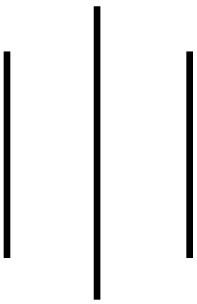
LA GRANDEE INTERNATIONAL COLLEGE

Simalchaur, Pokhara Nepal

A Project Report

On

“Bookly”



Submitted to:

Bachelor of Computer Application (BCA) Program

In partial fulfilment of the requirements for the degree of BCA under

Pokhara University

Submitted by:

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Date: February 20, 2025

Acknowledgement

We would like to express our gratitude to our project supervisor Mr. Sunil Sapkota and BCA coordinator Mr. Kundan Chaudhary for guiding us throughout the project. And we are thankful toward each other we worked as a team supportively.

Sincerely,

Bishal Adhikari (PU Exam Roll no): 21535149

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Student's Declaration

We hereby declare that we are the only authors of this work and that no source other than the listed here have been used in this work. We guarantee that the work we have presented is entirely our own, and any similarity to other projects is purely coincidental.

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Roshan Adhikari (21535164):

Program: BCA, 6th Semester
Date: February 25, 2025

Supervisor's Declaration

I hereby recommend that this project entitled "**Bookly**" is done under my supervision by **Bishal Adhikari, Deepak Chhantyal, Roshan Adhikari** during their 6th Semester in partial fulfillment of the requirements for the degree of **BCA** under **Pokhara University** is completed to my satisfaction and be processed for final evaluation.

_____

Mr. Sunil Sapkota

Date:____ / ____ / _____

Letter of Approval

We certify that we have examined this report entitled "**Bookly**" and are satisfied with the project defense. It is satisfactory in the scope and quality as project in partial fulfilment of the requirement for the degree of **BCA** under **Pokhara University.**

Supervisor	**External Examiner**	**Program Coordinator**
Mr. Sunil Sapkota	Er. Asmit Nepali	Mr. Kundan Chaudhary
LA GRANDEE International College		LA GRANDEE International College

Date: February 20,2025

Abstract

Bookly is an online platform that makes buying and selling books easy and easy. It has variety of books with different genres and categories. With titles indexed in search by users favorite terms, it is possible to search for their favorite titles to help them filter out the option that would do well.

The website is very simple, secure payment options and tracking of orders according to user preferences are available. Bookly is also used to sell books from independent authors and publishers.

Bookly is built with the focus on the accessibility, affordability and sustainability while delivering the joy of reading towards the world.

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Abbreviations

SQL:	Structure Query Language
E-Commerce:	Electronic Commerce
CRUD	Create, Read, Update and Delete
PHP	Hypertext Preprocessor
MySQL	My Structured Query Language
DFD	Data Flow Diagram
ER-Diagram	Entity Relationship Diagram

1. Introduction

Bookly is an eCommerce solution that implementing the concept of buying and organizing books based on its simplicity for both an end user and a system administrator. Convenience along with accessibility became the name of the game in today's fast growing world of online shopping, however, most services do not offer a completely fulfilling experience. Since this void is lacking, Bookly serves as a solution designed for both the avid book lovers and the administrators.

As for the users, Bookly provides them with an opportunity to use the site's simple navigating option, which makes it possible to find various books. Users can sort the information as they like, using the search options, like genre, author, and keywords, to find a new book. Users are also able to access more specific data about books to select which they want to be added to a cart where they can be bought easily.

From the perspective of the administrative side, there are features for the effective management of the platform. The use of this inventory means that administrators are able to have CRUD functionality that enables them to constantly update the inventory information. They can also direct user orders and determine whether to accept or reject them, due to stock or for any other reason.

Some of the accomplishments recorded in the course of the project implementation are the provision of user authentication, sign-up as well as an order placement mechanism. The plan for further development is about implementing the support for the most widespread domestic payment gateways such as Khalti to meet Nepali clients' requirements.

Bookly's goal is not to become just an online selling service; though, it is much than this. Using elements like individual recommendations, easy to navigate layout, and fast checkout, it is designed to foster a strong community of bibliophiles. The work stays concentrated on reconciling the features and usability in order to remain competitive and show Bookly as a progressive and versatile solution for eCommerce.

