

ePortal Store: a Web Business Model catalyst

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Abstract—For businesses to attract new clients, e-Commerce is considered an excellent option. Many e-commerce sites are occasionally short-lived. The ePortalStore follows the pattern of algorithms by popular search engines like yahoo, Google or msn. The simplest algorithm of these search engines tell us that any updates over the site should be sourced internally. This means that the administrator or affiliates do the changes and not the “feeds”, redirection links or some autopilot robot. The owner can easily expand its business since it uses the Internet over any browser (IE, Chrome, Firefox, and Opera) and allows virtual interaction with the system. The template is compatible to these browsers. There are two sides of the ePortalStore, the public web portal “ePortalStore.com”, where anybody can visit the site subject to compliance of its policies and conditions.. However, the user can’t cross from client-side to server-side using his login details. Email notification is one of the benefits of the registered user for any updates of products, discounts, and other related information. In the ePortalStore, the affiliate’s term was used to allow itself to grow using other vendors support (B2B2C). It has two additional options either to “wish list” or just compare. In some instances, there may be problems with the affiliates but the administrator can easily disable the user. An administrator may use phpmyadmin manually for the login details. User group is also applied for the type of user in the server and what file to handle. Other details upon initialization are also important to make the product more interesting and convince the visitor to become customer. The proponent hopes to contribute to other researcher the basic requirement for Business to Business using online and the controversial SEO which follows from search engine algorithms (Google, Yahoo).

Keyword—ePortal, Online Stoer, e-Commerce, Web Business, Business Model

I. INTRODUCTION

There are lots of ways to make business successful and technology plays an important role in making this possible. Technology is useful to facilitate business because it affects the continuing development of business by allowing people complete more tasks in less time and less human intellectual or manual labor [1], and [3]. Technology continually amazes society with the improvement and capabilities that computer systems exceed.

Online technology is one of the most powerful tools in marketing. It can use as a market place for product promotion. It also helps every individual to search for anything they wanted by the use of Internet [11]. It can communicate with the user through the help of information that feed into it. Online technology is a global marketing promotion as well [16].

In the case of an online sales and inventory system, it is now a widely used system throughout the globe. It easily transacts products through online and very effective for

generating exact information [8]. People can easily view the detailed sales using this system, such as viewing every piece of product that has been distributed around the region. The product are exposed to many potential buyers all across the world with just an instance you can reach millions of buyers [8], [12]. This system delivers the company to soar in every other company. It allows effective marketing worldwide and efficient in every data inputs in this system. Worldwide marketing for a target customer is indeed a task that will help the company to boost rapidly[15].

The ePortalStore is initially a system developed by the proponent and currently having customization to validate its functions in doing basic inventory, sales, payment facilities, marketing, analytics, email, product performance, a variant of SEO (Search Engine Optimization) and the likes. This was started last December 2018, but it was stopped due to more research needed for the frameworks and 3rd party plugins which is vendor sensitive and dependent.

As of the moment it will be experimented and tested home base and no government intervention such as the usual government business registration protocols in establishing business is required.

The ePortalStore system is using scripts such as XML, HTML, JavaScript, object PHP, and other php frameworks for the front-end; database manager MySQL for the back-end and tools such as Macromedia Dreamweaver, Php engine, Mysql manager, easyphp server-side, macromedia flash, phpmyadmin and fireworks.

It has two interfaces the client-side which involves the browser and the server-side which is the system admin manager using php.

The ePortalStore has no specific employee yet except the proponent. But it will need at least two people in the future to make product updates and doing SEO. The proponent used the same policy for online orders and manual delivery using the online system facility and the courier respectively in coordination with the vendor. During payment there are many 3rd party plugins but as of now we used PayPal standard, Bank Payments to do the transaction. The proponent registers itself with the paypal.com with its true identity, email and local bank account. Likewise, the ePortalStore web application is very effective and conducive in terms of each feature. There will be minimal user intervention and much will be performed by the system internally. This system is very feasible for an online store because using the system; customers are guaranteed to get exact information in terms of inquiry, cost and branding.

Therefore, the proponent aimed and established its own B2B2C ecommerce and implemented an ePortal Store system that has the following features and functionalities:

1. It has inquiry electronic products online using browser such as Mozilla, Chrome, IE, Netscape and Opera.
2. It use frameworks written in Php Class, Php engine and scripts to make the interface and back-end functional.
3. It provides a module to identify the product status periodically.
4. It identifies product performance using a graph.
5. It provides security features for the manager, user and administrator by permission in the different pages.
6. It provides features that the customer can easily buy the products, pay and deliver.
7. It follows the basic requirements of SEO from popular search engines (yahoo.com, google.com) algorithms.

