

**Boi Bari: A web-based E-Commerce for Buying and Selling
Books**

BY

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FINAL YEAR DESIGN PROJECT REPORT

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

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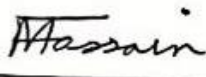
DHAKA, BANGLADESH

JULY 2024

APPROVAL

This Project titled “Boi Bari: A Web based E-Commerce for Buying and Selling Books”, submitted by Md Enamul Haque Chowdhury, ID: 201-15-3048 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 13 July 2024.

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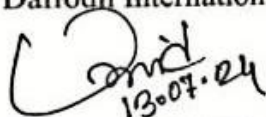
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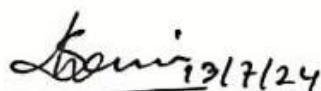
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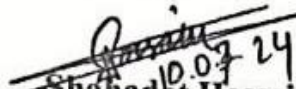
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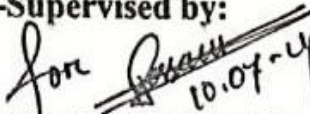
DECLARATION

We hereby declare that this project has been done by us under the supervision of **Shahadat Hossain, Lecturer (Senior Scale), Department of Computer Science and Engineering, Daffodil International University**. We also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

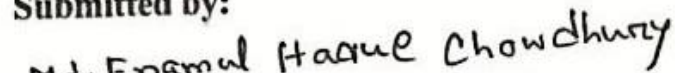
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ACKNOWLEDGEMENT

First, we express our heartiest thanks and gratefulness to almighty for His divine blessing making it possible for us to complete the final year project successfully.

We are grateful and wish our profound indebtedness to **Shahadat Hossain, Lecturer (Senior Scale)**, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of “*Web Development*” to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior drafts, and correcting them at all stages have made it possible to complete this project.

We would like to express our heartiest gratitude to **Dr. Sheak Rashed Haider Noori, Professor and Head, Department of CSE**, for his kind help in finishing our project and also to other faculty members and the staff of the Department of CSE, Daffodil International University.

We would like to thank our entire course mate in Daffodil International University, who took part in this discussion while completing the course work.

Finally, we must acknowledge with due respect the constant support and patience of our parents.

ABSTRACT

Boi Bari aims to transform book buying and selling in Bangladesh by addressing the challenges faced by book enthusiasts through a sophisticated, user-friendly platform. Leveraging advanced e-commerce technologies, it ensures a seamless user experience with secure transactions to protect user information across various devices. By conducting detailed market analysis, Boi Bari is designed to cater to the preferences of the local target market, featuring a diverse array of genres, languages, and formats. This responsive solution is tailored to the unique needs and cultural nuances of the Bangladeshi e-commerce book market. Its customer-centric design prioritizes a smooth buying and selling experience with intuitive interfaces for listing and purchasing books, ensuring a fair system for users. Secure transaction mechanisms build trust among buyers and sellers, fostering a reliable digital marketplace. Boi Bari enhances accessibility to literature, promoting local authors and publishers while creating a digital hub for e-commerce transactions. By offering a wide variety of books and facilitating easy transactions, it seeks to become the go-to platform for book enthusiasts in Bangladesh. Future plans focus on continuous updates and scalability in trading aspects, adapting to dynamic market needs and technological advancements. This forward-looking approach underscores Boi Bari's commitment to maintaining a sustained and impactful presence in the national e-commerce market. In summary, Boi Bari exemplifies innovation in book transactions, user-centric design, and dedication to meeting the evolving needs of e-commerce book enthusiasts in Bangladesh, reflecting a commitment to creating a reliable and vibrant digital marketplace for buying and selling books.

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CHAPTER 1

Introduction

1.1 Overview

In Bangladesh's hastily evolving digital landscape, Boi Bari's mission is emerging as an innovative assignment set to trade the manner people have interaction with literature. With a deep knowledge of the demanding situations of the traditional book marketplace and an insight into the growing virtual preferences of users, Boi Bari has set its points of interest on developing an online platform and it's actively shopping for and selling books. This work not only overcomes the limitations of traditional literary practices but also seeks to create a colorful network amongst the book fanatics. By encouraging local writers, offering opportunities for growth and fostering a sense of cultural identity, Boi Bari ambitions to be extra than a place for networking; It wants to be a cultural center that celebrates the wealthy literary background of Bangladesh inside the digital age. This advent acknowledges Boi Bari's motivations, goals, and predicted effect, and emphasizes its importance in shaping the future of literary communication inside the human brain as a positive impact.

1.2 Background and Present State

The book industry in Bangladesh has traditionally relied on physical bookstores and face-to-face transactions, which often limit accessibility and convenience for many readers. These traditional methods face challenges such as limited availability of diverse book titles, higher costs associated with physical stores, and logistical barriers in reaching a wider audience. Additionally, local authors and publishers struggle to gain visibility and recognition beyond their immediate geographic regions. With the advent of digital technology, there has been a noticeable shift towards online platforms for various services, including book transactions. However, the existing digital solutions in Bangladesh have not fully addressed the needs of book lovers, authors, and publishers. Many platforms lack comprehensive features that cater to the buying, selling, exchanging, and requesting of books, as well as the creation of a community-centric experience. Boi Bari seeks to fill this gap by providing a comprehensive online platform that not only facilitates book transactions but also fosters a sense of community.

and cultural identity. The current state of the project involves extensive market research, user requirement analysis, and the development of a robust, user-friendly platform designed to meet the diverse needs of Bangladeshi book enthusiasts.

1.3 Problem Statement

In the future of Boi Bari's challenge, difficult situations can arise in order to improve customer satisfaction for the purchase and marketing of the e-book without limitation. As the platform evolves, it can be important to address technical interoperability issues across multiple devices and browsers. Ensuring consistent transactions as well as ongoing compliance with information security regulations provides ongoing work. The need to analyze and adapt to market trends, customer preferences, and product development in e-commerce can be essential for sustainable value and success. In addition, encouraging active participation within network building sectors can create difficult situations, requiring strategic efforts to encourage participation. Boi Bari's future success depends on its ability to overcome these challenges, leverage technological advancements, stay compliant with regulatory requirements.

1.4 Objectives

My project is based on some important objectives and those objectives are:

- Growth accessibility: Develop a person-pleasant platform that transcends geographical obstacles, imparting human beings from numerous backgrounds in Bangladesh with smooth get entry to the proper to access a deep array of books.
- Promote local literature: Showcase and promote books via nearby authors and publishers, increasing the visibility of Bangladeshi literary talent at the country wide digital platform.
- User-Centered Experience: Create an intuitive and strong interface that ensures constant and a laugh amusement for customers engaged in buying and promoting books.

- Community building: Foster a thriving on-line community inside Boi Bari, encouraging critical discussions, collaborations, and activities that beautify the enjoy of network amongst consumers drawn to the literature.
- Adaptability and innovation: Stay at the forefront of technological advancements, adapting to evolving marketplace traits and person opportunities, ensuring platform for non-stop innovation and relevance. Education is important and this project has the proper idea of this importance.

1.5 Scope and Limitations

Boi Bari's scope consists of the creation and implementation of a new virtual platform designed for getting and promoting books in Bangladesh. The mission ambitions to conquer conventional barriers by offering users with a clean and stable person interface. Boi Bari wants to be greater than a retail saves; It seeks to heat up the literature loving network, promote local literature and make a contribution to the cultural cloth of Bangladesh. The venture includes showcasing books, assisting academic packages thru e book purchases, and partnering with community stakeholders to decorate content material Boi Bari's adaptability and regular innovation are imperative to its scope, making sure it maintains up with technological advances and person expectations. The challenge envisions comprehensive answers that not simplest facilitate the eBook change however additionally create an experience of possession and reputation for customers who're enthusiastic about books.