2. Problem Statement

Despite the increasing digitization of book shopping, existing online systems still face several challenges:

- Poor Search Capabilities: Many platforms lack advanced search features, making it difficult for users to find books based on author, genre, or keywords.
- Inefficient Cart Management: Users often encounter difficulty in managing items in their cart, such as updating quantities or removing books.
- Limited Administrative Tools: Administrators face challenges in performing CRUD operations, monitoring orders, and keeping track of inventory.
- Lack of Payment Integration: Existing systems often fail to support region-specific payment gateways, leading to inconvenience for users.

3. Objectives

The goal of a bookly is to give book buyers and sellers an opportunity for easy, comfortable and safe book purchasing and selling. Here are some key objectives:

- To make an online platform where customers can shop book of their choices on their comfort.
- To increase the bookstore's customer base by providing wide variety of books to the readers.

4. Background Study

When the formation of the team occurred, we started researching the concepts in order to select a project that could be useful, meaningful, and feasible. Thus, our main goal was to create a system that would help to overcome issues characteristic of people's daily experiences. Our study showed that current e-Commerce sites involved in the sale of books do not support basic functionalities such as proper stock management, offering recommended books to customers, among others. This took us into the creation of the project known as "Bookly – An Online Bookstore."

Despite the fact that contemporary book stores are conveniently redesigning the way true book lovers shop for books, some platforms are still lacking an all-encompassing solution. There exists problems like weak search options, poor grouping of books categories, and absence of localized payment methods. Noting these issues, our goal was to design a digital system which not just addresses these issues but also improves the generalized process of finding and buying books as well.

Bookly aims at being user-friendly, time-saving and all in one place for book lovers and administrators. Pursuing to fill the existing voids of other online bookstores, the platform aims to developers into providing a smooth experience to the users and the administrators can efficiently operate the system.

5. Requirement Document

While developing a project, requirements are necessary. Without requirements, a project cannot be developed. It outlines the essential features and functionalities necessary for efficiently organizing and coordinating futsal events.

5.1 Requirement Matrix:

SN.	Required modules, system and features.	Description for the modules	Priority (High, Moderate, low)	Remarks
1.	Login and security system	User should be able to register and login with valid details.	High	
2.	Registration and user profiles	User registration, user individual profile section.	High	
3.	Cart	User should be able to add to cart, view and update quantities.	High	
4.	Payments	Payment integration after purchasing of books.	High	
5	Books inventory	Admin able to add , edit or remove book , update details, quantity of books in inventory.	High	
6	Admin Profile	Admin should able update own profile	High	

Figure 5.1: Requirement Matrix

5.2 Types of Requirement

User Requirement

- **For customer**
  1. Ability to register, login and manage their profiles.
  2. Search for book by title, author, genre
  3. View detailed information about books
  4. Add book to cart and proceed to checkout
  5. Securely make payments
- **For Admin**
  1. Manages book inventory
  2. Monitor and update stock levels
  3. Order management

Functional requirements

- **User Account Management:** User registration, login/logout
- **Book Catalog and search:** Book catalog with categories and searching and filtering capabilities.
- **Cart and checkout:** Add or remove book, update books quantities etc.
- **Order Processing:** process order and confirm orders.
- **Inventory management(Admin):** Book management

Nonfunctional requirements

- **Security**: The system will be secured, and management of configuration and errors.
- **Reliability**: The system operates free of failure and reliable with the hardware.
- **Data Integrity**: The system will have the efficient data collection, store access and usage.
- **Performance**: Provide a minimum response time, while with the user interactions.

6. System Design

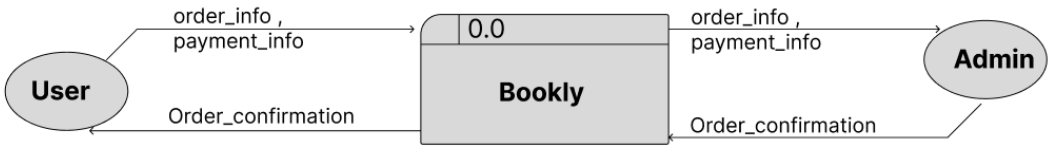
System Design is the process of designing the elements of a system such as modules, interfaces and the data that goes through that system. We represent the design of our system by using DFD diagram.