II. METHOD

This chapter illustrates the web development life cycle and the phases used during the process of design, development, form generation and conceptualization. It also includes relationships among different frameworks from conceptual to its equivalent database schema.

The proponent used the methodology of Web Development Lifecycle as popularized by John December of his December Communications Inc, a Web Communication Company, especially in developing Business to Business to Customer model of the eCommerce Website.

A. Web Development Life Cycle

1) Web Planning

The planning phase of ePortal Store illustrates the players behind the web portal such as professionals, businessman, plain users which are net visitors at the same time. As Internet becomes an avenue of research and now business avenue, the proponents make use of this portal to compete with the market of having branded gadgets and allow affiliates to collaborate with the system. The proponent would like to push for ePortalStore that will not focus on intranet vendors but allows other vendors to influence the global market of its competing brands. The proposed portal will be implemented globally with domain “eportalstore.com” as its name over the globe. An illustration of the interaction between phases is shown in Figure 1.

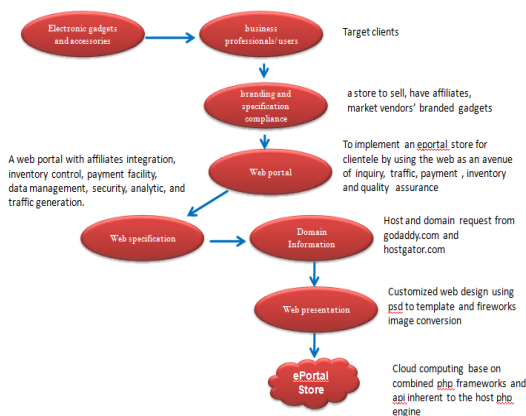


Fig 1. Web Planning for ePortalStore

2) Web Analysis

The web analysis phase is the process of gathering and comparing information about the web portal and its operation and use in order to improve the web's overall quality and to identify problem areas.

The ePortalStore analyst checks to make sure the web efficiency

- *Rhetorically*: The eportal store will accomplish its purpose to facilitate sales, affiliates, and electronics market to compete with the underlying marketing strategies of other ecommerce portals such as eBay, Amazon, Clickbank etc. Part of its analytics would be the performance of its products.
- *Technically*: The web presence of eportal store will be functionally operational using its friendly interface, admin-side administration and consistent with its specifications and designs, including coding scheme (php, html, xml, javascript, php frameworks) and syntax.
- *Semantically*: The keywords will use tested variables for traffic generation and naming convention and to be distributed throughout the pages. These are relevant and complete during implementation. The user interface will use layman’s term that is easily understood by the user.

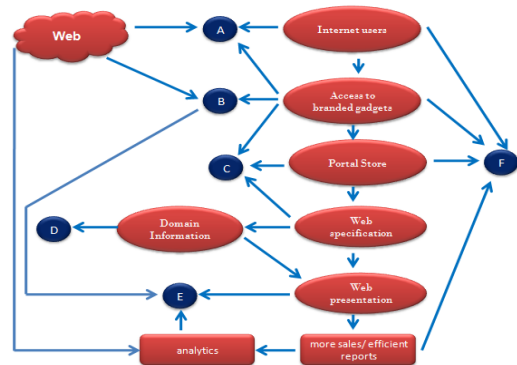


Fig 2. Web Analysis of ePortalStore

The analysis checklist and its evaluation are illustrated in Figure 2. As a reference, here are points and evaluation consideration for the propose study:

TABLE I. CHECKLIST AND ITS EVALUATION

Points	Evaluate if the Web ...
A	Attempts to reach internet user that has and will use ePortalStore
B	Contributes new information that are relevant to the need of the user
C	Is self-consistent with the intention of the website
D	Is correct to domain information and complete with the site information.
E	Is accessed in a balanced manner, both in terms of its own files and in terms of outside links into it.
F	Is accomplishing objectives that meet the needs of the users

3) Web Design

The notion for “universal template” is considered by the proponent to make it compatible in different browsers (Mozilla, IE, Opera, Chrome). It uses vector to minimize distortion of images since pixels changes following the size of the screen [13]. It has a simple layout and image weight is low dense to make the uploading fast and not annoying due to overloaded animation/ colors. An illustration is shown in Figure 3.

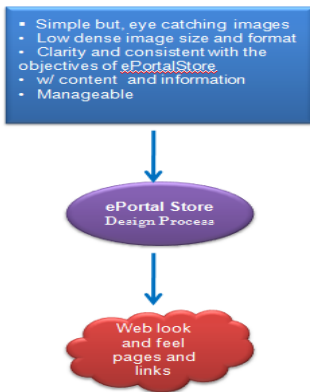


Fig 3. Web Design

The link relationships among pages will be discussed in the later section. It includes header, footer and identify remote pages, plugins, breadcrumbs, sidebars etc.