1.6 Report Organization

- Introduction
- Literature Review
- Requirement Analysis and Design Specification
- Implementation
- Result and Analysis
- Impact on Society, Environment, and Sustainability
- Conclusion and Future Work
- References

- Appendix A
- Plagiarism report

1.7 Summary

Boi Bari, a groundbreaking challenge in the Bangladeshi virtual industry seeks to revolutionize e book advertising and community engagement. Recognizing the limitations of traditional markets, Boi Bari goals to create a dynamic on-line platform for purchasing and selling books. Beyond networking, it desires to develop colorful communities, encourage nearby writers and enrich the literary fabric of Bangladesh. With its emphasis on accessibility and cultural identity, Boi Bari has emerged now not only as a place for enterprise however also as a cultural hub, celebrating the united literary history in the digital age. The occasion marks a main shift in how books are accessed, exchanged and celebrated.

CHAPTER 2

Literature Review

2.1 Overview

The literature evaluate for the Boi Bari task significantly examines current systems and scholarly works related to on line book interactions and network building in digital areas. By delving into the modern-day literature, this segment identifies gaps, demanding situations and possibilities inside the present-day nation of digital e book advertising. It examines a success fashions, new technologies, and techniques for network participation in on line forums. This review bureaucracy the premise for Boi Bari's development, supplying insights into excellent practices, potential pitfalls, and areas for innovation. By leveraging shared knowledge inside literature, Boi Bari targets to place itself as a contemporary answer that not most effective facilitates e book deals however additionally fosters a robust and linked community of literary enthusiasts.

2.2 Related Works

- Rokomari: These days, one of Bangladesh's top e-commerce sites is Rokomari.com. It's true that this is Bangladesh's largest online bookstore and bookseller, offering time and cost savings. With a few clicks on the computer or a quick phone call, you may purchase books online.
- Boi Bazar: In Bangladesh, Boi Bazar is an online bookseller. New, rare, and out-of-print books from thousands of national bookstores are available on this platform. Pre-order books, career event books, translations, and Islamic literature are also available on Boi Bazar.
- Books factory: The largest online book exchange, buy/sell, and purchase site in Bangladesh is booksfactory.com.bd. Purchase textbooks for comic books, novels, stories, religion, programming, children, medicine, law and justice, fiction, and all education levels while lounging at home with the largest variety of books available in any language.

2.3 Comparison between existing works

Table 2.3.1: Comparative analysis with my work

Website name	Rokomari	Boi Bazar	Books factory	Boi Bari
Homepage	Yes	Yes	Yes	Yes
Account	Yes	Yes	Yes	Yes
Categories	Yes	Yes	Yes	Yes
Must read	Yes	Yes	Yes	Yes
Best seller	Yes	Yes	Yes	Yes
Author	Yes	Yes	Yes	Yes
Publisher	Yes	Yes	Yes	Yes
Track order	Yes	Yes	Yes	Yes
Search	Yes	Yes	Yes	Yes
Contact	Yes	Yes	Yes	Yes
About	Yes	Yes	Yes	Yes

Request for books	No	No	Yes	Yes
Selling old books	No	No	No	Yes
Subscription for Selling & buying at affordable price	No	No	No	Yes
Exchange	No	No	Yes	Yes
Cart	Yes	Yes	Yes	Yes
Payment types	Yes	Yes	Yes	Yes

2.4 Open Issues

- Request for books: Boi Bari enables users to query a specific topic that is not available on the platform. Users submit requests, and Boi Bari sources these requested books to ensure a quality reading experience. This feature increases user satisfaction, keeps them engaged by satisfying their interests, and reinforces engagement. It positions Boi Bari as a functional and dynamic platform, prioritizing individual preferences and expanding its collection based on the user's needs. Those that enhance the user experience and delight the most book-oriented users.
- Selling old books: Boi Bari empowers customers to author and sell pre-produced books, supplying advantages. Vendors clean their shelves as they make money, and customers get a value-effective library, encouraging sustainability. This function creates a nearby marketplace wherein books locate new houses, benefiting each dealer and customers. Users sense valued and contribute to environmental sustainability through extending the life of books. Boi Bari helps a circular economic system in literature throughout

promoting old books aligning trade with network and sustainability. And it will likely be some of his rules which is they have to buy which they bought from our site and there will be a limit per month.

- Subscription for Selling & buying at affordable price: Those who have subscriptions they can sell any of their books supported by our guideline with no limit and they can buy a few must read items in most affordable price.
- Exchange: It's more like selling but if someone wants the can give us the book which is bought from our site and add some money to get a new book or free depends on books.

➤ **Knowledge requirements:**

- B2B: B2B means “business-to-business.” It implies transactions or encounters that take place between organizations rather than among businesses and individuals (B2C). In a B2B scenario, one business offers services, offerings, or supplies to another.
- B2C: B2C stands for “business-to-consumer.” It refers to transactions or interactions that take place between a business and individual consumers. In a B2C model, businesses sell goods, services, or products directly to end-users or individual customers.

Both these model ideas from different domain needed for making this project successful.

➤ **Needed part on field:**

- Connect with publisher and authors to get enough businesses knowledge
- Connect with a professional developer to get enough knowledge on web development

2.5 Summary

Boi Bari's literature review strategically examines existing digital literature platforms, identifying opportunities to increase interactivity, promote local literature and foster vibrant communities. Learning from the successes and shortcomings of current publications, Boi Bari is positioning itself to emerge as a leading digital platform. The review serves as a roadmap, guiding the project to not only address challenges but also incorporate best practices, ensuring that Boi Bari becomes a well-known and influential digital destination for literary enthusiasts at in the coming years.

CHAPTER 3

Requirement Analysis and Design Specification

3.1 Overview

Boi Bari's needs evaluation and layout specification is an important step in growing a dynamic digital platform. Through a comprehensive analysis of user needs, market trends, and technical concerns, the challenge defines vital features and applications. This segment entails an in-depth stakeholder discussion, person session and a detailed analysis of the current book marketplace in Bangladesh. The end result is a vast variety of necessities, along with person interfaces, protection systems, behavioral controls, and localization functions. Then, the device specification translates these necessities right into a complicated structure, and specifies the system design for a continuing user enjoy It additionally addresses security measures, facts control strategies, and network engagement techniques. The layout segment addresses the technological conditions of Bangladesh through integrating practical and person-friendly interfaces. Together, these strategies lay the muse for Boi Bari's growth, ensuring a platform that no longer simplest meets contemporary user wishes but also anticipates destiny market increase and technological tendencies, Boi Bari's modern user-centricity in the virtual eBook market in Bangladesh -positions as an answer.

