

**DESIGN & DEVELOPMENT OF ONLINE BOOK STORE  
(BOI-DOKAN)**

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This Report Presented in Partial Fulfillment of the Requirements for the  
Degree of Bachelor of Science in Computer Science and Engineering.

**Supervised By**

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**DAFFODIL INTERNATIONAL UNIVERSITY  
DHAKA, BANGLADESH  
JULY 2023**

## **APPROVAL**

This Project/internship titled “**DESIGN & DEVELOPMENT OF ONLINE BOOK STORE (BoiDokan)**”, submitted by **Shohel Rana**, ID No: **161-15-7155** to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on *03 August 2023*.

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## DECLARATION

I hereby declare that this project has been done by us under the supervision of **Narayan Ranjan Chakraborty, Associate Professor and Associate Head, Department of CSE** Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma. In addition, All information in this document has been obtained and presented following the academic rules and ethical conduct. The matter embodied in this project work has not been submitted for the award of any other degree.

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## **ACKNOWLEDGEMENT**

I am writing this Report to express my sincere gratitude and appreciation to everyone who contributed to the successful completion of the Online Book Store. Your invaluable support, guidance, and contributions have been instrumental in making this project/internship a reality.

First and foremost, I extend my heartfelt thanks to Narayan Ranjan Chakraborty, Associate Professor, Department of CSE Daffodil International University. for their unwavering encouragement, expert guidance, and constant supervision throughout the duration of this project. Their insightful input and dedication played a pivotal role in shaping the direction and focus of the report. I am also grateful to my friends, well-wisher who worked diligently to collect data, conduct research, and analyze information. Their commitment, enthusiasm, and teamwork significantly contributed to the comprehensive and robust nature of this report.

Furthermore, I am thankful to Professor Dr. Touhid Bhuiyan, Head, of the Department of CSE, for his support and also to other faculty members and the staff of the CSE Department of Daffodil International University in providing essential resources and materials that were crucial for conducting the research and analysis necessary for this report.

I would also like to acknowledge the help and cooperation received from [Name(s) of external partners or organizations] who provided us with essential data and resources, enabling us to present a well-rounded analysis. I am deeply thankful to all the individuals who reviewed and proofread the report, ensuring its accuracy and clarity. Your meticulous attention to detail has enhanced the overall quality of the document.

Last but not least, I want to express my gratitude to my family and friends for their unwavering support and understanding during this endeavor.

## **ABSTRACT**

The Online Book Shop Web Application is an innovative and user-friendly platform that revolutionizes the way individuals browse, purchase, and interact with books online. This web application aims to provide a seamless and personalized experience for book enthusiasts, book lovers, and casual readers alike, making it convenient to explore and buy books from the comfort of their homes. To make the shopping experience personalized and convenient, the platform offers user account registration. Customers can create accounts, store their preferences, manage Wishlist, and review their purchase history. The online bookstore ensures a secure payment gateway, allowing customers to make purchases using various payment methods, such as credit/debit cards, digital wallets, or other online payment systems. Besides physical books, the online bookstore may offer digital formats like e-books and audiobooks. The online bookstore frequently offers discounts, promotions, and loyalty programs to attract customers and encourage repeat purchases. Operating 24/7, the online bookstore provides unparalleled accessibility and convenience. Users can shop from anywhere, at any time, using various devices like computers, smartphones, and tablets. This application is developed using the ASP.NET programming language. The Master page, data sets, data grids, and user controls are used to develop the Online Book store.

## TABLE OF CONTENTS

<b>CONTENTS</b>	<b>PAGE</b>
Approval	2
Board of examiners	3
Declaration	4
Acknowledgements	5
Abstract	6
Table of Contents	7
<b>CHAPTERS</b>	
<b>CHAPTER 1: Introduction</b>	
1.1 Introduction	9
1.2 Motivation	10
1.3 Objectives	11
1.4 Competitive Advantages	12
1.5 Project Management and Finance	13
<b>Chapter 2: Background</b>	
2.1 Introduction	14
2.2 Related Works	14
2.3 Comparative Analysis	15
2.4 Scope of the Problem	16
2.5 Challenges	17

## **Chapter 3: Requirement Specification**

3.1 Main Requirements	18
3.2 Business Process Modeling	18
3.3 Use Case Modeling and Description	20
3.4 Bookshop Flowchart	21
3.5 Entity Relationship Diagram (ERD)	22
3.6 Design Requirements	22

## **Chapter 4: Design Specification**

4.1 Front-end Design	23
4.2 Back-end Design	24
4.3 Implementation Requirements	24

## **Chapter 5: Implementation and Testing**

5.1 Database MS SQL Server	26
5.2 Implementation of Front-end Design	26
5.3 Testing Implementation	27
5.4 Functionalities	28
5.5 Test Results and User Interface	30

## **Chapter 6: Impact on Society, Environment and Sustainability**

6.1 Impact on Environment	37
6.2 Ethical Aspects	38
6.3 Sustainability Plan	39

## **Chapter 7: Conclusion and Future Scope**

7.1 Conclusion	41
7.2 Limitations and Future Developments	42

<b>References</b>	43
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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

Welcome to my Online Book Shop Web Application, where the world of literature awaits you at your fingertips! My web application is designed to provide book lovers with an immersive and convenient platform to explore, purchase, and engage with a vast collection of books from various genres. Whether you're an avid reader, a casual book enthusiast, or a student in search of educational resources, our online bookshop is here to cater to all your literary needs. Key Features are:

**Extensive Book Collection:** Dive into a treasure trove of books covering diverse genres, including fiction, non-fiction, mystery, Novel, sci-fi, Programming, Sports, biographies, academic textbooks, and more. Our collection is regularly updated to ensure you have access to the latest releases and timeless classics.

**User-friendly Interface:** Our web application boasts an intuitive and user-friendly interface, making it easy for customers of all ages to navigate, search for books, and complete their purchases with just a few clicks.

**Secure Checkout Process:** We prioritize the security of your personal information and offer a secure checkout process. Your payment details are encrypted, providing you with peace of mind while making transactions.

**Discounts and Special Offers:** Take advantage of regular discounts, seasonal sales, and special offers, making your book-buying experience not only enjoyable but budget-friendly.



Our Online Book Shop Web Application is committed to enriching your reading journey, offering an extensive collection, a user-friendly interface, personalized recommendations, and secure transactions. Immerse yourself in the world of literature, explore new horizons, and embark on unforgettable adventures—all from the comfort of your home.

## 1.2. Motivation

The motivation behind creating a new online bookstore web application can stem from various factors and objectives. Some of the key motivations are as follows:

**Market Demand:** Identifying a market gap or a growing demand for online book shopping can be a significant motivation. If there is a lack of established competitors in the niche or a rising trend of consumers preferring online shopping for books, it presents an opportunity to fill that gap with a new web application.

**Innovation:** The desire to introduce innovative features and functionalities to enhance the user experience can inspire the creation of a new online bookstore web application. This could include unique search algorithms, personalized recommendations, interactive reading experiences, or novel ways of showcasing and promoting books.