4) *Implementation Process*

Although implementing webs has been an activity that people have been doing for more than a decade, there still relatively few tools which address the unique challenges of developing hypermedia content. The proponent uses Dreamweaver editor for the HTML, PHP, XML and JavaScript integration. Some 3rd party tools were also used for image manipulation/ conversion, formatting pages, and testing design. A local host using easyphp was also used in the absence of Internet Host to run offline browsing, database connection and php engine.

In scripting implementation, the proponent uses primitive tools and techniques. This means that the proponent uses some hand-crafting script pages that work well for ePortal pages with a combination of php frameworks hosted by Zend technologies.

Other algorithms were base on open-source plugins and edited by the proponent to conform with the database schema and meta-data presented in the program. Session variables are common to secure the security and control in the admin side of the program. An implementation phase is summarized in Figure 4. Other details will be presented in the later section of this chapter.

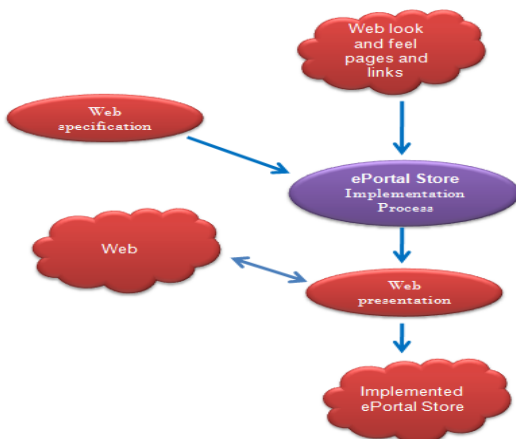


Fig 4. Implementation Process

5) *Web Promotion*

Initially, the ePortalStore may need additional squeeze pages and opt-in pages that will allow its promotion or traffic

becomes increasing. The concept of SEO is the agenda for this implementation but it will be handled by another “:autopilot “ website. As mentioned in the Scope and Limitation, using this concept is not so much handled. However, Google and yahoo can detect the website using its webpage keywords and titles as part of the traffic to be detected by search engine. In the case of PPC (pay-per-click) over search engine or within the site is not yet available.

However, the ePortalStore will arrange its content by categories (as part of product branding). The brand and models are divided into. It has been collaboratively edited and developed in open source style through the Open Directory Project DMOZ.org. Through the clean, unsense designs and editorial diversity of these engines this is an excellent topic for all kinds of other web sites; it demonstrates the importance of human publishers, there is weakness where the human publisher does not work tirelessly on the subject; DMOZ is the connection to thousands and thousands of topic areas, its content is available on other websites. The topic directory for the Yahoo; edited resource collection on several subjects; websites have a charge to pay for the Yahoo list.. However, it can still be ranked base on the keywords it represent. The priority goes to the one who pay given a keyword to represent the website portal.

A Google algorithm has been updated quarterly since some SEO experts use its algorithm patterns to rank themselves. Initially, the ePortalStore does not orient itself with the Google ranking methodology. Instead, it uses the standard keywords to be detected by the search engine. It will just allow the website to accept affiliates to make the updates on a regular basis. Google recognizes update like this and will enable the site to be ranked higher than any other site that uses feeds and social networking.

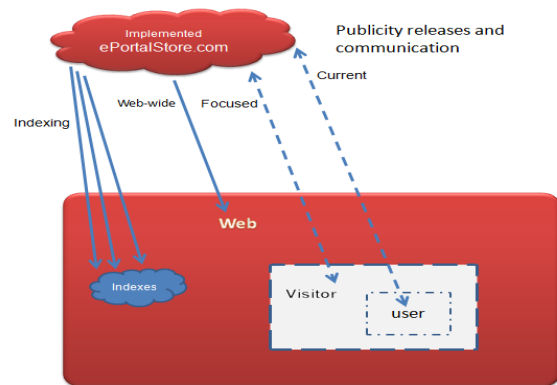


Fig 5. Web Promotion

Figure 5 shows how the proposed website handles traffic. The proponent provide ongoing service interest with the inclusion of information over the site, communication using email and keep tract of good customers, and interaction over goggle talk where a script from google will be embedded over the site.

6) *Innovation*

This is part of ePortal Store to continuously improve its usability and quality over the web, to meet and exceed user expectations. Future innovations involve finding creative or unique ways to improve the elements of the web portal and engage the user’s not only as an affiliate but a part owner of the portal. Make the site an avenue of training regarding repairs and maintenance of some gadgets. This is helpful

since most and of the user want their gadget fixed for some simple problems.