3.2 System Design: Diagrams given bellow.

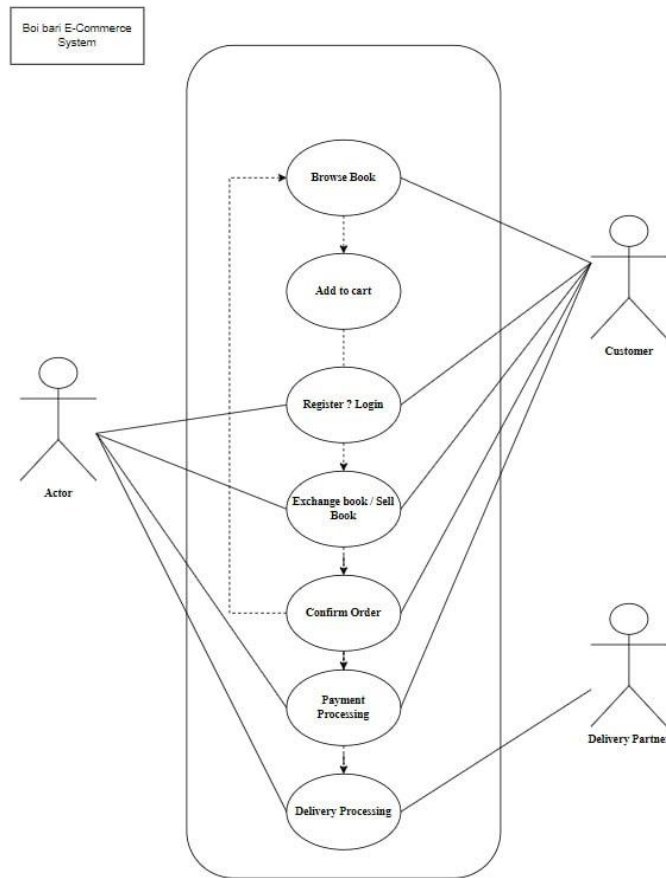


Fig 3.2.1: Use case diagram

This is a UML (Unified Modeling Language) use case diagram for the "Boi Bari" E-commerce System, which represents the interaction between different actors (users) and the system's functionalities. Here's an explanation of each component in the diagram:

➤ **Actors**

- **Customer:** A user who interacts with the system to buy, sell, or exchange books.
- **Delivery Partner:** An entity responsible for handling the delivery of books.

➤ **Use Cases**

- **Browse Book:** The customer can browse through the available books in the system.

- **Add to Cart:** The customer can add selected books to their shopping cart.
- **Register / Login:** The customer needs to register or log in to their account to proceed with further actions such as buying, selling, or exchanging books.
- **Exchange Book / Sell Book:** The customer can exchange their old books or sell them through the platform.
- **Confirm Order:** The customer confirms the order after selecting the books and adding them to the cart.
- **Payment Processing:** The system processes the payment for the confirmed order.
- **Delivery Processing:** After payment processing, the delivery partner handles the delivery of the ordered books to the customer.

➤ **Interactions**

- **Customer to System:** The customer interacts with various functionalities of the system such as browsing books, adding to cart, registering/logging in, exchanging/selling books, confirming orders, and payment processing.
- **System to Delivery Partner:** Once the payment is processed, the system interacts with the delivery partner for the delivery processing of the order.

➤ **Flow**

- **Browse Book:** The initial step where the customer browses the available books.
- **Add to Cart:** The customer adds books to their cart.
- **Register / Login:** The customer must be logged in to proceed with exchanging, selling, or purchasing books.
- **Exchange Book / Sell Book:** The customer can choose to exchange or sell their books.
- **Confirm Order:** The customer confirms their order.
- **Payment Processing:** The system processes the payment.
- **Delivery Processing:** The delivery partner processes the delivery of the ordered books to the customer.

This diagram helps in understanding the overall flow of activities and the interaction between the customer, the system, and the delivery partner in the Boi Bari E-commerce system.

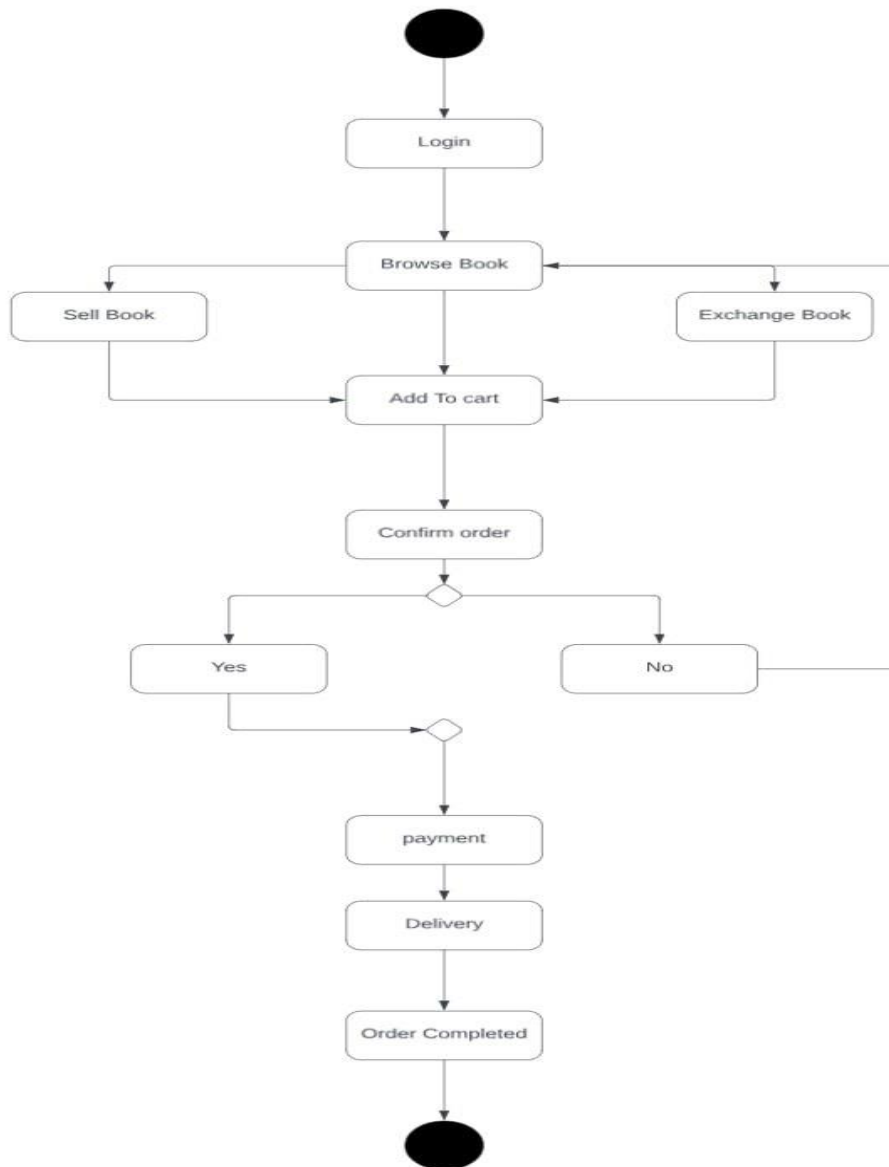


Fig 3.3.2: Activity Diagram

This is a Activity diagram for the "Boi Bari" E-commerce System, outlining the step-by-step process a user (customer) follows when interacting with the system to buy, sell, or exchange books. Here is an explanation of each step in the Activity diagram:

➤ **Activity diagram Steps**

- **Start:** The process begins (represented by the filled circle at the top).
- **Login:** The user needs to log in to their account to access the system's functionalities.
- **Browse Book:** After logging in, the user can browse through the available books in the system.
- **Sell Book:** The user can choose to sell a book. This option is accessible directly after logging in.
- **Exchange Book:** The user can choose to exchange a book. This option is also accessible directly after logging in.
- **Add to Cart:** The user adds selected books to their shopping cart after browsing.
- **Confirm Order:** The user reviews and confirms their order. At this point, the user decides whether to proceed with the order.
 - **Yes:** If the user confirms the order, the process continues to payment.
 - **No:** If the user does not confirm the order, they are redirected back to browsing books.
- **Payment:** The system processes the payment for the confirmed order.
- **Delivery:** After the payment is processed, the system handles the delivery of the ordered books.
- **Order Completed:** The process is completed when the delivery is successfully made (represented by the filled circle at the bottom).

