

Booksy

A PROJECT REPORT

Submitted by

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211240107066

In fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

in

Computer Engineering

Sardar Patel College of Engineering, Bakrol



Gujarat Technological University, Ahmedabad

April-2025



Sardar Patel College of Engineering

Sardar Patel Education Campus, Vidyanagar - Vadtal Road, Bakrol,

Anand, Gujarat - 388 315.

CERTIFICATE

This is to certify that the project report submitted along with the project entitled **Booksy** has been carried out by **Nevil Ashvinbhai Mangukiya** under my guidance in partial fulfillment for the degree of Bachelor of Engineering in Department of **Computer Engineering**, 8th Semester of Gujarat Technological University, Ahmedabad during the academic year 2021-2025.

Asst. Prof. Viranch Kadia

Internal Guide

Asst. Prof. Jigar Dalwadi

Head of Department

INTERNSHIP COMPLETION CERTIFICATE



GUJARAT TECHNOLOGICAL UNIVERSITY

CERTIFICATE FOR COMPLETION OF ALL ACTIVITIES AT ONLINE PROJECT PORTAL

B.E. SEMESTER VIII, ACADEMIC YEAR 2024-2025

Date of certificate generation : 23 April 2025 (10:31:09)

This is to certify that, **Mangukiya Nevil Ashvinbhai** (Enrolment Number - 211240107066) working on project entitled with **Booksy** from **Computer Engineering** department of **SARDAR PATEL COLLEGE OF ENGINEERING, BAKROL ANAND** had submitted following details at online project portal.

Internship Project Report	Completed
---------------------------	-----------

Name of Student : Mangukiya Nevil
Ashvinbhai

Name of Guide : Mr. Viranch M Kadia

Signature of Student : _____

*Signature of Guide : _____

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OFFER LETTER



3ni infotech

www.3niinfotech.com
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December 30, 2024

Offer Letter

Dear Nevil Mangukiya,

We are thrilled to offer you an internship opportunity at 3ni Infotech as a Web developer. This internship will be for a period of 13 weeks, starting on 20th January, 2025. During this time, you will have the opportunity to work with our experienced development team and learn the skills necessary to excel in the field of web development.

Under the guidance of Nikunj Savani, you will be involved in hands-on projects and gain hands-on experience with the latest development technologies. We believe that this internship will provide you with the opportunity to develop your skills and gain valuable work experience.

As an intern, you are not the company's employee and therefore, will not receive health and compensation benefits. But you will get a Certificate.

We look forward to having you begin your career at 3ni infotech and wish you a successful internship. Welcome to our team!

Best regards,



Jiten V. Modi
[Co-Founder and CEO]

Head Office
117, Angel Square, VIP Circle,
Near Petrol Pump, Uttran, Surat-394105

Branch Office
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INTERNSHIP CERTIFICATE



3ni infotech

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April 23, 2025

CERTIFICATE OF INTERNSHIP

This is to certify that Nevil Mangukiya, student of Computer Engineering, SARDAR PATEL COLLEGE OF ENGINEERING, BAKROL ANAND has successfully completed his 3 months of the internship program (20/01/2025 to 19/04/2025) on the project at 3ni Infotech, Surat.

During the course of his Internship, He showcased his brilliant cognitive, design, and programming skills and were found to be punctual, hardworking, and inquisitive.

We wish him good luck for his future endeavors.

Best regards,



Jiten V. Bhavsari
[Co-Founder and CEO]

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Sardar Patel College of Engineering

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Anand, Gujarat - 388 315.

DECLARATION

We hereby declare that the Internship / Project report submitted along with the Internship **Booksy** submitted in partial fulfillment for the degree of Bachelor of Engineering in **Computer Engineering** to Gujarat Technological University, Ahmedabad, is a Bonafide record of original project work carried out by me/us at **3niinfotech** under the supervision of Asst. Prof. Viranch Kadia and that no part of this report has been directly copied from any students' reports or taken from any other source, without providing due reference.

Name of the Student

Sign of Student

Nevil Ashvinbhai Mangukiya

ACKNOWLEDGEMENT

I would sincerely like to thank **Asst. Prof. Viranch Kadia** (Department of Computer Engineering) for the unconditional support during the whole session of study and development and for guiding me throughout the whole internship period. They provided me with a favorable environment, without them, I would not have achieved my goal. They had always been there for me despite their busy schedule and were always a great source of inspiration. They had been easily approachable during and even after college hours. I sincerely thank them for that.

I would also like to thank **Mr. Nikunj Savani**, Co-Founder of company (3niinfotech) & my mentor, for supporting me during the whole internship period. Being with me all time face to face and guiding me within a busy time schedule for him. I would like to thank him for that. I would also like to thank my other senior colleagues who also helped me whenever I required any kind of support.

A blend of gratitude, pleasure and great satisfaction is what I feel to convey my indebtedness to all those who have directly and indirectly contributed to the successful completion of the project.

Nevil Ashvinbhai Mangukiya (211240107066)

ABSTRACT

***Booksy** is an online book-selling platform designed to enhance the shopping experience for readers, students, and libraries. The system enables users to browse books, view details, add them to the shopping cart, and place orders. Admins can manage book listings, author profiles, pricing, and customer orders through a centralized dashboard.*

*The backend is developed using **PHP and MySQL**, ensuring secure data storage and smooth handling of business logic, while the frontend uses **HTML, CSS, JavaScript, and Bootstrap** for a user-friendly interface. Features such as user authentication, book ratings, author pages, and search functionality contribute to a complete e-commerce experience.*

***Booksy** is structured for scalability with organized database design and modular code, supporting dynamic book display. The platform simplifies book shopping and administration by replacing manual processes with a fully digital solution, improving efficiency and accessibility.*

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CHAPTER 1 - OVERVIEW OF THE COMPANY

1.1 HISTORY

The name of the company is **3Ni Infotech**, a dynamic IT company headquartered in **Surat, Gujarat**, with a branch office in **Bhavnagar**. Founded with a mission to provide innovative and scalable digital solutions, the company operates under the visionary leadership of **Mr. Jitendra Bhalani**, the CEO of the company. 3Ni Infotech specializes in **web development, mobile app development, custom software solutions, IT consulting, and digital marketing services**. With a client-centric approach and a strong commitment to quality, the company delivers high-performance, budget-friendly solutions across various industries. The organization is powered by a passionate team of developers, designers, analysts, and consultants who collaborate to deliver end-to-end technology solutions that help businesses achieve digital transformation and strategic growth. 3Ni Infotech emphasizes timely project delivery and tailored services to meet the unique demands of every client.

- **Vision**

3Ni Infotech, established in 2016, stands as a trailblazer in the IT industry, delivering next-generation, scalable, and transformative digital solutions to businesses across the globe. With an unwavering commitment to **quality, performance, and innovation**, the company leverages cutting-edge technologies and a deeply client-centric approach to build world-class web, mobile, and software applications. Guided by its core value, **"Empowering Excellence,"** 3Ni Infotech continuously pushes the boundaries of creativity and technology to empower clients, streamline operations, and drive measurable business success in an ever-evolving digital landscape.

- **Our Key Factors: -**

- Understanding the client's goals and providing the right solutions
- Protecting client investments
- Maximizing return on investment (ROI)
- Ensuring long-term usability and performance
- Consistent delivery of quality service

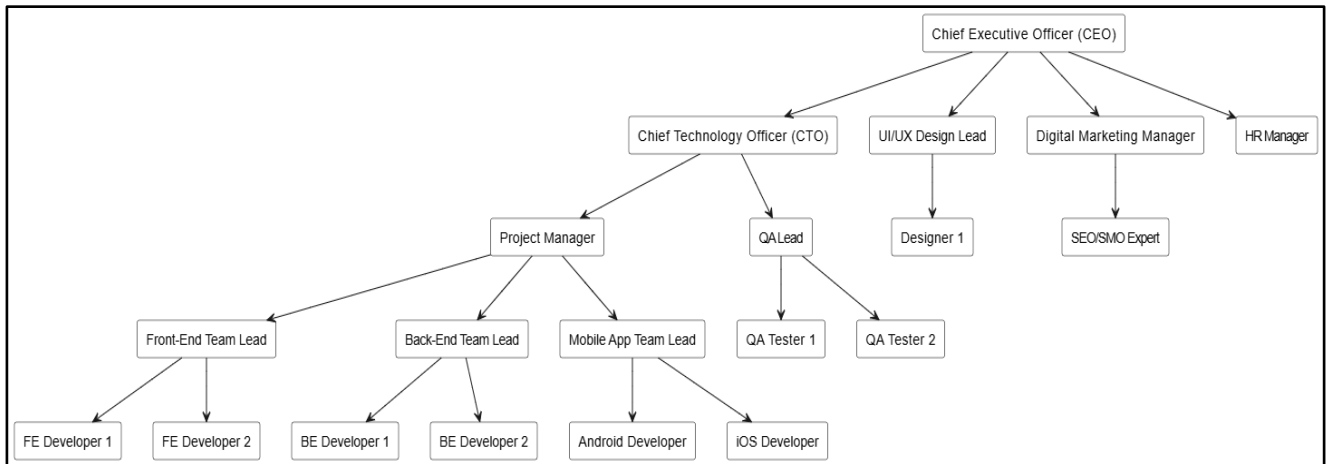
- **Mission:-**

- To provide advanced yet affordable IT solutions
- To become a trusted technology partner across platforms
- To support client growth with reliable digital tools
- To apply best practices and proven methodologies
- To encourage continuous learning and team excellence

1.2 Scope of Work

- **Comprehensive Development Process:** 3Ni Infotech follows a complete software development life cycle—from idea to deployment—ensuring structured planning, design, development, testing, and delivery that aligns with client goals.
- **Agile Methodology:** The company adopts agile practices to remain flexible and adaptive. Regular feedback loops during development ensure the final product matches the client's vision and evolving requirements.
- **Quality Assurance:** A dedicated QA team performs in-depth testing to ensure product stability, performance, and user satisfaction. This reduces post-launch issues and maintains service quality.
- **Post-Launch Support:** 3Ni Infotech extends support beyond deployment, including documentation, user training, and digital promotion, ensuring clients are equipped to manage and grow their platforms.
- **Scalable Architecture:** Solutions are built with scalability in mind, enabling future growth and adaptation to changing market needs without rebuilding from scratch.

