



Tribhuvan University

Institute of Science and Technology

Godawari College

A Final Year Internship Proposal

On

“BookBazzar” An Online Book Store

At

“Swoniga Technology - Inspiration Technology”

Submitted To

Department of Computer Science and Information Technology

Godawari College

Itahari, Sunsari

In partial fulfillment of the requirement for the degree of Bachelor of Science in
Computer Science and Information Technology (BSc.CSIT)

Submitted By

Roman Shrestha

TU Symbol Number: 21463/075

03 October 2023



TRIBHUVAN UNIVERSITY

MENTOR'S RECOMMENDATION

I am pleased to strongly recommend **Mr. Roman Shrestha**, who has completed a three-month internship as a Frontend Developer at our firm. Throughout his tenure, Mr. Shrestha exhibited exceptional dedication and proficiency in his work, consistently meeting the diverse needs of our organization.

At Swoniga Technology- Inspiration Technology, **Mr. Shrestha** actively engaged in our daily routines, demonstrating his commitment to contributing effectively to our team. He effectively communicated with clients, ensuring a clear understanding of their requirements.

Despite his relatively short time with us, **Mr. Shrestha** swiftly proved himself an invaluable asset to our firm. His skills, dedication, and adaptability significantly impacted our projects and contributed to our overall success. He has the potential for continued growth and achievement in his professional endeavours.

Mr. Binod Bhagat

Chief Executive Officer (CEO)

Biratnagar Line,

Itahari-06, Sunsari



TRIBHUVAN UNIVERSITY

SUPERVISOR'S RECOMMENDATION

I am writing to formally recommend the report submitted by **Mr. Roman Shrestha** (21463/075) for evaluation as part of his pursuit of a B.Sc. degree in Computer Science and Information Technology (BSc.CSIT). I had the privilege of supervising **Mr. Shrestha** throughout the preparation of this report.

Under my guidance, **Mr. Shrestha** meticulously worked on the report, demonstrating high commitment and dedication. He displayed a strong understanding of the subject matter and diligently applied his knowledge to produce a comprehensive and well-structured document.

Mr. Pratik Gautam

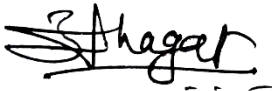
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EXAMINERS' APPROVAL LETTER

The undersigned certify that they have read and recommended to the Department of Computer Science and Information Technology for acceptance of an internship report entitled “**BookBazzar – An Online Book Shop**” submitted by **Mr. Roman Shrestha** in partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science and Information Technology (B.Sc. CSIT) awarded by Tribhuvan University.

 <p>-----</p> <p style="text-align: center;">Mr. Binod Bhagat Mentor / CEO Swoniga Technology Itahari-6, Sunsari</p>	<p>-----</p> <p style="text-align: center;">Mr. Pratik Gautam Program Coordinator Godawari College Itahari, Sunsari</p>
<p>-----</p> <p style="text-align: center;">Mr. Pratik Gautam Intern Supervisor Department of CSIT Godawari College</p>	<p>-----</p> <p style="text-align: center;">External Examiner IOST, Tribhuvan University Kirtipur, Nepal</p>

ACKNOWLEDGEMENT

I want to extend my heartfelt gratitude and appreciation to those who have contributed to completing my internship project report successfully. First and foremost, I would like to offer my sincerest appreciation to **Mr. Pratik Gautam**, my internship supervisor, for their constant support, advice, and expertise throughout my internship. Their excellent thoughts, critical input, and continual support have been influential in defining the path and conclusion of my research. I am grateful for their mentorship and the opportunity to learn and grow under their supervision.

I would also like to acknowledge the entire Swoniga Technology – An Inspiration Technology team for providing me with a stimulating and supportive work environment during my internship. Their collective knowledge, expertise, and willingness to share their insights have significantly contributed to my professional development. I am grateful for the collaborative atmosphere that fostered teamwork and creativity, allowing me to immerse myself in the project entirely.

Furthermore, I want to acknowledge my friends and family for their constant support, understanding, and encouragement throughout my internship. Their trust in my ability and ambition has motivated me continually.

Lastly, I would like to acknowledge the academic institution that facilitated my internship program and allowed me to gain practical experience in the field. The knowledge and skills acquired during my academic studies laid the foundation for my successful participation in the internship program.

Thank you for your unwavering support, guidance, and belief in my abilities.

Thanking You,

Roman Shrestha

(T.U. Exam Roll No. 21463/075)

ABSTRACT

This internship report presents the development and implementation of **BookBazzar**, an online bookshop, as part of the internship program at **Swoniga Technology**. This internship aimed to gain practical experience and contribute to developing an e-commerce platform specifically tailored for the book retail industry. The report begins by providing a comprehensive introduction to the BookBazzar platform, highlighting its significance in the digital age and the growing demand for online book shopping.

The report showcases the successful outcomes of the internship project, presenting the fully functional BookBazzar platform. The online bookshop features an intuitive search and browsing functionality, personalized book recommendations based on user preferences, and a seamless checkout process. The website allows users to add a product, edit the item in the product, and delete the product from their shopping cart. The primary focus is providing a user-friendly online shopping cart with facilities for adding, updating, and deleting products and ordering products using various ways such as cash on delivery, direct bank transfer, and through two prominent payment systems, eSewa and Khalti.

Additionally, the report reflects upon the valuable learning experiences and professional growth achieved during the internship, including enhanced technical skills, project management abilities, and an understanding of the complexities and dynamics of the e-commerce industry.

Keywords: Online book shop, E-commerce, User interface, User experience.

TABLE OF CONTENTS

MENTOR’S RECOMMENDATION.....	i
SUPERVISOR’S RECOMMENDATION	ii
EXAMINERS’ APPROVAL LETTER	iii
ACKNOWLEDGEMENT	iv
ABSTRACT.....	v
LIST OF FIGURES	viii
LIST OF TABLES	ix
LIST OF ABBREVIATION	x
CHAPTER 1: INTRODUCTION	1
1.1 PROJECT INTRODUCTION	1
1.2 PROBLEM STATEMENT	2
1.3 OBJECTIVES	3
1.4 SCOPE AND LIMITATION.....	4
1.5 REPORT ORGANIZATION.....	4
CHAPTER 2: ORGANIZATION DETAILS AND	6
LITERATURE REVIEW	6
2.1 INTRODUCTION TO ORGANIZATION.....	6
2.2 ORGANIZATIONAL HIERARCHY	6
2.3 WORKING DOMAINS OF ORGANIZATION.....	8
2.4 DESCRIPTION OF INTERN DEPARTMENT/UNIT	9
2.5 LITERATURE REVIEW	10
CHAPTER 3: INTERNSHIP ACTIVITIES	11
3.1 ROLES AND RESPONSIBILITIES	11
3.2 WEEKLY LOG	12
3.3 DESCRIPTION OF THE PROJECT.....	14

3.4 TASK/ ACTIVITIES PERFORMED	19
CHAPTER 4: CONCLUSION AND LEARNING OUTCOMES	25
4.1 CONCLUSION.....	25
4.2 LEARNING OUTCOMES	25
REFERENCES	27
APPENDIX.....	28

LIST OF FIGURES

Figure 1: Organizational Hierarchy	7
Figure 2: Use Case Diagram of BookBazzar	15
Figure 3: DFD diagram of BookBazzar	16
Figure 4: Admin Flowchart Diagram of BookBazzar.....	17
Figure 5: User-Login Flowchart Diagram of BookBazzar	18
Figure 6: Landing Page of BookBazzar	28
Figure 7: Products Page of BookBazzar	29
Figure 8: Login Page of BookBazzar.....	29
Figure 9: Register Page of BookBazzar	30
Figure 10: Add to Cart Page of BookBazzar	30
Figure 11: Add to Wishlist Page of BookBazzar	31
Figure 11: Admin Dashboard of BookBazzar	31

LIST OF TABLES

Table 1: Working Domain of Organization	8
Table 2: Mentor weekly log	13
Table 3: Supervisor Meeting Log	14
Table 4: Test Case of User Registrations.....	22
Table 5: Test Case of User Login	22
Table 6: Test Case for Add to Cart	23
Table 7: Test Case for Edit Cart	23
Table 8: Test Case for Admin to Add Category	23
Table 9: Test Case for Admin to Add/Delete/Update Books	24
Table 10: Test Case for Admin to Manage Orders	24

LIST OF ABBREVIATION

S. N	ABBREVIATION	FULL FORMS
1.	CEO	Chief Executive Officer
2.	IT	Information Technology
3.	TU	Tribhuvan University
4.	iOS	iPhone Operating System
5.	CEO	Chief Executive Officer
6.	CTO	Chief Technical Officer
7.	SEO	Search Engine Optimization
8.	HTML	Hypertext Markup Language
9.	CSS	Cascading Style Sheet
10.	UI/UX	User Interface and User Experience
11.	SQL	Structured Query Language

CHAPTER 1: INTRODUCTION

1.1 PROJECT INTRODUCTION

“BookBazzar,” An Online Book Shop, is an exciting new online bookstore that combines the convenience of e-commerce with the traditional book sales industry. This project aims to create a user-friendly platform where book enthusiasts can effortlessly explore, purchase, and engage with a wide range of books from various genres. By operating solely online, BookBazzar eliminates the need for a physical retail space, resulting in cost savings passed on to customers.