7) eCommerce Web Application Architecture

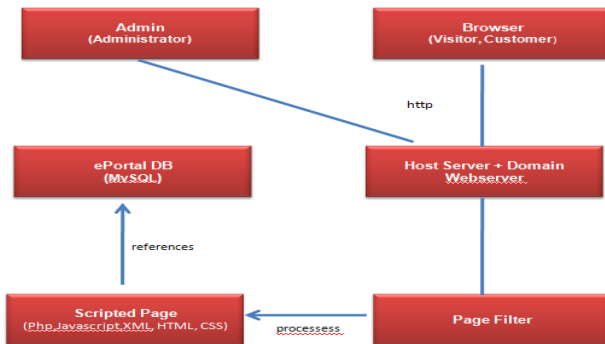


Fig 6. ePortalStore Web Application Architecture

The ePortalStore proposed is a dynamic website that provides web user benefits (Figure 6). The admin side makes it simple to keep the content in the portal database fresh and synchronized. A number of pages containing the code executed by the Web server when requesting those pages determines the overall appearance and feel of the ePortalStore frontend. The website offers the files either as a single text file containing scripts that the web server interprets or as a compiled binary file that the web server performs. The "page" referral code uses server tools like databases, e-mail services, file services and so on in either case.

A website user communicates with a browser (admin / guest / client). The browser is a client-based program that connects to a server on a network and requests an information page. The relation terminates once the page request has been completed. The browser knows how to connect to a web server (via HTTP) and how the web server returns formatted information. Most pages contain links to other pages, which can be easily requested by users (possibly on other servers). Users access the web via links to pages and ePortal request pages.

The context diagram shown in Figure 7 is the interaction between entities, data and the system performance. The Administrator has a lot of activity to performed including the user registration, data feeds, vendor's agreement policy (mostly manual), pricing from time to time depending on the vendor's reports, keep track of product performance, payment script using PayPal, statistics evaluation, buyer review, user creation, evaluating affiliates, providing discounts, backup and restore, and reports. The admin ensures that all the products from the company pass quality control and are new in the market.

The vendor can enter products of their choice after they were given an approve account over the site by the administrator as an affiliate.

8) Modelling the Web Application

The design and implementation of modelling is a significant aspect. It helps to control complications. Web apps can quickly become complex. Many different, but consistent models can reflect a particular system. Each model has a particular function and public. This principle focuses on web applications design models and the public is mainly the web designer. In modeling the right level of abstraction is essential to capture and model objects. Notice that ePortalStore is not just object-oriented, Java, C# or VBasic. Although a file can be called an object, UML is wrong in html or client-side application for the underlying scripts.

The role of designing web applications is not so straightforward with these priorities in mind. Given that the ePortalStore application's principal object is the web page, it should be obvious to model the page. But how does that happen? By UML, a page as an object can be expressed. This raises the issue: what are the characteristics of such an object? Is layout elements (fonts, tables, text, etc.) suitable for expressing? Should I define the scripts in the page as page object methods?

The response to this question should come: for what is the model used and who is the audience? The formatting of the user interface is meaningless for a design model and does not normally influence the business logic of the system. Scripts, particularly server side scripts (Php), affect the system's business behavior (and, for some systems, the overall business logic of the system!). It is not difficult to imagine variables as the attributes of a page object (the ones with a page scope) and the feature as its methods inside a page. This is suitable for a web application designer and the design model.

This leads to another challenge, however. Both the server machine and the client will contain scripts on the web pages. UML can be very complicated when it comes to intermixing attributes for server and client execution. To solve this problem, the toolbox and extensions use a relatively new function.

9) Extension of modeling

The UML designers acknowledged that it is not always the right language for all circumstances. Often the development process is best served by gathering additional details, or by applying different semanticisms to specific modeling elements. UML has developed a framework for extending the semanticizes of particular model elements by certain domains. The extension system allows new attributes, various semanticities and additional restrictions to be included. When they accumulate beliefs, stereotypes and constraints as labelled values, they are a UML extension. The UML for web application designs will be expanded in this concept.

The ability to assign various icons to stereotyped classes is part of the extension mechanism of UML. The Appendix to this proposal contains a list of prototype icons for the most popular class stereotypes.

There are two ways to fix the issue of a website with numerous scripts and variables running on the server or on the client. The first is to describe server and client system, the stereotypes. A method running on the server is stereotyped as a "server method" in a page object and feature running on the client's "Client method." This addresses the problem that a page object varies attributes and methods, but is still confusing. Further complications occur later if other elements of the model are associated. Some of the relationships are only true in server methods and attributes or in the client. It is not clear.