1.3 Organization Chart



1.3 Organization chart

1.4 CAPACITY OF PLANT

At 3Ni Infotech, our strength lies in the dedication and skills of our compact yet highly capable team. Founded in 2016, the company has steadily grown and now comprises over 25+ professionals, including developers, designers, testers, and support staff.

Our main office is located in a well-equipped space within a shopping square in Surat, Gujarat, providing all the necessary infrastructure to support seamless software development and team collaboration. Despite being a compact setup, the workspace is efficiently organized to accommodate multiple departments and ensure smooth project execution.

The company also promotes continuous learning through internal discussions, code reviews, and knowledge-sharing sessions, helping the team stay current with modern technologies and industry practices. This balanced environment of professionalism and teamwork empowers us to consistently meet client expectations with innovative and reliable solutions.

CHAPTER 2 OVERVIEW OF DIFFERENT DEPARTMENT

2.1 WORK IN EACH DEPARTMENT

3Ni Infotech operates through several specialized departments, each contributing to the successful delivery of web and mobile-based IT solutions. With a compact yet skilled team, the departments work in close collaboration, following agile practices and focusing on quality outcomes.

- 1. Production Department:** This department is responsible for developing and delivering high-quality software solutions. Teams work on technologies such as PHP, Laravel, Node.js for backend, and React, Angular, JavaScript for frontend, along with mobile platforms like Android, iOS, and Flutter.
- 2. Marketing Department:** Although 3Ni Infotech does not have a large dedicated marketing team, basic marketing activities such as website SEO, portfolio updates, and digital presence (social media, company branding) are handled internally or in collaboration with external partners. These efforts aim to promote the company and attract potential clients.
- 3. Technical Department:** The Technical Department provides infrastructure and support for internal tools, version control systems, and deployment environments. It ensures that development environments are functional, secure, and up-to-date. It may also assist in setting up staging or live servers and solving technical bottlenecks in development.
- 4. Human Resource Department:** The HR Department manages recruitment, onboarding, leave tracking, internal policies, and employee well-being. It also organizes small internal activities and helps create a friendly and productive work culture.

• PROJECT DEVELOPMENT PROCESS

- 1. Initiation:** Establish clear objectives, define the project title, and set timelines for development.
- 2. Planning:** Outline the project scope, allocate responsibilities, and prepare resources for smooth execution.
- 3. Execution:** Begin actual development work including coding, designing, and integrating functionalities.
- 4. Control and monitoring:** Track progress, review work, and make necessary adjustments to stay aligned with goals.
- 5. Closing:** Finalize testing, deliver the project, and complete documentation and client handover.

2.2 TECHNICAL SPECIFICATION

3Ni Infotech utilizes a wide range of technologies to build scalable and modern web and mobile solutions. Below are the core technologies used across various projects:

Front-End Technologies:

- **HTML5 / CSS3 / JavaScript** – For standard web structure and styling.
- **React.js / Angular** – Used to create dynamic and responsive user interfaces.

Back-End Technologies:

- **PHP / Laravel / Node.js** – For building robust and scalable server-side logic.
- **Express.js** – For routing and handling APIs in Node-based projects.

Database:

- **MySQL / MongoDB** – For storing and managing data efficiently.

Mobile Development:

- **Android (Java/Kotlin) and iOS (Swift)** – For native mobile app development.
- **Flutter / React Native** – For cross-platform app development.

Tools & Platforms

- **Git, VS Code, XAMPP, Firebase, Figma** – For development, version control, testing, and UI/UX design.

2.3 STAGES OF PRODUCTION

1. **Idea Generation** – The foundation stage where real-world problems are analyzed, and innovative, practical solutions are conceptualized with a clear project vision.
2. **Content Preparation** – All essential assets such as textual content, images, icons, and UI materials are carefully curated to align with the project's purpose and enhance user experience.
3. **Development** – The heart of the process, where the frontend, backend, and database systems are designed and built using modern technologies to ensure a fully functional and scalable product.
4. **Testing** – Rigorous testing is conducted to ensure reliability, performance, and user satisfaction. Feedback is reviewed and applied to refine the product before final

deployment.

CHAPTER – 3 INTRODUCTION TO PROJECT

3.1 SUMMARY

- This internship report is based on my 12-week experience at **3Ni Infotech**, where I gained hands-on exposure to how a professional IT company operates. During this period, I participated in daily stand-up meetings, sprint reviews, and team discussions. The main project I worked on was called **Booksy**, a web-based platform for browsing and buying books online. I was involved in tasks like designing web pages, enhancing the user experience, fixing minor issues, and ensuring responsive design. This project gave me a strong understanding of how individual contributions come together to build a complete product and how coordination within a team plays a crucial role in real-world development.

3.2 PURPOSE

- The purpose of this project was to develop a digital platform where readers, students, and libraries can explore and purchase books online with ease. The idea was to build an organized system that provides book listings, author details, and user-friendly browsing. The platform was designed to streamline the book buying process and create an engaging experience for both regular users and site administrators. Booksy was envisioned as a centralized place for book lovers to find titles based on genres, languages, ratings, and more.

3.3 OBJECTIVE

- The main objective of **Booksy** was to create a functional and visually appealing book store website that allows users to search for, filter, and view books easily. It focused on features like book listings, author profiles, login/signup authentication, user dashboard, and shopping cart integration. I contributed to building the frontend components, implementing design improvements, and connecting pages to backend logic. The project aimed to deliver a clean and modern UI, efficient browsing, and a scalable structure that could be enhanced further in the future.

- **Improve Workflow Efficiency**

Streamline the process of browsing, selecting, and purchasing books by organizing content into clear sections such as genres, languages, and ratings. Features like filtering, search, and cart management reduce confusion and save time, improving the overall user experience.

- **Promote Team Collaboration**

Encourage efficient collaboration between frontend developers, backend developers, designers, and testers through version control tools and internal team coordination. Regular updates and task tracking ensured smooth development and fewer delays.

- **Maintain System Consistency**

Ensure a unified look and feel throughout the website by using reusable UI components, consistent layouts, and styling. This provides users with a clean, familiar experience across all pages — from homepage to author profiles and checkout.

- **Stay on Track with Timelines**

Break down features like login/signup, book listings, author pages, and cart functions into clear milestones. Prioritizing tasks and reviewing progress weekly helped the team stay aligned and deliver features on time.

- **Increase User and Client Satisfaction**

Create a platform that's simple to use for readers and easy to manage for admins. From browsing books to placing orders, every step was built to be intuitive. Ongoing feedback during the internship helped shape the platform into something reliable and user-friendly.

3.4 PROJECT SCOPE

The project scope of the Booksy platform covers the following important areas:

- **System Integration:** Ensuring all components like user login/signup, book browsing, author profiles, and cart features are well-connected and function smoothly across the entire system.
- **Testing and Improvements:** Regular testing of pages, filters, and functionality such as search, login validation, and checkout flow to identify and fix any bugs, improving performance and user experience.
- **Data Security and Access:** Safeguarding user credentials, purchase history, and admin data while allowing secure access to individual user dashboards and book management areas.

- **Smooth Rollout:** Features were introduced in phases — starting with local development and internal testing before being deployed live to ensure a stable launch without errors.
- **Deployment Strategy:** A step-by-step deployment plan was followed to minimize downtime, with modules like login, book display, and cart setup tested individually before final integration and hosting.

3.5 TECHNOLOGY AND LITERATURE REVIEW

Technology	Purpose / Usage
 PhP	Used for server-side scripting and building backend logic like login, cart, etc.
 My Sql	Used as the main database to store book details, user data, orders, and authors.
 Odoo Frontend (XML, JS)	Used for creating web page structures, styling, and interactive behaviors.
 Bootstrap	Used to create responsive layouts and consistent UI components across all pages.

Table 3.1 Technology and Literature

3.5.1 TECHNOLOGY

- ❖ **PHP (Backend Language):** PHP serves as the core backend language for the Booksy platform. It handles all server-side operations such as user authentication, session management, and dynamic page rendering. PHP interacts with the MySQL database to fetch and update data for book listings, user profiles, and order history. Its open-source nature and strong community support make it ideal for building secure, scalable, and database-driven applications like Booksy.
- ❖ **MySQL (Database):** MySQL is used as the primary database system to store and manage structured data such as books, authors, users, carts, and orders. The relational model helps in maintaining clean and consistent data relationships. SQL queries are used for efficient data retrieval, filtering, and updating based on user interactions within the platform.
- ❖ **HTML, CSS & JavaScript (Frontend Stack):** HTML is used to structure all web pages, while CSS handles the visual styling and layout. JavaScript is used for enhancing the interactivity of the site, including real-time form validations, toggling UI elements, and improving user flow. Together, they ensure a seamless and responsive user interface for browsing books and navigating the site.
- ❖ **Bootstrap (CSS Framework):** Bootstrap is implemented to ensure a responsive and mobile-friendly layout across all pages. With its pre-built components like buttons, modals, and navigation bars, development time is reduced, and the UI remains consistent throughout the platform. It also ensures that the website adapts well to various screen sizes.
- ❖ **XAMPP (Local Development Environment):** XAMPP was used to run the Booksy project locally during development. It provides an easy-to-use setup with Apache, PHP, and MySQL pre-configured. This allowed for testing and debugging the website in a local environment before moving it to a live server.

3.5.2 LITERATURE

Modern web applications, especially e-commerce and content platforms, commonly use technologies like **PHP**, **MySQL**, and **JavaScript** due to their flexibility, ease of use, and active community support. The **LAMP stack** (Linux, Apache, MySQL, PHP) is still widely used for building scalable and cost-effective web solutions. PHP, as a backend language, integrates well with MySQL to manage structured data such as users, books, authors, and orders.

On the frontend, **HTML**, **CSS**, and **JavaScript** form the core technologies for creating responsive and interactive interfaces. **Bootstrap** further enhances frontend development by providing pre-built components and mobile-friendly design tools. Together, this stack enables the development of modular and efficient platforms like **Booksy**, supporting features such as user login, book filtering, and secure transactions.