The main focus of BookBazzar is to provide a seamless and accessible experience for customers. The platform will feature an extensive catalog of books that can be browsed anytime and anywhere. To facilitate efficient searches, intuitive search and filtering options will be implemented. Detailed book descriptions, reviews, and recommendations will also be available to assist customers in making well-informed decisions before making a purchase. Customer satisfaction is a top priority for BookBazzar. The platform will ensure secure payment options, streamlined order processing, and reliable shipment tracking.

As a front-end developer for BookBazzar, my role revolves around creating a fantastic online bookstore's visual and interactive elements. BookBazzar is an exciting platform where book lovers can discover and purchase their favorite books conveniently from the comfort of their homes. The primary responsibility of this project is to create a user-friendly and visually appealing online platform where book enthusiasts can explore, purchase, and engage with a vast collection of books from various genres. Throughout the internship, I actively gathered user feedback and incorporated it into the design and development process. By listening to the needs and preferences of users, I strive to enhance the website's usability and address any issues or challenges they may encounter. I work diligently to implement secure payment options and efficient order processing to enhance customer satisfaction. Apart from that, I worked closely with our backend developers and designers to improve the website's functionality and usability, making BookBazzar a go-to destination for book lovers seeking a convenient and engaging online shopping experience.

1.2 PROBLEM STATEMENT

Traditional online bookstores often face challenges that can hinder the overall user experience and limit customer satisfaction. These challenges include limited book selections, inefficient search and filtering options, a lack of detailed book descriptions and reviews, complex payment processes, unreliable shipment tracking, and a lack of community engagement. These issues can result in customers feeling frustrated, making uninformed purchases, and missing out on opportunities to connect with other book lovers.

BookBazzar, as an innovative online bookstore, seeks to overcome these problems by implementing various solutions that enhance the user experience and address the limitations of existing systems as listed below:

- Vast Book Selection
- Efficient Search and Filtering
- Detailed Book Descriptions and Reviews
- Streamlined Payment Process
- Reliable Shipment Tracking

By addressing these problems and implementing these solutions, BookBazzar aims to create a user-friendly online bookstore that offers customers an enhanced and enjoyable experience. The platform's extensive book selection, efficient search options, detailed book information, secure payment process, reliable shipment tracking, and community engagement features set it apart from existing systems and contribute to overall customer satisfaction.

1.3 OBJECTIVES

The common objectives of the project **“BookBazzar,” An Online Book Shop**, include:

- To develop an intuitive and user-friendly online platform for book enthusiasts to explore, purchase, and engage with a vast collection of books.
- To provide a seamless and accessible browsing experience, allowing customers to find their desired titles quickly.
- To ensure customer satisfaction through secure payment options, efficient order processing, and reliable shipment tracking.
- To Provide personalized book recommendations based on individual browsing history

The work Assigned as a Frontend Developer in the BookBazzar Project is listed below:

- Collaborate with the development team to design and develop a visually appealing and user-friendly online platform for BookBazzar.
- Implementing search and filtering options allows customers to find their desired books easily.
- Designing and developing the user interface, ensuring a seamless integration of functionality to provide an immersive browsing experience.
- Collaborate with backend developers and designers to ensure efficient communication and integration between the frontend and backend systems.
- Focus on creating a responsive and optimized website, ensuring compatibility across different devices and screen sizes for a consistent user experience.
- Implementing secure payment options and contributing to the checkout process.
- Continuously optimize and improve the frontend performance and user experience based on feedback.

1.4 SCOPE AND LIMITATION

“BookBazzar” is an online bookstore that offers a wide choice of books in many categories. The website allows clients to purchase books online using a web browser and pay using credit card transactions. The clients may choose a book, add it to the shopping basket, and buy it. The website also enables exploring the whole site as a guest or registered client. However, to purchase books, users have to become registered consumers.

Here are some additional details about the scope and limitations of BookBazzar:

Scope:

- It offers a wide range of books, covering various genres and catering to diverse reading preferences.
- Search and filtering options are implemented to help users find their desired books quickly.
- Provide detailed book descriptions and recommendations to assist customers in making informed purchase decisions.
- The platform offers secure payment options to ensure customer confidentiality and safeguard financial transactions.

Limitation:

While BookBazzar aims to provide a comprehensive online bookstore experience, there are certain limitations to consider:

- Some books may be out of stock or unavailable due to stock limitations or publisher restrictions.
- Shipping and delivery options may be limited to specific regions.
- Internet connectivity, device compatibility, and software dependencies may impact accessibility and performance.
- The store does not sell used books, and it does not offer a wide selection of foreign language books.

1.5 REPORT ORGANIZATION

This report documents the internship at **Swoniga Technology – Inspiration Technology**. This report deals with the experience and knowledge achieved during the internship period. The information is divided into different chapters, which are given below:

Chapter 1: In the first chapter, we discussed the introduction of the project. In the introduction section, we have described the problem statement and the project's objectives, scope, and limitations.

Chapter 2: In the second chapter, we discussed the organization and the related study of the system. It is divided into subchapters: Introduction Organization, Organizational Hierarchy, Working Domains of Organization, Description of Intern Department Literature Review, and Related Study.

Chapter 3: In the third chapter, we have discussed the internship activities, which include Roles and responsibilities, weekly log, and the description of the project, as well as the tasks performed during the internship.

Chapter 4: The last chapter includes the conclusion and learning outcomes. It is about the conclusion of the whole project. It also provides information about the learning outcomes of the project.

CHAPTER 2: ORGANIZATION DETAILS AND LITERATURE REVIEW

2.1 INTRODUCTION TO ORGANIZATION

“Swoniga Technology” is a software company founded in 2018 by skilled engineers and business professionals. Their mission is to provide top-notch IT training and software development services. They take pride in their highly experienced team, enabling them to understand and address client needs effectively. Their primary focus is creating custom software solutions tailored to each client's requirements. With expertise in web and mobile application development, cloud computing, data analytics, and artificial intelligence, they offer innovative solutions to businesses in various industries.

Swoniga Technology also emphasizes empowering youth through technology. They offer diverse courses based on student demand, covering web design, graphics design, WordPress, Android and iOS development, and digital marketing. The company goes beyond technical training by providing interactive project development classes, guidance, and essential soft skills training. They foster a collaborative work environment, encouraging communication, information sharing, and employee growth. Through comprehensive training, mentoring, and coaching, Swoniga Technology empowers its employees to reach their full potential and feel valued.

Binod Bhagat, our CEO, brings a wealth of experience and knowledge to Swoniga Technology. As an IT researcher, activist, and mentor, he is passionate about leveraging technology to drive positive change. Under his leadership, we are committed to delivering high-quality software solutions and exceptional customer service.

2.2 ORGANIZATIONAL HIERARCHY

Organizational hierarchy refers to an organization's formal structure or chain of command. It outlines the levels of authority and responsibility, as well as the reporting relationships, that exist within the organization. In an organizational hierarchy, employees are grouped

into various classes or positions, each with different roles, responsibilities, and decision-making authority.