➤ **Process Explanation**

- The Activity diagram starts with the user logging into the system.
- Once logged in, the user can browse books, sell books, or exchange books.

- If the user chooses to sell or exchange a book, those processes will be handled as separate flows.
- After selecting books, the user adds them to the cart and confirms the order.
- The system then processes the payment and handles the delivery.
- Finally, the order is completed once the books are delivered.

This Activity diagram visually represents the sequence of actions and decisions a customer makes within the "Boi Bari" E-commerce System, ensuring that all key functionalities are covered and the process flow is clear.

3.3 Hardware/ Software Requirement

Functional Requirements:

- System Feature 1: Homepage

Here a user can browse each book without creating an account.

- Description and Priority

Its priority is high. Cause without this no user can find the site useful and create an account for further purposes.

- System Feature 1: Account

If a user wants to buy a book, he or she must create an account which will be an identification for our website for each user.

- Description and Priority

Its priority is high. Cause without having an account no one can buy, sell, request and exchange.

- System Feature 1: Categories

Here someone can find the specific taste of a books for him.

- Description and Priority

Its priority is high. Without this no one can find various books on same type or genera.

- System Feature 1: Must Read

Here someone can find some books which everyone should read.

- Description and Priority

Its priority is low. If anyone wants to read most viral books, they can visit this page or section.

- System Feature 1: Author

Here sorted the books by the author's name.

- Description and Priority

Its priority is medium. It sorts all books by author name.

- System Feature 1: Publisher

Here sorted the books by a specific publisher.

- Description and Priority

Its priority is medium. It sorts all publisher by author name.

- System Feature 1: Search

Here everyone can search by book name.

- Description and Priority

Its priority is high. Without this no one can find their desired books easily.

- System Feature 1: Track Order

Here admin can track every order, like where the order is now and when the order will be delivered.

Description and Priority

Its priority is high. Most important for admin panel to track every order.

- System Feature 1: Contact

Contact for any technical help or getting suggestions

- Description and Priority

Its priority is medium. Cause if needed customers can connect with admin panels easily.

- System Feature 1: About

About the company and developers.

- Description and Priority

Its priority is low. If someone wants to know about us and our policies they can look after.

- System Feature 1: Local Search

Search for local books and authors to enrich local culture among local people.

- Description and Priority

Its priority is medium. It's given for enrich the local culture.

- System Feature 1: Sell

Someone can sell their old books.

- Description and Priority

Its priority is high. Our site offers everyone to sell their old books without this no one can sell books.

- System Feature 1: Subscription

To sell unlimited books and get discounts on books.

- Description and Priority

Its priority is medium. It's for regular customer not a single time customer. A regular customer can make profit from this feature.

- System Feature 1: Request

Can request for a desired book which is not at site.

- Description and Priority

Its priority is medium. If a customer wants a special book they can request through this feature.

- System Feature 1: Exchange

Can exchange old books and get new one by adding a few moneys or free.

- Description and Priority

Its priority could be high and medium both. Cause someone can make profit and someone can have their desired books through this feature.

- System Feature 1: Cart

Ordered item will be shown.

- Description and Priority

Its priority is high. Without this no one can purchase any item.

- System Feature 1: Payment

COD, bkash, nagad, rocket and cards.

- Description and Priority

Its priority is high. Without this no one can pay for their orders and it have to be more secured.

Non-Functional Requirement:

- Security: Ensuring robust protection of user data and system integrity through encryption, authentication, and authorization measures to prevent unauthorized access or data breaches.

- **Scalability:** Designing the system architecture to seamlessly accommodate growing user loads and increased data volume without compromising performance or responsiveness.
- **Usability:** Prioritizing an intuitive and user-friendly interface to enhance user experience, making the platform accessible and efficient for a diverse range of users.
- **Availability:** Guaranteeing consistent and reliable access to the platform, minimizing downtime, and implementing redundancy measures to ensure uninterrupted service

3.4 Project Management and Financial Analysis

3.4.1 Project Management:

- **Project Objectives:**
 - To develop a Specific website for selling, buying & exchange books.
 - To give a solution for consumers.
- **Project Timeline:**
 - **Phase 1:** Project Planning and Research (2-4 weeks)
 - **Phase 2:** Design and Prototyping (6-8 weeks)
 - **Phase 3:** Front-End Development (8-12 weeks)
 - **Phase 4:** Back-End Development (13-18 weeks)
 - **Phase 5:** Testing (18-20 weeks)
 - **Phase 6:** Deployment (19-21 weeks)
 - **Phase 7:** Post-Launch and Marketing (Ongoing)
- **Resource Planning:**
 - **Equipment and Tools:**

- Development and Testing Servers
 - High-performance Computers for Development Team Design software.
 - Collaboration Tools.
 - Version Control System. (Git)
 - Testing Tools (Selenium for automated testing)
- **Software and Technologies:**
 - Front-End Technologies (HTML, CSS, Bootstrap, Tail-wind)
 - Back-end technologies (Django jazzmine)
 - Database Management System.
 - Server Hosting (AWS, Azure, or Google Cloud)
 - Payment Gateway Integration (COD, Bkash, Nagad)
 - Security Software and SSL Certificates
- **Data and Content:**
 - Product Data: Provided by Boi Bari.
 - Product Images: Provided by Boi Bari or obtained through agreements with the customer, publisher & Author.
 - User Documentation: Prepared by the technical writing team.
- **Training and Skill Development:**
 - Ensure the development team has the necessary training and skills in e-commerce development, security, and database management.
 - Provide additional training on specific technologies and tools as needed.

- **Risk Management:** SWOT analysis involves assessing the Strengths, Weaknesses, Opportunities, and Threats of a project. Here's a SWOT analysis for the Boi Bari: A Web based E-Commerce for Buying and Selling Books:

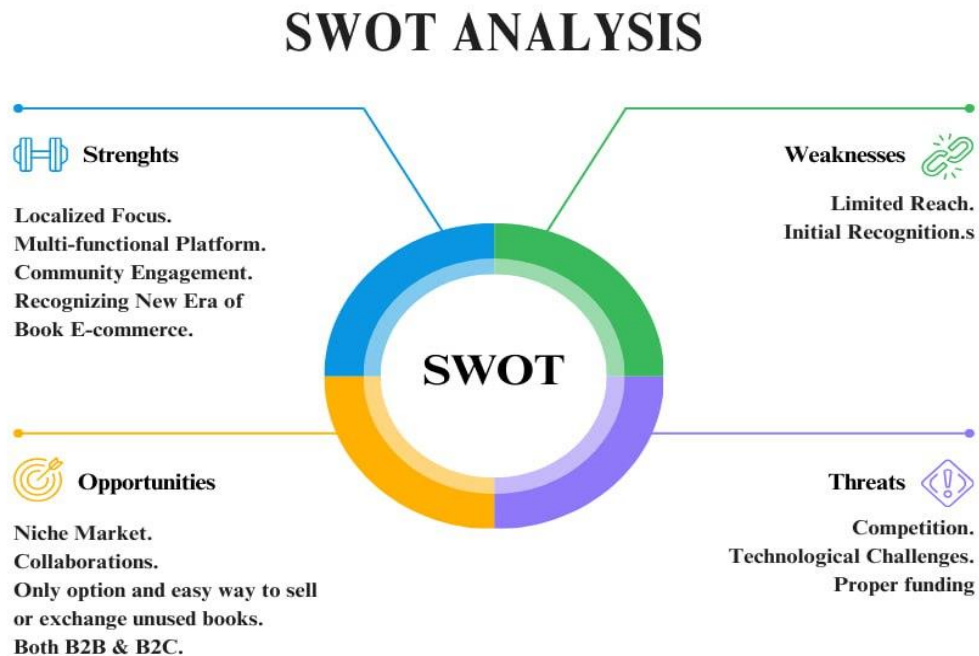


Fig 3.4.1.1: SWOT analysis

- **Communication Plan:**
- Stakeholder Meetings: Purpose: Update stakeholders on project requirements, gather progress and gather feedback.
 - Participants: Team members and stakeholders.
 - Frequency: Bi-weekly or as specified in the project plan.
 - **Change Control Meetings:**
 - Purpose: Discuss and approve any changes to the project scope or requirements.
 - Participants: Supervisor and team members.

1. SN	Components	Estimated Cost (BDT)
1	Domain and Hosting	5000-5500
2	Visiting publishers	6000-6500
3	Doing Online Course or Training for learning new technology	4000-5000
4	Miscellaneous (e.g., licenses, tools)	7000-8000
5	Contingency	2200-2300
Total Estimated Cost		24200-27300

3.4.1.2: Financial analysis

This section details the estimated costs associated with setting up and running the "Boi Bari" E-commerce System. The financial analysis breaks down the costs into specific components and provides an overall estimate for the project.

Cost Breakdown

➤ Domain and Hosting:

- **Estimated Cost:** 5000-5500 BDT
- **Description:** This cost covers the purchase of a domain name and web hosting services for the e-commerce platform. This is a recurring cost, usually paid annually.

➤ Visiting Publishers:

- **Estimated Cost:** 6000-6500 BDT
- **Description:** This includes travel and accommodation expenses for meeting with book publishers. The goal is to establish relationships and negotiate terms for listing their books on the platform.

- **Online Courses or Training for Learning New Technology:**
 - **Estimated Cost:** 4000-5000 BDT
 - **Description:** Investment in online courses or training sessions to learn new technologies that will enhance the development and functionality of the e-commerce system. This may include learning advanced features of Django, Tailwind, or other relevant tools.
- **Miscellaneous (e.g., Licenses, Tools):**
 - **Estimated Cost:** 7000-8000 BDT
 - **Description:** Covers various miscellaneous expenses such as software licenses, development tools, and other necessary resources that support the project's development and maintenance.
- **Contingency:**
 - **Estimated Cost:** 2200-2300 BDT
 - **Description:** A buffer to cover unexpected costs or overruns in the project. This ensures that the project can handle unforeseen expenses without financial strain.
- **Total Estimated Cost**
 - **Range:** 24200-27300 BDT
 - This range reflects the sum of all estimated costs, providing a comprehensive view of the financial requirement for the "Boi Bari" E-commerce System project.

3.5 Summary Table

Boi Bari's upcoming phases involve careful needs analysis and design specification expected as a dynamic digital platform. User needs, market trends and technological developments will shape key roles, ensuring that Boi Bari not only delivers but exceeds future user expectations. The design specification will consist of a complex architectural design, including functional connections and detailed safety measures.

CHAPTER 4

Implementation

4.1 Overview

This chapter covers the prototype design and system testing processes for the Boi Bari online bookshop project. These steps are crucial to ensure the platform is robust, user-friendly, and capable of handling varying traffic loads while maintaining security and reliability.

4.2 Prototype Design

The prototype design for the Boi Bari project involved creating a detailed blueprint of the platform's user interface and user experience. The primary focus was on developing a seamless and intuitive navigation system that allows users to buy, sell, exchange, and request books effortlessly.

- **User Interface (UI) Design:** Using HTML and CSS, we created the fundamental structure and styling of the platform. Bootstrap and Tailwind were employed to enhance the UI, ensuring it is responsive and visually appealing across different devices and screen sizes.
- **Backend Development:** Django was used as the framework for backend development, providing a robust and scalable foundation for the platform. The database schema was designed to manage user data, book listings, transactions, and community interactions efficiently.
- **Interactive Features:** The prototype included interactive features such as search functionality, book categorization, user profiles, and real-time notifications. These features were tested for usability and performance.
- **Testing Framework:** Django Jasmine was integrated to automate the testing process. This framework allowed for continuous testing and validation of the codebase, ensuring that new features did not introduce bugs or regressions.

4.3 System Testing

System testing is the second step, evaluating how Boi Bari responds to different traffic loads and ensuring it remains stable and efficient. The testing process focused on several key aspects:

- **Load Testing:** We simulated various traffic loads to assess the platform's scalability. This involved testing the system with different numbers of concurrent users to ensure it can handle peak traffic without performance degradation.
- **Stress Testing:** Stress tests were conducted to determine the platform's breaking point. This helped identify potential vulnerabilities in the system's infrastructure and areas that require optimization.
- **Security Testing:** We performed rigorous security testing to identify and mitigate vulnerabilities in data management and transactions. Ensuring user data privacy and secure transactions was a top priority.
- **Usability Testing:** User feedback was collected through usability testing sessions to refine the user experience. This involved observing users as they navigated the platform and identifying areas for improvement.
- **Performance Monitoring:** Continuous monitoring tools were implemented to track the system's performance in real-time. This allowed for proactive identification and resolution of issues before they impacted users.

4.4 Summary

The implementation and testing phases of the Boi Bari project focused on creating a scalable, secure, and user-friendly platform. The prototype design utilized modern web technologies to build an intuitive interface, while system testing ensured the platform's scalability under different traffic volumes. Security measures were rigorously tested to protect user data and transactions. The insights gained from these processes were instrumental in refining the platform, addressing vulnerabilities, and ensuring a robust and reliable user experience.

CHAPTER 5

Result and Analysis

5.1 Overview

In this chapter, I cover the experimental testing and performance evaluation of the Boi Bari platform. These steps are essential for understanding how the system operates under various conditions and ensuring it meets the desired standards of reliability, efficiency, and user satisfaction.

5.2 Experimental:

The experimental phase involved comprehensive testing of the Boi Bari platform to ensure all functionalities work as intended and to identify any areas needing improvement. The testing process was divided into several key components

- **Unit Testing:** Each individual component of the platform was tested in isolation to verify that it functions correctly. This included testing Django models, views, and templates. Automated tests using Django Jasmine ensured that any changes to the codebase did not introduce new issues.
- **Integration Testing:** This phase tested the interactions between different components of the platform. It ensured that the frontend (HTML, CSS, Bootstrap, Tailwind) and backend (Django) worked seamlessly together, providing a cohesive user experience.
- **Functional Testing:** Functional tests were conducted to validate that the platform's features, such as book buying, selling, exchanging, and requesting, operated as expected. These tests simulated real-world usage scenarios to ensure the platform's functionality.
- **Load Testing:** Load tests assessed the platform's ability to handle multiple users simultaneously. We simulated various traffic loads to measure response times and identify performance bottlenecks. This testing helped ensure the platform's scalability.
- **Security Testing:** Security tests focused on identifying and mitigating potential vulnerabilities in the platform. We tested for common security issues such as SQL

injection, cross-site scripting (XSS), and cross-site request forgery (CSRF). Ensuring the protection of user data and secure transactions was a priority.