3.6 INTERNSHIP PLANNING

3.6.1 INTERNSHIP DEVELOPMENT APPROACH AND JUSTIFICATION

While working on the **Booksy** project at **3Ni Infotech**, I gained hands-on experience in real-world web development workflows and the importance of planning and execution. The development approach I followed is outlined below:

1. **Requirement Understanding:** I started by understanding the overall goal of Booksy and its core features, such as book listing, author profiles, user login, and shopping cart functionality.
2. **Feature Design:** Based on the requirements, I planned how each feature should appear and function, focusing on user interface layout and flow for both frontend users and admin interactions.
3. **Development Phase:** Using **PHP** for the backend and **HTML, CSS, JavaScript, and Bootstrap** for the frontend, I implemented the designed features, ensuring they connected smoothly with the database and aligned with the platform's goals.
4. **Testing & Feedback:** After development, I tested the features on the local server using XAMPP. Feedback was taken from team members and corrections were made to improve functionality, layout, and user experience.

This approach helped me understand how to break down tasks, build features step-by-step, and adjust based on feedback, ultimately delivering components that matched the project's needs and quality standards.

3.6.2 INTERNSHIP EFFORT AND TIME, COST ESTIMATION

After defining the scope of the **Booksy** platform, time, effort, and cost estimations were done based on the tasks assigned and available resources:

- **Effort:** Estimated by analyzing which features could be handled by interns (like login forms or UI adjustments) and which required guidance from senior developers (like database structure or backend integration).
- **Time:** Planned using weekly task lists and sprint-based scheduling. Tasks like login validation, book filtering, and author profile setup were broken into smaller parts to ensure steady progress.
- **Cost:** Since Booksy was developed using open-source tools (PHP, MySQL, Bootstrap), software costs were minimal. Resource costs like developer time, local testing (via XAMPP), and power usage were considered as part of internal planning.

This planning helped manage development effectively, without unnecessary delays or misused effort.

3.6.3 ROLES AND RESPONSIBILITIES

As a **Web Development Intern** at **3Ni Infotech**, my key responsibilities on the **Booksy** project included:

- Developing frontend pages using HTML, CSS, JavaScript, and Bootstrap
- Writing backend code in PHP for login, cart, and book management
- Connecting forms and pages to the MySQL database
- Implementing filters, validations, and user interactions
- Testing individual modules on the local server (XAMPP)
- Collaborating with senior developer and review changes based on feedback

3.6.4 GROUP DEPENDENCIES

- While I worked independently on the **Booksy** platform during my internship at **3Ni Infotech**, there were still a few external dependencies that impacted the development process. The primary design layout and structure were provided by the **CEO**, but in some cases, the designs were not detailed or clear enough to interpret directly.
- As a result, I had to take initiative to **understand the intended layout** and apply my own judgment to convert those ideas into functional web pages. Whenever I faced uncertainty, I sought clarification or used best practices to fill in design gaps.
- This situation helped me develop strong **problem-solving skills** and taught me how to work with incomplete references — a common challenge in real-world development environments.

3.7 INTERNSHIP SCHEDULING

3.7.1 INTERNSHIP DEVELOPMENT APPROACH AND JUSTIFICATION

The Gantt chart below represents the overall scheduling and workflow followed during the **Booksy** internship project. It includes both the **initial learning phase** and the **active development timeline**. The chart is organized with the **X-axis showing the internship timeline** and the **Y-axis listing key learning and development tasks**.

Each colored bar represents a specific task or phase, including technologies learned (HTML, CSS, PHP, etc.), modules developed (login system, book upload, author linking), and testing activities. The chart reflects a **continuous and progressive development flow** with no idle periods, as tasks were carefully planned and executed back-to-back.

This visual helped me track my own progress, manage time better, and stay on schedule throughout the internship.

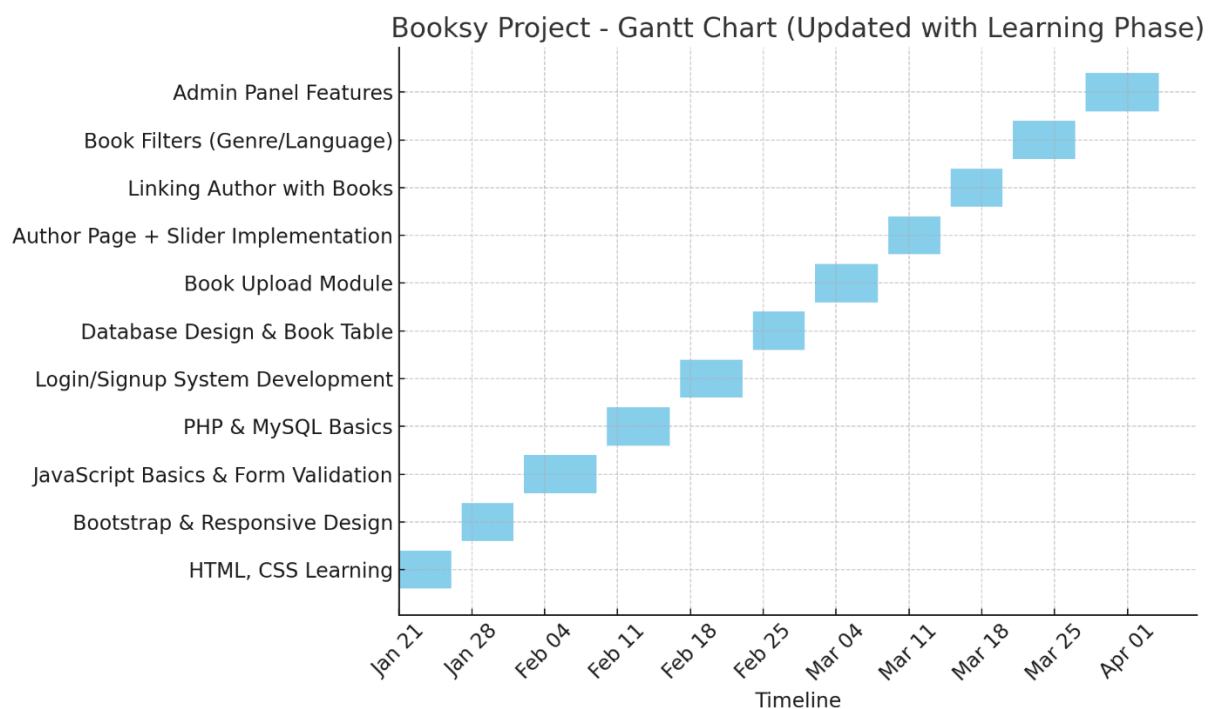


Fig 3.6 Gantt Chart

CHAPTER – 4 SYSTEM ANALYSIS

4.1 STUDY OF CURRENT SYSTEM

Many traditional book-selling systems and smaller online platforms still rely on outdated methods like manual inventory tracking, limited user interaction, and static web pages. These systems often lack personalization, advanced search/filtering options, and real-time updates. Customers may find it difficult to explore books by genre, language, or author, and sellers struggle with maintaining a user-friendly interface and managing data efficiently. Even existing e-commerce sites may not be optimized for book-specific features such as author bios, ratings, or digital previews, resulting in a disjointed and limited user experience.

4.2 PROBLEM

4.2.1 PROBLEMS IDENTIFIED

- **Lack of Personalization:** Many platforms fail to provide smart recommendations, filters, or user-based customization..
- **Manual Data Handling:** Book entries, orders, and user management are often not automated, requiring additional admin effort.
- **Search Limitations:** Basic search functions without sorting/filtering often frustrate users trying to find specific books.

4.2.2 SYSTEM WEAKNESSES

- **Limited Admin Control:** Existing systems may not offer an admin dashboard to manage books, authors, and users efficiently.
- **No Author Integration:** Users have no way to view detailed author profiles or related books, reducing engagement.
- **Scalability Issues:** Hard-coded and static systems lack modularity, making future upgrades difficult.

4.3 REQUIREMENTS OF NEW SYSTEM

4.3.1 HARDWARE REQUIREMENTS

- **For Users:**
 - Smartphone or Laptop with basic browsing capabilities.
- **For Developers/Deployment:**
 - Processor: Minimum 2 GHz (Quad-core recommended)
 - RAM: Minimum 8 GB and Storage: Minimum 64 GB (SSD preferred)
 - Internet Connectivity: Stable Ethernet or Wi-Fi
 - Local Server Setup: XAMPP/WAMP for running PHP & MySQL locally

4.3.2 SOFTWARE REQUIREMENTS

- **Operating System:** Windows 10+, Linux/Ubuntu (optional for deployment)
- **Local Server:** XAMPP (includes Apache, PHP, and MySQL)
- **Code Editor:** Visual Studio Code / PyCharm
- **Database:** MySQL
- **Browser:** Google Chrome, Mozilla Firefox
- **Mobile:** Android/iOS device

4.4 SYSTEM FEASIBILITY

Feasibility was evaluated based on available resources and project requirements. The Booksy platform is **feasible** within the current technical and educational setup:

- **Technical Feasibility:** Booksy is built using open-source tools like PHP and MySQL, which are easy to set up and widely supported. Bootstrap ensures the frontend remains responsive and mobile-friendly.
- **Economic Feasibility:** All tools used (XAMPP, VS Code, Bootstrap, etc.) are free and open-source, making the project cost-effective and accessible for student-level implementation.
- **Operational Feasibility:** The system was developed and tested successfully on a local machine. As the project was handled independently, no extra workforce or infrastructure was required.

4.5 PROCESS IN PROPOSED SYSTEM

The proposed **Booksy** system works as a full-stack web platform for browsing and managing books online. Its process includes:

- Allowing users to register/login to access book listings and manage carts.
- Admin can upload, update, or delete books and manage author details.
- Users can search, filter, and sort books based on genre, language, or author.
- Author profiles are displayed with their respective books for better discoverability.
- Backend processes securely handle form submissions, data updates, and user sessions.

4.6 FEATURES OF PROPOSED SYSTEM

- Book listing with cover images, prices, genres, and descriptions
- Filter books by genre, language, rating, and author
- Login/Signup system with category selection
- Author profile pages linked to respective books

- Admin panel for managing books and authors
- Responsive layout using Bootstrap for mobile compatibility
- Cart system for storing selected books (optional/future feature)

4.7 LIST MAIN MODULES OF PROPOSED SYSTEM

- **Main Portal Module**
 - Home Page, About, and Contact Section.
- **Admin Panel**
 - Allows admin to add, update, or delete books and manage author records.
- **Listing Module**
 - books with details like title, price, genre, language, rating, and cover image.
- **Author Module**
 - Author profiles with linked books, location, and short biography for each.
- **User Authentication:**
 - User ratings with real-time updates.