The organizational hierarchy at Swoniga Technology consists of the following critical positions as shown below:

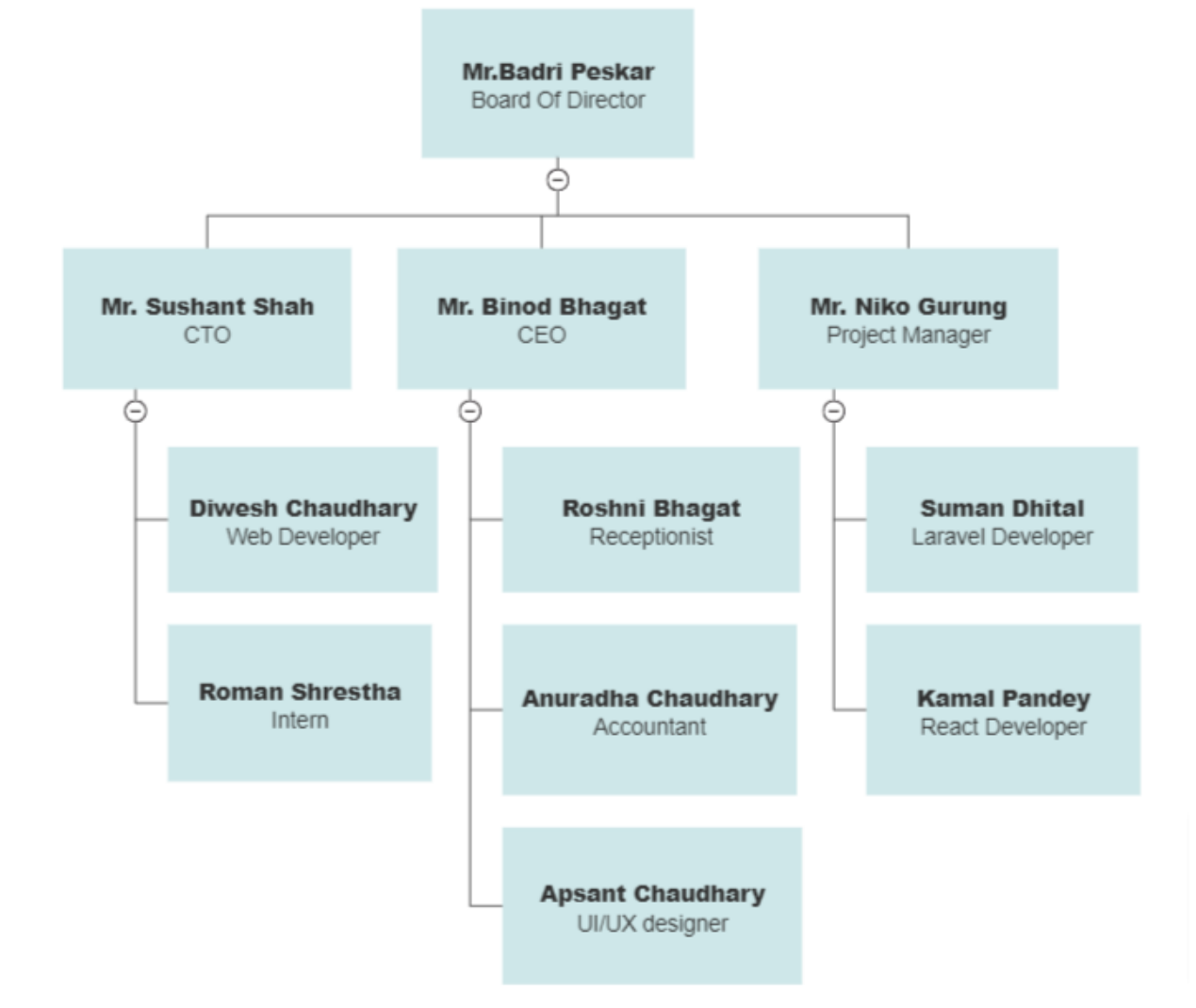


Figure 1: Organizational Hierarchy

2.3 WORKING DOMAINS OF ORGANIZATION

Swoniga Technology works across various domains, offering expertise and solutions in multiple areas. The table below outlines the different parts in which Swoniga Technology operates:

Domain	Description
Web Application Development	Swoniga Technology specializes in designing and developing web-based applications. This includes creating interactive websites, web portals, and e-commerce platforms.
Mobile Application Development	The company develops mobile applications for both iOS and Android platforms, ranging from utility apps to customized enterprise solutions.
Digital Marketing	To improve customers' online visibility and reach their target audience, the firm offers digital marketing services such as search engine optimization (SEO), social media marketing, content generation, and advertising.
Web Design	Swoniga Technology excels in creating visually appealing and user-friendly web designs, focusing on aesthetics, usability, and optimal user experience.
Graphics Design	The company offers graphic design services, including creating logos, branding materials, brochures, and other visual assets that effectively communicate clients' messages.
WordPress Development	Swoniga Technology specializes in WordPress development, providing customized WordPress websites, themes, plugins, and integrations to cater to clients' specific requirements.

Table 1: Working Domain of Organization

2.4 DESCRIPTION OF INTERN DEPARTMENT/UNIT

The intern department/unit of web application development at Swoniga Technology offers aspiring web developers a dynamic and hands-on learning environment. Through a structured internship program, interns gain practical experience and enhance their skills in real-world web development projects. Under the guidance and mentorship of seasoned experts, interns actively participate in the entire software development life cycle using the latest technologies and frameworks.

During their internship, web development interns work on a variety of projects. They build responsive and interactive websites and develop web applications tailored to client needs. Collaboration with UX/UI designers, backend developers, and quality assurance specialists is a crucial part of their role, ensuring the creation of robust and user-friendly web solutions.

Interns are exposed to modern web development technologies and frameworks like HTML, CSS, JavaScript, and React. They gain hands-on experience in front-end development, focusing on creating intuitive user interfaces and ensuring smooth navigation and functionality. In addition, interns in the web application development unit are encouraged to stay updated with emerging trends in web development. This includes exploring responsive design, progressive web applications, and accessibility standards.

The web application development intern department at Swoniga Technology offers a supportive and nurturing environment. It allows interns to apply their theoretical knowledge and contribute to real-world projects. This internship serves as a stepping stone for aspiring web developers, providing valuable experience and helping them kick-start their careers in the constantly evolving field of web development.

2.5 LITERATURE REVIEW

Online bookshops are a popular and convenient way of purchasing books online. They offer a variety of benefits for consumers, such as lower prices, more comprehensive selection, convenience, and personalized recommendations. However, they face challenges like trust, security, delivery, and customer service issues. This literature review explores the main drivers, barriers, and outcomes of online book shopping behavior from different perspectives.

One of the main drivers of online book shopping behavior is the perceived benefits consumers gain from using this channel. According to Perea y Monse et al. (2004), perceived benefits can be classified into utilitarian and hedonic. Practical benefits refer to the functional and instrumental outcomes of online shopping, such as saving time, money, and effort. In contrast, hedonic benefits refer to the emotional and experiential products, such as enjoyment, fun, and excitement. Previous studies have found that both benefits influence consumers' attitudes and intentions to shop online (e.g., Childers et al., 2001; To et al., 2007).

One of the main barriers to online book shopping behavior is the perceived risk that consumers face when buying books online. Perceived risk refers to the uncertainty and potential negative consequences consumers associate with online transactions (Featherman & Pavlou, 2003). Perceived risk can be categorized into different types, such as financial risk, product risk, delivery risk, privacy risk, and social risk (Forsythe et al., 2006). Previous studies have found that perceived risk negatively affects consumers' attitudes and intentions to shop online (e.g., Jarvenpaa et al., 2000; Lee & Turban, 2001).

One of the primary outcomes of online book shopping behavior is the customer satisfaction that consumers derive from their online transactions. Customer satisfaction refers to the degree to which online experiences meet or exceed consumers' expectations (Oliver, 1997). Customer satisfaction is influenced by various factors, such as website quality, service quality, product quality, price fairness, delivery performance, and trust (e.g., Devaraj et al., 2002; Szymanski and Hise,

CHAPTER 3: INTERNSHIP ACTIVITIES

3.1. ROLES AND RESPONSIBILITIES

During an internship, students are assigned various roles and responsibilities that contribute to their professional development and the overall success of the internship program. These responsibilities provide them with practical experience and allow them to contribute to the organization's goals. Some of the specific duties that students may be assigned during an internship include:

- Learning about the company and its industry.
- Assisting with projects and tasks.
- Observing and learning from experienced professionals.
- Building relationships with colleagues and mentors.
- Contributing to the company's goals and objectives.

In addition to these specific responsibilities, students are expected to be professional, hardworking, and eager to learn. They should also be able to take direction and work independently.

As an intern, my leading roles and responsibilities include actively participating in learning opportunities, executing assigned projects, collaborating with team members, maintaining professionalism, being adaptable, and documenting my work progress and outcomes.

Some of the leading roles and responsibilities that were assigned to me include:

- Designing and implementing a user-friendly website interface.
- Developing responsive and interactive frontend components.
- Integrating third-party APIs and payment gateways.
- Ensuring cross-browser compatibility and responsive design.
- Collaborating with the backend team for seamless integration.
- Staying updated with the modern-day front-end technologies.

