

Smart Reads: Enhanced Book Inventory And Shopping System

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ABSTRACT-- Online Book store is an online web application where the customer can purchase books online. Through a web browser the customers can search for a book by its title later can add to the shopping cart and finally purchase using debit card transaction. The user can login using his account details or new customers can set up an account very quickly. They should give the details of their name, contact number and shipping address. The books are divided into many categories based on subject like Science & Fiction, Thriller, Children, Biography etc. The Online Book Store Website provides customers with online shopping through a web browser. A customer can, create, sign in to his account, place items into a shopping cart and purchase using his debit card details. The Administrator will have additional functionalities when compared to the common user. He can add, delete and update the book details, book categories, member information and also confirm a placed order. This application is developed using ASP.net MVC core programming language. The Home page, data sets, data grids, user controls are used to develop the Online Book store.

Keywords:MVC, shopping cart, Book Inventory

I. INTRODUCTION

The Purpose of Online Book Store is to automate the existing manual system by the help of computerized equipment and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with.

Online book store as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather than concentrate on the record keeping. Thus it will help organization.

II. PROBLEM STATEMENT

Number of Customer visit daily to the Shop for purchasing books. To store all records of the customers and other related essential information, the user uses registers. All records registered in shop are totally manually managed. Books information such as stock, price stored in register. So all the records information totally stored in registers. It takes much time for their every function such as adding new record, updating new record as well as deleting a record. Searching a desired record from register is also quite time consuming which frustrate the employees.

III. ANALYSIS AND DESIGN

- **Algorithm for End-User Interaction:**
 - Step I: User opens application for first time. Searches book he/she is looking for.
 - Step II: User gets the book which he wants. If there is sufficient quantity of book available then, user tries to add that book in his shopping cart.
 - Step III: Since, user is neither logged in nor registered, Register page opens up and asks for essential information of user.
 - Step IV: After filling all data, setting up password, user logs in.
 - Step V: User see his desired product in his cart, adds some other books in cart and proceeds to checkout.
 - Step VI: User checks his own information, updates address or contact details if need. estimated delivery date is shown to user and if he /she is satisfied with it, then further proceeds to payment.
 - Step VII: After making payment, user receives order confirmation and gets his delivery on expected time.
- **Algorithm for Admin interaction into Application:**
 - 1) Step I: Admin logs in into application.
 - Step II: Admin looks for any unprocessed approved orders if any then he visits those orders.
 - Step III: Admin assigns tracking number and carrier

to that order then advances to process order.
 Step IV: After order is packed, ships order.
 2) Step I: Admin goes through book module and finds out which books need to be ordered.
 Step II: Admin selects/shortlists books and their quantity that are to be ordered from supplier.
 Step III: Admin prepares an order which includes book list & sends to the supplier.
 Step IV: When supplier send the ordered books courier, admin updates stock of that particular books.



This delineation of responsibilities helps you scale the application in terms of complexity because it's easier to code, debug, and test something (model, view, or controller) that has a single job. It's more difficult to update, test, and debug code that has dependencies spread across two or more of these three areas. For example, user interface logic tends to change more frequently than business logic. If presentation code and business logic are combined in a single object, an object containing business logic must be modified every time the user interface is changed. This often introduces errors and requires the retesting of business logic after every minimal user interface change.

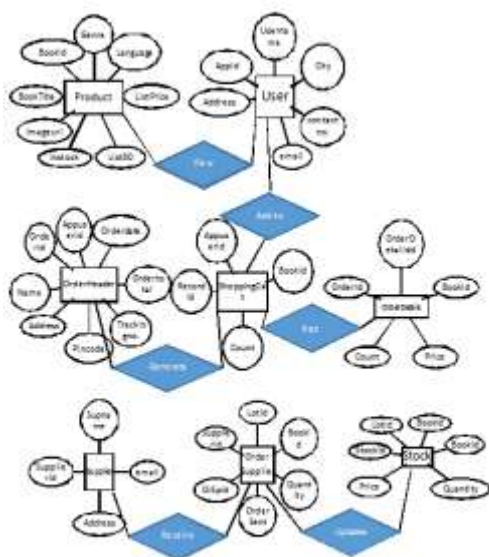


Fig1. Entity Relationship Diagram

IV. IMPLEMENTATION

- ASP.net MVC Pattern:**

The Model-View-Controller (MVC) architectural pattern separates an application into three main groups of components: Models, Views, and Controllers. This pattern helps to achieve separation of concerns. Using this pattern, user requests are routed to a Controller which is responsible for working with the Model to perform user actions and/or retrieve results of queries. The Controller chooses the View to display to the user, and provides it with any Model data it requires.

