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Online Book Store Management

Snehal Shedage, Maithili Kamble, Neha Kadam, Sanika Mali

ABSTRACT

The Internet by far plays a major role in people's life. It has drastically improved the quality of life and the standard of living of so many people. It has widened its branches into many different levels and areas. The e-commerce industry is one such branch which has come into spotlight in the recent years. The online bookstore system has eased the life of so many book lovers by making it easy for them to purchase books online. It is not always feasible to access a traditional bookstore, it is limited by its operation time, availability of a particular book, its location and most importantly its capacity and the space required to store numerous books. Such drawbacks have led to the evolution of e-commerce industries related to bookstores. Our project is one such simple e-commerce website which houses various books of different categories for a consumer to purchase online.

Introduction

In this era of highly advanced software, one can observe a lot of progress in the zone of architectural design and its principles. There are various innovative and efficient software emerging out in the market which have made the life of a common man very simple and easy. Our Online Bookstore is one such software. It is a combination of both e-commerce and book sales industry put together in a single software. Using the online bookstore system has a lot many benefits.

There is absolutely no necessity for a consumer to go out looking for a particular book. The book of his/her liking can be easily purchased using the online bookstore software whilst sitting in their comfort zone and just running the software on a system with an active internet connection and a web browser. This helps in saving a whole lot of time and energy of the consumer. Developing an e-commerce website requires various pre-requisites. An abundant amount of knowledge on multi-tiered architecture, server and client-side scripting methods, some of the implementation techniques like JSP, programming languages such as Java, JavaScript, HTML and database techniques such as MySQL and Microsoft Access are required.

Our project is designed and implement using HTML and languages. The database is managed using MySQL and the client-server communication is handled by XAMPP. The objective of our project is to develop a basic ecommerce website for the sales of books over the internet. The website allows an user to search for different books of different categories which are available for purchase.

It eases the procedure of purchasing by allowing the user to add the book of his/her liking into a shopping cart. The user can then complete the purchasing by making a transaction with a credit/debit card or by simply opting for cash on delivery.

SYSTEM DESIGN AND IMPLEMENTATION:
- HTML and PHP language are used for the design and implementation of the webpage of the project.
- MYSQL is used for creating the data base of the system.
- XAMPP is used for client-server communication.

Problem Definition

Almost every activity in the world today is controlled by computer driven software programs. His trend was first accommodated by engineering applications in the past. However, as the life style became more and more complex, every area of human interactions was invaded by various software systems, such as real time, business, simulation, embedded, web based, personal and more recently, artificial intelligence software etc.

According to the above facts, managing and maintaining a book shop could also be controlled by efficient software. This project focuses attention on designing efficient and reliable software which controls the transactions of a bookshop. In real world, it tends to associate with automated systems as they provide many benefits than doing the same thing in manually. As above mentioned, here we have introduced a system which can be used to maintain a bookshop. When we are concerning the manual process of a bookshop, the major problem is the waste of time.

A customer has to waste his/her valuable time when he needs to buy a book as all the events such as searching, purchasing are done by members of the staff .In briefly, the manual process is very slow. But automation will reduce the time taken in the whole process. In a bookshop we should deal with a large store. Then person (storekeeper) has to maintain it with documents which are recorded by him.

Therefore, there may be defective reports. Also company has to appointed more persons to complete the maintenance of the stationery. Then the company has to have an additional cost. As we familiar with this type of system at instance we will be able to have the results that we want.

Communication with suppliers, customers and other related organizations will be more successful as the system is so fast. When the bookshop issues an item to a customer, all the stages of the transaction procedure will be facilitated by the system & it will be more accurate

Existing system description

At present, the Wholesale and Retail outlets are working under manual management. All records related to Products, Sales, Suppliers, Orders, Payment are stored in registers. To manage the whole data, the person maintaining records has to take great pain. Various registers has to be maintained for each separate process. Existing system, used for the Management of sales of electronic products, is completely dependent on human actions and responses (Manual Management), which couldn't be free from errors.

In each process whether it is Product Management, Maintaining Customer Records, Payment Management, Report Generation, user has to pay attention to a greater extent while performing the tasks. During the manual management, the tasks, which are to be performed by its users, are:

- Maintenance of Customers Records (including the new and the existing customers).
- New Products launched in the market.
- Maintenance of Customers Payment Record (including installment details).
- Issue Orders for more Stock.
- Maintenance of Suppliers and Staff Records.
- Searching and answer the query asked by other users.
- Present monthly, quarterly or annual Reports. All these operations will lead to continuous modifications in the database (Here Registers).
- In case of Customer records, all information related to customers and the product which the customer has purchased is to be stored in the Customers register. If the changes in the customer profile (like Phone no. , Address) occur, registers must be updated.
- In case of new product launched, all the entries like product name and brand must be same in the register (except Model number).
- For the maintenance of the payment records, the customer register has to be checked to know the details of the product purchased by customer. Monthly payment of installment needs record in the register to be updated.
- During issuing order of more stock, the product register is required to check to availability of stock in hand.
- To generate the reports based on the management requirement, will require extensive searching of records.
- In case of Supplier and Staff Record Management, the registers need to be updated time to time as information (like Phone No., Address) change

Business Processes of Existing System

During the system study the following types of business processes were identified:

- Business processes related to Store Sales
- Business processes related to Inventory Management

Store Sales:

- Customer book searching
- Book reservation
- Book purchase – Generating invoice, Billing the customer and Entering sales order.