3.2. WEEKLY LOG

Week	Activity
First	During the first week of my internship at Swoniga Technology, I explored the company's hierarchy and engaged with my teammates to work together on the same project. The whole week was appropriately spent arranging the development environment like installing php, VS code, XAMPP server, etc. The seniors and teammates helped throughout the entire procedure.
Second	In the second week, I developed a responsive navigation menu for the BookBazzar website using HTML, CSS, and JavaScript to enhance its accessibility and user experience across different platforms.
Third	During this week, I worked together with the design team to bring a fresh look to BookBazzar's website homepage. I transformed the design mockups into HTML and CSS, making sure it was visually attractive and adaptable across different devices. I also incorporated dynamic content using JavaScript to showcase the latest featured books.
Fourth	In the fourth week, my focus was on optimizing the performance of the website. I carried out a detailed analysis of the codebase and identified the areas that needed improvement. By implementing various performance enhancements, such as lazy loading images and optimizing CSS delivery, I was able to enhance the website's loading speed.
Fifth	In the fifth week, I implemented a shopping cart feature that allowed users to add and remove items and calculate the total price.

Sixth	In the sixth week, I worked on implementing a search functionality to enhance the user experience. I integrated search algorithms and filters to provide accurate and relevant results to users.
Seventh	This week, I collaborated with the QA team to fix reported bugs and improve user experience. I conducted thorough testing on browsers and devices to resolve compatibility issues.
Eight	This week, I collaborated with the back-end developers to integrate a new payment gateway into the BookBazzar platform. This involved handling payment processing and error handling to ensure a seamless checkout experience for users.
Ninth	Throughout this week, my main focus was on implementing a system for user authentication. I worked closely with the backend team to successfully integrate login and registration functionalities for users. I put in place a secure password storage system and implemented session management to ensure a seamless and safe user experience.
Tenth	During the tenth week, my main focus was on enhancing the website's responsiveness and its mobile user experience. To achieve this, I carried out thorough testing on various devices, including smartphones and tablets, to identify and resolve any layout issues. I made necessary adjustments to guarantee that the website displayed correctly and provided an optimal user experience across different screen sizes and resolutions.
Eleventh	I developed an admin dashboard for BookBazzar during my internship's final week. It had features for adding categories, managing books, and handling user and order management. I implemented functionality to add and delete book categories, and to add and delete books from the inventory.

Table 2: Mentor weekly log

Meetings	Agenda	Review
First	Should we describe the relevant Language we learned or the work we did? Answer: It is preferable to format the Task as a weekly or progress report.	Online
Second	What should be written in the section about report organization? Answer: How we constructed the report, including a simple overview of each chapter.	Online
Third	Is it required to provide the completed task screenshot after describing it? Answer: The weekly log can be displayed in table format.	Online
Fourth	Getting the review on some of the topics.	Online
Fifth	What should we write in the technical description? Answer: Write about the modules like implemented API, etc.	Online
Sixth	Getting the review on some of the topics	Online

Table 3: Supervisor Meeting Log

3.3 DESCRIPTION OF THE PROJECT

During my internship, I worked as a front-end developer on a BookBazzar project to enhance the user experience of the online bookshop website. I collaborated with different teams to implement a new homepage layout, optimize website performance, integrate a payment gateway, improve search functionality, and ensure seamless device compatibility.

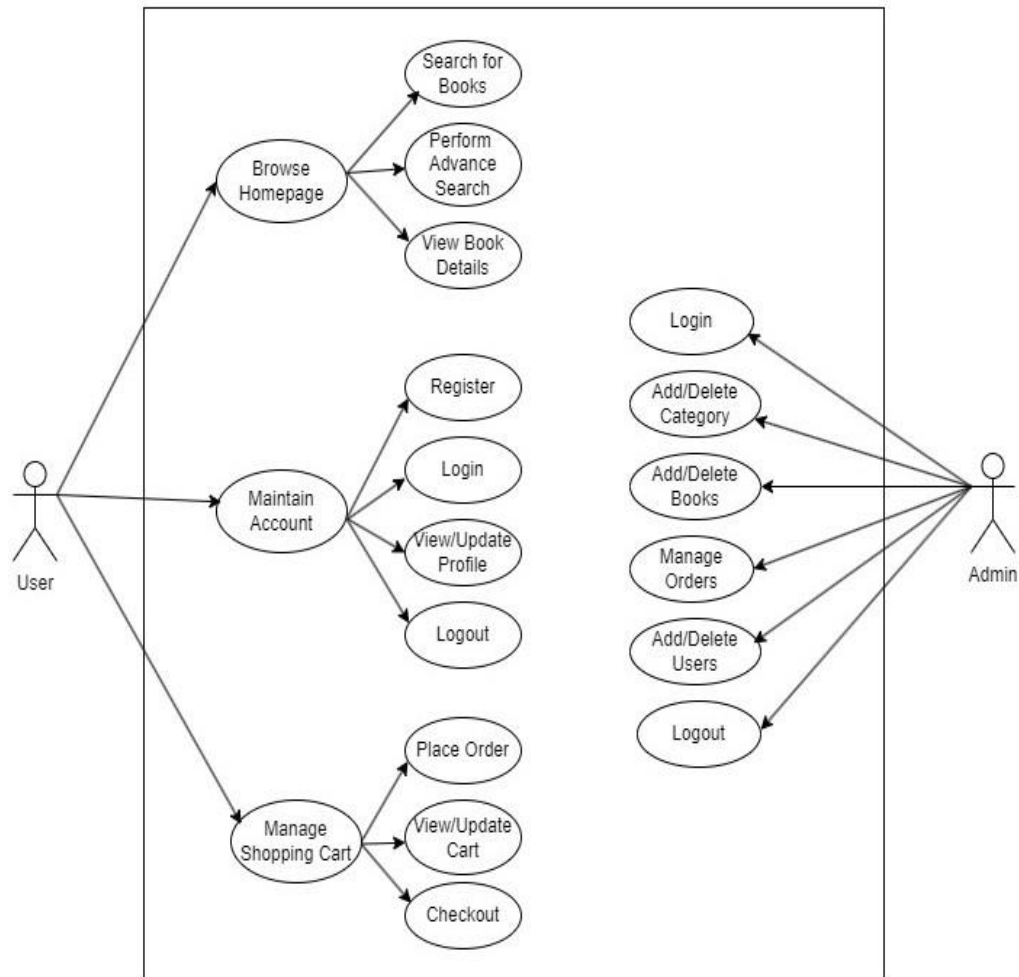


Figure 2: Use Case Diagram of BookBazaar

The above use case diagram shown in Figure 2 consists of two actors, i.e., users and admin. These two actors interact with various use cases. The user can surf the website, create an account, and purchase through a shopping cart. The user can search for the specific products that they want. They can add, update, and delete the book into the shopping cart, where they can check out through different payment modes to make a purchase. The admin can log into the system from where they can update, add, and remove the books category. They are also responsible for managing orders and users.