i. Note

Both the view and the controller depend on the model. However, the model depends on neither the view nor the controller. This is one of the key benefits of the separation. This separation allows the model to be built and tested independent of the visual presentation.

ii. Model Responsibilities

The Model in an MVC application represents the state of the application and any business logic or operations that should be performed by it. Business logic should be encapsulated in the model, along with any implementation logic for persisting the state of the application. Strongly-typed views typically use ViewModel types designed to contain the data to display on that view. The controller creates and populates these ViewModel instances from the model.

iii. View Responsibilities

Views are responsible for presenting content through the user interface. They use the Razor view engine to embed .NET code in HTML markup. There should be minimal logic within views, and any logic in them should relate to presenting content. If you find the need to perform a great deal of logic in view files in order to display data from a complex model, consider using a View

Component, ViewModel, or view template to simplify the view.

iv. Controller Responsibilities

Controllers are the components that handle user interaction, work with the model, and ultimately select a view to render. In an MVC application, the view only displays information; the controller handles and responds to user input and interaction. In the MVC pattern, the controller is the initial entry point, and is responsible for selecting which model types to work with and which view to render (hence its name - it controls how the app responds to a given request)

- **SQL Server Management Studio**

SQL Server Management Studio(SSMS) is a software application first launched with Microsoft SQL Server 2005 that is used for configuring, managing, and administering all components within Microsoft SQL Server. It is the successor to the **Enterprise Manager** in SQL 2000 or before. The tool includes both script editors and graphical tools which work with objects and features of the server.

SSMS is one of the SQL Server management tools, regardless of your location, used for designing queries and managing databases and data warehouses via personal computer or Cloud.

In reality, SSMS is an integrated environment that provides tools for configuring, monitoring, and administering SQL Server instances and databases. A central feature of SSMS is the Object Explorer, which allows the user to browse, select, and act upon any of the objects within the server. It also shipped a separate Express edition that could be freely downloaded, however recent versions of SSMS are fully capable of connecting to and manage any SQL Server Express instance. Microsoft also incorporated backwards compatibility for older versions of SQL Server thus allowing a newer version of SSMS to connect to older versions of SQL Server instances. It also comes with Microsoft SQL Server Express 2012, or users can download it separately.

