Management System for Online Book Shoping System

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Abstract: - The project design and implementation of Gaposa Bookshop is an attempt towards computerizing the operations (transactions) taking place in the school bookshop. The rapid pace of technological changes in business motivated the researcher to develop a web application that improves manual operations of the transactions which are naturally prone to errors and time wastage. This system is called Bookshop Management System and it is developed using MYSQL as the database language and LARAVEL a powerful PHP framework. It is possible to request, pay and get books through this software. The researcher conducted the research and captured the data through primary and secondary sources. The data obtained were then used for the analysis of the previous method of operation and transaction on one hand and then for designing an online method of purchase on the other hand.

Keywords: Bookshop, Computerized, Transaction, Laravel, Mysql

I. INTRODUCTION

Shopping which is one of the essential parts of the real world activities has made its mark and found its way into the internet. It is commonly referred to as E-shopping which means electronic shopping. On-line Book shopping entails buying and selling of books of all sorts with the buyer still making his choice and making the payment through the internet or through any other computer network. This pattern of trade conducted through the internet has grown extraordinarily simultaneously with wide spread use of the internet. This new trend in fact has contributed immensely to the growth of E-business and particularly in E-education. The number of transactions grows every day, spurring and drawing innovations in the E-Library System and E-Commerce, Electronic Fund Transfer, Supply Chain Management, Online Transactions Processing and Internet Marketing. On-line Bookshop normally makes use of the World Wide Web (www) to an extent in the transaction life cycle; it also involves shopping of the physical items requested on-line. The significance of the study and the limitations, it also goes as far as exposing and expounding the secrets and fortunes locked up in an online book shopping.

In this school is cited the school bookshop located in between the School Library and School Market. It was established not only for the precipitate need of investment or source of revenue for the school. It was built to aid students in their learning by providing needed books for them at a cheaper rate with less compulsion. Practical Manuals and all sort of books that might be needed by the students are sold, there. Some of the books where initially sold by Lecturers through the Head of Class overtime before the advancement of selling all this books in the school bookshop. The main problem of the school bookshop is over-crowding. Due to the small space use for bookshop, the problem of over-crowding and students queuing before they can purchase a book has become part and parcel of the bookshop and the problem persist. Although not limited to this problem alone, other problem of the current of the school bookshop and method of transaction are listed below: Therefore, students have to queue outside the bookshop under the harsh sun, before the can be attended to

- Time wastage in searching for desired books
- Time wastage in attending to students
- Conflicting, confusing and inadequate record keeping of daily transactions
- Over-crowding at the bookshop

The purpose of the study is to identify the problems inhibiting the bookshop growth and recommend practical solutions, analyzing the existing problems or systems of transaction and complete mode of operation. Therefore, to change the problematic existing system it is by designing an effective, user friendly or on-line transaction for students and booksellers anywhere they may be and projecting it for implementation. The difficulties faced in obtaining facts and vital information about the existing system and mode of operation of transaction from unsteady sales manager and rude students. It also includes the possibility of getting information from other sources such as journals, books and the internet which is very high. The involvement of the manager i.e. the shop keeper, some materials, programming language, the efforts involved in developing the new and better Bookshop On-Line transaction were so tedious and herculean as a task.

II. METHODOLOGY

Research methodology is a collective term for the structured process of conducting research. There are many different methodologies used in various types of research and the term is usually considered to include research design, data gathering and data analysis. Research methodologies can be quantitative (for example, measuring the number of times someone does something under certain conditions) or
qualitative (for example, asking people how they feel about a certain situation). Ideally, comprehensive research should try to incorporate both qualitative and quantitative methodologies but this is not always possible, usually due to time and financial constraints.

Research methodologies are generally used in academic research to test hypotheses or theories. A good design should ensure the research is valid, i.e. it clearly tests the hypothesis and not extraneous variables, and that the research is reliable, i.e. it yields consistent results every time. The approach used here is SSADM. Structured Systems Analysis and Design Method (SSADM) is a systems approach to the analysis and design of information systems.