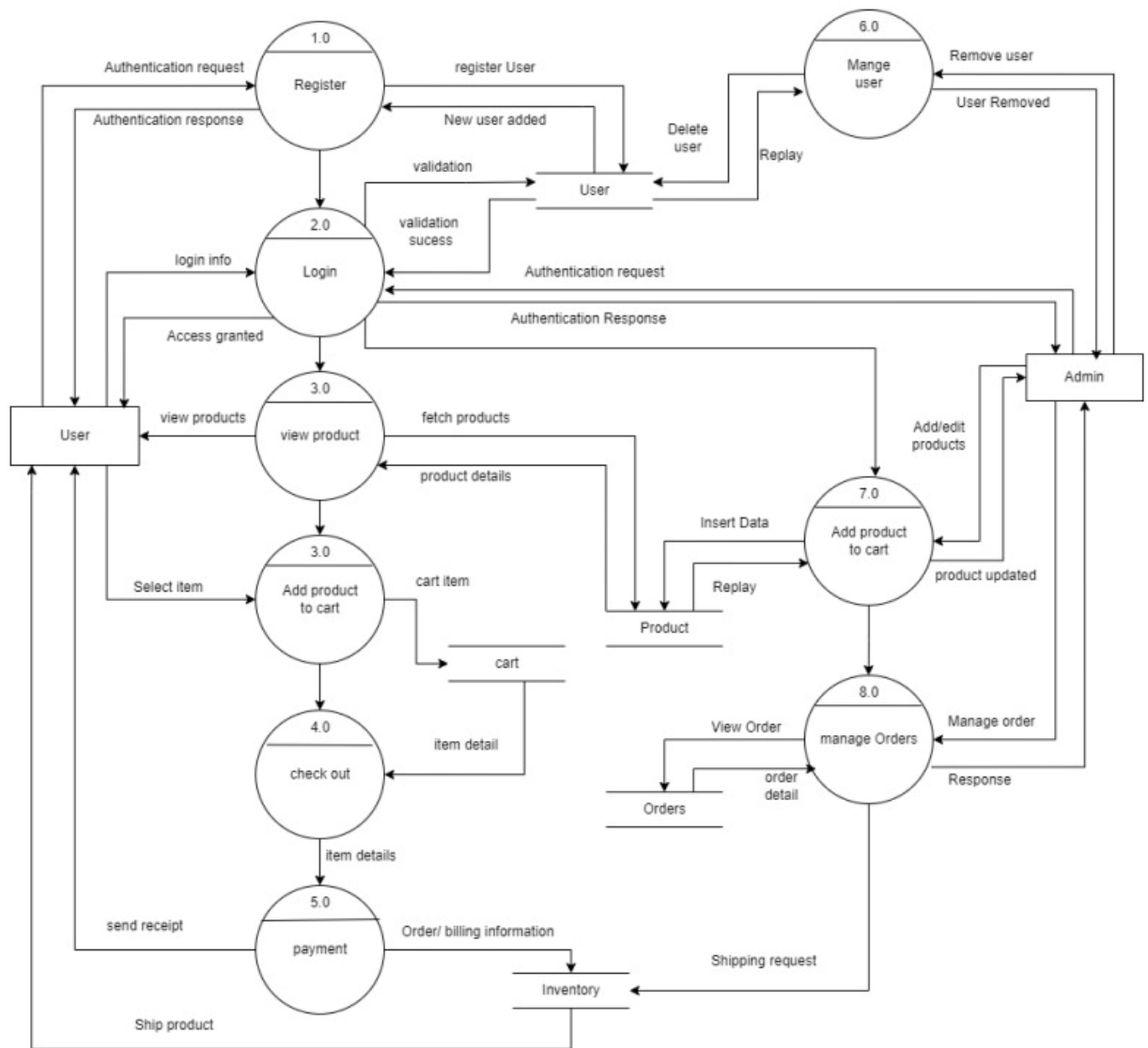


Figure 3: DFD diagram of BookBazaar

From the above Fig 3, the Use Case Diagram represents the system and the interaction of components. Users can interact with the Browse Homepage, Maintain Account, and Manage Shopping cast. On the other hand, the admin can handle several features like Login, Add/Delete categories and books, Manage Orders, Add/Delete Users, and log into the system.

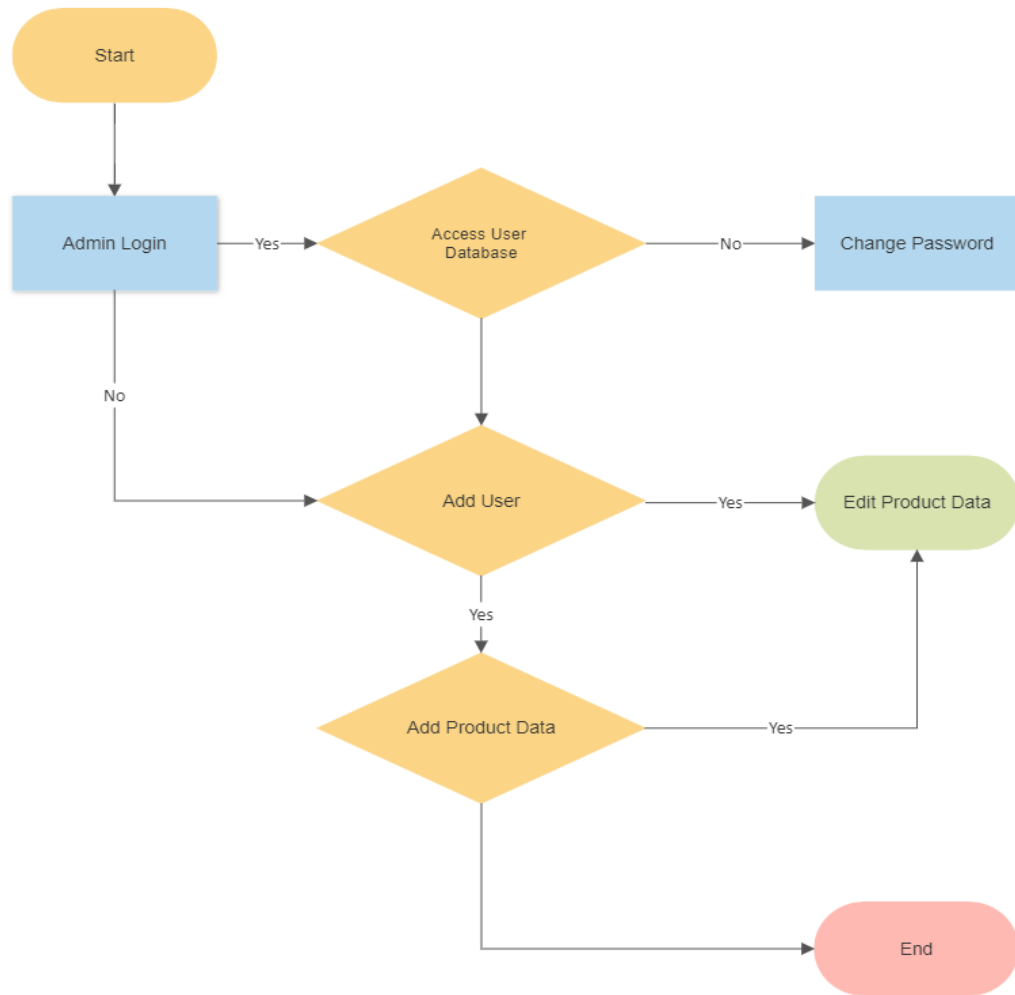


Figure 4: Admin Flowchart Diagram of BookBazzar

From the above Fig 4, the flowchart represents the system's login process. Here, the first page gives the option to log in as Admin or not; Admin can access the database directly. Users logging in to the system can do further tasks after the admin validates them. They can add product data and update it in the system.

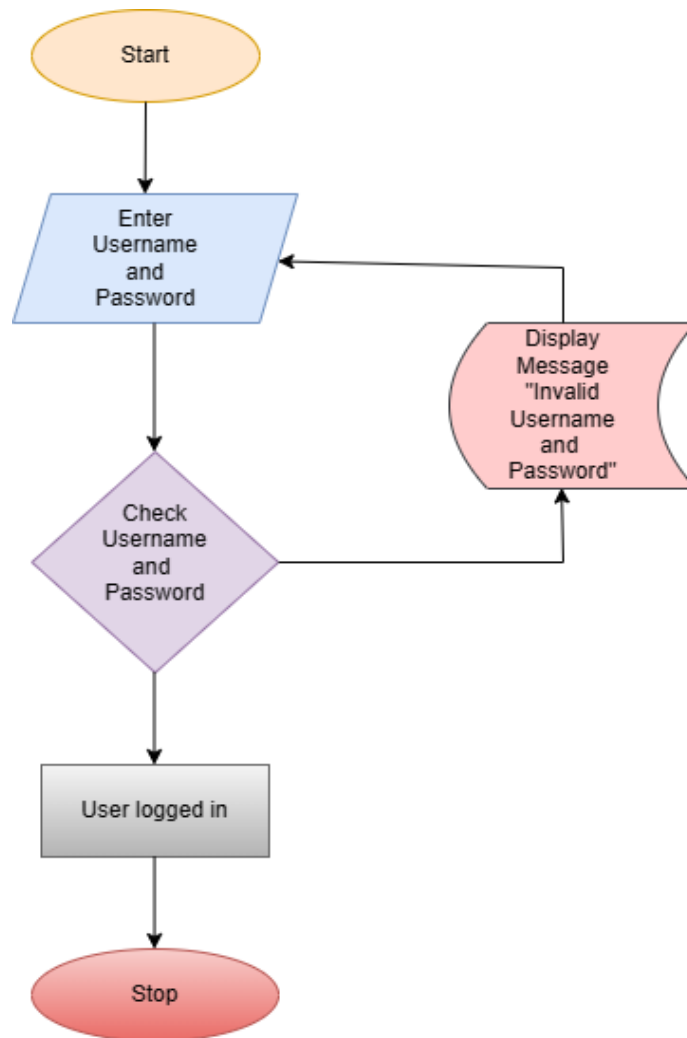


Figure 5: User-Login Flowchart Diagram of BookBazaar

From the above figure 5, we can visualize the process of the user validation through correct user credentials. The process starts when user gets a user interface to enter their email and password field, input validates by the backend database server. If inputs are correct then user can logged-in to the system, otherwise it displays 'invalid' message and user have to submit the correct credentials. Process completes when user submits the correct input.