**Monetization:** Building an online bookstore web application can be a lucrative business venture.

**Passion for Books:** If the creators have a genuine passion for books and reading, the motivation to develop an online bookstore web application can be driven by their love for literature and the desire to share that enthusiasm with a wider audience.

**Entrepreneurial Goals:** Entrepreneurs looking for opportunities to establish their presence in the online retail industry may be motivated to create an online bookstore web application as a way to start their business journey.

In summary, the motivation behind creating a new online bookstore web application can range from addressing market needs, showcasing innovation, and monetization opportunities to pursuing a passion for books, achieving entrepreneurial goals, and providing a user-friendly platform for readers to explore, discover, and purchase their favorite books.

### **1.3. Objectives**

The objectives of an online bookshop web application can vary depending on the specific goals and scope of the platform. However, some common objectives are:

Providing excellent customer service and ensuring a positive shopping experience is crucial. Satisfied customers are more likely to become repeat buyers and recommend the store to others. The primary objective of an online bookshop is to offer a vast collection of books across various genres, authors, and languages. This ensures that customers have access to a diverse range of reading materials.

The web application should have an intuitive and user-friendly interface to make it easy for customers to browse, search for books, and make purchases without any hassle. An effective search and filtering system allows customers to find books quickly and accurately. This might include filtering by genre, author, publication date, ratings, and more. Exploring opportunities to expand the online bookshop's market reach through partnerships, international shipping, or collaborations with other relevant businesses. Offering promotions, discounts, and loyalty programs can attract more customers and incentivize repeat purchases.

Overall, the objectives of an online bookshop web application focus on delivering an enjoyable, seamless, and secure shopping experience for customers while maximizing book sales and fostering customer loyalty.

#### **1.4. Competitive Advantages**

An online bookstore can offer several competitive advantages compared to traditional brick-and-mortar bookstores. These advantages include:

- **Wider selection:** Online bookstores are not limited by physical space, allowing them to offer a vast selection of books across various genres, authors, and languages. Customers can easily find rare or niche titles that might not be available in local bookstores.
- **Competitive pricing:** Online bookstores often have lower overhead costs compared to brick-and-mortar stores, which allows them to offer competitive pricing on books. Customers can also easily compare prices between different online retailers to find the best deals.
- **Pre-order and delivery options:** Customers can pre-order upcoming book releases and have them delivered directly to their doorstep on the release date. This feature ensures that readers can get their hands on highly anticipated books without hassle.
- **Environmentally friendly:** Online bookstores reduce the need for physical book production and transportation, contributing to lower carbon footprints. E-books, in particular, have a significantly smaller environmental impact compared to printed books.

Overall, online bookstores offer a more convenient, diverse, and personalized shopping experience, making them a preferred choice for many readers in the digital age.

## 1.5 Project Management and Finance

Managing the project and finances of an online bookshop web application requires careful planning, budgeting, and execution. Here's a step-by-step guide to help you navigate through the process:

**Project Scope and Planning:** Clearly define the scope of the project. What features will the web application have? What platforms will it support (e.g., desktop, mobile)? Create a detailed project plan outlining tasks, milestones, and deadlines.

**Budget Estimation:** Estimate the costs associated with the project, including development, hosting, marketing, and maintenance. Create a budget that takes into account both initial development expenses and ongoing operational costs.

**Development and Testing:** Begin the web application development based on the project plan. Conduct rigorous testing throughout the development process to catch and fix bugs early on.

**Launch and Marketing:** Plan the launch of the online book shop web application carefully. Implement marketing strategies to attract users and potential customers.

**Monitoring and Maintenance:** Set up monitoring tools to track the web application's performance and user behavior. Establish a plan for ongoing maintenance and updates to keep the application running smoothly.

**Financial Management:** Monitor the project's financial progress regularly against the budget. Keep detailed records of expenses and income related to the web application.

Remember, effective project management and financial planning are ongoing processes. Regularly review and adjust your plans as needed to ensure the success of your online bookshop web application.

## **CHAPTER 2**

### **BACKGROUND**

#### **2.1 Introduction**

An online bookshop web application is a digital platform that enables users to browse, search for, and purchase books online. It operates similarly to a traditional brick-and-mortar bookstore but with the added convenience of being accessible from anywhere with an internet connection. Online bookshops have evolved over the years alongside the growth of the internet and e-commerce. In the early days of the Internet, simple online bookstores emerged, allowing users to browse a limited selection of books and place orders online. To provide personalized experiences, online bookshops often allow users to create accounts. Through these accounts, users can save their preferences, track their orders, and manage their Wishlist. Online bookshops require a secure payment gateway to process transactions. Similar to physical shopping carts in physical stores, online bookshops have virtual shopping carts. Users can add books to their carts while browsing and proceed to checkout when ready. Overall, an online bookshop web application offers a convenient and accessible way for book enthusiasts to explore, purchase, and engage with a vast array of books from the comfort of their homes. The success of such a platform relies on user-friendly interfaces, a diverse and well-managed book catalog, and excellent customer service.

#### **2.2 Related Works**

There are so many online Book stores such as Amazon book shop. Apple Books. eBooks.com. Smashwords. Barnes and Noble. Kobo. Google Play Books. Harlequin and Rokomari (Which is most popular in Bangladesh)

## 2.3 Comparative Analysis

My initial point would be that, In the whole world, there are websites like this. Those are trying to do the same work for the same kind of people. When I search for that site to get an idea, I try to make different things not like existing ones. The system I made is not very complex. Keep in mind that when comparing online bookshops, you should consider factors like user experience, design, functionality, features, security, and performance. Here's a step-by-step guide to conducting a comparative analysis:

- **Identify the Competitors:** Start by researching and identifying the new online bookshop web applications you want to compare. Select a few that are popular or gaining traction in the market.
- **User Experience (UX):** Evaluate the user experience of each website. Analyze the website layout, navigation, and overall ease of use. Check if the websites are mobile-friendly and responsive.
- **Functionality and Features:** List the features and functionalities of each website. Look for essential features such as search functionality, filters, a shopping cart, secure payment options, user accounts, and personalized recommendations.
- **Pricing and Discounts:** Evaluate the pricing of books and any available discounts or promotions. Some online bookshops might offer loyalty programs or membership benefits that should be taken into consideration.
- **Shipping and Delivery:** Look into the shipping and delivery options offered by each website. Fast and reliable delivery is crucial for online shopping.

By conducting a thorough comparative analysis based on these factors, you can make an informed decision when choosing an online bookshop that best meets your needs and preferences.

## 2.4 Scope of the Problem

The scope of the problem for an online bookshop can be quite extensive and varied, depending on various factors. Here are some key aspects to consider when evaluating the scope of the problem:

**Market Research:** Understanding the target audience, competition, and demand for online bookstores is crucial. Market research will help identify the potential size of the customer base, popular book genres, and competitor analysis to strategize effectively.

