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“Online Book Store”

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ABSTRACT :

The Online Book Store is a web-based application designed to simplify book purchasing by providing users with a platform to browse, search, and buy books from various categories. It offers features like user registration, book previews, shopping cart, order tracking, and secure payment integration. Admins can manage inventory, orders, and customer queries. Built using modern web technologies, the system ensures a smooth, user-friendly experience while streamlining the buying process for both users and administrators.

CHAPTER 1: INTRODUCTION

1.1 Introduction:

The Online Book System aims to provide users with a convenient platform to browse, purchase, and manage books digitally. The system is designed using PHP and MySQL to ensure smooth performance and easy data management. It caters to a variety of users including readers, sellers, and administrators, and provides essential features like searching books, maintaining a cart, processing orders, and managing inventory.

1.2 Objectives:

Develop a user-friendly website for browsing and buying books online. Implement secure authentication and role-based access (Admin/User). Maintain a centralized inventory system for book details, stock, and orders. Enable efficient searching, filtering, and sorting of book listings. Provide order management and purchase history tracking.

1.3 Scope:

This system will support:

- Book listing with categories and ratings
- Shopping cart and checkout functionality
- User authentication (login, register)
- Admin panel for managing books, orders, and users
- Responsive design for usability across devices

1.4 Methodology:

The Online Book System was developed using the Waterfall model, progressing through requirement analysis, design, development, testing, and deployment. Requirements focused on book browsing, cart, and secure login. The design phase included database schemas and wireframes. Development used HTML, CSS, JavaScript, Bootstrap for the frontend, and PHP with MySQL for backend operations. Testing was done at both unit and integration levels. The project was deployed locally via XAMPP, with peer feedback driving minor iterative enhancements to improve usability.

CHAPTER 2: LITERATURE SURVEY

2.1 Survey of existing system:

Current platforms like Amazon Kindle, Flipkart Books, and Google Books allow users to purchase or download books online. However, many lack open-source flexibility or are limited to specific types of content. Additionally, building a customized PHP-based solution offers control over design and features.

2.2 Limitations of the existing system:

- High dependency on third-party platforms.
- Limited access to backend features for custom modifications.
- Often paid services with limited features for free users.

2.3 Problem Statement

The aim is to develop a scalable and customizable Online Book System using PHP and MySQL that enables smooth interaction between users and digital bookstores. It will support features like book browsing, filtering, secure login, real-time availability, and admin tools for inventory and order management. Designed for high performance and future growth, the system will offer a user-friendly interface and support additional modules like payment gateways and reviews..

2.4 Literature Review

Literature Survey

SR. NO	PAPER TITLE	YEAR	PUBLISHED BY	METHODOLOGY	LIMITATIONS
1	A Web-Based E-Book for Users and Publishers	Apr 2018	International Journal of Advanced Research in Computer Science	Developed a web-based platform using PHP and MySQL to facilitate e-book transactions	Limited focus on physical books and other media formats
2	Design and Implementation of Online Bookstore System	Dec 2019	Journal of Computer and Communications	Focused on MVC architecture with JSP for frontend and SQLite for backend database	Scalability issues due to the use of SQLite
3	An Efficient Online Bookstore Management System	Aug 2020	International Research Journal of Engineering and Technology	Proposed a system using ASP NET and MS SQL Server to manage books and orders	High development costs and platform dependency
4	Web-based Bookstore Automation System	Nov 2021	International Research Journal of Modernization in Engineering Technology and S-	Utilized object-oriented programming in JavaScript and SQL databases for automation features	Challenges in ensuring data consistency and integrity

CHAPTER 3: SYSTEM SPECIFICATIONS

3.1 Software requirements

- Frontend: HTML, CSS, JavaScript
- Backend: PHP
- Database: MySQL
- Server: Apache (XAMPP/WAMP)
- IDE: VS Code

3.2 Hardware requirements

To run visual studio code, we need-

- Processor: Intel i3 or above
- RAM: 8GB or more
- Storage: At least 500GB HDD or SSD
- Operating System: Windows 10 or higher / macOS

3.3 Advantages:

- Easy to deploy and use
- Secure login system
- Simple database management

- Customizable and scalable

Disadvantages:

- Basic UI (can be improved)
- No built-in payment gateway (can be added later)
- Limited real-time analytics without third-party tools

CHAPTER 4: PLAN OF PROJECT

4.1 Project Plan**Phase 1: Requirements Gathering & Analysis**

- Identified functional requirements such as book browsing, user login, cart, checkout, and admin controls.
- Analyzed user roles (Admin/User) and their respective permissions.
- Finalized tech stack: PHP, MySQL, HTML/CSS, JavaScript.
- Outlined project scope, goals, and expected outcomes.