Some of the works performed by me in the main project were:

- Created an intuitive and user-friendly interface for customers to browse and purchase books from the online store using modern web technologies such as HTML, CSS, Bootstrap, and JavaScript.
- Implemented responsive design principles to ensure the website is accessible from all platforms.
- Designed and implemented the admin dashboard, allowing administrators to manage various BookBazaar aspects easily.
- Implemented features for administrators to add, edit, and delete book categories and add and remove books from the store, including uploading book covers and providing detailed descriptions.
- Implemented order management features, enabling administrators to manage customer orders, update order statuses, and generate order reports.

3.4 TASK/ ACTIVITIES PERFORMED

During my internship, I actively participated in various technical tasks and activities to enhance the website's functionality and user experience. I utilized several tools and software to accomplish these tasks effectively throughout the internship. Some of the tasks performed were:

1. Project Setup:

- Setting up the development environment using tools like Visual Studio Code, Git, and XAMPP.

2. Frontend Development:

- Collaborated with the design team to implement a new homepage layout, ensuring a user-friendly interface.
- Optimized website performance by applying techniques such as lazy loading images, minifying CSS and JavaScript files, and implementing caching mechanisms.

3. Search Functionality

- Implemented a JavaScript search bar and integrated it with the backend's search API.
- Conducted testing to ensure accurate search results and an intuitive search interface.

4. Admin Dashboard Development:

- Designed and developed an admin dashboard using technologies like HTML, CSS, Bootstrap, and JavaScript.
- Implemented features to add, modify, and delete book categories, ensuring efficient website inventory management.
- Created functionality to manage user accounts, including the ability to add and delete users,

The different Tools and Software Used are listed below:

- **Visual Studio Code:** Visual Studio Code (famously known as **VS Code**) is a free open-source text editor by Microsoft. VS Code is available for Windows, Linux, and macOS. Although the editor is relatively lightweight, it includes some powerful features that have made VS Code one of the most popular development environment tools in recent times. In the BookBazaar project, Visual Studio Code was used as the primary integrated development environment (IDE) for writing and managing the project's frontend and backend code.
- **HTML/CSS/JavaScript:**
HTML (Hypertext et al.), CSS (Cascading Style Sheets), and JavaScript form the core trio of technologies used for building websites. In the BookBazaar project, HTML was used to structure the website's elements, CSS was employed to define the visual styling and layout, and JavaScript was utilized to add interactivity and dynamic features. HTML, CSS, and JavaScript collectively played a crucial role in

creating the front end of the BookBazaar website, ensuring a visually appealing and user-friendly interface.

- **APIs (Application Programming Interfaces):**

API stands for application programming interface, which is a set of definitions and protocols for building and integrating application software. In the BookBazaar project, APIs were used for various purposes, such as integrating a payment gateway, retrieving data from the backend for search functionality, and facilitating communication with external services. By utilizing APIs, we enhanced the functionality of the BookBazaar website, provided seamless integration with external services, and ensured smooth data exchange between different components.

- **XAMPP:**

XAMPP is a popular cross-platform web server that allows programmers to write and test their code on a local web server. In the BookBazaar project, XAMPP was used to set up a local server environment, enabling us to develop and test the website locally before deploying it to a production server.

- **SQL (Structured et al.):**

SQL (Structured Query Language) is a language to operate databases; it includes Database Creation, Database Deletion, Fetching Data Rows, Modifying & Deleting Data rows, etc. In the BookBazaar project, SQL interacted with the database and performed various operations on the data. We used SQL queries to create the necessary database tables, insert and retrieve data, update records, and perform other database-related tasks.

Software testing is a comprehensive process that evaluates software applications to ensure they meet user requirements, are reliable, and function as intended. Software testing aims to identify defects or errors in the software before it is released to the public, which can save time and money in the long run by preventing costly fixes or product recalls.

ID	TEST CASE	USER INPUT	PASS CRITERIA
1	User Registration	The user has entered a password that is different from the one entered in the password confirmation field.	Password confirmation does not match!
2	User Registration	The user fails to enter a required field.	Indicates that the field value is required.
3	User Registration	The user successfully enters all the details.	Account successfully created.

Table 4: Test Case of User Registrations

ID	TEST CASE	USER INPUT	PASS CRITERIA
1	User Login	The user has entered an incorrect username.	Show message "Username or Password is not true".
2	User Login	The user has entered an incorrect password.	Show message "Username or Password is not true".
3	User Login	The user has successfully entered the correct username and password.	The user successfully logs in.

Table 5: Test Case of User Login

ID	TEST CASE	USER INPUT	PASS CRITERIA
1	Add to Cart	The user chooses a book and clicks the "add to cart" button.	Selected books has been successfully added to the shopping cart.
2	Add to Cart	The guest chooses a book and clicks the "add to cart" button.	The user needs to sign- in or create an account.

Table 6: Test Case for Add to Cart

ID	TEST CASE	USER INPUT	PASS CRITERIA
1	Edit Cart	The user modifies the quantity.	The Cart should be updated with the current amount and price.
2	Edit Cart	A book is removed by the user from the shopping cart.	Books and the cart's overall cost need to be adjusted.
3	Edit Cart	A new book is chosen by the user from the shopping cart.	Update the books and the total cost of the cart.

Table 7: Test Case for Edit Cart

ID	TEST CASE	USER INPUT	PASS CRITERIA
1	Add new category	The admin creates a new category.	The list's category needs to be added in homepage.
2	Delete category	Category is removed by the admin.	The category must be deleted from the homepage.

Table 8: Test Case for Admin to Add Category

ID	TEST CASE	USER INPUT	PASS CRITERIA
1	Add new Book	A new book is added by the admin.	Books in the product list need to be updated.
2	Delete Book	Admin removes the books	The list of products should be updated to remove books.
3	Update Book	Books are updated by admin	Books in the product list need to be updated.

Table 9: Test Case for Admin to Add/Delete/Update Books

ID	TEST CASE	USER INPUT	PASS CRITERIA
1	Manage Order	The admin modifies the order's status	Order has been completed.

Table 10: Test Case for Admin to Manage Orders

CHAPTER 4: CONCLUSION AND LEARNING OUTCOMES

4.1 CONCLUSION

My internship at Swoniga Technology as a front-end developer provided practical insights into web development and enhanced my technical skills. Throughout this internship, I have completed various front-end development tasks and gained a deeper understanding of the industry's best practices.

Working at Swoniga Technology has allowed me to contribute to real-world projects and collaborate with a talented team of professionals. I have been able to design and implement user interfaces, develop responsive and interactive frontend components, and integrate APIs and third-party services.

One of the critical outcomes of this internship is my improved proficiency in front-end development technologies, including HTML, CSS, and JavaScript. I have gained hands-on experience writing clean and efficient code, adhering to coding standards, and implementing industry best practices.

Additionally, I have realized the significance of staying updated with the latest front-end technologies and trends. This internship has sparked my curiosity and motivation to continue learning and exploring new frameworks, libraries, and development techniques.

4.2 LEARNING OUTCOMES

Because of our team leader's assistance and good instruction, I learned much more about how real projects are completed.

The following are some of the fundamental changes I discovered in myself as a result of the internship:

- Enhanced proficiency in frontend development technologies such as HTML, CSS, JavaScript, and Bootstrap.
- Improved understanding of responsive design principles and implementation.
- Ability to write clean and efficient code.

- Experience in integrating APIs and third-party services.
- Proficiency in creating visually appealing and user-friendly interfaces.
- Finding out more about PHP and JavaScript.
- Confidence in working on real-world projects and delivering high-quality front-end solutions.
- Collaboration and communication skills developed through working closely with the backend development team and other stakeholders.