**Website Development:** Creating a user-friendly, responsive, and secure e-commerce website is a significant challenge. It involves web design, database management, payment gateway integration, and ensuring a smooth browsing and purchasing experience for customers. Ensuring the website is optimized for mobile devices, as an increasing number of customers prefer shopping through their smartphones and tablets.

**Order Fulfillment and Shipping:** Establishing efficient order processing, packaging, and shipping methods to deliver books promptly while keeping shipping costs reasonable is critical for customer satisfaction.

**Payment Security and Privacy:** Ensuring robust security measures to protect customer payment information and privacy is vital to build trust and credibility.

**Data Analytics:** Implementing analytics tools to gather insights into customer behavior, preferences, and purchasing patterns. Utilizing this data for making informed decisions and improving the overall shopping experience.

**Returns and Refunds:** Dealing with returns and processing refunds in a customer-friendly and efficient manner.

**Technological Challenges:** Staying updated with the latest technologies, trends, and security measures in the e-commerce space.

Remember, the scope of the problem can be both challenging and rewarding. Proper planning, execution, and continuous improvement can lead to a successful and thriving online bookshop.

## **2.5. Challenges**

Developing and maintaining an online bookshop web application comes with its own set of challenges. Some of the common challenges include:

Online bookshops handle sensitive user data like personal information and payment details. Ensuring the security of this data is crucial to gaining and maintaining customers' trust. As the bookshop gains popularity and attracts more users, the web application must be able to handle increased traffic and transaction volumes. Scaling the infrastructure and optimizing performance become essential to avoid downtime and slow loading times during peak periods. Integrating secure and reliable payment gateways is crucial. Customers expect a variety of payment options and a seamless checkout process. Ensuring the payment process complies with industry standards and regulations is essential. The online book market can be highly competitive, with many established players. Standing out and attracting customers can be tough. Offering unique features, competitive prices, and personalized recommendations can help overcome this challenge.

By addressing these challenges proactively and continuously improving the web application, an online bookshop can enhance its performance and deliver a satisfying experience to its customers.



## **CHAPTER 3**

### **Requirement Specification**

#### **3.1 Main Requirements**

The Main Requirements include Microsoft Visual Studio Code and ASP.NET Core to develop the web application, MS SQL Server 2018 to design the database, and Mozilla or Google Chrome as the main web browser to run the website.

#### **3.2. Business Process Modeling**

Creating a comprehensive business process model for an online bookstore involves mapping out the various stages and activities that take place from the customer's perspective. Below is a simplified version of the business process model:

- **Customer Registration:** A customer visits the website and creates an account by providing necessary details like name, email address, and password.
- **Browsing Books:** The registered customer can browse through the collection of books available on the website. They can use filters and search functionalities to find specific books.
- **Book Details:** When a customer selects a book, they can view its details, synopsis, author information, and reviews/ratings provided by other customers.
- **Adding to Cart:** The customer can add desired books to their shopping cart. The cart keeps track of the selected items and their quantities. Customers can modify the cart by adding or removing books or adjusting the quantities.

- **Checkout Process:** When the customer is ready to purchase, they proceed to the checkout page. They enter the shipping address, select a payment method, and review the order details.
- **Payment Processing:** The customer's selected payment method is processed securely to complete the transaction.
- **Order Fulfillment:** After successful payment, the order is processed for fulfillment. The books are packed and prepared for shipping.
- **Shipping and Delivery:** The books are handed over to the shipping partner for delivery to the customer's address.
- **Order Tracking:** The customer can track the status of their order and receive updates on the delivery process.
- **Customer Support:** In case of any issues, the customer can contact the support team for assistance related to orders, payments, or other inquiries.

The system collects and analyzes data on customer behavior, sales, and inventory to generate reports for business insights. Remember that the actual process may vary depending on the specific implementation and features of the online bookshop.

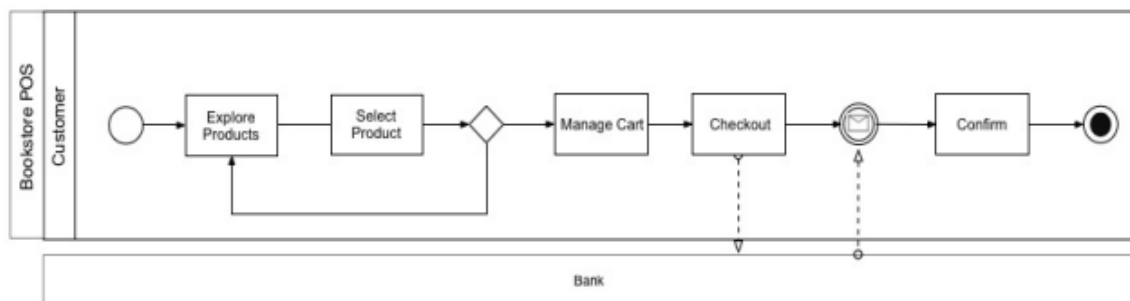


Figure : BPM Method

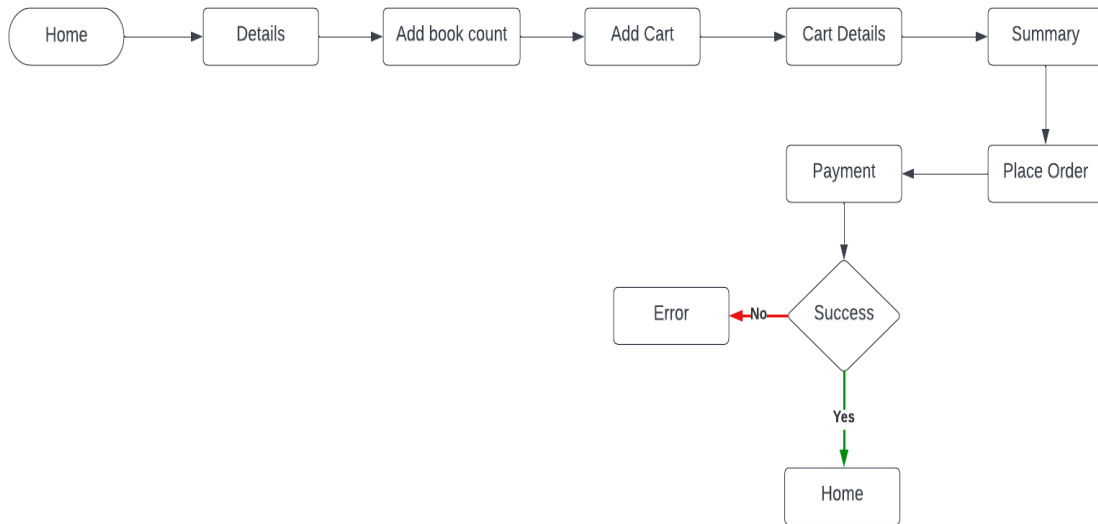
### 3.3 Use Case Modeling and Description