4.8 SELECTION OF HARDWARE / SOFTWARE JUSTIFICATION

■ Hardware Justification

The selected hardware setup supports smooth development and testing of the Booksy platform:

- Mid-range CPU (Intel i5 or equivalent) is sufficient to run local servers for PHP and MySQL.
- Minimum 8 GB RAM allows multitasking between browser, code editor, and database tools.
- SSD storage helps in faster file access and project loading during testing and debugging.

■ Software Justification

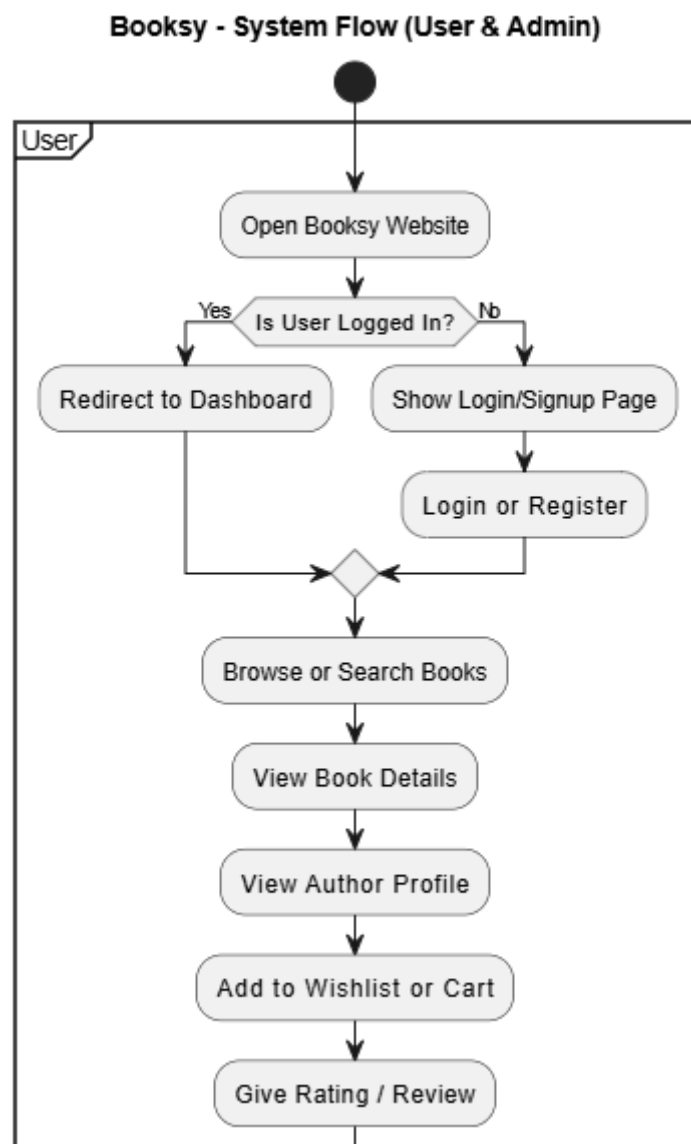
- **PHP & MySQL** – Used for backend development and data storage, ideal for lightweight and scalable web applications.
- **XAMPP** – Provides a local environment with Apache, PHP, and MySQL bundled together for efficient local development.
- **Visual Studio Code** – Lightweight, free code editor with extensions for PHP, HTML, CSS, and JS, improving productivity.
- **Bootstrap** – Used for building responsive and mobile-friendly web pages.
- **Web Browsers (Chrome, Firefox)** – For testing UI responsiveness and cross-browser compatibility.

CHAPTER – 5 SYSTEM DESIGN & METHODOLOGY

In the development of **Booksy**, a user-friendly and feature-rich book portal, system design plays a vital role in shaping the user experience and backend logic. The methodology adopted was modular and scalable, aligning with modern web development practices.

The following is a **custom flow** of how users interact with the Booksy portal and how different modules like login, book viewing, and author management are structured.

5.1 Flow of Module



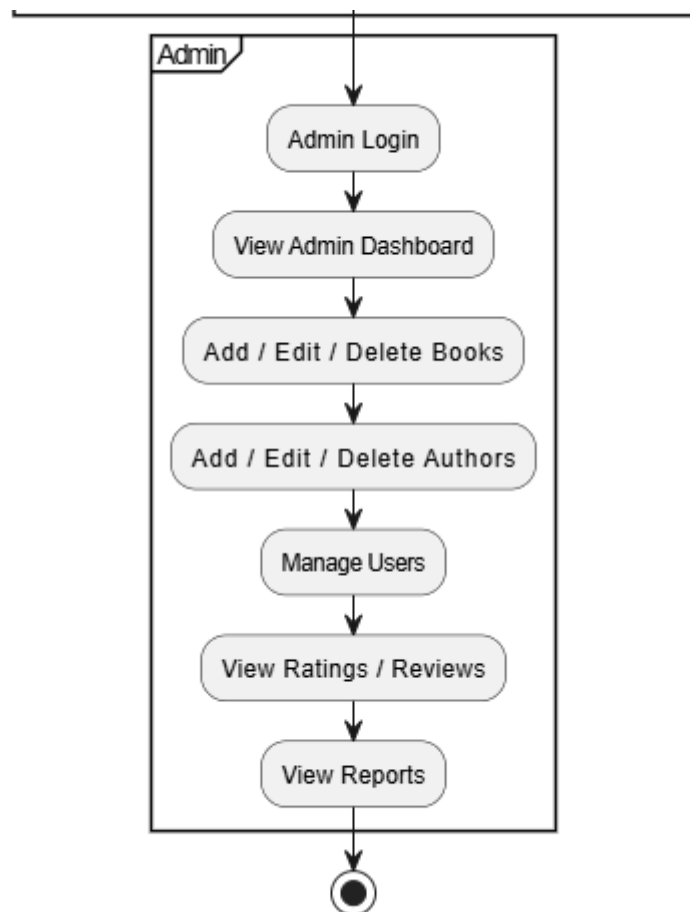


Fig 5.1 Flow of Module

5.2 CLASS DIAGRAM

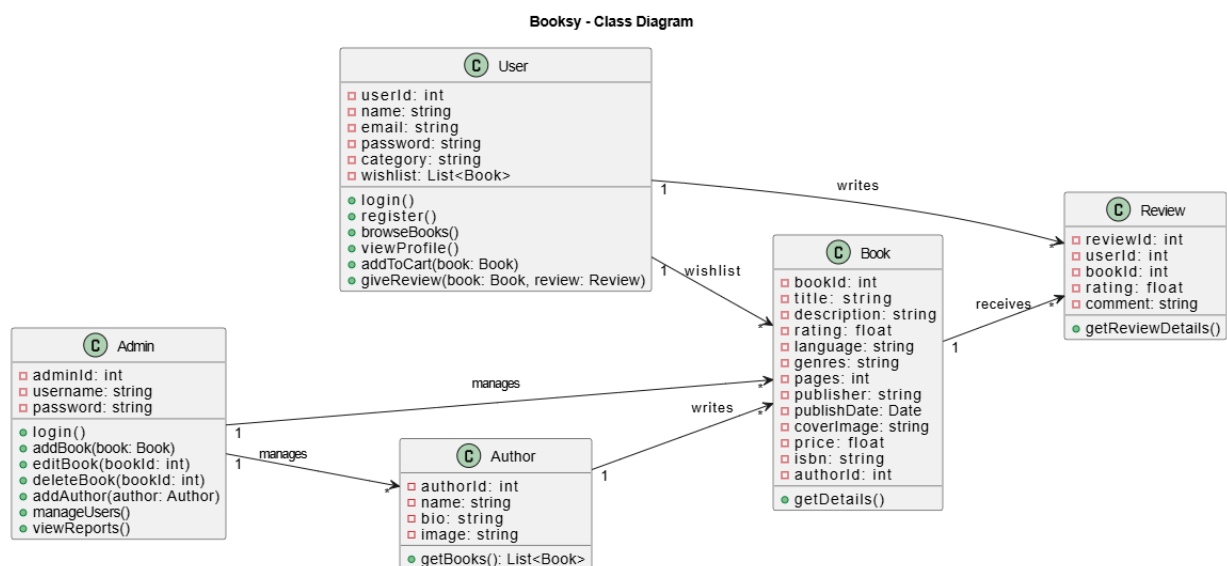


Fig 5.2 Class Diagram

5.3 USE CASE DIAGRAM

Booksy - Use Case Diagram (User & Admin)