REFERENCES

1. *Swoniga Technology – Software Company Estd.: 2018 AD.* (2023, July 7). Swoniga Technology – Software Company Estd.: 2018 AD. <https://swonigatechnology.com/>
2. *Flowchart Maker & Online Diagram Software.* (n.d.). Flowchart Maker & Online Diagram Software. <https://app.diagrams.net/>
3. Y. Zhai and W. Lu, “The Online Bookstore,” *MATEC Web of Conferences*, Jan. 2017, doi: 10.1051/matecconf/201710002045.
4. *Popular VS Code Shortcuts for Developers.* (2022, September 2). DEV Community. <https://dev.to/rohitmore07/popular-vs-code-shortcuts-for-developers-1h83>
5. *What is Visual Studio Code?* (n.d.). Educative. <https://www.educative.io/answers/what-is-visual-studio-code>
6. *What is an API?* (2022, June 2). What Is an API? <https://www.redhat.com/en/topics/api/what-are-application-programming-interfaces>
7. Mishwani, A. Z. (2022, April 13). *What is XAMPP? / TechABU.* TechABU. <https://techabu.co/blog/what-is-xampp/>
8. *SQL - Overview.* (n.d.). SQL - Overview. <https://www.tutorialspoint.com/sql/sql-overview.htm>

APPENDIX

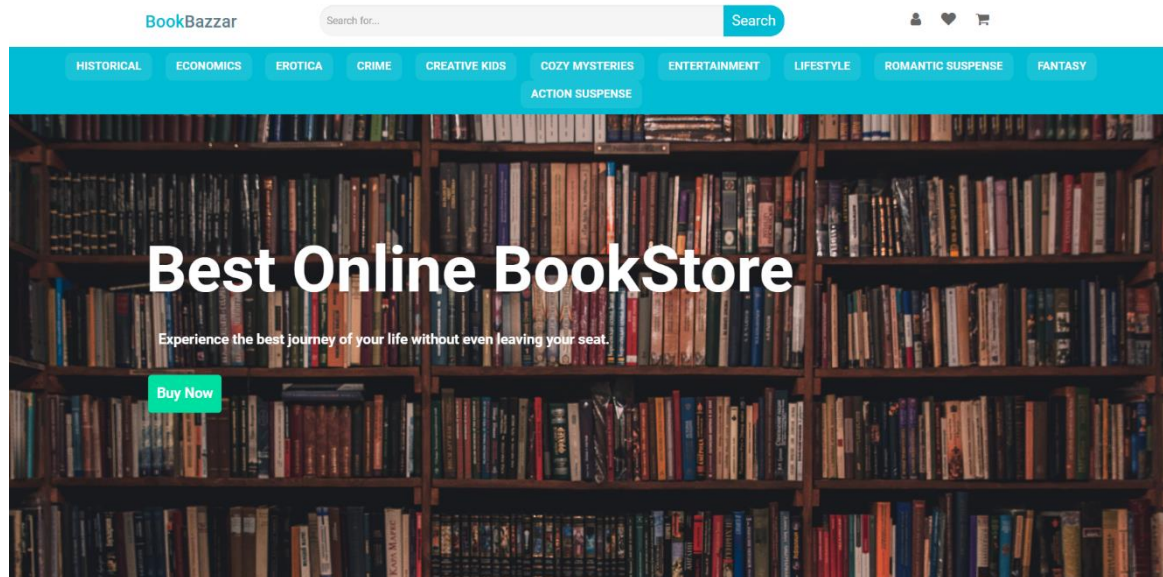
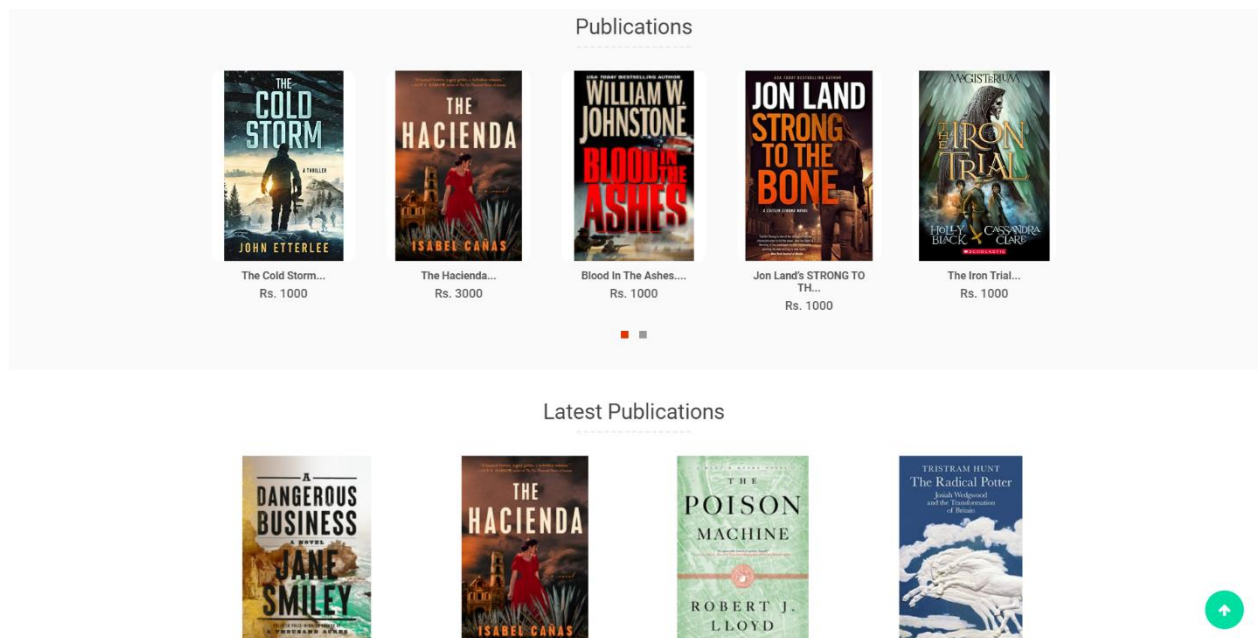