Phase 2: Database Design & UI Layout

- Designed the ER diagram and database schema for users, books, cart, and orders.
- Defined table relationships (e.g., one user → many orders).
- Created UI wireframes for login, homepage, book listing, cart, and admin panel.
- Ensured user-friendly and responsive layout planning.

Phase 3: Backend Coding (PHP & SQL)

- Implemented core functionalities like login/logout, user registration, book listing.
- Developed dynamic pages using PHP for displaying and managing data.
- Wrote SQL queries to perform CRUD operations on the database.
- Ensured secure data handling and session management.

Phase 4: Integration of Cart, Login, and Admin Panel

- Integrated a fully functional shopping cart system with add/remove/update options.
- Built secure login and registration system using PHP sessions and validation.
- Developed admin panel for managing books, users, and orders.
- Linked frontend and backend components for seamless operation.

Phase 5: Testing & Deployment

- Performed unit testing for each module to verify functionality.
- Conducted integration testing to ensure modules work together smoothly.
- Identified and fixed bugs related to database queries and user sessions.
- Deployed the system locally using XAMPP and configured the MySQL database.

4.2 Methodology**Waterfall Development Methodology**

- The project follows the Waterfall model, where each phase is completed before the next begins, ensuring a structured and organized development process.
- The phases include: Requirement Gathering → System Design → Implementation → Testing → Deployment.

Frontend Development Methodology

- HTML, CSS, and JavaScript are used to build a clean and responsive user interface.
- Bootstrap is incorporated to ensure mobile responsiveness and a consistent design across pages.
- Forms and navigation components are designed to be user-friendly and intuitive.

Backend Development Methodology

- Core PHP is used to handle server-side logic such as user authentication, book listing, cart operations, and order placement.
- MySQL is used as the database to store and manage data related to users, books, orders, and cart items.
- PHP scripts interact with the database using SQL queries to perform CRUD operations securely and efficiently.

Testing Methodology

- Unit testing is performed on individual PHP modules (e.g., login validation, cart functionality).
- Integration testing is conducted to ensure proper interaction between modules (e.g., adding to cart and placing an order).

- Manual testing ensures all features function correctly in the XAMPP/WAMP environment.
- Bugs identified during testing are documented and fixed before deployment.

4.3 System Architecture:

- User Interface – Allows users to register, log in, view books, place orders
- Admin Panel – Manage books, users, orders
- Database – Stores user info, books, transactions
- Book Controller (PHP) – Business logic for filtering, ordering, etc.