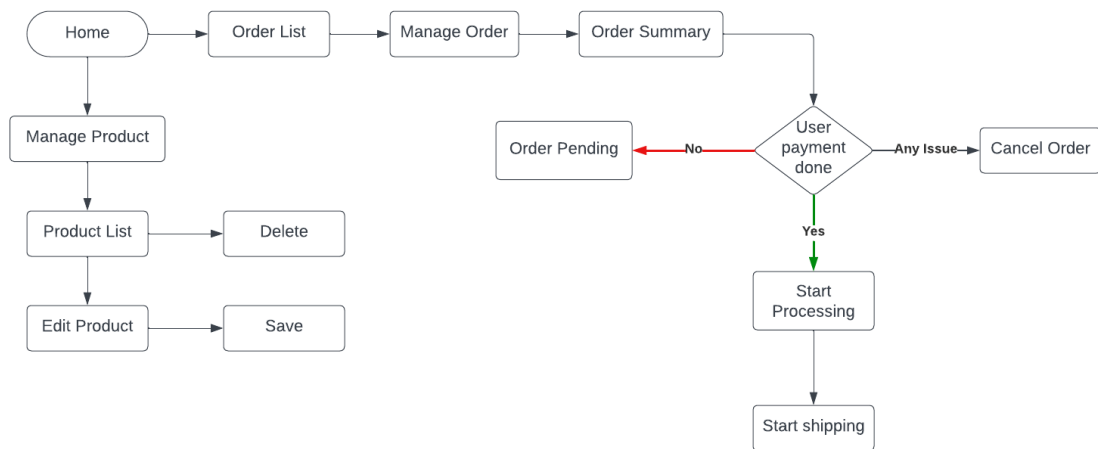
Fig: Use Case Diagram

This is a Online Book store [Boidokan] use case diagram showing the entire process of user and admin.

### 3.4 Online Bookshop Flowchart



**Figure:** User Flow Chart



**Figure:** Admin FlowChart

### 3.5 ER Diagram

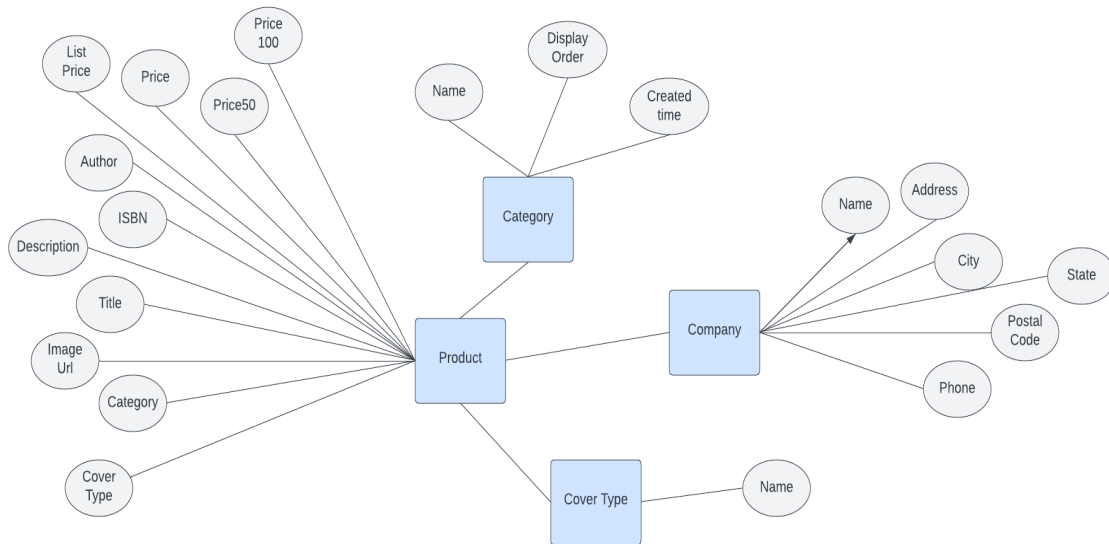


Figure : ER Diagram

### 3.6. Design Requirement

Web design is the process of creating and visually arranging the elements of a website to provide an engaging and user-friendly experience for visitors. It involves a combination of artistic talent, technical skills, and an understanding of user behavior and usability principles. Web designers aim to create aesthetically appealing and functional websites that effectively convey a brand's message, products, or services. Below are some descriptions of how we designed it.

These are given tools and technologies are used in the system.

- DotNet Core Razore Page
- Bootstrap
- Javascript
- AJAX
- HTML5
- CSS3

## CHAPTER 4

### Design Specification

#### 4.1 Front-end Design

Basically, Front end design or ui design attracts customers to visit this website. Front-end design or customer-side correction is a graphical interface. This exhibition site is My front-end design is built with HTML, CSS, and javascript. In this cycle, users can view information and collaborate with it. We make the front end simple and easy to use because we need all kinds of clients who can understand and use this site effectively. To plan this venture, we usually use HTML and CSS languages. Great text is a simple step in creating a site. Use the front end so we can communicate with the client. So in order to run those destinations, we need to specialize in three basic dialects: HTML, CSS, and JavaScript programming. Allows you to visually download information and powerfully load pages. Solid front-end engineers can identify obvious problems in client encounters and provide hints and systematic answers to influence planning.

#### Dotnet core razor page

First, Razor Pages is a feature of ASP.NET Core that simplifies the creation of dynamic web pages. It provides a clean and intuitive programming model, making it easier for developers to build web applications. Secondly, One of the main advantages of Razor Pages is its simplicity. It follows the 'convention over configuration' principle, allowing developers to focus on building the application logic without worrying about complex configuration settings. And Finally, Razor Pages also promote the separation of concerns by combining the view and controller logic into a single file. This reduces code duplication and improves code organization.

## 4.2 Back-end Design [Backend: DotNet Core]

Dot NET Core is a powerful framework that enables developers to build robust and scalable applications. It supports multiple programming languages and offers great performance and flexibility. In addition One of the key advantages of .NET Core is its cross-platform capability. It runs on Windows, macOS, and Linux, allowing developers to target a wide range of platforms and devices. Another notable feature of .NET Core is its high performance. It includes just-in-time (JIT) compilation and ahead-of-time (AOT) compilation options, optimizing application performance and reducing startup time. In conclusion, .NET Core is a versatile and powerful framework that empowers developers to build modern, cross-platform applications with ease. Whether you're a seasoned developer or just starting, .NET Core offers a robust foundation for your projects.

## 4.3 Implementation Requirements

Implementing an online bookstore web application is a complex task that involves multiple components such as frontend development, backend development, and database management. Here, I'll provide a high-level overview of the steps involved in creating an online bookstore web application.

**Requirements Gathering:** Define the scope and requirements of the application. Identify the key features, such as user registration, book catalog, shopping cart, checkout process, user reviews, etc.

**Design and User Interface:** Design the user interface of the web application.

**Frontend Development:** Proficiency in front-end web technologies is crucial. HTML is used for creating the structure of the website, CSS for styling and layout, and JavaScript for interactivity and dynamic features.

**Backend Development:** Develop the backend of the web application to handle data processing and business logic.

**Database Design:** Design the database schema to store information about books, users, orders, reviews, etc. Choose a suitable database system like MySQL, PostgreSQL, or MongoDB.