10) Stereotyping Page

Two different classes, server and client page, are better for modeling a page. Every webpage of a web application with server and client functions can be described in two different classes in the model even though it has been implemented in the same file (or component). The server and page-scoping

variables of a web page are found in the model stereotyping "server page." The methods of this class are server-side scripts of the page, sub-routines and functions. Class attributes are represented by the variables declared in scripts with a page region. The formatting of client side displays or user interface is not part of the scope of a server tab. A server page can have connections to server components. This could involve business objects in three tiered components of the device or data access. The server architecture and operational components are shown alongside the server page used for the application.

Similarly, the client pages with the class stereotyped 'client page' are represented on the diagram. Attributes of the client page are page variables and functions of the client browser that are running. Competitors on the client, including JavaScript, XML and Document Object Model Elements, are aligned with the client pages.

The server and client stereotypes on a web page have a fundamental connection. Finally, the resulting client page is created by a server page. This is a one-way relationship, since there's no access for a completed HTML page to the create server object interface. The 'builds' stereotype applies to associations and is consistently designed from the server page on a client page as a unidirectional combination, Figure 9. It shows which server page is responsible in ePortalStore for constructing a particular client page.

The hyperlink can be an additional relationship of interest in the design of web applications. Hyperlinks to other web sites are also used in client pages. The other web pages could be server or client pages because the client browser requested the part in the end. The server page is processed to obtain a resulting client page to satisfy the browser request if the requested portion generates a server page (up to one). If the web server fails to find the part you are using (file) simply and return it to the browser..

11) Deployment Diagram

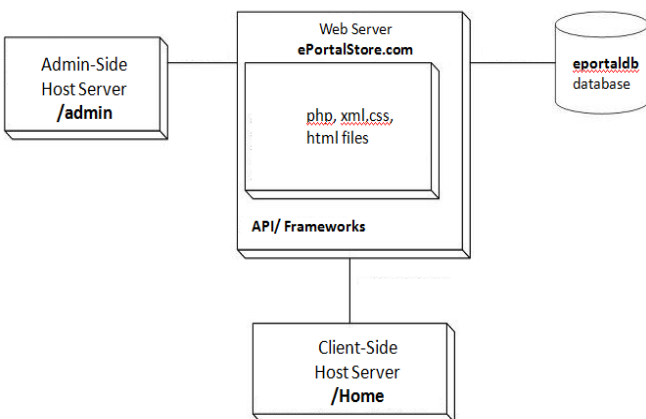


Figure 11. UML Deployment Diagram

The deployment diagram in Figure 11. shows how the system has been settled over the host. Since the server (web, programming engine, database) resides in one location except for the domain (in another server area), the deployment does not have so much problem. Most of the tools, plugins, API and frameworks were available on demand over the host. Some should be installed manually like plugins and frameworks but most of them are available over host. The issue of "cloud computing" with API over cross platform in a business model is not yet part of this study.

III. RESULT

A. Web Design/ Templates

The design implementation is divided into two templates. A template for the admin-side and client-side as shown in Figure 13 and Figure 14 respectively.

1) Admin-Side - User Log-in

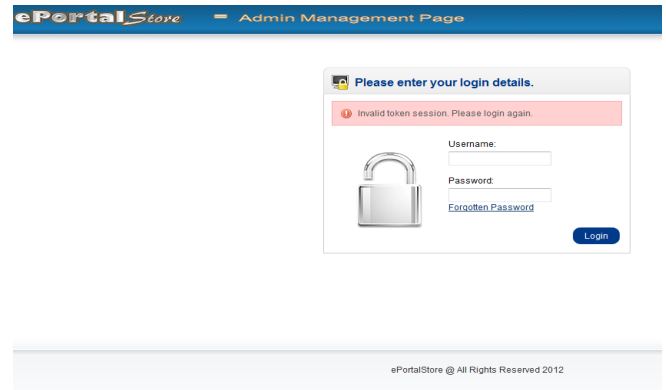


Fig 12. Log-in for Admin Site

This is the first step for the admin area where data management is initialized, updated and archived (See Figure 12). It is assumed that limited number of user can get inside the server. Mostly, the administrator and some privileged users are given an account as part and parcel of their being an affiliate.