- User Acceptance Testing (UAT): UAT involved real users testing the platform to provide feedback on usability and overall experience. This feedback was invaluable for making user-centered improvements to the platform.

5.3 Performance

System performance evaluation focused on ensuring that Boi Bari operates efficiently under varying conditions and provides a seamless experience to its users. Key performance metrics were analyzed, including:

- Response Time: The average time taken to load pages and execute user actions was measured. Optimizations were made to reduce response times, ensuring a fast and responsive user experience.
- Scalability: The platform's ability to scale with increasing user numbers and data volume was tested. The system was monitored for performance degradation under high traffic loads, and improvements were made to maintain performance.
- Resource Utilization: CPU, memory, and bandwidth usage were monitored to ensure efficient resource utilization. This helped in optimizing server configurations and reducing operational costs.
- Error Rate: The frequency and types of errors encountered by users were tracked and analyzed. Steps were taken to minimize errors and improve system stability.
- Throughput: The number of transactions processed by the platform in a given time period was measured. This metric helped in understanding the platform's capacity and planning for future growth.

The performance testing phase highlighted the strengths of the Boi Bari platform and identified areas for improvement. Continuous monitoring and iterative optimization ensured that the platform remains robust, efficient, and capable of delivering a high-quality user experience.

➤ **Manual Testing:**

- **Password Match:** A password matching test verifies whether a user's entered password matches the stored password for their account. It typically involves hashing the entered password and comparing it to the stored hash to ensure security. This process helps protect user accounts from unauthorized access. I've completed the test successfully.
- **Username Match:** A username matching test verifies that a chosen username is unique and conforms to specific criteria on a platform or website. This typically involves checking if the username already exists in the database, ensuring it meets length and character requirements, and confirming it doesn't contain prohibited terms. The goal is to provide users with a smooth registration experience while maintaining system integrity. My username test was also successful every time.
- **Button Working Test:** A button working test on a website involves checking if all buttons function as intended. This includes verifying that they trigger the correct actions, navigating to the right pages, and displaying necessary responses or feedback. The test ensures usability and proper functionality across different devices and browsers. My every button is also working properly.
- **Page linking Test:** The page linking test on a website involves checking that all internal and external links function correctly and direct users to the intended pages. This includes verifying that links are not broken, ensuring proper navigation between pages, and confirming that external links lead to valid and relevant sites. It's an essential part of website testing to enhance user experience and SEO performance. My all pages are linked and work properly.

5.4 Summary

The test reports and outcomes for "Boi Bari" show that the system, integration, & unit testing are completed successfully. They exhibit strong functionality, adherence to security regulations, and favorable comments from users, guaranteeing a dependable and superior platform. Test reports and findings offer vital documentation of the testing procedure, including the problems found, their effect on the program, and suggested enhancements.

CHAPTER 6

Impact on Society, Environment, and Sustainability

6.1 Impact on Life

The addition of sophisticated features in "Boi Bari" significantly enhances the customer experience and builds confidence in online transactions. By providing a seamless and user-friendly platform for buying, selling, exchanging, and requesting books, users can enjoy a more convenient and efficient process. The integration of AI for personalized recommendations ensures that users find books tailored to their interests, improving satisfaction and engagement. Additionally, features such as secure payment systems and transparent order tracking increase customer trust and loyalty.

6.2 Impact on Society & Environment

6.2.1 Impact on Society

The implementation of "Boi Bari" holds significant potential for positively impacting society in several ways:

- **Enhanced Efficiency:** The platform simplifies book transactions, saving time for both buyers and sellers. It streamlines the process of finding, purchasing, selling, and exchanging books, reducing the complexity associated with traditional methods.
- **Accessibility:** The user-friendly interface and accessibility features ensure that a wide range of users, including those with disabilities, can access and use the platform effectively.
- **Support for Local Writers and Publishers:** By providing a marketplace for local authors and publishers, "Boi Bari" promotes local literature and supports the growth of the literary community in Bangladesh.
- **Community Building:** The platform encourages the formation of vibrant communities where book lovers can connect, discuss, and share their favorite

reads, fostering a culture of reading and learning.

- **Economic Impact:** The platform can stimulate the local economy by creating opportunities for small businesses, authors, and publishers to reach a wider audience and increase their sales.

6.2.2 Impact on the Environment

"Boi Bari" can positively benefit the environment in several ways:

- **Reduced Paper Consumption:** By digitizing book transactions and providing electronic receipts, the platform reduces the need for printed materials, conserving paper and cutting down on waste.
- **Optimal Resource Utilization:** The platform's efficient management of book inventory and transactions can minimize unnecessary transportation and storage, reducing the carbon footprint associated with logistics.
- **Promotion of Sustainable Practices:** "Boi Bari" can encourage users to choose environmentally friendly options, such as e-books or second-hand books, thereby reducing the demand for new book production and its associated environmental impact.
- **Data-Driven Sustainability Measures:** By analyzing transaction data, the platform can identify trends and promote sustainable practices, such as recommending eco-friendly packaging options for shipped books.

6.3 Ethical Aspects

The development and implementation of "Boi Bari" involve various ethical considerations:

- **Data Privacy and Security:** Ensuring strong security and privacy protocols to safeguard user data, including personal information and payment details.

Compliance with data privacy laws and obtaining explicit user consent for data collection and usage.

- **Transparency and User Consent:** Providing clear information about data usage, privacy policies, and terms of service. Obtaining explicit consent from users before collecting and using their data.
- **Fair and Unbiased Recommendations:** Ensuring that book recommendations are impartial and not influenced by commercial interests. Promoting a diverse range of authors and books.
- **Accessibility:** Designing the platform to be inclusive and accessible to all users, including those with disabilities, in compliance with accessibility standards.
- **Responsible AI Use:** Implementing AI and machine learning ethically, ensuring that personalized recommendations respect user privacy and do not manipulate user choices.
- **Accountability and Transparency:** Maintaining transparency in business practices, including pricing, services offered, and customer support. Avoiding deceptive practices.
- **Environmental Responsibility:** Promoting sustainable practices and eco-friendly options within the platform, such as recommending sustainable book sources and packaging.
- **Cultural Sensitivity:** Respecting cultural differences and ensuring that content and recommendations are appropriate for a diverse user base.

By incorporating these ethical principles, "Boi Bari" can build trust and integrity among its users and stakeholders.

6.4 Sustainability Plan

Developing a sustainability strategy for "Boi Bari" involves implementing measures to ensure long-term sustainability, reduce environmental impact, and promote ethical behavior. This plan includes:

6.4.1 Environmental Sustainability:

- **Reducing Carbon Footprint:** Encourage users to choose eco-friendly options such as e-books and second-hand books. Promote efficient logistics to minimize transportation emissions.
- **Eco-Certified Partnerships:** Partner with eco-friendly suppliers and publishers to promote sustainable choices.
- **Carbon Offset Programs:** Offer options for users to contribute to environmental causes or participate in carbon offset programs during transactions.

6.4.2 Responsible Data Handling:

- **Privacy Compliance:** Regularly update privacy policies and ensure compliance with international data protection laws to protect user privacy.
- **Data Encryption and Security:** Continuously improve data encryption and security measures to protect user data from breaches.
- **Data Minimalism:** Adhere to data minimization principles, collecting and retaining only the necessary amount of user data.