**API Development:** Create RESTful APIs to facilitate communication between the front end and back end. APIs will be used to retrieve and update data in the database.

**Shopping Cart and Checkout:** Develop a shopping cart feature to allow users to add books to their cart, view cart items, and proceed to checkout for making purchases.

**Payment Gateway Integration:** Integrate a secure payment gateway to handle online payments during the checkout process.

**Deployment:** Deploy the application on a web server or cloud platform so that it is accessible to users over the internet. Regularly update the application to add new features and fix any reported problems.

Remember that building a web application involves a team effort, and it's crucial to follow industry best practices and standards throughout the development process.



## **CHAPTER 5**

### **Implementation and Testing**

#### **5.1 Database: MS SQL Server**

Microsoft SQL Server is a powerful and scalable database platform designed to handle complex data management tasks. It offers a wide range of features that make it a popular choice for organizations of all sizes. One of the notable strengths of SQL Server is its reliability. It ensures data integrity and provides robust mechanisms for backup and recovery. With its built-in high availability and disaster recovery options, SQL Server minimizes downtime and ensures business continuity. SQL Server is supported by a comprehensive suite of management tools, such as SQL Server Management Studio (SSMS) and Azure Data Studio. These tools simplify database administration, development, and monitoring, enhancing productivity for database professionals.

#### **5.2 Implementation of Front-end Design**

My initial point would be that Front-end development is the process of building components that interact with users. Examples are the user interface, buttons, user-entered data, websites, and user experience (UX) features. The front end aims at meeting user requirements and delivering a positive user experience.

#### **HTML**

HTML stands for "HyperText Markup Language." It is the standard markup language used to create and design web pages and web applications. HTML provides the structure and content of a web page, defining the various elements and their layout on the page. HTML uses a system of tags and attributes to mark up the different elements on a webpage. Tags are enclosed in angle brackets (< >) and usually come in pairs, with an opening tag and a closing tag. The opening tag contains the name of the element, and the closing tag has a forward slash before the element name.

## **CSS**

CSS stands for "Cascading Style Sheets." It is a style sheet language used to describe the presentation and layout of HTML (Hypertext Markup Language) documents. CSS is utilized to control how web pages and other HTML documents are displayed on different devices and screen sizes, ensuring a consistent and visually appealing user experience across various platforms. With CSS, you can define the appearance of elements on a web page, such as fonts, colors, margins, padding, borders, and positioning. By separating the content (HTML) from the presentation (CSS), developers can maintain cleaner and more organized code, making it easier to manage and modify the website's design. CSS works by applying styles to HTML elements using selectors. A selector targets specific elements on the web page, and within the curly braces ( { } ), developers can define various properties and values to apply the desired styles.

## **Dotnet core razor page**

First, Razor Pages is a feature of ASP.NET Core that simplifies the creation of dynamic web pages. It provides a clean and intuitive programming model, making it easier for developers to build web applications. Secondly, One of the main advantages of Razor Pages is its simplicity. It follows the 'convention over configuration' principle, allowing developers to focus on building the application logic without worrying about complex configuration settings. Finally, Razor Pages also promote the separation of concerns by combining the view and controller logic into a single file. This reduces code duplication and improves code organization

## **5.3. Testing Implementation**

Testing an online bookshop web application is crucial to ensure its functionality, security, and user experience are up to standards. Below, I'll outline the implementation of testing using a combination of manual testing and automated testing. We'll cover the different types of tests and the tools commonly used for web application testing.

- Unit Testing
- Integration Testing
- User Interface (UI) Testing
- Performance Testing
- Security Testing
- Accessibility Testing
- Cross-Browser and Cross-Device Testing
- Usability Testing

It's crucial to establish a testing strategy and incorporate testing into the development process from the beginning. Additionally, consider using Continuous Integration (CI) and Continuous Deployment (CD) practices to automate test execution and ensure a reliable and consistent testing process.

#### **5.4. Functionalities:**

An online bookstore web application typically offers a range of functionalities to provide users with a seamless and efficient experience for browsing, purchasing, and managing their books. Here are some common functionalities you can expect to find in an online bookstore web application:

**User Registration and Authentication:** Allow users to create accounts, log in, and manage their profiles. This enables personalized recommendations, order history, and easier checkout processes.

**Book Details:** Display comprehensive information about each book, including cover image, description, author details, publication date, and user reviews.

**Shopping Cart:** Allow users to add books to their shopping carts, review the cart contents, and modify the quantities of selected books before proceeding to checkout.

**Secure Checkout:** Implement a secure payment gateway to facilitate seamless and safe transactions for users when purchasing books.

**Admin Panel:** A back-end admin panel that allows the site administrators to manage products, user accounts, orders, inventory, and other aspects of the website.

**Multiple Currency Support:** If the online store caters to an international audience, support multiple currencies for a seamless user experience.

Keep in mind that the specific functionalities of an online bookstore web application may vary depending on the platform, target audience, and business requirements. The above list covers common features that enhance the user experience and make the platform user-friendly, efficient, and appealing to customers.

## **5.5 Test Results and User Interface**

### **5.5.1. Home Page**

A homepage maintained by an admin typically refers to the main landing page of a website or web application that is regularly updated and managed by an administrator or content management team.

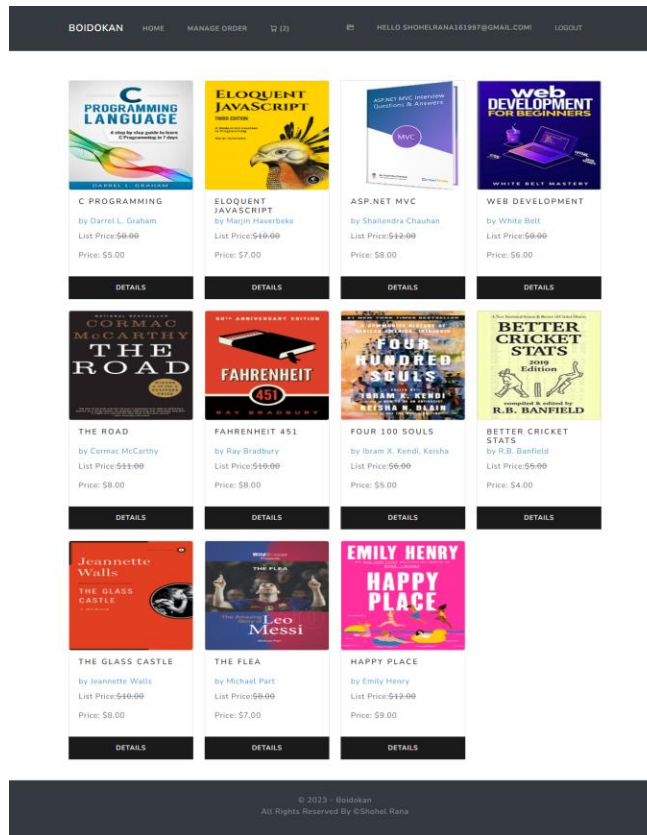


Figure: Home page

### 5.5.2. Sign Up Page

A user sign-up page is a crucial component of web applications or websites that require user registration to access personalized features, services, or content. It allows visitors to create individual accounts by providing necessary information. Here are the key elements you would typically find on a user sign-up page:

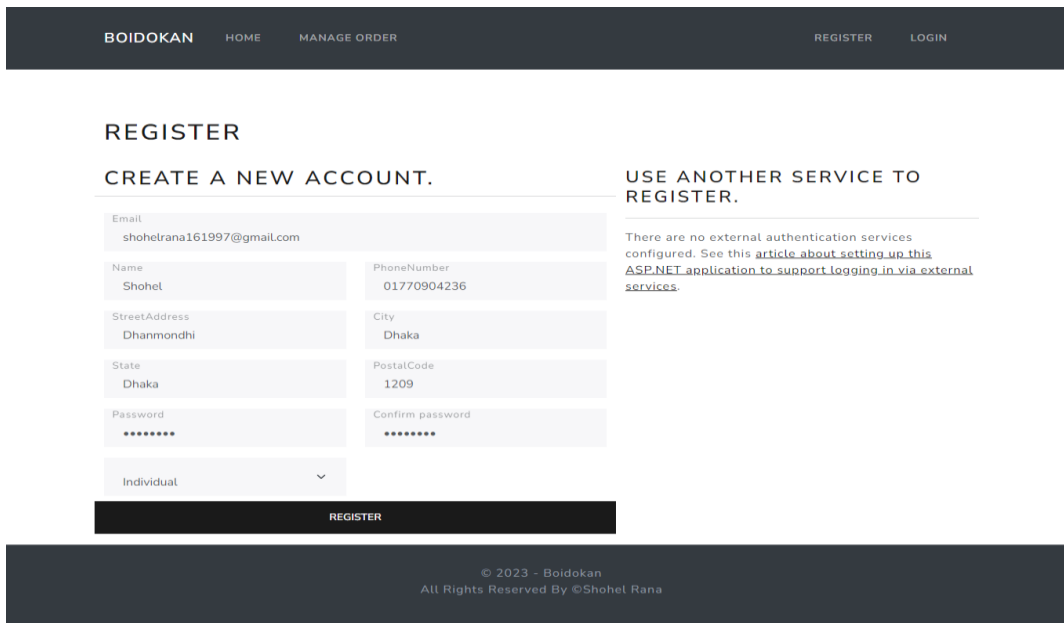


Figure: Sign Up Page

### 5.5.3. Sign in Page

A sign-in page, also known as a login page, is the entry point for users who already have accounts on a website or web application. It allows users to access their personalized content, settings, and data.

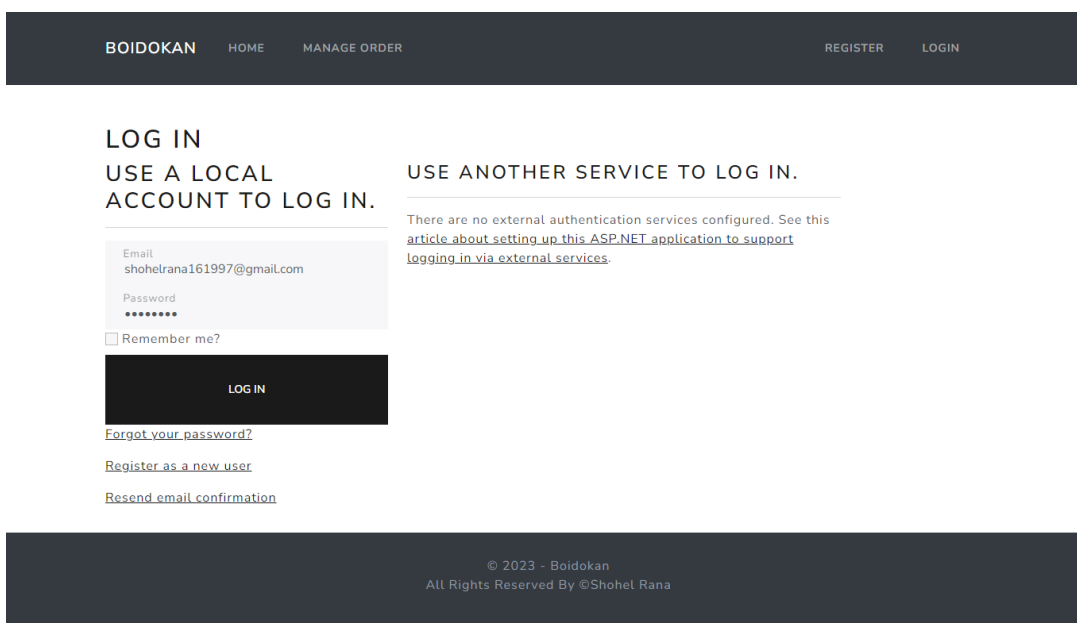


Figure: Sign In page

### 5.5.4. Books Category

By clicking on this button, the admin will be able to add books of different categories like Engineering, Medical, scientific, History, Philosophy, Novel, Programming etc...

The screenshot displays the BOIDOKAN admin dashboard. At the top, a dark navigation bar contains the site name 'BOIDOKAN', a menu with 'HOME', 'MANAGEMENT', and 'MANAGE ORDER', a user profile 'HELLO ADMIN@BOIDOKAN.LIVE!', and a 'LOGOUT' button. Below the navigation bar, the main content area is titled 'CATEGORY LIST' and includes a 'CREATE NEW CATEGORY' button. A table lists six book categories with their respective display orders and edit/delete actions.

CATEGORY NAME	DISPLAY ORDERS	
Programming	50	<a href="#">EDIT</a> <a href="#">DELETE</a>
Fiction	40	<a href="#">EDIT</a> <a href="#">DELETE</a>
Novel	60	<a href="#">EDIT</a> <a href="#">DELETE</a>
History	50	<a href="#">EDIT</a> <a href="#">DELETE</a>
Sports	30	<a href="#">EDIT</a> <a href="#">DELETE</a>
Biography	45	<a href="#">EDIT</a> <a href="#">DELETE</a>

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Figure: Books Category

### 5.5.5. Product page

If the admin wants to update or delete his desirable books, he should click on the update books button then he should navigate to this page which seems below, where he can update and delete books.

The screenshot displays the 'PRODUCT LIST' page in the BOIDOKAN admin interface. At the top, there is a dark navigation bar with the following items: BOIDOKAN, HOME, MANAGEMENT (with a dropdown arrow), MANAGE ORDER, HELLO ADMIN@BOIDOKAN.LIVE!, and LOGOUT. Below the navigation bar, the page title 'PRODUCT LIST' is centered, with a 'CREATE NEW PRODUCT' button on the right. A search bar is located at the top right of the table area. The table itself has columns for TITLE, ISBN, PRICE, AUTHOR, and CATEGORY. Each row represents a book and includes 'Edit' and 'Delete' buttons. The table shows 11 entries, with the first 10 visible. The pagination at the bottom indicates 'Showing 1 to 10 of 11 entries' and includes 'Previous', '1', '2', and 'Next' links. At the very bottom of the page, there is a dark footer with the text: © 2023 - Boidokan, All Rights Reserved By ©Shohel Rana.