6.1 Data Flow Diagram

Data Flow Diagram (DFD) is a graphical representation of the flow of data and used to visualize how data is flow, process and stored within a system. The DFD of our system:

6.1.1 Level-0 DFD

Indexes:



- **External Entity**
  - User(customer)
  - Admin

Figure 6.1: Level 0 DFD

6.1.1 Level -1 DFD

Indexes:

1. External Entity
    - User
    - Admin
2. Processes
    - Register/login(1.0)
    - Manage books(1.1)
    - Browser books(1.2)
    - Order Payment(1.3)
    - Order Books(1.4)
    - View Order(1.5)
    - View Payment(1.6)
    - Approve Order(1..7)

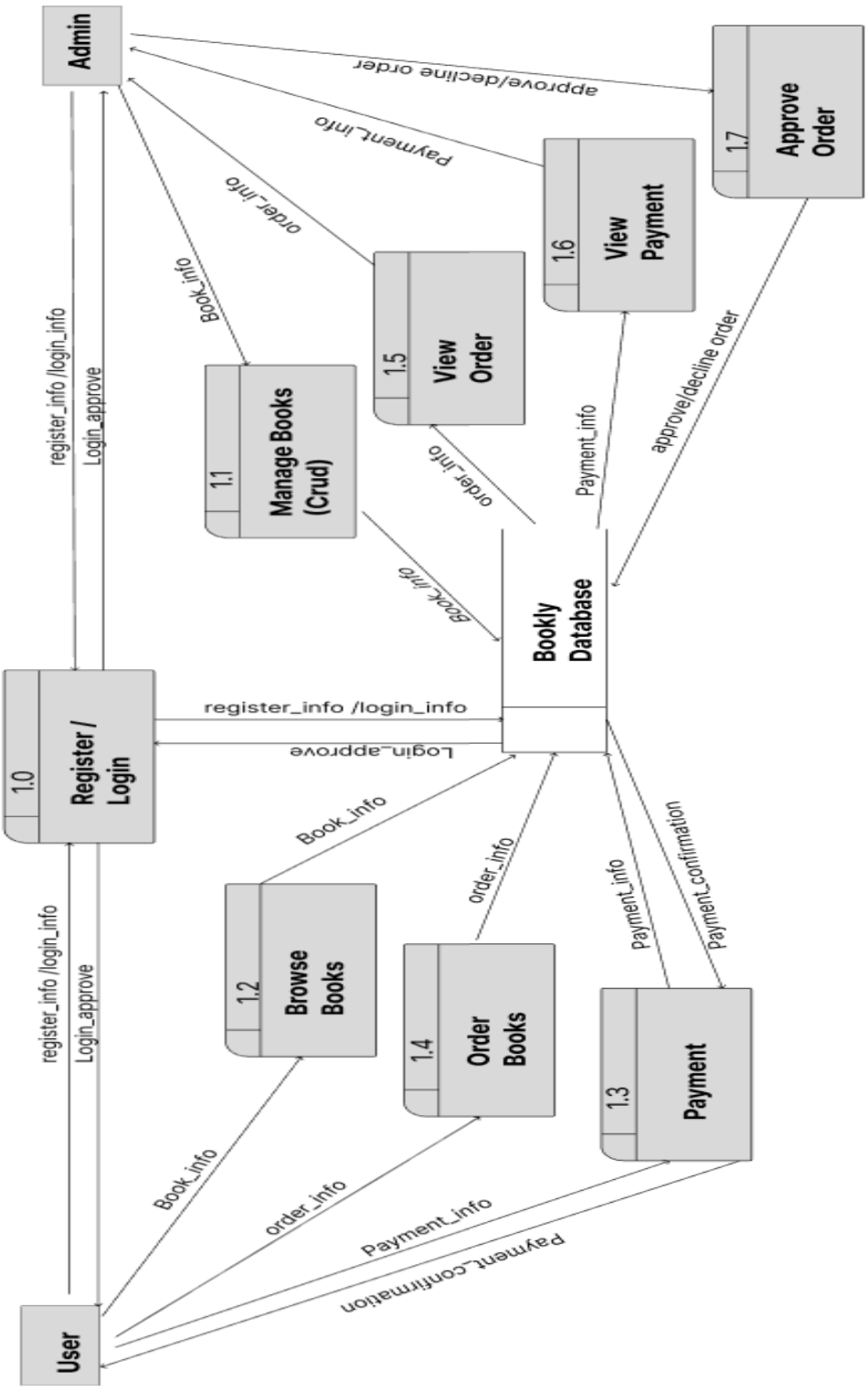


Figure 6.2: Level-1 DFD

6.2 ER-Diagram

Entity-Relationship (ER) diagram for a Bookly involves identifying the main entities, their attributes, and the relationships between them. Here's a simplified ER diagram for a bookly(book store website):