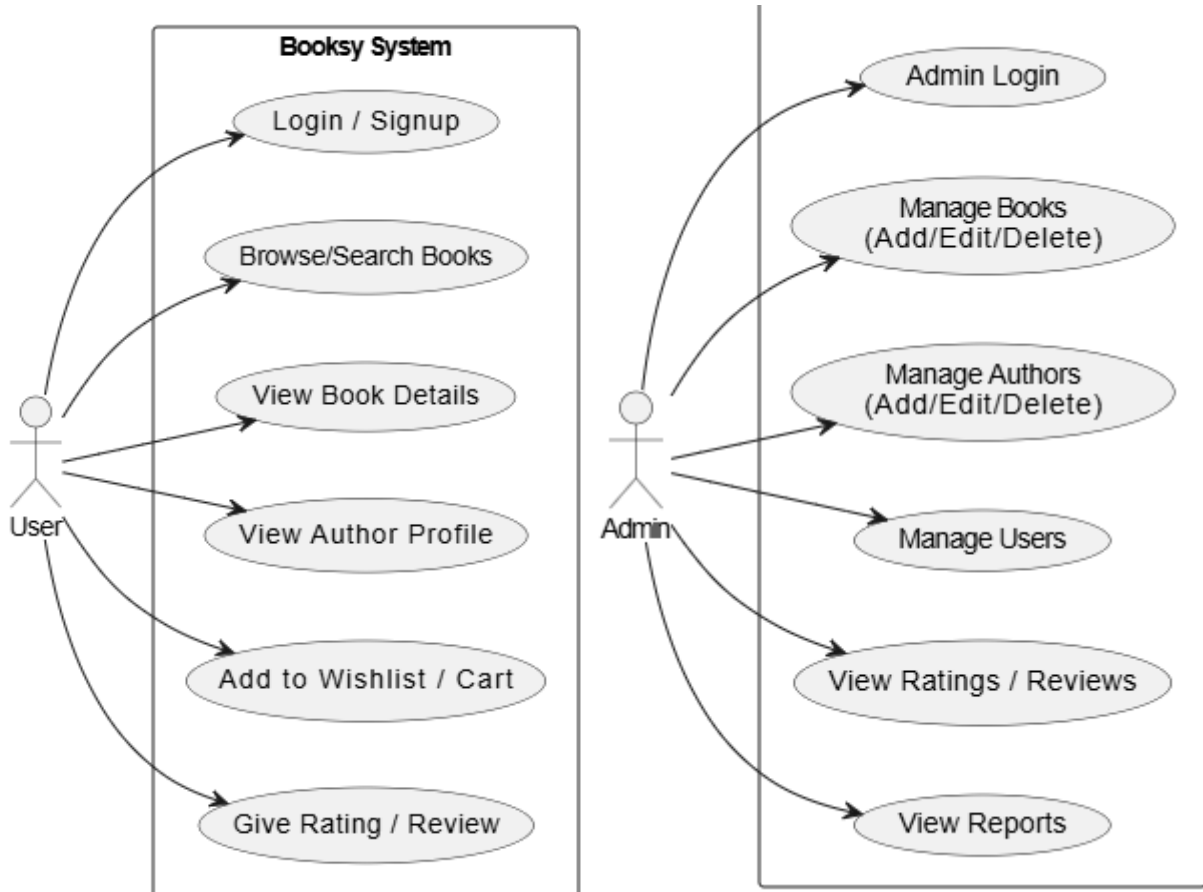


Fig 5.3 Use Case Diagram

5.4 DFD DIAGRAM

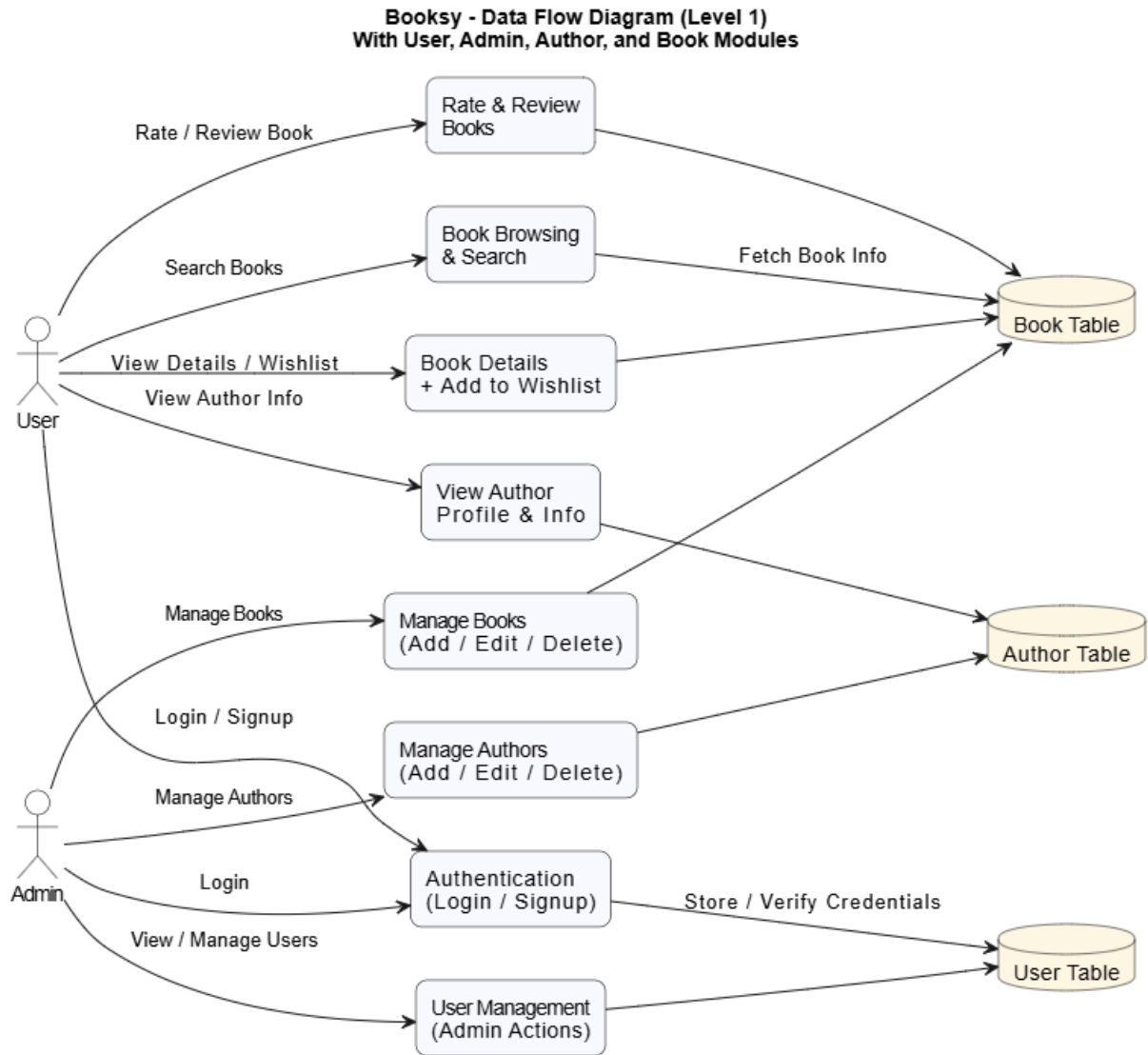


Fig 5.4 DFD

CHAPTER – 6 IMPLEMENTATION

6.1 IMPLEMENTATION ENVIRONMENT

The development of the Booksy platform was carried out using open-source web technologies. It included both frontend and backend development using standard web tools and frameworks. The project was structured in a modular fashion for better scalability and ease of maintenance. Below is the implementation environment used:

- **Frontend: HTML5, CSS3, JavaScript, Bootstrap 5**
- **Backend: PHP 8 PostgreSQL: 14**
- **Database: MySQL Code Editor: Visual Studio Code**
- **Code Editor: Visual Studio Code**
- **Local Server: XAMPP (Apache + MySQL)**
- **Web Browser: Google Chrome**
- **Operating System: Windows 10**

6.2 PROCESS

The implementation process followed a systematic development approach, starting from database design and progressing to dynamic functionality. Since Booksy was developed from scratch, each part of the system was implemented as an independent module that worked together as a complete platform.

The key steps followed were:

1. **Database Design: Created tables for users, books, and authors with proper relationships.**
2. **Authentication: Developed login/signup with category-based redirection.**
3. **Frontend Development: Built responsive pages using HTML, CSS, JS, and Bootstrap.**
4. **Backend Integration: Used PHP and MySQL to fetch and display data dynamically.**
5. **Search & Filters: Added features for book search, category filtering, and author view.**
6. **Testing: Tested on localhost and resolved validation and layout issues.**

6.3 DATABASE DESIGN

The database for Booksy was designed using **MySQL**, with a focus on normalization and clear relational structure. All data tables were created using SQL with appropriate primary and foreign key constraints. Each table corresponds to a specific functional entity in the system such as users, books, authors, and purchases.

The actual data dictionary and schema are available in the table images provided (refer to image attachments). The key tables implemented include:

- booksy.users
- booksy.author
- booksy.books
- booksy.purchases

All tables are linked using foreign keys (e.g., authorid, userid, bookid) to ensure consistent relationships between books, authors, users, and purchases.

Users Table

Column Name	Data Type	Constraints
userid	Integer	Primary Key, Not Null
name	String	Not Null
email	String	Unique, Not Null
password	String	Not Null
category	Enum	Enum('student','reader','lib')

Fig 6.1 Users Table

Author Table

Column Name	Data Type	Constraints
authorid	Integer	Primary Key, Not Null
name	String	Not Null

Fig 6.2 Author Table

Books Table

Column Name	Data Type	Constraints
bookid	Integer	Primary Key, Not Null
title	String	Not Null
rating	Float	
description	Text	
language	String	
genres	String	
pages	Integer	
publisher	String	
publishdate	Date	
coverimg	String	
price	Float	
isbn	String	Unique
authorid	Integer	Foreign Key (author.authorid)

Table:6.3 Books Table

Column Name	Data Type	Constraints
purchaseid	Integer	Primary Key, Not Null
userid	Integer	Foreign Key, Not Null
bookid	Integer	Foreign Key, Not Null
purchase_date	DateTime	Not Null
amount	Float	
payment_status	String	
payment_method	String	
razorpay_payment_id	Integer / String	
razorpay_order_id	Integer / String	
razorpay_signature	Integer / String	
download_link	String	
refund_requested	Boolean	
refund_status	String	