Design of the Existing Inventory Management:

- Searching inventory - searches based on title, code, author and category.
- Buying books from supplier and adding them to inventory (also entering the new books details in the database).
- Removing books which are not fast moving or which are damaged and sending them back to supplier Other Processes (related to manager)
- Viewing sales records
- Generating sales summaries

Requirement Specification

From discussion with various bookshop owners various requirements are arrived at: Book shop automation system (BAS):

- BAS should help the customers query whether a book in a stock the user can query the availability of a book either by using the book title or by using the name of author.
- If the book is not currently sold by the bookshop, then the customer is asked to enter the full detail of the book for procurement of the book by the bookshop.
- The customer can also provide his e-mail address and mobile, so that he can be intimated automatically by the software as and when the book copy received.
- If a book in stock, the exact number of copies available and the rack number in which the book is located should be displayed.
- If a book not in the stock, the query for the book is used to increment a request field for the book.
- The manager can periodically view the request field of the book arrive at a rough estimate regarding the current demand for different books.
- BAS should maintain the price of various books.

- As soon as customer selects his book for purchase, the sale clerk would enter the ISBN number of the books. BAS should update the stock and generate the sales receipt for the book.
- BAS should allow employees to update inventory whenever new supply arrives. Also upon request by the owner of book shop.
- BAS should generate sales statistics (viz, book name, publisher, ISBN number, number of copies sold and the sales revenue) for any period.
- The sales statistics will help the owner to know the exact business done over any period of time and also determine the inventory level required for various books.
- The inventory level required for a book is equal to the number of copies of the book sold over a period of one week multiplied by the average number of weeks it takes to procure the book from its publisher.
- Everyday the bookshop owner would give a command for BAS to print the book which have fallen below the threshold and the number of copies to be procured along with the full address of the publisher.

Interface Requirements

User Interfaces The system users are:-
- The book shop management as the system administrators.
- Book shop cashiers as the normal users.

System administrators

The administrator logs on to the system by inserting administrator user name and password. Administrator can do any transaction as well as editing all details inside the database such as adding, editing and deleting a new user or adding, editing and deleting items.

System users

System users are the ones who at the cashier and do transactions with customers. The users have to enter the user name and password and click on 'Login' button. If user makes any mistake the system will ask for the correct username and password until he enters the correct one.

When the user wants to do any transaction user has to click on the menu icon on the main menu. Then the transaction window will open. User has to enter the Book No and press enter. Then user has to select the transaction type and the quantity. Then click on the update button. Then the system will automatically update the database according to the transaction type. Hardware Interfaces

The Book Shop System is having the following hardware:
- Book shop main computer
- Other pc's

Software Interfaces
- System will interact with the system database to record all transaction data.

Performance Requirements:
- The response time for menu changes will be not more than 3 seconds.
- The time for search for a book will not more than 3 seconds.
- The time to print the stock valuation will not be more than 3 seconds.
- The time taken to update the database or get information from the database will not be more than 2 seconds.
- The time taken to prompt message boxes will not more than 2 seconds.

Design Constraints:
- The system is based on menu driven interfaces. Menu selection will be done by using the mouse and the key board keys.
- Confirmation messages on taken actions, input acceptance and error conditions will be displayed after each input.
- Error messages will be displayed at the time of detection of input errors and the system errors.

Attributes - Qualities of the product

Reliability - The system is thoroughly tested at the time of delivery so that computational errors are minimized.

Maintainability - To make ease of maintain the system to the Book shop administrators the user manual and the system manual is provided at the delivery. Each module is designed independently so that at any change of a request can be modified easily.

Security - Only the administrators have the authority to edit details in Users and Items tables. No one can enter the system without a username and a password. Normal system users cannot access the Administrators login. All deleting actions are notified by a message box asking to confirm deletion.

Challenges

- It was a difficult task to convince the staff members and the management about the new technologies that are going to use in the proposed system and it was difficult to win over them.
- It was difficult to get the confirmation and the approval for the cost estimation for the proposed system form the top management.
- It was a time consuming task to make the staff members convince about the proposed system and make the cashiers at the counter sure about that they will not lose their jobs because of the system.

- It was time consuming to collect the relevant information form the users due to the busy environment in the company.
- There was resistance from the cashiers for the system due to the fear of losing their jobs and had to face this challenge also during that period.

Conclusion

Online bookstore has many advantages compared to its counterparts such as physical book store, the online bookstore allows its user to shop at one place where in physical store the books are scattered at the different places which consumes a lot of time and online bookstore helps in saving that time and it also avoids the problem of unavailability of books at physical store as numerous vendors from different places sell their books at one place. This project is efficient in maintaining users records and can perform operations on it, also reduces the work load on the shop owner of knowing the quantity of books available and which books are available and keeps the records of how many books are purchased and sold.

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