Figure 6: Landing Page of BookBazzar



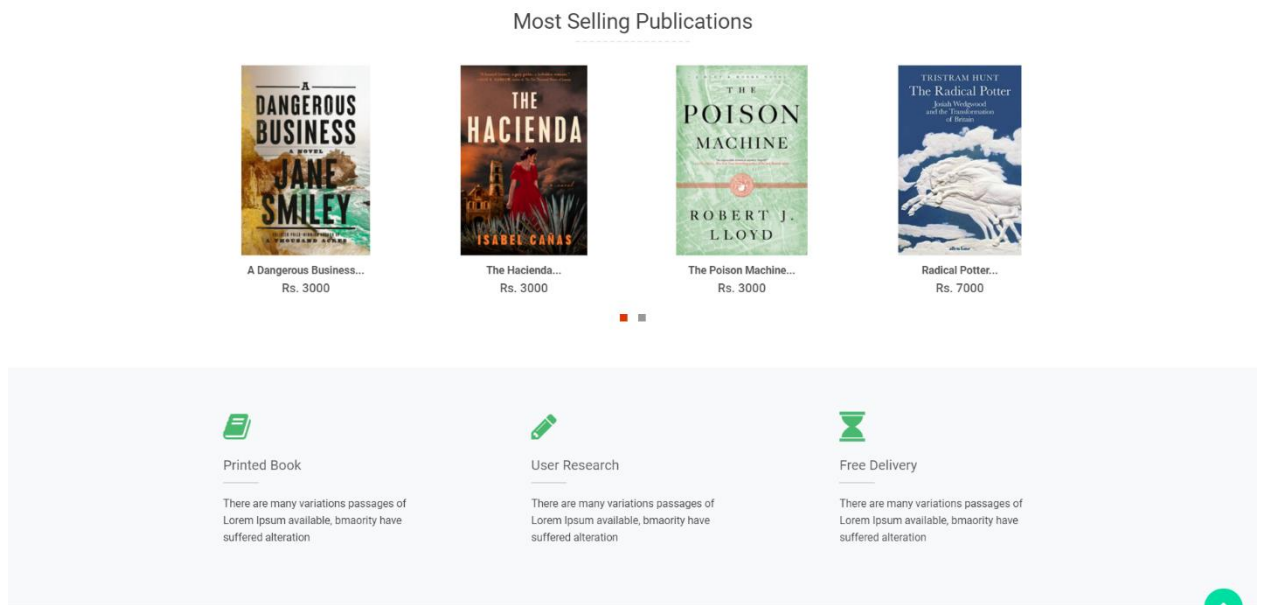


Figure 7: Products Page of BookBazzar

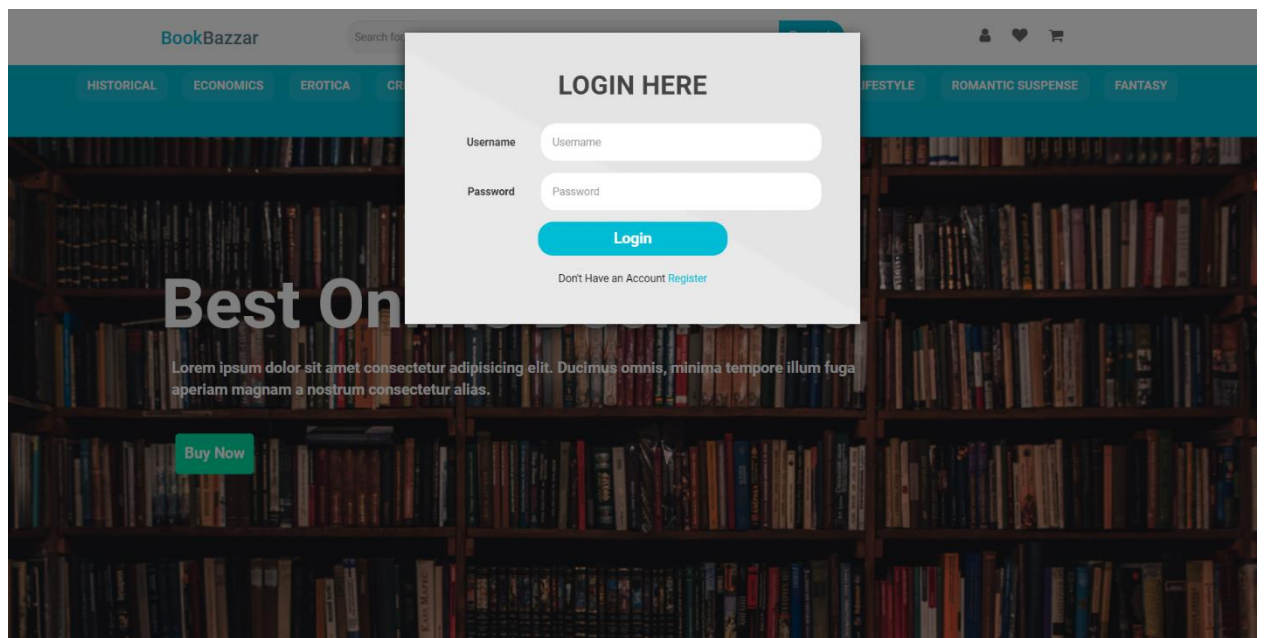


Figure 8: Login Page of BookBazzar

REGISTER HERE

First Name

Last Name

Username / Email

Password

Mobile

Address

City

BOOKBAZZAR

Welcome to BookBazzar, your virtual haven for literary exploration and endless literary adventures! Step into a world where books transcend boundaries and imaginations take flight, all from the comfort of your own screen.

USEFUL LINKS

[HOME](#)
[ALL PUBLICATIONS](#)
[LATEST PUBLICATIONS](#)
[POPULAR PUBLICATIONS](#)

CATEGORIES

[HISTORICAL](#)
[ECONOMICS](#)
[EROTICA](#)
[CRIME](#)
[CREATIVE KIDS](#)
[COZY MYSTERIES](#)

CONTACT US

[🏠 : Itahari-02, Sunsari Nepal Near Biratnagar Line](#)
[☎ : 92123456789](#)
[✉ : Bookbazzar@Edu.Com](#)

Figure 9: Register Page of BookBazzar

BookBazzar

👤
❤️
🛒

HISTORICAL

ECONOMICS

EROTICA

CRIME

CREATIVE KIDS

COZY MYSTERIES

ENTERTAINMENT

LIFESTYLE

ROMANTIC SUSPENSE

FANTASY

ACTION SUSPENSE

My Cart




Product Image	Product Name	Product Price	Qty.	Sub Total	Action
	The Poison Machine	Rs. 3000	<input type="text" value="1"/>	Rs. 3000	<input type="button" value="✖"/>
	The Hacienda	Rs. 3000	<input type="text" value="1"/>	Rs. 3000	<input type="button" value="✖"/>
	A Dangerous Business	Rs. 3000	<input type="text" value="1"/>	Rs. 3000	<input type="button" value="✖"/>
TOTAL AMOUNT (Rs.)				9000	

Figure 10: Add to Cart Page of BookBazzar

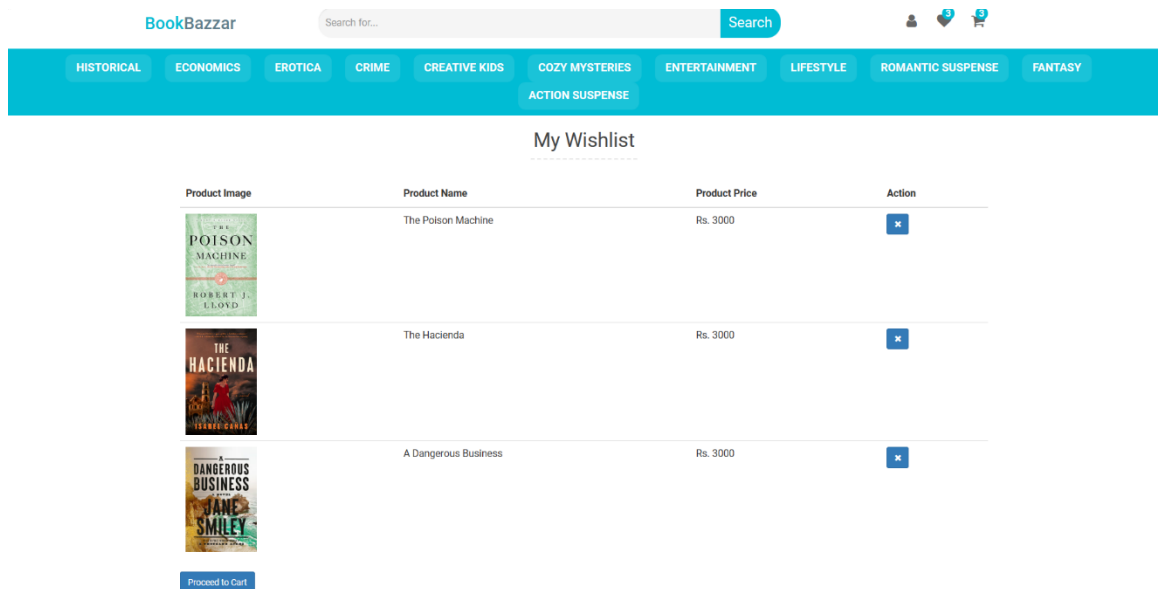


Figure 11: Add to Wishlist page of BookBazzar

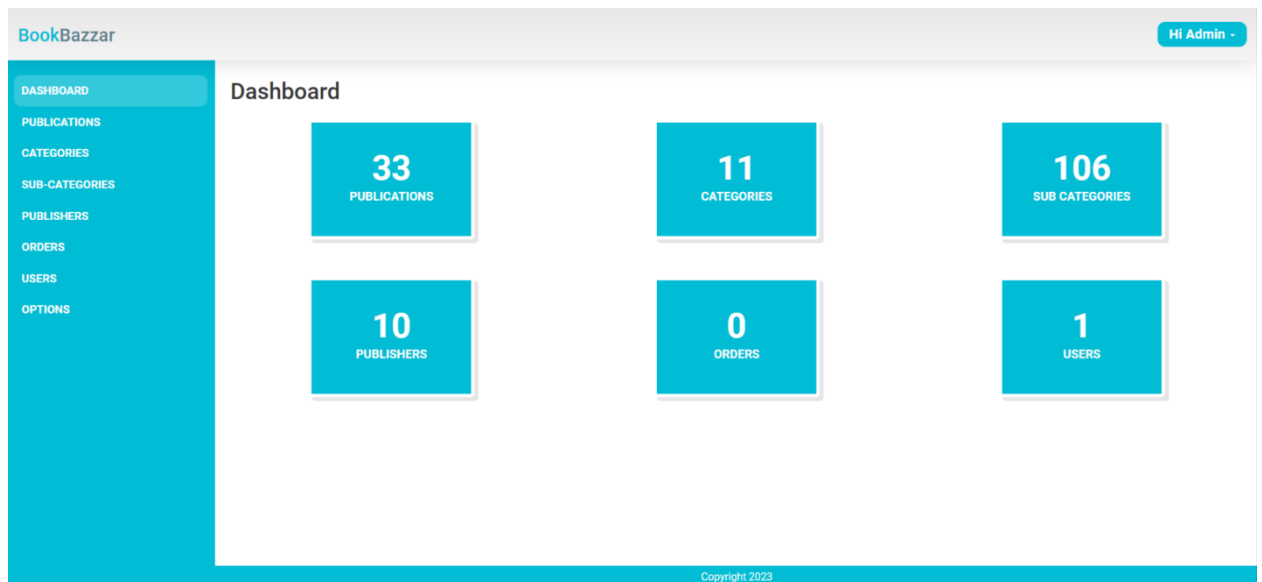


Figure 12: Admin Dashboard of BookBazzar