**Analysis of Case Study**

The Gateway ICT Polytechnic Bookshop is a bookshop like other shops established with the aim of generating some worthwhile revenue through the sale of textbooks and other learning materials to customers, the students precisely. Initially, sales of text books, practical manuals are done by the HOC (Head of Class), before the advancement of having a store within the school premises where books are sold. The bookshop is located in between the library and the school market. Its missions are to provide students with quality and edifying books for their use with ease at affordable prices.

**Sources of Data**

The data that were collected in this research were from the primary sources. Observations were made during the visit to the bookshop. The sales manager was extensively interviewed for first-hand information. Other sources of data were of the secondary source, which includes gathering information from textbooks, journals and magazines, materials from internet, Microsoft Encarta premium, seminars, lectures and personal researches.

**New System Design**

In the process of evaluating the solution and the specifications of a detailed on-line based solution, there is need for the system design. In designing the new system, the software and hardware aspects were taken into considerations in order to produce a workable website that will allow effective and efficient communication between the customer, the merchant and the acquirer. Also the customer can make an order, make payments for the goods ordered, and can then proceed to the bookshop anytime for collection.

**Database Design**

This involves the choice of data structure and database. The website uses MYSQL server as the database. This sophisticated database allows the administrator to monitor effectively and run some query language in the server. It is equipped with maximum security to prevent hacking.

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**Table 1: Users table arrangements**

<table>
<thead>
<tr>
<th>NAME</th>
<th>TYPE</th>
<th>FIELD SIZE</th>
<th>EXTRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>INT</td>
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<td>Auto_increment</td>
</tr>
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<td>Name</td>
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<td>191</td>
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</tr>
<tr>
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<tr>
<td>Matric_no</td>
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<tr>
<td>Updated_at</td>
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</table>

**Table 2: Bookshop book indexing**

<table>
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<tr>
<th>NAME</th>
<th>TYPE</th>
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<th>EXTRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>INT</td>
<td>10</td>
<td>Auto_increment</td>
</tr>
<tr>
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<tr>
<td>Course_code</td>
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<tr>
<td>Price</td>
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<tr>
<td>Lecturer</td>
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</tr>
<tr>
<td>Quantity</td>
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<td>10</td>
<td></td>
</tr>
<tr>
<td>Created_at</td>
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<tr>
<td>Updated_at</td>
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<td></td>
</tr>
</tbody>
</table>

**Table 3: Book_users**

<table>
<thead>
<tr>
<th>NAME</th>
<th>TYPE</th>
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<th>EXTRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>INT</td>
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<td>Auto_increment</td>
</tr>
<tr>
<td>Book_number</td>
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<td>10</td>
<td></td>
</tr>
<tr>
<td>Department_id</td>
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<tr>
<td>Updated_at</td>
<td>Timestamp</td>
<td>Null</td>
<td></td>
</tr>
</tbody>
</table>

**Table 4: Departments**

<table>
<thead>
<tr>
<th>NAME</th>
<th>TYPE</th>
<th>FIELD SIZE</th>
<th>EXTRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>INT</td>
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<td>Auto_increment</td>
</tr>
<tr>
<td>Department</td>
<td>Varchar</td>
<td>191</td>
<td></td>
</tr>
<tr>
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<td>Null</td>
<td></td>
</tr>
<tr>
<td>Updated_at</td>
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<td></td>
</tr>
</tbody>
</table>

**Table 5: Sales**

<table>
<thead>
<tr>
<th>NAME</th>
<th>TYPE</th>
<th>FIELD SIZE</th>
<th>EXTRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>INT</td>
<td>10</td>
<td>Auto_increment</td>
</tr>
<tr>
<td>User_id</td>
<td>INT</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Book_id</td>
<td>INT</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Department_id</td>
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<td></td>
</tr>
<tr>
<td>Updated_at</td>
<td>Timestamp</td>
<td>Null</td>
<td></td>
</tr>
</tbody>
</table>
User interface design: It is a system that permits the interaction between human beings and the computer. The project has a user interface design because of the level of interaction the buyer or credit or master card wants.

Procedural Design: This involves the design of an efficient algorithm that will satisfy the functional description of the various sub systems of on-line book shopping.