TITLE	ISBN	PRICE	AUTHOR	CATEGORY		
ASP.NET MVC	143262	15	Shailendra Chauhan	Programming	Edit	Delete
Better Cricket Stats	102345	6	R.B. Banfield	Sports	Edit	Delete
C Programming	123456	10	Darrel L. Graham	Programming	Edit	Delete
Eloquent JavaScript	134565	12	Marjin Haverbeke	Programming	Edit	Delete
Fahrenheit 451	15673	12	Ray Bradbury	Novel	Edit	Delete
Four 100 Souls	875321	7	Ibram X. Kendi, Keisha	History	Edit	Delete
Happy Place	1256789	15	Emily Henry	Fiction	Edit	Delete
The Flea	435643	12	Michael Part	Sports	Edit	Delete
The Glass Castle	5675766	15	Jeannette Walls	Biography	Edit	Delete
The Road	126782	14	Cormac McCarthy	Fiction	Edit	Delete

Figure: Products list



### 5.5.6. Cart Page

When a customer selects a book on the Book page or selects from the home page then he can add it to the cart by clicking the button on the bottom side of the picture as seems below.

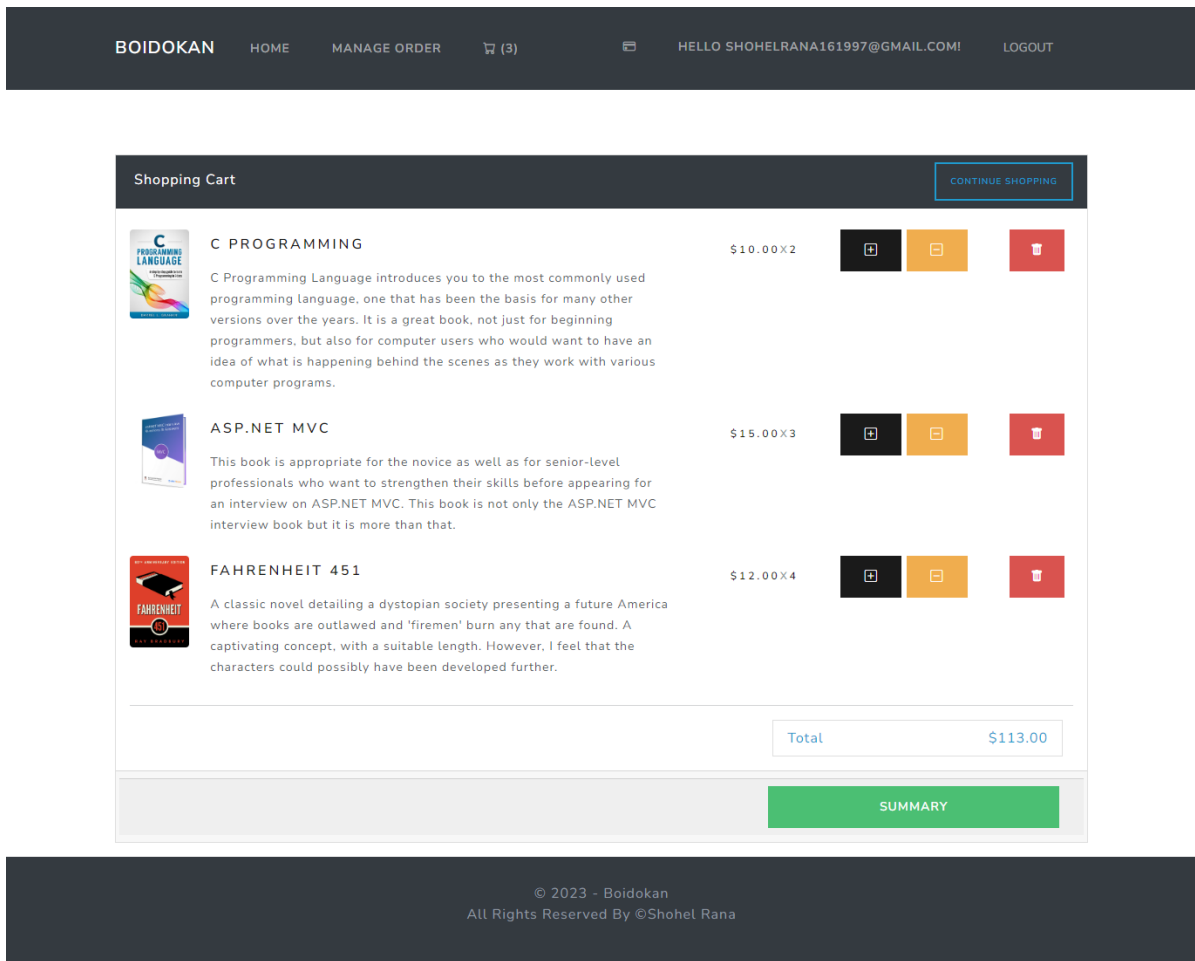


Figure: Cart page

## 5.5.7 Payment Method

Figure: Payment method

## 5.5.8. Order List Summary

ID	NAME	PHONE	EMAIL	STATUS	TOTAL	
10	Shohel	01770904236	shohelrana161997@gmail.com	Pending	113	
11	Shohel	01770904236	shohelrana161997@gmail.com	Approved	113	

Figure: Order list

## 5.5.9. Shipping Process

BOIDOKAN   HOME   MANAGEMENT \*   MANAGE ORDER   HELLO ADMIN@BOIDOKAN.LIVE!   LOGOUT

Order Summary [BACK TO ORDERS](#)

PICKUP DETAILS		ORDER SUMMARY	
Name	Shohel	ORDER STATUS - APPROVED	
phone	01770904236	C PROGRAMMING	\$20.00
Address	Dhanmondhi	Price:\$10.00 Quantity:2	
City	Dhaka	ASP.NET MVC	\$45.00
State	Dhaka	Price:\$15.00 Quantity:3	
Postal Code	1209	FAHRENHEIT 451	\$48.00
Email	shohetrana161997@gmail.com	Price:\$12.00 Quantity:4	
Order Date	7/7/2023	<b>TOTAL</b>	<b>\$113.00</b>
Carrier	test	<b>START PROCESSING</b>	
Tracking	1234	<b>CANCEL ORDER</b>	
Shipping Date	1/1/0001		
Session Id	cs_test_b10Rg6aaihFnirq2Uev8RYATppXtoyg		
Payment Intent Id	pl_3NRG37FWblSOB4o0GeYBSgY		
Payment Date	7/7/2023		
Payment Status	Approved		
<b>UPDATE ORDER DETAILS</b>			

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Figure: Order shipping process

## CHAPTER 6

### Impact on environment and sustainability

#### 6.1 Impact on Environment

The impact of online bookshops on the environment can be both positive and negative. Let's explore some of the main aspects:

##### **Positive Impact:**

**Reduced Paper Consumption:** Online bookshops offer e-books and digital formats, which significantly reduce the demand for paper. Traditional print books require cutting down trees for paper production, while e-books eliminate this need, thus conserving forests and reducing deforestation.