Entities:

- **User**
- **Books**
- **Admin**
- **Order**
- **Cart**

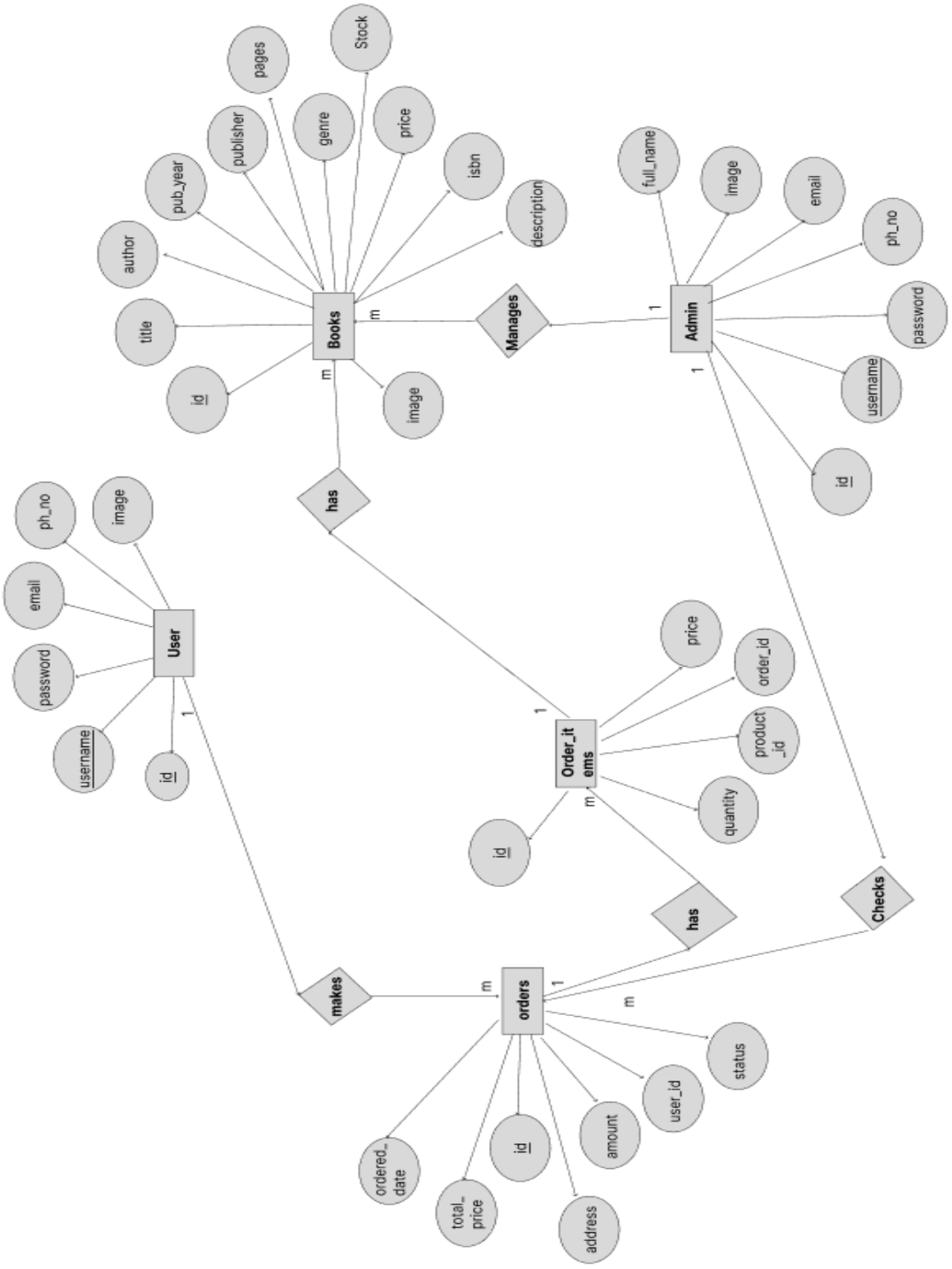


Figure 6.3: Er-Diagram

7. Development

Project development is the process and the facility of planning, organizing, allocating resources to fully develop a project. Development is basically a roadmap to provide a guidance to develop and build a project. On the documentation of a project, we have use MS-Word., which allows us document the report. We use a web application "Lucid Chart "for the DFD and Flowchart of the system. For the Gantt chart of the project progress, MS-Excel is used.

7.1 Development Methodology

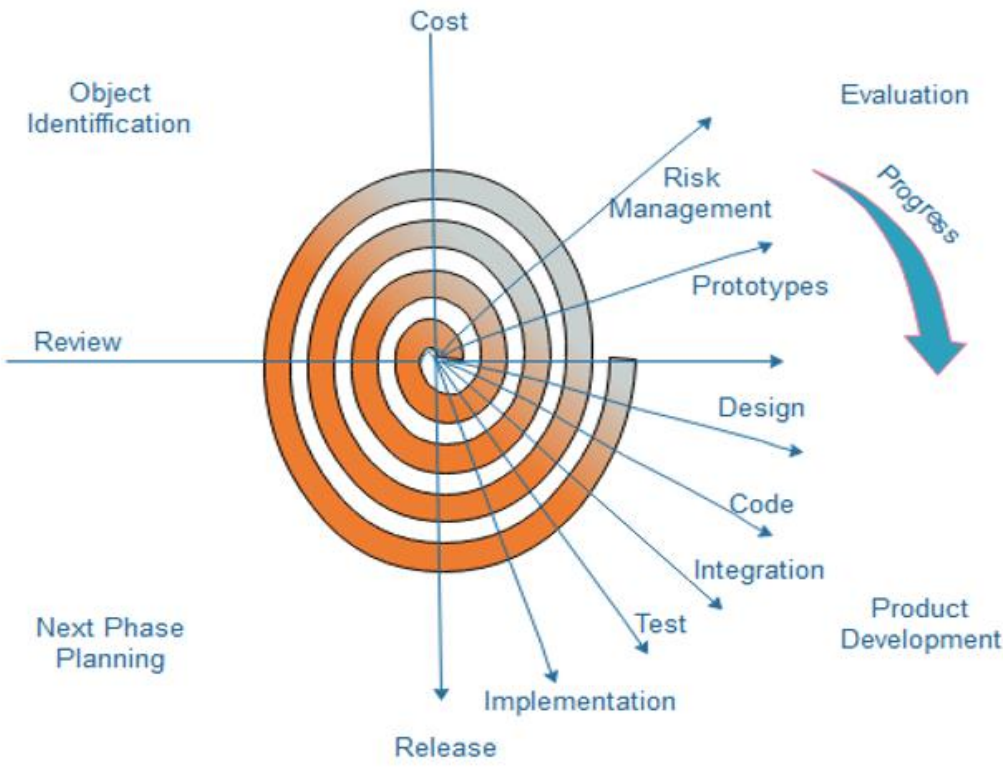


Figure 7.1: Spiral Model

1. Planning Phase

- Decided on the main features like book listings, search, user login, and payment options.

- Identified the target users and business goals.

- Chose PHP for the backend, along with MySQL for the database and HTML, CSS, and JavaScript for the frontend.

- Designed the website with a clean purple theme.

2. Risk Analysis Phase

- Considered possible issues like security risks, website speed, and payment integration challenges.

- Researched secure login methods and safe online transactions.

- Planned smooth navigation and easy scrolling for book listings.

3. Development & Prototyping Phase

- Created basic design mockups for the homepage, book catalog, and checkout page.

- Developed key website features, including:

  - Header, Footer, and a Book catalog for displaying books.

  - Book listings with horizontal scrolling for better usability.

  - User login/signup system using PHP and MySQL.

  - Shopping cart and checkout system using PHP sessions.