Flow Control / System Architecture

Figure 1: The System Architecture of the Proposed System

Figure 2: The System Flowchart of The Proposed System
III. RESULTS AND DISCUSSION

This is the stage in which the developed system is tested and it is expected that the system will perform the required task as to meet the need of the end-user. System implementation involves activities such as:

1. Training end-users,
2. Setting up implementation environment,
3. Performing the conversion or change over.

This is the first among the three testing steps wherein the proponents will have to check all the errors on the users’ aspect. The output in these tests must reflect to the program design. The proponents will have to check each part of the system and integrate it as a whole to check if unit of system is working altogether. The proponents will test how the actual system works. In this we would have to reflect on everything that we have done in the system design. In this phase, the functionality of the system will be checked by the proponents. The proponents will also check any error occurring in the system.

This is the last part of the testing processes. Through acceptance testing the proponents will make sure that all the requirements that had been given in the requirements analysis will be totally met. They also have to make sure that it is not only complete, but also produces the same output as what was originally want to be. The proponents will make sure that all the requirements are fulfilled and that the system properly addresses to the needs of the company.

Here comes the implementation of the new system. However, the development not only ends with implementation because it needs to be consistently monitored and maintained. In this phase, whenever errors occurred in the system, the proponents shall correct the errors and ensure that the system will work properly. Also, further enhancements will be made by the proponents.

This is the home page of the website that has been developed. The home page of any website is the first page that appears whenever you open a website. It contains the name of the site, logo as the case may be and other icons known as hyper links that will help you navigate to other areas. Here the home page of the school bookshop contains the name of the bookshop, some pictures, images, the hyperlinks such as engineering books, science books, business books, environmental design books etc. it also contains other hyperlinks made for free and easy access and use by even those that are not programmers. These hyperlinks can also be called web pages, when clicked links user to other resources.

Web as it is known is always associated with the spider. It is an intermingling of things, wires, ropes etc. Technologically, it is multiples of network connections, or network. The web was developed with the name of the firm, the reason for the website and other additions such as the functions of the firm. All these contributed to the development of this web. The language here in question is not the language spoken by human beings. The computer has a set of symbols, digits and instructions written in sequence known as programming language which the computer operator used to communicate with the computer. Here among the programming languages the one considered most suitable by the system developer/programmer and used to write the source program and the code was PHP/Hypertext Pre-processor. It was used due to its user friendliness and worthwhile.

The computer hardware is the physical components of the computer system. The hardware requirements of this website are as follows

**Hardware Requirement**

- **Processor**: Intel Core Duo 2.0 GHz or more
- **RAM**: 1 GB or More
- **Hard disk**: 80GB or more
- **Monitor**: 15” CRT or LCD monitor
- **Keyboard**: Normal or Multimedia
- **Mouse**: Compatible mouse

**Software Requirement**

- **Front End**: HTML, Bootstrap, Javascript
- **Back End**: Mysql, PHP (Laravel)
- **Operation System**: Windows XP with server pack 2 or Windows Vista

Documentation is actually the last step in system implementation phase. It is the process of collecting, organizing, sorting and otherwise maintaining on paper or on some relative medium for reference purposes. A completion of document of the system marks its changes in status from project under development to a functioning body capable of operating without guidance and controls of its designers. It can now be understood, operated and modified by others as the need arises.

Gaposa Bookshop management system is an E-commerce like website that will synthesize and increase the functionality of book sales. Although a lot of websites have been designed and hosted to achieve a lot of goals in different businesses. But this one exclusively designed for Gateway ICT Polytechnic, will go a long way in boosting and unveiling the fortunes of the Polytechnic and their method of operation which has not yielded sufficient profit as expected. This web designer/developer noticed and took up as a topic. All the steps starting from the first chapter are all designed to make the website project come through. For future references and modifications, the source code is also included showing the language steps used to design the website.
IV. RECOMMENDATION

The successful implementation of this research work, has the following suggested by the programmer aimed at improving and eliminating the problems encountered each day by both students and the management. The measures are as follow:

- The server should be managed by a database administrator who has undergone training on using MYSQL database.
- A merchant account should be obtained from any of the financial institutions.
- There should be a regular update of the website so as to compete and give round the clock service to the people.
- There should be no hesitation in attending to the needs of the new system designed.