6.4.3 Social Responsibility:

- **Enhance Accessibility:** Continuously improve the platform's accessibility features to ensure it is usable by people with disabilities.
- **Community Engagement:** Support local communities through charitable initiatives, promoting cross-cultural interactions, and boosting local literature.

6.4.4 Continuous Improvement:

- User Feedback Integration: Regularly collect and incorporate user feedback to enhance platform features and meet user needs.
- Innovation and Adaptation: Keep up with technological advancements and integrate new features to enhance user experience and platform efficiency.
- Monitoring and Reporting: Regularly monitor and report on privacy compliance, user satisfaction, and environmental impact.

6.4.5 Ethical Business Practices:

- Transparent Practices: Maintain transparency in pricing, services, and business practices to build consumer trust and loyalty.
- Fair Partnerships: Foster ethical business relationships with suppliers and stakeholders.

6.4.6 Employee Engagement:

- Training and Awareness: Provide employees with training on ethical conduct and sustainable practices to promote a culture of responsibility.
- Well-being Programs: Support employee well-being and work-life balance through various programs.

The sustainability plan aims to guide "Boi Bari" in maintaining ethical standards and continuous improvement while aligning the platform's growth with responsible and sustainable values.

6.5 Summary

"Boi Bari" is a transformative platform for the Bangladeshi book market, offering a comprehensive solution for buying, selling, exchanging, and requesting books. By integrating advanced features and maintaining a focus on user experience, the platform boosts consumer confidence and supports small businesses. Its impact extends beyond commerce, fostering community engagement and promoting local literature. As it evolves, "Boi Bari" aims to expand its reach, implement sustainable practices, and maintain ethical standards, ensuring long-term success and positive societal impact.

CHAPTER 7

Conclusion and Future Work

7.1 Conclusions

Boi Bari, a groundbreaking challenge in the Bangladeshi virtual industry seeks to revolutionize the book advertising and community engagement. Recognizing the limitations of traditional markets, Boi Bari goals to create a dynamic on-line platform for purchasing and selling books. Beyond networking, it desires to develop colorful communities, encourage nearby writers and enrich the literary fabric of Bangladesh. With its emphasis on accessibility and cultural identity, Boi Bari has emerged now not only as a place for enterprise however also as a cultural hub, celebrating the united literary history in the digital age. The occasion marks a main shift in how books are accessed, exchanged and celebrated.

7.2 Further Suggested Works

"Boi Bari: A web-based E-Commerce for Buying and Selling Books " presents several prospects for additional development and improvement:

- **Integration of AI and Machine Learning:** Investigate how to use AI and Machine Learning methods to improve the precision and individualization of books suggestions while continually enhancing the platform's recommendation engine.
- **Introduce augmented reality (AR) and virtual reality (VR) elements** for immersive experiences, enabling customers to virtually explore book stories or lodging alternatives before making a step of buying.
- **Blockchain Technology Integration:** Apply blockchain to improve trust and security in payments and data management through transparent and safe transactions.
- **Enhanced Sustainability Features:** Expand eco-friendly alternatives and environmental activities and further encourage partnerships and exchange options that are sustainable.
- **Global Expansion:** Increase the platform's accessibility to a wider range of foreign users by adding new languages, currencies and books information particular to other regions.
- **Voice-Activated Assistance:** Increase accessibility and convenience by introducing voice-

activated tools for hands-free processing.

- Constant Security Measures: Use cutting-edge security procedures to secure user data while keeping up with the ever-changing dangers of cybersecurity.

By adopting these chances for growth, "Boi Bari" may transform into a more inventive and all-encompassing books requesting, buying and selling platform that provides improved functionality, more accessibility, and a more satisfying user experience for tourists everywhere.

7.3 Limitations/ Conflict of Interests

7.3.1 Limitations

While Boi Bari aims to be a comprehensive platform for book lovers in Bangladesh, there are several limitations and challenges that must be acknowledged by us:

- Technology Adoption:
 - Digital Divide: Not all potential users have access to reliable internet or are comfortable with digital platforms, which could limit the reach of Boi Bari.
 - Technical Challenges: Implementing advanced technologies like AI, AR/VR, and blockchain can be complex and resource-intensive.
- Market Competition:
 - Established Competitors: Boi Bari will face competition from existing online marketplaces and bookstores that already have a significant user base.
 - Pricing Strategies: Competing with well-established platforms on price while maintaining profitability can be challenging.
- Content and Censorship:
 - Regulatory Compliance: Ensuring that all content complies with local regulations and censorship laws could restrict some aspects of the platform's offerings.
 - Content Quality: Maintaining high-quality content and preventing the sale of counterfeit or low-quality books can be difficult.
- Logistics and Distribution:
 - Delivery Infrastructure: Efficient logistics and delivery networks are crucial for timely deliveries, which can be challenging in certain regions of Bangladesh.

- Return and Exchange Policies: Managing returns and exchanges efficiently to ensure customer satisfaction while controlling costs.
- User Engagement:
 - Community Building: Developing and sustaining an active and engaged community of readers and writers requires continuous effort and innovative engagement strategies.
 - User Retention: Keeping users engaged and ensuring they return to the platform regularly can be challenging, especially in a competitive market.

7.3.2 Conflict of Interests

Boi Bari must be mindful of potential conflicts of interest that could arise:

- Author and Publisher Relations:
 - Fair Compensation: Ensuring fair compensation for authors and publishers is crucial, particularly if the platform takes a commission on sales.
 - Content Bias: Avoiding biases in content promotion and ensuring equal visibility for all authors and publishers regardless of their affiliation with the platform.
- Data Privacy:
 - User Data Use: Balancing the use of user data for personalized recommendations and marketing with the need to protect user privacy and comply with data protection laws.
 - Third-Party Access: Managing relationships with third-party service providers to ensure user data is not misused or exposed to unnecessary risks.
- Commercial Interests:
 - Advertising and Sponsorship: Transparency in advertising and sponsorship deals to avoid compromising the platform's integrity and trustworthiness.
 - Editorial Independence: Maintaining editorial independence and ensuring that commercial interests do not influence the platform's content and community initiatives.

By recognizing and addressing these limitations and potential conflicts of interest, we can build Boi Bari a more resilient and trustworthy platform that better serves its users and stakeholders.

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Appendix A

Course Outcomes, Complex Engineering Problems (EP) and Complex Engineering Activities (EA) Addressing

Title: Boi Bari: A web-based E-Commerce for Buying and Selling Books

Students ID: 201-15-3045

CO Description for FYDP

CO	CO Descriptions	PO
Phase -I		
CO1	Integrate recently gained and previously acquired knowledge to identify a web based travel management problem for the Final Year Design Project (FYDP)	PO1
CO2	Analyze different aspects of the goals in designing a solution for this FYDP	PO2
CO3	Explore diverse problem domains through a literature review, delineate the issues, and establish this goals for the FYDP	PO4
CO4	Perform economic evaluation and cost estimation and employ suitable project management procedures throughout the development life cycle of the FYDP	PO11
Phase -II		
CO5	Design and develop technical solutions and system components or processes that meet specified requirements, ensuring compliance with public health and safety standards, as well as considering cultural, socioeconomic, and environmental factors in this FYDP	PO3
CO6	Choose and apply appropriate methodologies, resources, and contemporary engineering and IT technologies to address complex engineering processes, encompassing prediction and modeling, while adhering to relevant constraints in this FYDP	PO5
CO7	Analyze societal, health, safety, legal, and cultural considerations, along with associated responsibilities, in the context of professional engineering practice and the resolution of this problem, employing logical reasoning guided by contextual understanding.	PO6
CO8	Comprehend and evaluate the enduring sustainability and impact of professional engineering endeavors in addressing intricate engineering challenges within social and environmental frameworks.	PO7
CO9	Implement ethical principles and adhere to professional standards and norms in this FYDP	PO8
CO10	Capable of operating proficiently both individually and as a team member or leader across diverse teams and interdisciplinary settings in this FYDP.	PO9
CO11	Proficiently communicate with the engineering community and broader society regarding complex engineering endeavors, including the ability to comprehend and generate comprehensive reports and design documentation, as well as provide and receive clear instructions throughout this FYDP.	PO10