- Built the backend using PHP and MySQL, handling user authentication and book data.

4. Testing & Fixing Issues

- Tested the website locally using XAMPP.

- Checked if the site worked well on browsers.

- Fixed PHP script errors, database connection issues, and design inconsistencies.

5. Deployment Phase (Planned)

- The site has not been hosted yet but is ready for deployment.

- Future hosting options include shared hosting, or cloud hosting.

6. Maintenance & Future Improvements

- Gathered user feedback and planned improvements.

- Considered adding new features like:

  - Admin panel for managing books and orders.

- Wishlist and book recommendations.

- Regularly updated the website, fixed bugs, and improved security.

7.2 Work Assign

The following table shows the activities done by the team members:

S.N.	Name of the member	Work assigned	Remarks
1.	Bishal Adhikari	• Document • Problem Identification • System Design • System coding	
2.	Deepak Chhantyal	• Documentation • Planning • System Coding • System Design • Testing	
3.	Roshan Adhikari	• Testing • Coding • Requirement Document • Documentation	

Figure 7.2: Work Assign

7.3 Project Gantt chart

In the context of developing a Bookly, a Gantt chart for the project includes various tasks and milestones related to the system's development.

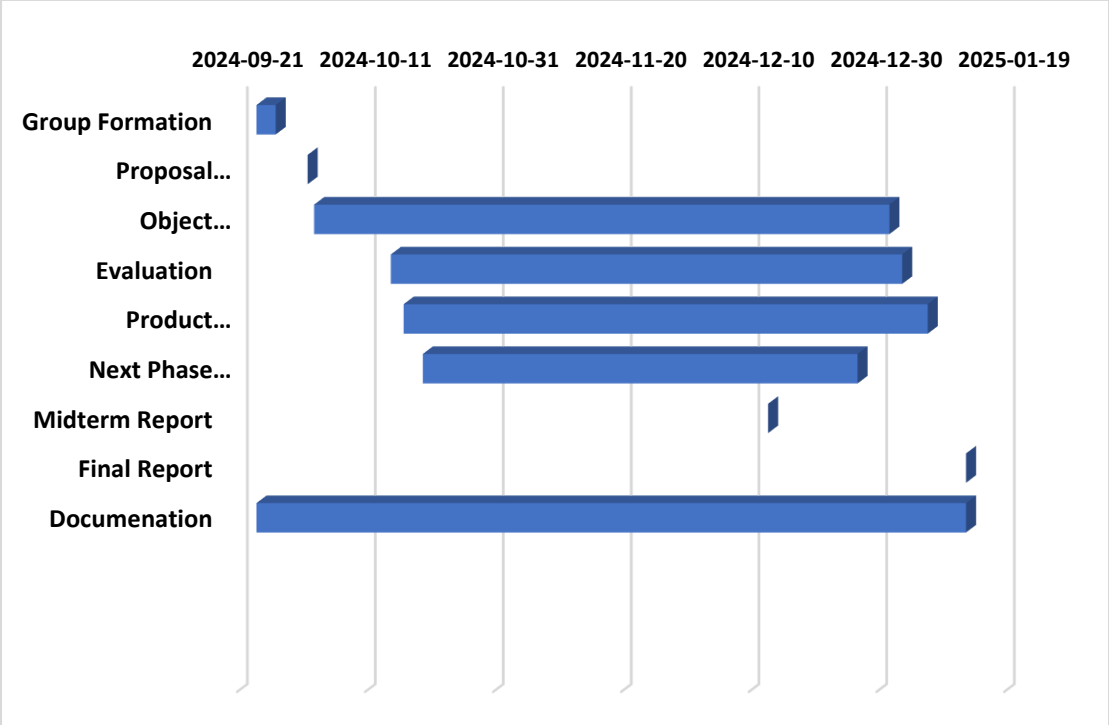


Figure 7.3: Gantt Chart

8. Testing

Test Objectives

Testing is the process of validating the correctness of a program.

8.1 Test Cases

Title: Module testing of a login function- Authentication

Description: A user should be able to log in using the proper username and password.