SYSTEM ARCHITECTURE

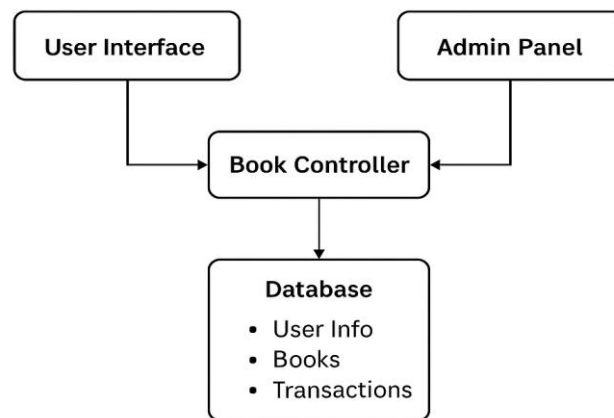


Figure 1: System Architecture Diagram

4.4 DFD:

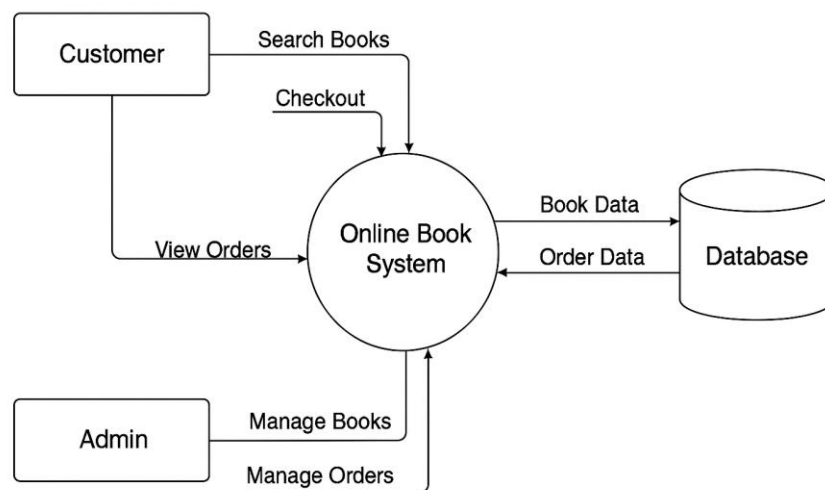


Figure 2: DFD Level 0

4.5 Flowchart

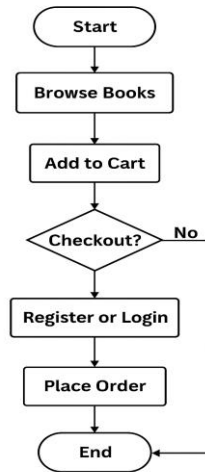


Figure 3: Flowchart

4.6 Used Case Diagram

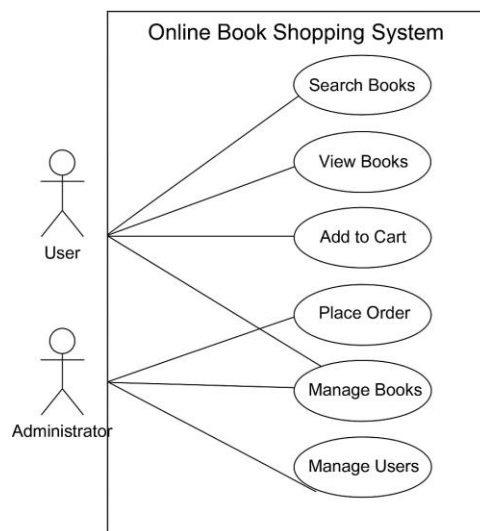
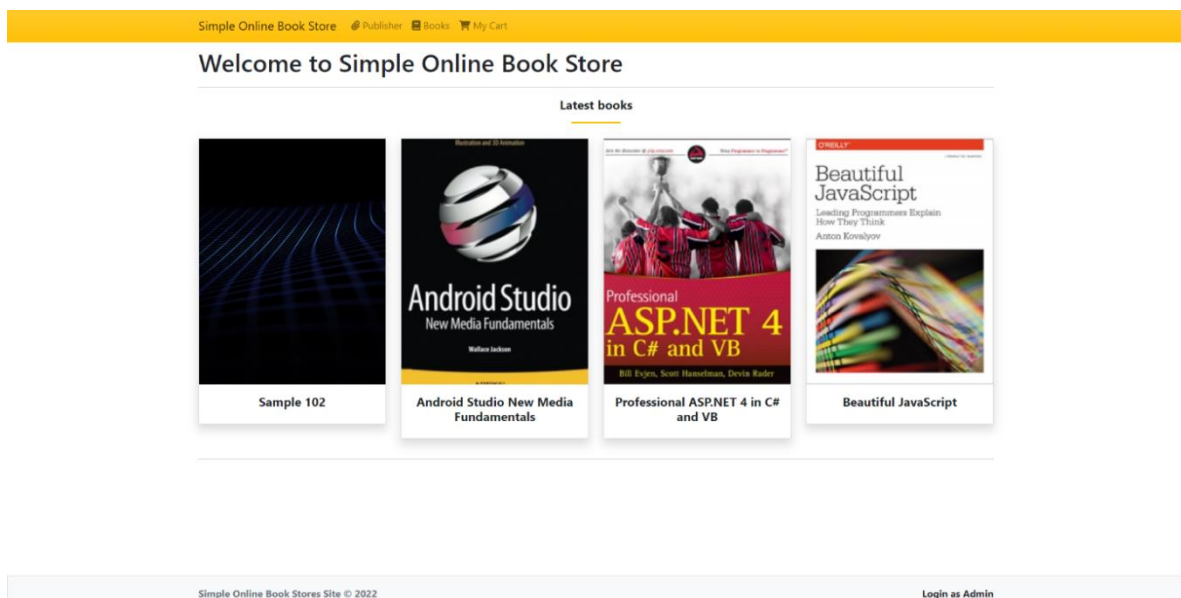


Figure 4 : Used Case Diagram

CHAPTER 5: RESULT ANALYSIS

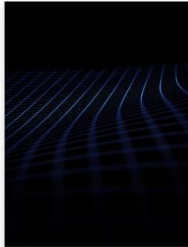
5.1 Outputs

Output 1: Landing Page




Simple Online Book Store [Publisher](#) [Books](#) [My Cart](#)