CO12	Acknowledge the importance of self-directed and life-long learning within the evolving landscape of technology, and possess the readiness and capability to engage in lifelong learning endeavors.	PO12
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Addressing CO (1 to 8), Knowledge Profile (K), Attainment of Complex Engineering Problems (EP), and Attainment of Complex Engineering Activities (EA)

Addressing CO (1 to 8), Knowledge Profile (K), Attainment of Complex Engineering Problems (EP):

SN	EP Definition	Attainment	CO	Justification (with Knowledge Profile)	References
1.	EP1: Depth of Knowledge required	Yes	CO1, CO2, CO3, CO5, CO6, CO7 and CO8	The project covers Engineering Fundamentals (K3) through process modeling, data design, and front-end development, showcasing the application of strong engineering principles. The project tackles Specialist Knowledge (K4) by integrating front-end and back-end design, interaction design, and user experience (UX), utilizing HTML, CSS, Django, Django Jasmine, Bootstrap, and Tailwind for both front-end and back-end development. This demonstrates expertise in developing a comprehensive web-based bookshop platform, encompassing buying, selling, exchanging, and requesting books.	Page no: [10-24,27-28] Section: [3.1, 3.3, 3.4, 5.1, 5.2] Page no: [25-29], Section: [4.1, 4.2, 4.3, 5.1, 5.2, 5.3]
				The project applies engineering practice and design (K5) by integrating design requirements such as user interface, security, scalability, customization, compatibility, accessibility, and reliability, ensuring a robust and user-centric bookshop platform aligned with design principles. The project addresses	Page no: [10-24], Section: [3.1, 3.3, 3.4, 3.5]

				engineering practice and technology (K6) by employing HTML, CSS, Django, Django Jasmine, Bootstrap, and Tailwind, emphasizing safe and scalable development with Django's MVC framework and related tools.	Page no: [25-26], Section: [4.1, 4.2, 4.3, 4.4]
				My project involves researching literature on K8 by reviewing similar platforms, conducting UI/UX studies, evaluating security protocols, exploring personalization algorithms, and analyzing industry trends. This research aims to inform the integration of innovative features into the system, ensuring informed decision-making throughout the development process.	Page no: [5-8], Section: [2.2, 2.3]
2.	EP2: Range of Conflicting Requirements	Yes	CO2, and CO7	My project tackles EP-2 by addressing challenges such as integrating diverse features while prioritizing user experience, balancing security with functionality, ensuring scalability and real-time data synchronization, adapting to evolving industry standards and privacy regulations, and implementing effective recommendation systems. This is achieved through careful planning, flexible development strategies, and continuous adaptation.	Page no: [7-8] Section: [2.4]
3.	EP3: Depth of analysis required	Yes	CO2, and CO6	This project aims to develop an online book shop platform where customers can buy, sell, exchange, and request books. It focuses on enhancing user experience through contemporary front-end design solutions. For the backend, Django and Django Jasmine are used to ensure optimized user interaction, platform accessibility, and scalability, addressing various challenges in the process.	Page no: [25-26], Section: [4.2, 4.3]

4.	EP4: Familiarity of Issues	Yes	CO8	The project fulfills EP-4 by integrating insights from book retail into development, optimizing processes for buying, selling, exchanging, and requesting books, enhancing user experience, ensuring data security, and contributing to efficiency within the book retail industry. It bridges technical expertise with domain-specific knowledge for impactful solutions.	Page no: [5, 7-8], Section: [2.2, 2.4]
5.	EP5: Extends of application codes	No	CO5	N/A	N/A
6.	EP6: Extends of stakeholders involved and conflicting requirements	No	CO8	N/A	N/A
7.	EP7: Interdependence	Yes	CO5	The project meets CEP, EP-7 by addressing high-level challenges throughout its stages, ensuring data integrity, security, and performance in database implementation for book buying, selling, exchanging, and requesting processes. It optimizes user experience through intuitive front-end design and conducts comprehensive testing to ensure robust functionality.	Page no: [27-28], Section: [5.1, 5.2]

Addressing CO11 with Complex Engineering Activities (EA) [Some or all of the following]:

SN	EA Definition	Attainment	CO	Justification	References
1.	EA1: Range of resources	Yes	CO11	The development of this online book shop platform leverages a skilled team specializing in domains such as web development, user experience design, and database management. It involves meticulous financial resource allocation for infrastructure, marketing, and development needs specific to book retail. Tools like Django, Django Jasmine, Bootstrap, and Tailwind are utilized alongside programming languages, frameworks, and databases to ensure effective execution.	Page no: [25] Section: [4.2]
2.	EA2: Level of interaction	No		N/A	N/A
3.	EA3: Innovation	No		N/A	N/A

4.	EA4: Consequences for society and the environment	Yes		This project emphasizes societal impact by promoting literacy, supporting sustainable book practices, and ensuring ethical considerations such as strong security, privacy, and transparent business practices. It aims to foster community well-being and environmental stewardship through its initiatives	Page no: [31-33], Section: [6.1, 6.2, 6.4]
5.	EA-5: Familiarity	Yes		The Comparative Analysis for this online book shop platform evaluates market competitors like Rokomari, Boi Bazar & Books Factory to highlight Boi Bari's unique features in book retail, including security, personalization, and customer engagement. This analysis enriches market understanding and informs strategic decisions aimed at enhancing competitiveness and value proposition in the online book retail sector.	Page no: [5-7], Section: [2.1, 2.3]

Addressing CO (4, 9, 10, and 12):

SN	COs	Attainment	Justification	References
1	CO4	Yes	The project captures CO4 by integrating financial management practices tailored to the online book shop platform, including budgeting, resource allocation for infrastructure and development, cost management for operational efficiency, and risk mitigation strategies. It ensures efficient fund distribution, monitors expenditures, and identifies optimization areas while	Page no: [20-24], Section: [3.4]

			maintaining high-quality service delivery in the book retail sector.	
2	CO9	Yes	The project upholds ethical practices in the online book shop platform by prioritizing user privacy, maintaining transparency in data usage, providing fair book recommendations, respecting cultural sensitivities, and promoting accessibility. These efforts foster trust, transparency, and integrity among stakeholders in the book retail community.	Page no: [32-33] Section: [6.3]
3	CO10	No	N/A	N/A
4	CO12	Yes	The implementation phase of the online book shop platform emphasizes lifelong learning through diverse testing protocols, automated frameworks, and CI/CD pipelines. This approach ensures ongoing improvement and adaptation to emerging trends in book retail technology, with results analysis continuously refining the platform for enhanced effectiveness.	Page no: [27-29], Section: [5.1, 5.2, 5.3]

boi bari

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