V. CONCLUSION

In conclusion, this is a user friendly website designed for gateway polytechnic. It is a site that inculcates the new web technology in its full design. When this is fully implemented it will promote and improve the standard of operations of the bookshop which is entirely manual. Furthermore, as the whole world walk towards living in a global community, the school Bookshop and the entire Gaposa community, will now be recognized. The inconveniences faced by our students and unsatisfactory turnover will now be history.

REFERENCES


SOURCE CODE

<?php
Route::get('/', function () {
    return view('welcome');
});
Auth::routes();
// User Routes are defined here
Route::get('/admin/dashboard', 'AdminController@index')->name('admin');
Route::resource('admin/books', 'BookController', ['names'=>[
    'index'=>>'admin.book.index',
    'create'=>>'admin.book.create',
    'store'=>>'new-book',
    'edit'=>>'admin.book.edit',
    'update'=>>'admin.book.update',
    'destroy'=>>'admin.book.delete',
]]);
Route::resource('admin/department', 'DepartmentController', ['names'=>[
    'index'=>>'admin.department.index',
    'create'=>>'admin.department.create',
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    'edit'=>>'admin.department.edit',
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    'destroy'=>>'admin.department.delete',
]]);
Route::resource('admin/book_users', 'BookUsersController', ['names'=>[
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    'store'=>>'new-book_users',
    'edit'=>>'admin.book_users.edit',
    'update'=>>'admin.book_users.update',
    'destroy'=>>'admin.book_users.delete',
]]);
Route::get('/admin/sales','SaleController@index')->name('sale');
Route::get('/admin/{id}/confirm', 'SaleController@confirm')->name('confirm');
Route::get('/admin/{id}/cancel', 'SaleController@cancel')->name('cancel');
Route::get('/admin/sales/sold', 'SaleController@sold')->name('sold');

Route::get('/admin/book/buyers', 'BookController@buyers')->name('buyers');
Route::post('/admin/book/buyers-fetch', 'BookController@fetch')->name('buyer-fetch');
Route::get('/admin/book/create', 'BookController@create')->name('new-book');
Route::post('/admin/book/store', 'BookController@store')->name('store-book');
Route::get('/admin/book/sales-today', 'BookController@index')->name('sales-today');
Route::get('/admin/book/pending', 'BookController@pending')->name('book-pending');

// User Routes are defined here

Route::get('/users/dashboard', 'UsersController@index')->name('users');
Route::get('/users/history', 'UsersController@history')->name('history');
Route::get('/users/payment/{id}', 'UsersController@payment')->name('payment');
Route::post('/users/payment/post', 'UsersController@store')->name('payment-store');
Route::get('/users/receipt', 'UsersController@receipt')->name('receipt');

Welcome Page

<!DOCTYPE>
<html lang="en-US" xmlns="" dir="ltr">
<head>
</head>
<title>Book Shop Management System</title>
GaposaBookShop

Special Offers

Welcome to the Gateway Polytechnic Saapade Bookshop

To purchase any book, kindly register your full name and matric number and feel free to purchase all kinds of books that you need. Once purchase is made, kindly come to the school Bookshop Unit to claim your paid book.

Read More

Bestsellers

Special Offers

Pellentesque congueulumquismassablandit non pretium nisi pharetra

Loremipsum dolor sit amet, consectetur adipiscing elit. Praesent id odio in tortor scelerisque dictum. Phasellus varius sem sit amet metus volutpat vel vehicula nunc lacinia.

Read More

Categories

Loremipsum dolor
Morbieget
Nullaegetas
Curabiturvenenatis
Ut dictum purus
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Authors

Loremipsum dolor
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Maecenas vehicula ante eueniphaeetra<br />scelerisquedignissim<br />sollicitudin nisi</span></p></a></li><li><a href="#" class="buy-btn">BUY NOW <span class="price"><span class="low">$</span>22<span class="high">00</span></span></a></li></ul><div class="cl"></div> <!-- Best-sellers -->

<h3>Best Sellers</h3>

<ul>
<li><a href="#">BUY NOW <span class="price"><span class="low">$</span>22<span class="high">00</span></span></a></li></ul>
<!-- End Products -->
</div>