Table:6.4 Purchases Table

6.4 RESULTS

6.4.1 Introduction of Web Pages

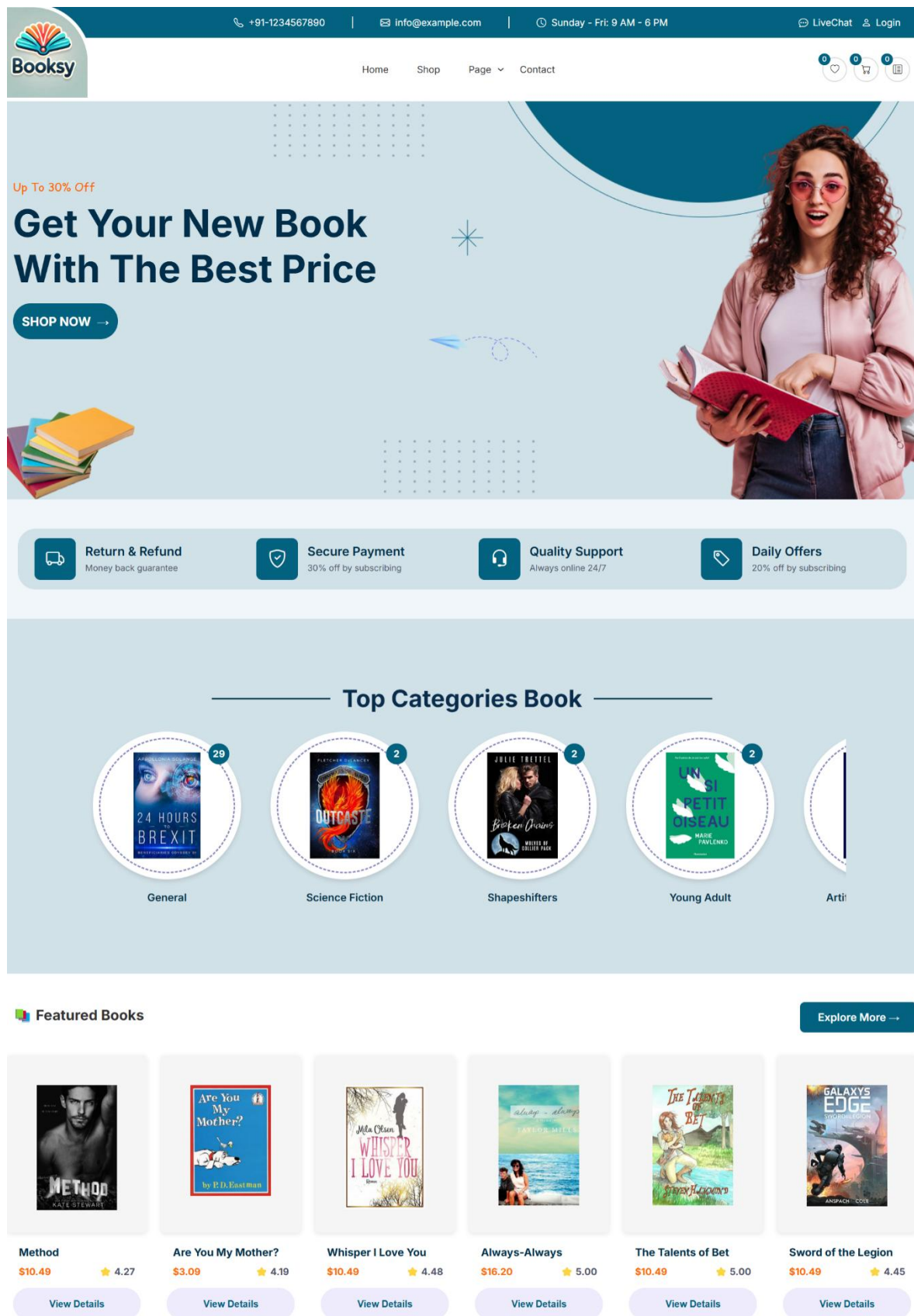


Fig 6.2 Home page

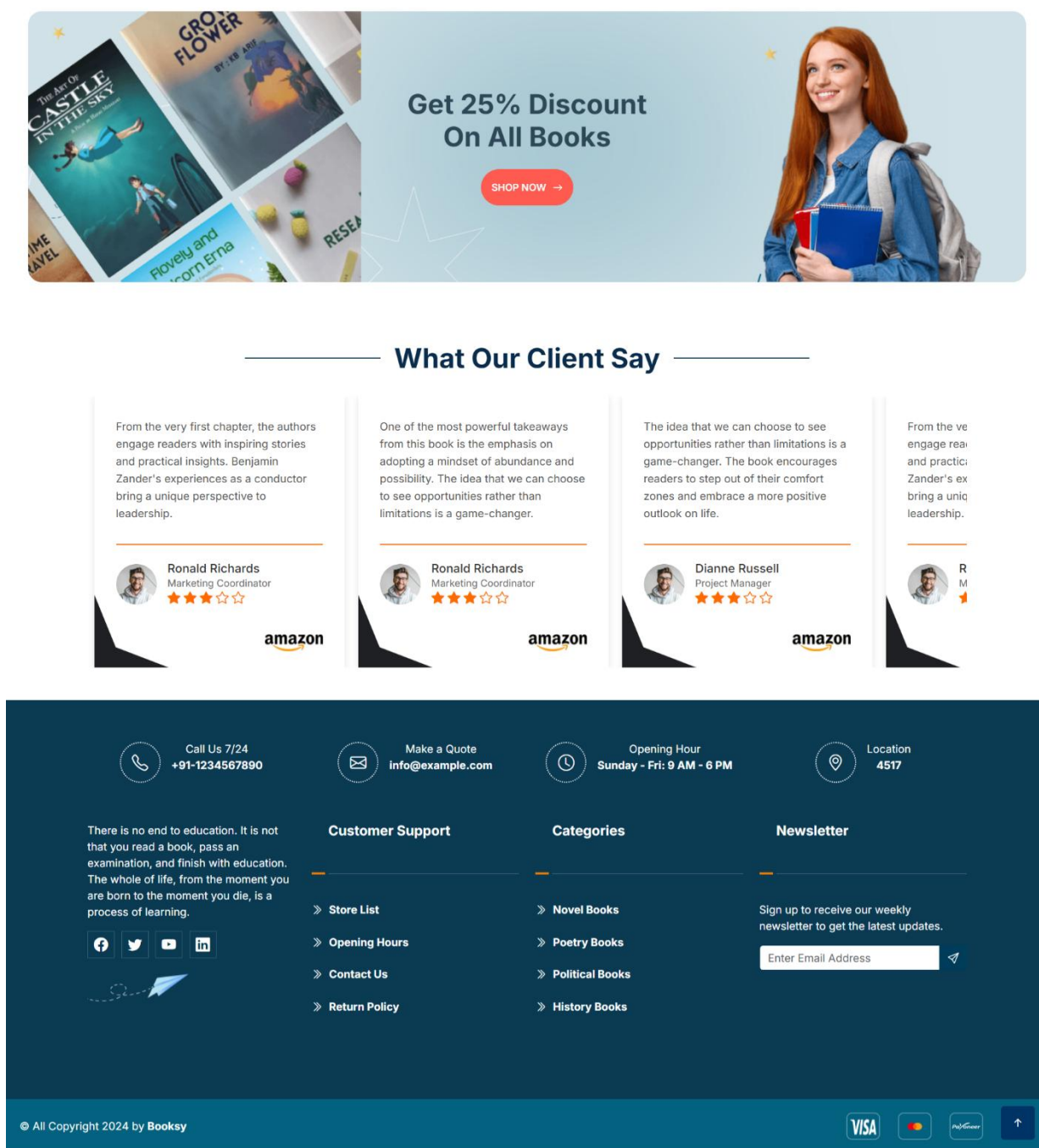


Fig 6.2 Home page

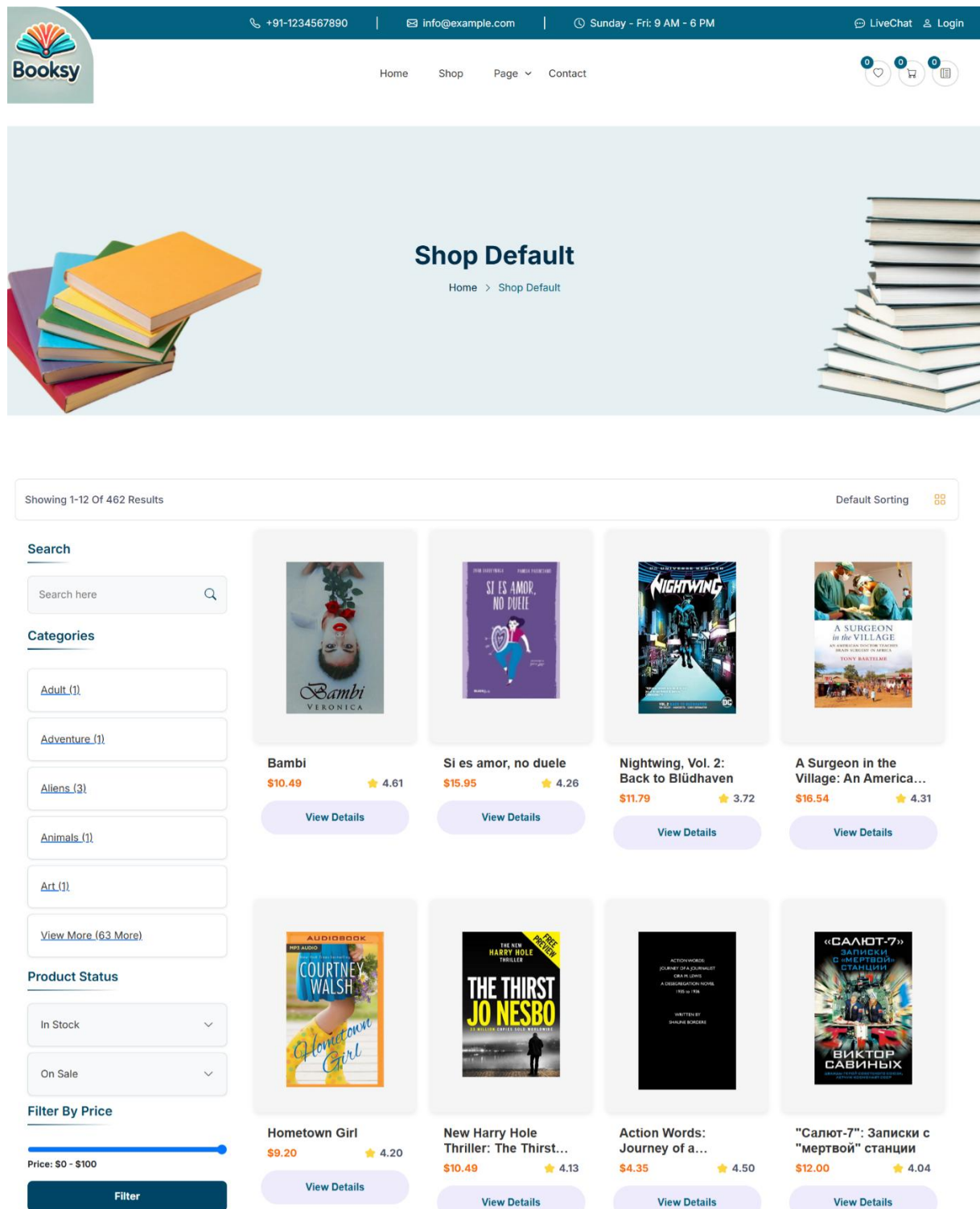


Fig 6.3 Shop page

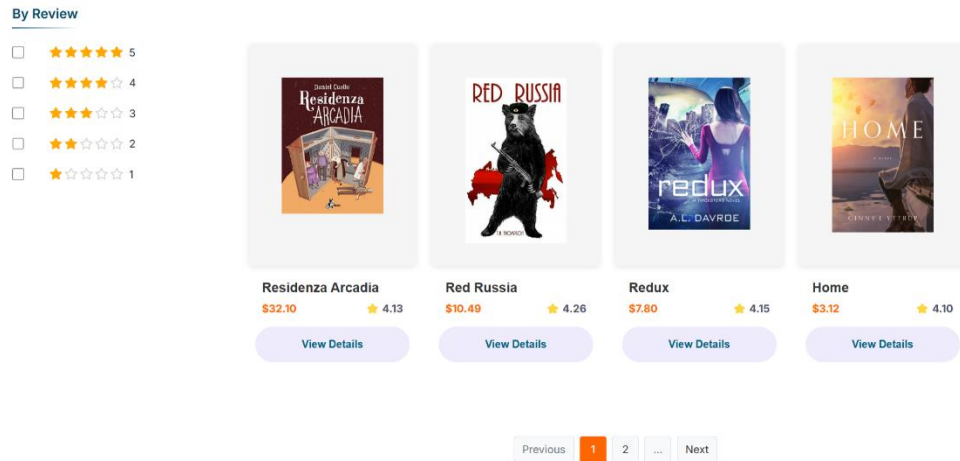


Fig 6.3 Shop page

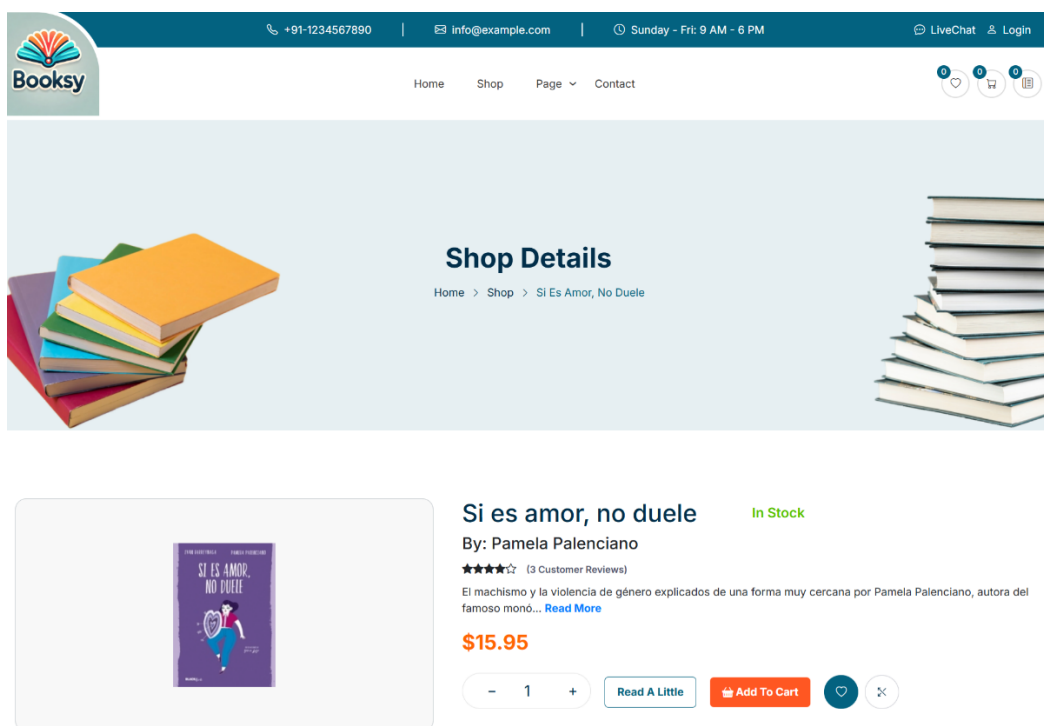





Fig 6.4 Shop detail Page

ISBN: 9788420486239	Author: Pamela Palenciano	Total pages: 192	Publish Date: 2023-02-20
Category: Feminism	Format: Paperback	Language: Spanish	Country: USA


✓ Free shipping orders from \$150	✓ Mamaya Flash Discount: Starting at 30% Off
✓ 30 days exchange & return	✓ Safe & Secure online shopping

Also Available On:   

[Description](#) [Additional Information](#) [Reviews \(3\)](#)


El machismo y la violencia de género explicados de una forma muy cercana por Pamela Palenciano, autora del famoso monólogo No solo duelen los golpes. Pamela Palenciano sobrevivió a una relación de maltrato que duró toda su adolescencia. En este libro comparte lo que vivió y nos brinda una mirada fresca e ingeniosa que analiza con profundidad la idea del amor romántico y cómo nos afectan los roles de género. O, dicho de otra manera, por qué los hombres compiten por todo, por qué las mujeres de los anuncios siempre salen con la boca abierta y qué le pasa a la princesa después de escapar de la torre con su príncipe azul.


