewincome=$Snewincome*$Slookstks[1];
for ($Ssp=1; $Ssp<=$Slookstks[1]; $Ssp++)
{
$Sresinsatks=mysql_query("insert into shopping_profits
(transactionno,itemid,sub_itemid,gross_price,selling_price,income,
date_transacted,entryno) values ($Stransno, $Sitid, $Subsitid,
'$Sgetgross[0]', $Spdybvcust, $Stotnewincome, $Sdatenow,
'$Slookstks[0]');"}
if ($Stotnewincome>0)
{
$Sprof=mysql_query("SELECT MAX(date) from profits");
$Smaxdate=mysql_fetch_row($Sprof);
if ($Smaxdate[0]!="")
{
$Sprofit=mysql_query("SELECT cash_on_hand FROM profits where
date='$Smaxdate[0]");
$Scash=mysql_fetch_row($Sprofit);
$Scob=$Scash[0]-$Stotnewincome;
$Smisce=mysql_query("INSERT INTO profits (cash_on_hand,
credit_amount,description,source,transactionno,date,sysaidid) VALUES
($Scob, '$Stotnewincome','changed
items','shop','$Stransno', $Sdatenow, '$Sysaidid')");}
elseif ($Stotnewincome<0)
{
$Sprof=mysql_query("SELECT MAX(date) from profits");
$Smaxdate=mysql_fetch_row($Sprofit);
if ($Smaxdate[0]!="")
{
$Sprofit=mysql_query("SELECT cash_on_hand FROM profits where
date='$Smaxdate[0]");
$Scash=mysql_fetch_row($Sprofit);
$Stotnewincome=abs($Stotnewincome);
$Scob=$Scash[0]-$Stotnewincome;
$Smisce=mysql_query("INSERT INTO profits (cash_on_hand,
debit_amount,description,source,transactionno,date,sysaidid) VALUES
($Scob, '$Stotnewincome','changed
items','shop','$Stransno', $Sdatenow, '$Sysaidid')");}}}}
else {
$Sresprodname=mysql_query("SELECT product_name FROM
shopping_products WHERE itemid='Sitid'");
$Sprodname=mysql_fetch_row($Sresprodname);
$Sarr=explode(" ", $Subsitid);
$Sreskulay=mysql_query("SELECT color_name FROM colors WHERE
colorid=$Sarr[1]");
$Skulay=mysql_fetch_row($Sreskulay);
$Sresize=mysql_query("SELECT size name FROM sizes WHERE
sizeid=$Sarr[0]");
$Ssize=mysql_fetch_row($Sresize);
$Sermng=$Sermng."<br>$Sflintout $Sprodname[0] $Skulay[0] $Ssize[0]";
$Sresadchgitems mysql_query("insert into shopping_change_items
(updated,transactionno,itemid,sub_itemid,quantity,return_date,deliver_d
ate, customer_payment) values
($Supid, $Stransno, $Sitid, $Subsitid, '$Sflintout', $Sdatenow, 0, $Spdybvcust");
$Sflintout=0; }
$Srescancel mysql_query("delete from shopping_stocks where units =0
and borrowed 0");
$Srescancelweb mysql_query("delete from shopping_web_products where
units_available 0 and borrowed 0");}}}}}}
$Serrormsg="UPDATE SUCCESSFUL"; $Sermng;}
$Cancel=1;
if ($Cancel)
{
$Stransno="";
$Sreturnout="";
$Sreturnout=0; }
echo("<html -> <head -> <title add product -> <title -> <head
- link rel =>stylesheet" type =>text/css" href =>stylesheet.css"
"<body bgcolor=">#FFFFFF"><div align =>center"><center">
<table border =>0 width =>700 cellpadding =>0 cellspacing =>0 ">);
include(">sysadhead.php");

```


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