**Lower Carbon Footprint:** Online bookshops can be more environmentally friendly than physical bookstores when it comes to transportation. E-books and digital downloads eliminate the need for shipping and distribution of physical books, which reduces carbon emissions associated with transportation.

**Energy Efficiency:** Compared to the energy-intensive process of printing, storing, and transporting physical books, digital books consume fewer resources. Reading an e-book on an e-reader or tablet generally has a lower environmental impact than producing a physical book.

##### **Negative Impact:**

**Energy Consumption of Digital Devices:** While e-books eliminate paper waste, the devices used to read them (e-readers, tablets, computers, smartphones) require energy for

manufacturing and continuous usage. The production and disposal of these devices can contribute to environmental issues, including electronic waste.

**Data Centers:** Digital content, including e-books, is stored in data centers that require vast amounts of electricity to operate and keep servers running 24/7. These data centers contribute to carbon emissions and water consumption.

**Packaging:** Although physical books are not the primary focus of online bookshops, some sellers may still use excessive packaging for shipping, leading to unnecessary waste.

In summary, online bookshops have the potential to reduce the environmental impact associated with traditional print books. However, they are not entirely without their own environmental challenges, especially related to electronic waste, energy consumption, and data centers.

## 6.2 Ethical Aspects

Online bookstores, like any other businesses operating on the internet, have various ethical considerations that they must address to ensure fair and responsible practices. Here are some key ethical aspects of online bookstores:

- **Privacy and Data Protection:** Online bookstores often collect personal information from customers during the registration and purchase process. It's essential for these businesses to handle customer data responsibly, protect it from unauthorized access, and be transparent about their data practices through privacy policies.
- **Security:** Ethical online bookstores should implement robust security measures to protect customer data, including encrypted transactions, secure payment gateways, and secure login systems.

- **Fair Pricing and Transparency:** Book pricing should be fair and transparent, without deceptive practices such as hidden fees or misleading discounts. The pricing should not exploit customers' lack of information or understanding.
- **Authentic Reviews and Ratings:** Online bookstores should take measures to prevent fake reviews and ratings that could deceive customers. Manipulating reviews to promote certain books or authors is unethical and erodes trust.
- **Customer Service:** Ethical online bookstores should prioritize excellent customer service. This includes promptly addressing customer inquiries, handling complaints professionally, and honoring return policies.
- **Transparency in Business Practices:** Ethical online bookstores should be transparent about their sourcing and supply chain, providing customers with information about where the books come from and the conditions under which they are produced.

By adhering to these ethical principles, online bookstores can build trust with their customers, create a positive reputation, and contribute to the overall well-being of society.

### **6.3 Sustainability Plan**

Creating a sustainability plan for an online bookstore involves addressing various environmental, social, and economic aspects of the business. Here's a comprehensive outline to get you started:

#### **Environmental Initiatives:**

- Green Web Hosting
- Energy Efficiency
- Packaging
- Reducing Emissions
- Sustainable Supply Chain

**Social Initiatives:**

- Fair Trade
- Diversity and Inclusion
- Community Engagement

**Economic Initiatives:**

- Local Suppliers
- Long-Term Approach
- Transparent Pricing
- Employee Benefits

Remember, a sustainability plan is an evolving process, and it's essential to monitor the progress regularly and adapt as needed. By incorporating these initiatives, an online bookstore can contribute positively to the environment, society, and its long-term success.

## CHAPTER 7

### Conclusion and Future Scope

#### 7.1 Conclusion of Online book Store

In conclusion, online bookstores have emerged as a powerful and transformative force in the world of literature and reading. They have revolutionized the way people discover, purchase, and enjoy books. The convenience, extensive selection, personalization, and competitive pricing they offer have made them a preferred choice for readers worldwide. The advent of digital eBooks and audiobooks has further expanded the possibilities, allowing readers to carry entire libraries in their pockets and access their favorite titles anytime, anywhere. This accessibility has democratized reading, breaking down barriers of geography and making knowledge and stories accessible to a global audience.

Despite these challenges, In the grand tapestry of literature, online bookstores have woven themselves into an essential and dynamic thread, playing a pivotal role in nurturing a love for reading and fostering a global community of book enthusiasts. As they continue to grow and adapt, the magic of books will remain alive and cherished, connecting people through the timeless pleasure of reading.

#### 7.2. Limitations and Future Development

Online bookstores offer numerous benefits and convenience for customers, but they also have some limitations. **Here are some of the common limitations of online bookstores:**

- Lack of physical browsing: Unlike brick-and-mortar bookstores, online bookstores don't provide the opportunity to physically browse through books.
- Shipping delays and costs
- Limited interaction and customer service
- Inability to support local businesses.



- Limited availability of rare or out-of-print books
- Returning books bought from an online store can be more cumbersome compared to returning them to a physical store.

Despite these limitations, online bookstores remain a popular choice for many readers due to their convenience, extensive selection, and accessibility.

As for other future developments, the following can be done:

- Customer Reviews and Ratings: Users can read reviews and ratings provided by other customers to make informed decisions about the books they want to buy.
- The search filter option will be added.
- Extensive Book Catalog
- Update user Profile

## References

- [1] Wikipedia, "HTML," Wikipedia, 1 January 2023. [Online]. Available : <https://en.wikipedia.org/wiki/HTML> [Accessed 1 January 2023].
- [2] learn.microsoft.com, "ASP.NET Core," [Documentation]. Available: <https://learn.microsoft.com/en-us/aspnet/core/getting-started/?view=aspnetcore-7.0&tabs=windows> [Accessed 05 January 2023].
- [3] W3Schools.com, "ASP.NET Introduction," W3Schools.com, [Online]. Available: [https://www.w3schools.com/asp/webpages\\_intro.asp](https://www.w3schools.com/asp/webpages_intro.asp) [Accessed 10 March 2023].
- [4] W3Schools.com, "CSS," W3Schools.com, [Online]. Available: <https://www.w3schools.com/css/default.asp> [Accessed 15 January 2023].
- [5] Microsoft SQL Server, [Online]. Available: <https://www.microsoft.com/en-us/sql-server/sql-server-downloads>
- [6] James Freeman , "Use Case Diagram," <https://www.edrawsoft.com> [Online]. Available: <https://www.edrawsoft.com/create-use-case-diagram.html>.
- [7] Lucidchart Blog, "UML Activity Diagram," <https://www.lucidchart.com/> [Online]. Available: <https://www.lucidchart.com/pages/tour>
- [8] Rokomari Online Book store," [Online] Available: <https://www.rokomari.com/book>
- [9] E-BoiGhar Online Book store," [Online] Available: <https://eboighar.com/en>
- [10] Wikipedia, "Bookselling, 1 January 2023. [Online]. Available : <https://en.wikipedia.org/wiki/Bookselling>

# Final test

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