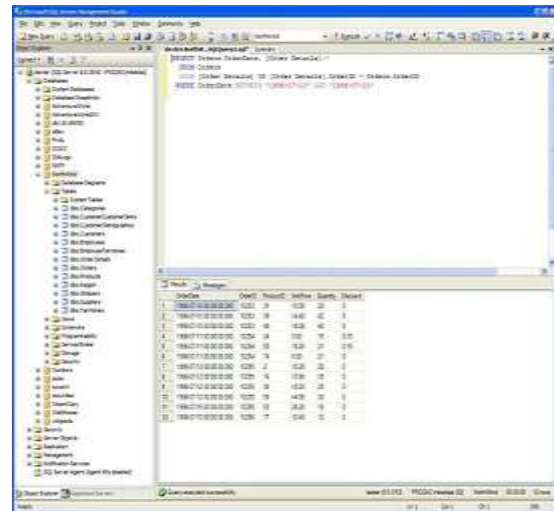


Fig2. Server Management

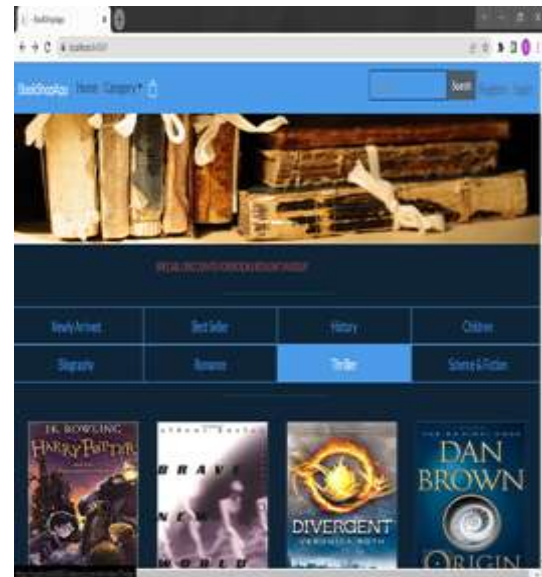


Fig3. View of category wise book

- **Admin**

There is only one admin account who shall entirely control the system. Admin has all the rights for system such as add product, delete product, check orders, view shopping cart, send emails etc.

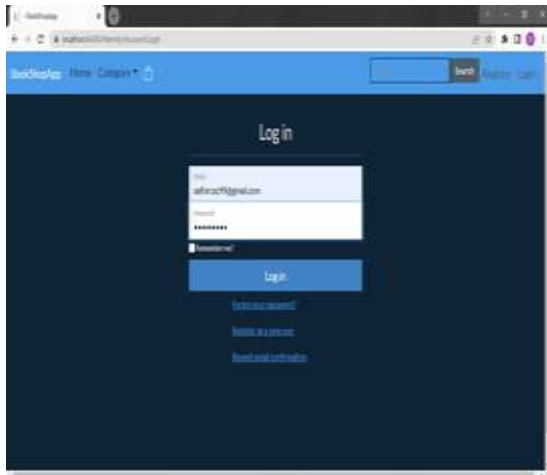


Fig4.Login page view

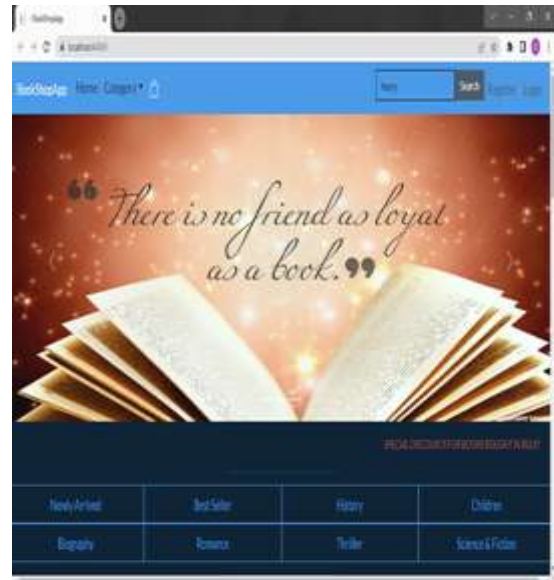


Fig6.Home page user view



Fig5.Insert book product list



Fig7.Add product into shopping cart

• **End Users:**

End users are those who use system as a customer who view books, order books or add to cart books. There are no privileges for end users that belongs to the admin. They have to login before adding any book to cart and ordering book. Basic information should be provided by customer to the system which is essential for ordering book. Their account will be kept secured with password and can be recovered via email.

V. SCOPE OF PROPOSED SYSTEM

- The main objectives of our system is to ease the handling of records as well as Maintenance. The proposed system is not time consuming so that the speed of work increases.
- Any mistakes done in manually will be quickly resolved in proposed system. So we can also save our time that we spend in correcting errors.
- Proposed System is very user friendly for handling as well as advanced. It also provides more security from avoidance of unauthorized access. We have used username-password feature in which password is only known to the authenticated user.

- When any part of data might be lost then backup can be obtained. The report of Maintenance of payments, Complaints, Customers are available to the management whenever required.
- Managing the procedures on computers and automatic Calculations is comparatively convenient than manual Processing. It is very efficient and convenient to access the data and add new records.
- Users are able to store data category-wise into tables and manipulate them as per their need.

VI. CONCLUSION

The "SmartReads Enhanced Book Inventory and Shopping System" is an innovative digital platform that redefines the way readers discover, manage, and acquire books. All the basic operations that are mandatory in project are completed successfully such as, insert, update, delete, search etc. Some advanced features like shopping cart, automatic stock updation are also included.

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