The Admin Page

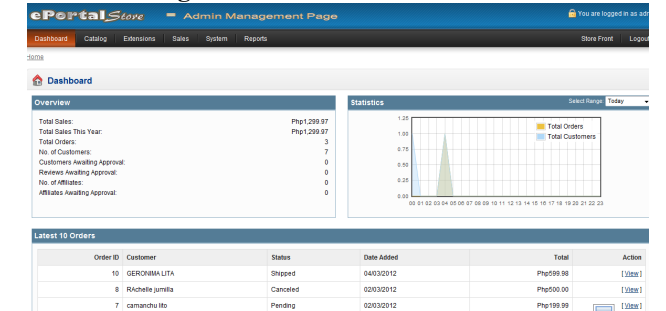


Fig 13. Admin-side template

The admin-side has seven menus to manage (Figure 13):

- Dashboad** -- The dashboard, by default reside at the home page area. It consists of summary for sales, orders, customers and other information related to users interaction with the system. A graph is shown in the left side showing the customers' orders of the different products selected during the day, this week, this month or this year. Also, a list of the latest 10 orders will be shown at the bottom area.
- Catalog** -- The catalog has 7 submenus. These submenus are more of product initialization, review, brochures and information regarding policies and terms and condition.
- Extension** -- This menu consist of 5 submenus as plugins for module, payment, shipping, order flexibilities, and product feeds. However, product feeds are temporary plugin, since it is only used for testing the consistency of the site with the initial data from the database.
- Sales** -- It has 6 submenus related to customer's request of orders, returns, applying as affiliates, discount coupons, and email lists. Further, a customer area is also included

for the email group messages and newsletter updates to be sent to them.

- e) System -- The system is an important part of menu where users, web control and maintenance of variables are being conducted. Any changes in this area are crucial to the performance of the system.
- f) Reports -- This menu is the mirror of performance for the ePortalStore in the global market. It has the summary of reports for sales, products, customers and affiliates. The outcome of the reports to be presented will be used for future expansion and updates.

2) *The Client-side*

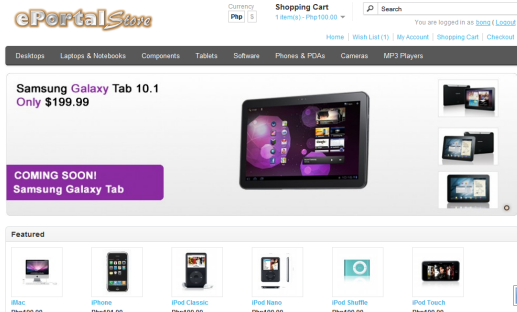


Fig. 14. Client-side template

This is the ePortal Store public browser website. Anybody can use this even without having an account. It has 5 main menus namely Home, Wish List, My Account, Shopping Cart and Checkout. In the area of breadcrumbs, a category links for different products are displayed in a separate menu. In the succeeding rows is a flash featured product followed by other products stored over the database. As we go down the page, we can see branding of other products already entered in the system.

A chat area is also included below sponsored by Google talk plugin. Registered clients can avail of the chat area. This is very helpful for any assistance that needs to be resolved at realtime. The footer area consists of summarized menu such as Information, Customer Service, Extras, and My Account. Some of its content should be initialized in the server-side pages.

3) *Web Site Layout*

The ePortaStore follows this program layout in the form of a link and frameworks. There are two pages to interact depending on the user. The Browser-side/ Client-side (Figure 15) is a public site with no requirement of authentication, however, to register as a user would be an advantage for future discounts and email notification of products. The admin-side (Figure 16) is a private site use for the administrator’s maintenance. Additional user to this page requires the administrator approval including affiliates.

4) *Admin-side Layout*

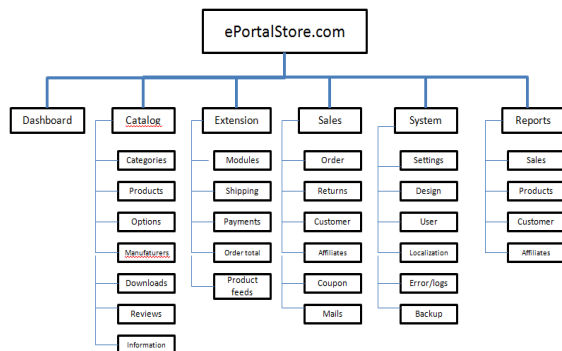


Fig. 15. Admin-side layout

Client-Side Layout

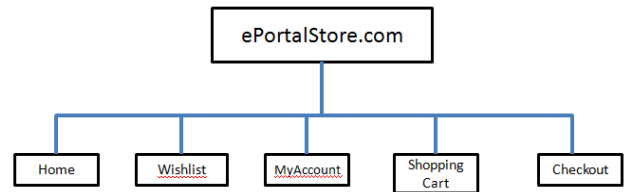


Figure 16. Client-side layout

5) *Hardware Requirements:*

- Dual Core 2.6 GHz @2GB RAM
- 320 Hard disk
- 17” monitor
- Modem Kit for Internet Connection
- Switch
- 256 mbps bandwidth

6) *Web Development Tool and Server Side Scripting Language Description*

The proponent uses tools of the trade that are less laborious and applicable to rapid application development. The tools used by the proponent are divided into the following:

a) *Client Side Scripting*

HTML 5- This was created by the W3C until 2004, when HTML members were confused by the way the W3C went with HTML [14]. They believed the W3C did not pay sufficient attention to the real needs of language growth and was too focused on XML and XHTML. Thus they founded the Web Hypertext Technology Working Group (WHATWG), a new group that was dedicated to Website growth. You began working on a new HTML - HTML 5 specification. Any scripts of this latest version are used to fix some bugs in the previous versions of the planned web portal.