Fig 6.4 Shop detail Page





Contact Us

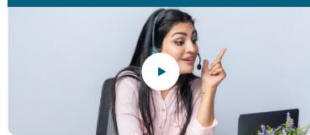
Home > Contact Us



 Call Us 7/24
+208-555-0112

 Make a Quote
example@gmail.com

 Location
4517 Washington Ave.



Ready to Get Started?

Now the course of the lecture is always. Aenean has a responsibility to the arch to ease the consequences. Among and the hunger of the family before the first in the mouth. It is not the elite, but the just increases. The authority was there, not the edge of the time. Aenean dignity.

Your Name*

Your Email*

Write Message*

Send Message →

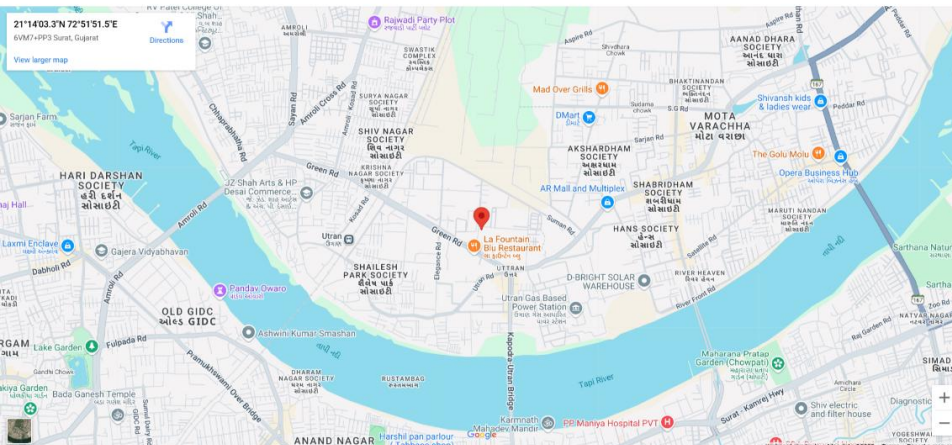


Fig 6.5 Contact Us page

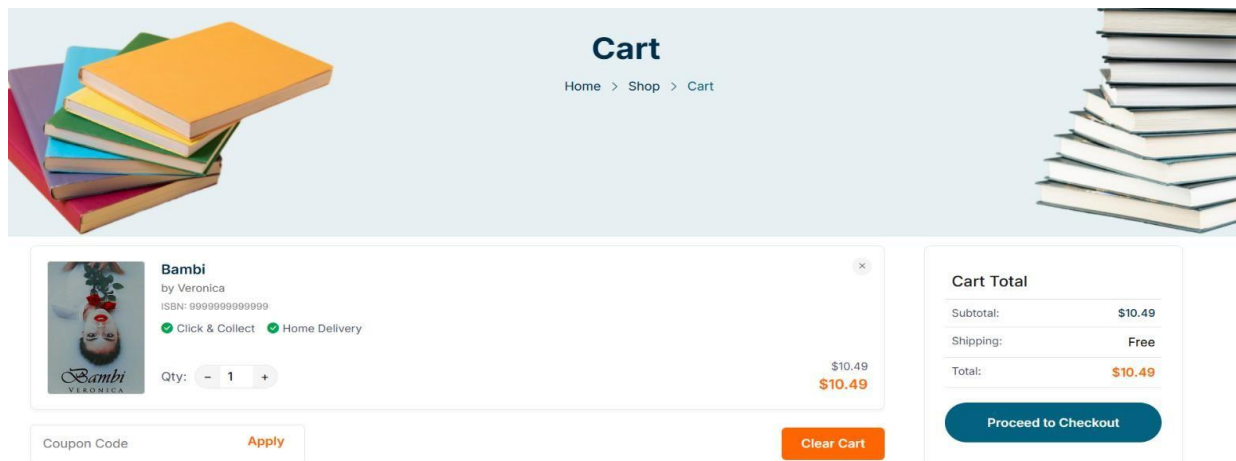


Fig 6.6 Cart page

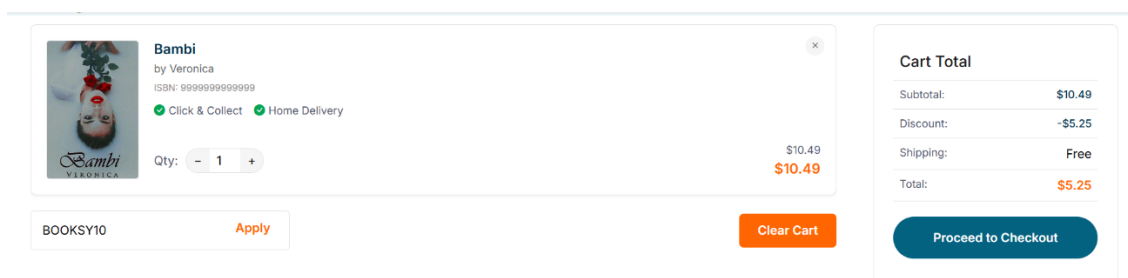


Fig 6.6 cart page

Billing details

First name *

Last name *

Company name (optional)

Country / Region *

Select a country

Street address *

House number and street name

Apartment, suite, unit, etc. (optional)

Town / City *

State *

Select a state

ZIP Code *

Phone *

Email address *

Your order

Bambi

x 1

\$10.49

Subtotal

\$10.49

Shipping

☒ Free shipping
 ☐ Flat rate: \$4.99

Total

\$10.49

☒ Direct bank transfer

Make your payment directly into our bank account. Please use your Order ID as the payment reference. Your order will not be shipped until the funds have cleared in our account.