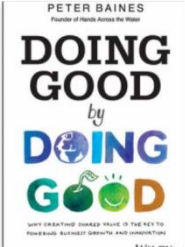
List of All Books



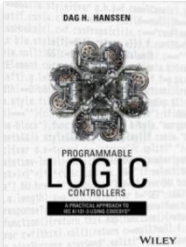
Sample 102



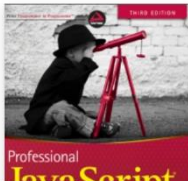
Learning Mobile App Development




Doing Good By Doing Good



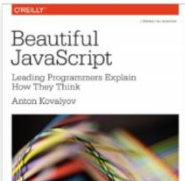
Programmable Logic Controllers




Professional JavaScript



Learning Web App Development



Beautiful JavaScript



Professional ASP.NET 4

Simple Online Book Stores Site © 2022 [Login as Admin](#)

Output 2: Book List

Simple Online Book Store [Publisher](#) [Books](#) [My Cart](#)

Cart List

Item	Price	Quantity	Total
Android Studio New Media Fundamentals by Wallace Jackson	\$20.00	<input type="text" value="1"/>	\$20
Beautiful JavaScript by Anton Kovalyov	\$20.00	<input type="text" value="4"/>	\$80
Learning Web App Development by Semmy Purewal	\$20.00	<input type="text" value="1"/>	\$20
		6	\$120

[Save Changes](#) [Go To Checkout](#) [Continue Shopping](#)

Output 3: Shopping Cart

Simple Online Book Store [Publisher](#) [Books](#) [My Cart](#)

Checkout

Item	Price	Quantity	Total
Android Studio New Media Fundamentals by Wallace Jackson	\$20.00	1	\$20
Beautiful JavaScript by Anton Kovalyov	\$20.00	4	\$80
Learning Web App Development by Semmy Purewal	\$20.00	1	\$20
		6	\$120

Please Fill the following form

Name

Address

City

Zip Code

Country





















[Purchase](#)

Please press Purchase to confirm your purchase, or Continue Shopping to add or

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Output 4: Checkout Page

Book List

ISBN	Title	Author	Image	Description	Price	Publisher	Action
978-1-484217-26-9	C++ 14 Quick Syntax Reference, 2nd Edition	Mikael Olsson	c_14_quick.jpg	This updated handy quick C++ ...	20.00	Publisher 4	 
978-1-484216-40-8	Android Studio New Media Fundamentals	Wallace Jackson	android_studio.jpg	Android Studio New Media Fun...	20.00	Publisher 4	 
978-1-4571-0402-2	Professional ASP.NET 4 in C# and VB	Scott Hanselman	pro_asp4.jpg	ASP.NET is about making you as...	20.00	Publisher 1	 
978-1-44937-075-6	Beautiful JavaScript	Anton Kovalyov	beauty_js.jpg	JavaScript is arguably the most ...	20.00	Publisher 3	 
978-1-44937-019-0	Learning Web App Development	Semmy Purewal	web_app_dev.jpg	Grasp the fundamentals of web ...	20.00	Publisher 3	 
978-1-1180-2669-4	Professional JavaScript for Web Developers, 3rd Edition	Nicholas C. Zakas	pro_js.jpg	If you want to achieve JavaScrip...	20.00	Publisher 1	 
978-1-118-94924-5	Programmable Logic Controllers	Dag H. Hanssen	logic_program.jpg	Widely used across industrial an...	20.00	Publisher 2	 
978-0-7303-1484-4	Doing Good By Doing Good	Peter Baines	doing_good.jpg	Doing Good by Doing Good sh...	20.00	Publisher 2	 
978-0-321-94786-4	Learning Mobile App Development	Jakob Iversen, Michael Eierman	mobile_app.jpg	Now, one book can help you m...	20.00	Publisher 6	 
64568	Sample 102	Sample Author 2	dark-bg.jpg	Test - updated	1200.00	Publisher 6	 

Output 5: Admin Site

CHAPTER 6: CONCLUSION

6.1 Conclusion:

The Online Book System project demonstrates the effective use of PHP and MySQL to develop a robust and user-friendly book platform. The system offers core functionalities necessary for running a digital bookstore. Future improvements could include payment gateway integration, advanced search, and mobile responsiveness.

7. REFERENCES

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