Jquery -This is a wonderful tool, but shouldn't you ever use it at any given time? It is a JavaScript library which is open source and freely available to web developers to access HTML documents, manage events, animate, and add web pages to Ajax's interactions. jQuery has been developed and licensed by John Resig under the MIT License and under the GNU General Public License. Due to its efficiency for cross platform browsers, the proponent uses this Library script. XML is an extensible mark-up language that specifies a set of rules for encoding documents in a human-readable and machine-readable format. The design objectives of XML highlight ease, generality and Internet usability. For software developers to use XML data processors, several programming interfaces (APIs) have been developed, and many schematic systems exist to assist with define the XML-based languages. This is the future of portals for the business model. In some of its static pages, the ePortalStore uses XML.

b) *Server-side scripting*

PHP- PHP This is a commonly used general script language that is particularly suitable and can be integrated into HTML for web creation. The php engine and script for almost every page is used by the ePortalStore.

Portal - ePortal In the HTML forming its website, php code is inserted directly. The code is executed when a visitor comes to the web page. Since PHP is server side technology, no special browser or plug-ins are needed to view PHP in action. It is the simplicity of PHP's elegance. It is easy for people with programming backgrounds like C, Javascript and HTML to understand and learn. The language is similar

to C and Perl to make it feel comfortable to use and understand PHP for those with a background in C or Perl programming. PHP also works on almost every platform including most versions of UNIX, Mac or Windows.

c) *cPanel*

Cpanel is a graphical web hosting control panel that makes it much easier to manage and host a website[19]. This control panel is used on Linux hosting servers and is used by server managers through to the end user at any stage of hosting. Many of the features it uses include applications from third parties including site development programs, hosting software and web status monitoring. The best thing about cPanel is that there are many great features and resources that are easy to incorporate. Every hosting company customizes it to suit the customer edition. Some of the ePortalStore plugins have been allocated from the resources of Cpanel.

d) *Mysql*

MySQL is a relativistic database management framework open source. It is based on the query structure language (SQL), used to add, delete, and change data from the database [10]. The MySQL can be used for standard SQL controls, including ADD, DROP, INSERT and UPDATE. That's the proponent's database manager. MySQL is popular in web servers and can be used for a large range of applications. A MySQL website can contain Web pages accessing database information. This is also called "dynamic," meaning that each page's content is created as page loads from the database.

e) *Deployment, Configuration, and Testing Description*

The case of ePortalStore that is developed and tested over the host has a less impact on deployment issue. One pressing advantage is the site goes “live” even on the development stage. Of course, the proponent started to lease a host and subscribe domain for one year. The succeeding activities go directly with the host. Configuration is not that hard once domain has been registered. The proponent waited for 48hours to make the “ePortalStore.com” available. After which, some codes have been uploaded directly into the host. The proponent created subdomain for testing some pages and later on use the root (www) for further testing. The proponent created a database over the host, including the user, the corresponding password and “grants” user to the database. The Cpanel GUI of the host is very efficient and simple to use during configuration. Testing is done at realtime since the program is already there over the host. Just remember the url then your up. Errors exist but it’s part of the system debugging. Some data were gathered from RSS feeds to minimize encoding. But of course, manual encoding is allowed by the system[4]. The database will require initial data as part of its working environment. Transactions from the customers varies depending if its immersion or conversion. There is no problem with immersion since the visitor will just have to spend time reading. In the case of conversion, the products presented over the web are now influencing the visitor to become a customer.

7) *Maintenance and Site Management Description*

Web administrator is one of the most critical aspects of web creation, but has been neglected[9]. You won't have a website if you don't have a strong web administrator to keep the website going. What does a web manager do, however? It’s more of maintenance and keeps your site alive. The ePortalStore has implemented an administrative server-side

GUI to manage the website content, security and control. It is always discussed in the previous sections that admin-side is available for management purposes. Content and updates of products are conducted over the admin-side. It has a separate administrative tool over the “system” menu. The “settings” part is the initialization of the owner’s profile, template, email, and Google analytics. The admin can change the content in terms of template, logo and other information should it be necessary. User accounts is not either built magically from scratch or because the machine knows that someone wants you instead, so that you can create a user's account [4].The ePortalStore has manual user creation, and he has the option for grouping the user. The group user is very important for messaging since you can send a single message for a group of users. Backup and restore selection is also available to maintain the database.