☐ Check payments

☐ I have read and agree to the website [terms and conditions](#) *

Place order

Fig 6.7 check-out page

JOIN & READ

Full name

Email

Password Show

At least 8 characters
One uppercase letter
One number

Confirm Password

Area of interest

Category

☐ I agree to the [Terms & Conditions](#)

[Sign up](#)

Already have an account? [Login](#)



Fig 6.8 Sign Up Page

WELCOME

Login to continue your reading journey

Email

Password Show

[Login](#)

Don't have an account? [Sign up](#)



Fig 6.9 Sign In Page

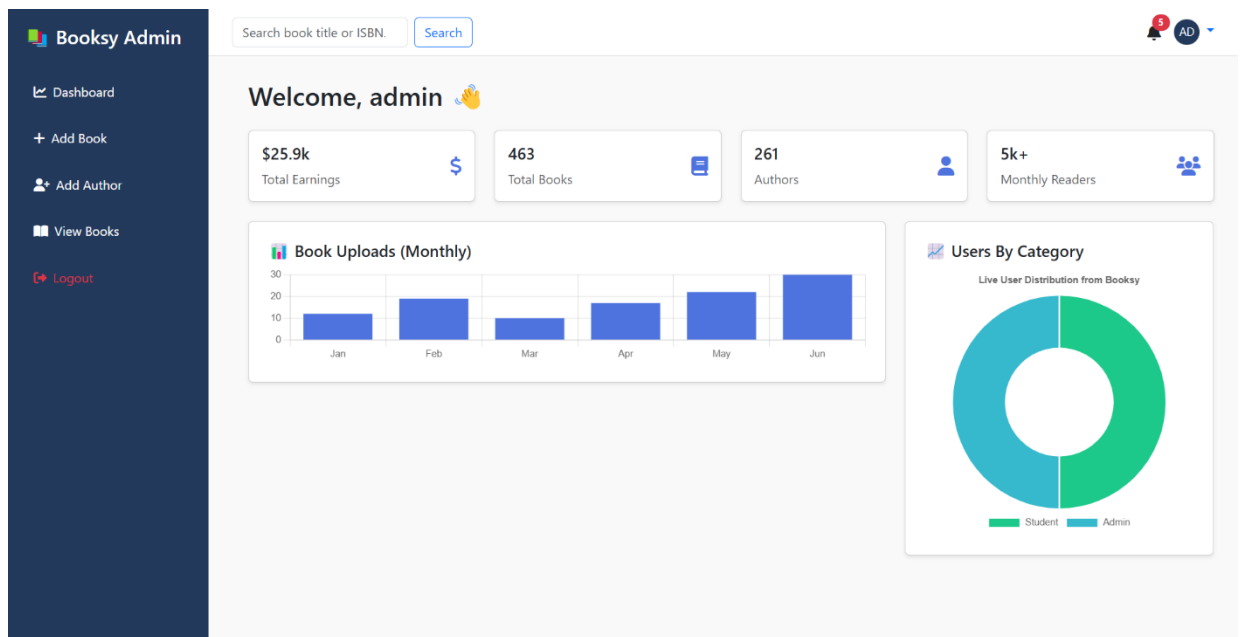


Fig 6.10 Admin dash board page

Booksy Admin

Add New Book

Title Rating

Description

Language Genres

Pages Publisher Publish Date

Cover Image No file chosen Price ISBN

Author

Fig 6.11 Add Book Page

Fig 6.12 Add Author Page

ID	Title	Author	Cover	Price	ISBN	Actions
1	Bambi	Veronica		\$10.49	9999999999999	Edit Delete
2	Si es amor, no duele	Pamela Palenciano		\$15.95	9788420486239	Edit Delete
3	Nightwing, Vol. 2: Back to Blüdhaven	Tim Seeley (Goodreads Author) (Writer)		\$11.79	9781401270858	Edit Delete
4	A Surgeon in the Village: An American Doctor Teaches Brain Surgery in Africa	Tony Bartelme (Goodreads Author)		\$16.54	9780807044889	Edit Delete
5	Hometown Girl	Courtney Walsh (Goodreads Author)		\$9.20	9781536690293	Edit Delete
7	New Harry Hole Thriller: The Thirst Free Ebook Sampler	Jo Nesba (Goodreads Author)		\$10.49	B06XQ6M3QG	Edit Delete
8	Action Words: Journey of a Journalist	Shaune Bordere (Goodreads Author)		\$4.35	9781513619095	Edit Delete
9	"Салют-7": Записки с "мертвой" станции	Виктор Савиных		\$12.00	9785040893690	Edit Delete
10	Residenza Arcadia	Daniel Cuello		\$32.10	9788865438497	Edit Delete
11	Red Russia	Tanya Thompson		\$10.49	B0745NSJIX	Edit Delete
12	Redux	A.L. Davroe (Goodreads Author)		\$7.80	9781633755079	Edit Delete
13	Home	Ginny L. Yttrup (Goodreads Author)		\$3.12	9781634099554	Edit Delete
14	The Girl Who Lived	Christopher Greyson (Goodreads Author)		\$4.76	9781683993032	Edit Delete
15	The Selection	Jason J. Nugent (Goodreads Author)		\$18.63	9781544244518	Edit Delete

Fig 6.13 View Book page

6.5 RESULT ANALYSIS

The **Booksy** platform, developed as a full-stack web application using PHP, MySQL, HTML, CSS, JavaScript, and Bootstrap, was successfully implemented and tested across multiple real-world use cases within the online book-selling domain. The system enables users—including readers, students, and libraries—to seamlessly register, log in, browse and search books, manage purchases, and explore author profiles via dedicated user interfaces.

The frontend, designed with responsive web techniques and interactive JavaScript features, delivers a clean and intuitive user experience across both desktop and mobile browsers. Features such as dynamic form interactions, category-based login redirection, and real-time feedback (like grayscale-to-color image interaction) ensure a modern and engaging UI.

On the backend, PHP scripts interact with a MySQL database to manage key entities such as books, users, authors, and purchases. Role-based handling ensures each user type (student, reader, or library) accesses features relevant to their role. From account creation to browsing books and viewing author details, the workflows are implemented with validations and security checks.

Functionality testing confirmed that:

- User authentication, form validation, and session handling are executed securely using PHP sessions and backend logic.
- Readers and students can explore books, view author bios, and manage their personal book collections.
- Libraries have tailored access to handle bulk purchases and manage wider selections.
- Admin-level functionalities include managing users, books, authors, and tracking purchases via the dashboard.

Performance testing demonstrated the platform's stability and responsiveness under simulated multi-user interactions. Real-time statistics, modal-based editing, and responsive sidebars ensured smooth navigation and control. Components like the rating system and author slider performed as intended across different screen sizes.

Overall, the result analysis confirms that **Booksy** meets its development goals by offering a modular, user-friendly, and visually appealing book-selling solution. Planned future improvements include integration of payment gateways, real-time analytics, recommendation systems, and chat support to further enhance engagement and user satisfaction.

CHAPTER – 7 TESTING

7.1 TESTING PLAN

To ensure the reliability, usability, and performance of the **Booksy** platform, a variety of software testing methodologies were applied throughout the development cycle. Although advanced testing techniques like beta testing and multivariate testing are applicable, our primary approach focused on manual testing in a real-time development environment and feedback-based improvement.

- **Accessibility Testing** – Ensured the platform is usable by all users, including those using screen readers or keyboard navigation.
- **End-to-End Testing** – Verified full user flows like signup, login, book search, author browsing, and purchases.
- **Functional Testing** – To verify all features worked as expected based on requirements.
- **Load Testing** – Tested system behavior under multiple concurrent users.
- **Performance Testing** – To analyze speed and stability.

7.2 TEST RESULTS AND ANALYSIS

The above given test results are given in below table:

Table 7.1 Test Result Analysis

Sr. No	Test Name	Result
1	Accessibility Testing	PASS
2	End to End Testing	PASS
3	Functional Testing	PASS
4	Load Testing	PASS
5	Performance Testing	PASS

All testing results indicate that the **Booksy** system is stable, accessible, and delivers consistent performance under expected usage conditions

CHAPTER – 8 CONCLUSION AND DISCUSSION

8.1 SUMMARY OF INTERNSHIP WORK

During my 12-week internship at **3Ni Infotech Pvt. Ltd.**, I worked on **Booksy**, a dynamic online book-selling platform designed to manage books, authors, users, and purchases. This project provided me with hands-on experience in full-stack web development using technologies like PHP, MySQL, HTML, CSS, JavaScript, and Bootstrap.

Key tasks and learnings include:

- **Database Design & Backend Integration:** I created and managed relational tables for books, authors, users, and purchases using MySQL, and developed PHP scripts to interact with them securely and efficiently.
- **Frontend Development:** Designed responsive and visually appealing pages for book listings, author profiles, login/signup functionality, and admin dashboards using HTML5, CSS3, and Bootstrap.
- **User Authentication & Role Management:** Implemented login and signup with role-based redirection (student, reader, library) and validations for better user control.
- **Testing & Deployment:** Conducted thorough testing and debugging to ensure a smooth and consistent flow for both users and admin.

This internship significantly enhanced my practical skills in web application development, database management, and designing scalable and user-friendly systems.

8.2 LIMITATION AND FUTURE ENHANCEMENT

While **Booksy** achieves its core objectives, there are opportunities for future improvement:

- Add **real-time search** with suggestions for books and authors.
- Integrate **online payment gateways** (e.g., Razorpay) for purchases.
- Enable **ratings and reviews** for books and authors.
- Add **admin analytics** for user activity, book sales, and traffic insights.
- Implement **chat support or FAQ bots** to help users during browsing.
- Optimize for **mobile responsiveness** and accessibility features.
- Enable **wishlist and cart** functionality for a better shopping experience.

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9. Razorpay Docs: <https://razorpay.com/docs/>
10. GitHub: <https://github.com/>