Other administrative activities over the site are merely self explanatory since it is very similar to data banking function. Whenever an error occurs in the process and even during transaction from the client-side, a logging area is available to records each problem.

a) *Security*

Security is perhaps the web administrator’s most critical component. If the web server is not stable, hackers may either attack your clients directly or zombie spam messages in every spare second or other even more malicious stuff [3]. If you don't pay attention to safety, make sure your website is careful by the hackers. Whenever a domain changes hands, hackers obtain this information and start searching for security holes in that domain. Robot hackers search servers to find vulnerabilities automatically [17]. The ePortalStore allows a separate user creation outside the admin part. However, the administrator can disable this open if warranted.

b) *Backup and Restore Management Plan*

In the recent years, the importance of preserving the data and IT resources of an enterprise in the event of an unpolluting situation has increased and become a growing and apparent corporate priority, as information technologies are becoming more important for continuing business activities, coupled with the transition to an all-round economy [16].

TABLE II. INCREMENTAL AND DIFFERENTIAL BACKUP TECHNIQUES TO EMPLOYED

Day of Week	Weekly Full Backup with Daily Differential Backup	Weekly Full Backup with Daily Incremental Backup
Sunday	A full backup is performed.	A full backup is performed.
Monday	A differential backup contains all changes since Sunday.	An incremental backup contains changes since Sunday.
Tuesday	A differential backup contains all changes since Sunday.	An incremental backup contains changes since Monday.
Wednesday	A differential backup contains all changes since Sunday.	An incremental backup contains changes since Tuesday.
Thursday	A differential backup contains all changes since Sunday.	An incremental backup contains changes since Wednesday.
Friday	A differential backup contains all changes since Sunday.	An incremental backup contains changes since Thursday.
Saturday	A differential backup contains all changes since Sunday.	An incremental backup contains changes since Friday.

The data will be back-up everyday using the backup and restore management facility of CPANEL Server host. It will be scheduled at certain point of time then the data will be saved on separate storage. Also the backup storage will be placed on separate location away from the database server.

The data will be restored automatically in an event of system error that may lead to data loss.

c) *Site Operation Maintenance Plan*

The following are the plans for site maintenance:

1. Periodic surveys are carried out to identify what the website users need.
2. Use logs and reports to identify the areas of the website and compare them with user surveys and figure out what can be changed.
3. Archive outdated websites or materials.
4. Check site permissions on a regular basis.

d) *Disaster Recovery Plan*

The objective of a disaster recovery plan is to ensure that the Site can respond to a disaster or other emergency that affects information systems and minimize the effect on the operation of the business.

TABLE III. DISASTER RECOVERY PLAN

Possible Risk	Remedy
Hardware Failure	The Owner should acquire another set for hardware requirements to be readily available and configured.
Power Interruptions/Failure	The Owner should acquire an electric generator set enough to supply power for servers.

IV. CONCLUSION

The success of these virtual stores depends on many issues, especially their quality, as it is such a complex solution. Test was undertaken to validate and establish the relative efficiency of the site. Likewise, the ePortalStore follows the pattern of algorithms by popular search engines like yahoo, Google or msn. The simplest algorithm of these search engines tells us that any updates over the site should be sourced internally. This means that the administrator or affiliates do the changes and not the “feeds”, redirection links or some autopilot robot. The user can easily expand its business since it uses the Internet over any browser (IE, Chrome, Firefox, and Opera) and allows virtual interaction with the system. The template is compatible to these browsers. There are two sides of the ePortalStore, the public web portal “ePortalStore.com”, where anybody can visit the site subject to compliance of its policies and conditions. However, the user can’t cross from client-side to server-side using his login details. Email notification is one of the benefits of the registered user for any updates of products, discounts, and other related information.

In the ePortalStore, the affiliate’s term was used to allow itself to grow using other vendors support (B2B2C). It has two additional options either to “wish list” or just compare. The wish list is an option similar to reservation but

no money is involved. The earnings will be shared just like clickback.com.

Lastly, the security is simple but consistent with the demand of the system. As the ePortalStore.com expand the number of user in the server-side also increases due to affiliates. In some instances, there may be problems with the affiliates but the administrator can easily disable the user. An administrator may use phpmyadmin manually for the login details. User group is also applied for the type of user in the server and what file to handle. Other details upon initialization are also important to make the product more interesting and convince the visitor to become customer.

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