Test Case ID	Test Case	Input	Expected result
1.1	Verify User registration	Fill all required fields and submit	User account created
1.2	Verify Login functionality	Enter valid email and password	User logged in and redirected to homepage
1.3	Verify Login with invalid credentials	Enter incorrect email or password	Error message “invalid details” displayed

Figure 8.1: Testing Login

Title: Testing user homepage

Description: User can access the homepage after redirected to webpage.

Test Case ID	Test Case	Input	Expected result
2.1	Verify book listing page	Navigate to product page	Book display with details
2.2	Test search functionality	Enter book title or author in search bar	Relevant books displayed
2.3	Verify adding a book to cart	Select a book and click “Add to cart”	Book added to cart with correct price
2.4	Update the book quantity in cart	Increase or decrease book quantity in the cart	Cart total update accurately
2.5	Verify removing a book from the cart	Click “Remove” on a book in the cart	Book removed from the cart
2.6	Verify proceed to checkout	Provide valid payment and shipping details	Order placed, confirm

Figure 8.2: User homepage Test

Testing Admin Dashboard

Title: Testing Admin Dashboard

Description: Functionality of admin dashboard can be use.

Test Case ID	Test Case	Input	Expected result
3.1	Verify adding a book	Fill the book details in admin panel.	Book added to database and visible to us
3.2	Verify editing book details	Modify details and price or stock of book	Change reflect in the catalog.
3.3	Test deleting a book	Remove a book via admin panel	Book delete from the catalog
3.4	Verify sales and inventory report	Navigate to report section	Book, order and sales report.
3.5	Test editing admin profile details	Modify a admin picture, details and change password	Admin account details changed

Figure 8.3: Admin Dashboard Test

9. Project Result

The outcomes of the project indicate the creating and applying Bookly which focuses on increasing the usage efficiency of books purchasing and management based on users and administrator for customers.

Key Achievements:

User Login and Registration: Great consideration has been made to the login mechanism for users and for administrators to have a more secure and well maintained operation of website.

Efficient Inventory Management: The operations that the administrators can manages the book inventory within the platform.

Cart and Order Management: An effective system enables users to place books into the cart, handle and order selections simply.

Order Tracking: Another improvement is the possibility to see order history, so the user can track the purchases on the platform as well.

10. Future Enhancements

Bookly is already working and usable, but it’s going to grow. we had a few ideas in line to make the platform even better for both users and admins — easier to use, more convenient, and more fun overall.

1. Book Reviews and Ratings: The feature of having users leaving reviews and rating books will help other people make an informed decision when choosing the books, and keeps the community conversational as well.

2. Admin Analytics Dashboard: If admins want to avoid losing significant customers, the best thing they could create is an analytics dashboard so it would help them to track sales, monitor trends, analyze customer behavior, and more to manage the platform better.

3. Enhanced Search and Filtering Options: Search filters would be improved with things such as price range, book format and publication year so that users could easily find what they want.

4. Loyalty Program Integration: Users earning points for purchases on repeat shopping may form a loyalty program that provides discounts, exclusive offers etc.

11.Conclusion

Over the years, Bookly has grown from simply an online bookstore to a user friendly and efficient one. The idea behind it was to reduce the hassle of buying and cataloguing books for everyone — a book maven searching for your next read, an admin buying and cataloguing their inventory. Features like secure login, easy inventory management and a seamless checkout process, has truly made Bookly an extreme experience for admin and user alike.

Besides local payment options, which provide a personal, convenient touch, the platform also allows the users to track their orders. Bookly has a clean and responsive interface that makes it super easy for the user to navigate around the site and have a good time shopping for their books.

There’s a lot of potential for growth looking ahead. As the plans evolve to include a mobile app, more sophisticated search filters, and loyalty programs, the platform will continue to become not only more interesting, but also more available. It will also guarantee that Bookly’s ability to satisfy the tastes of book lovers and that it maintains its rankings in online book shopping stays strong.

In the end, Bookly is not just a regular online bookstore, it’s an improving platform that wants to adapt, learn and give everybody who loves to read a great experience.

12. Annexures

Bookly is an online bookstore that makes it easy for book lovers to browse, buy, and manage their purchases. It provides a simple way for users to explore a wide range of books, read detailed descriptions, and make secure payments. The system helps administrators add, update, and organize books smoothly. Users can create accounts, discover variety of books , add items to their cart, and track their orders. Its easy-to-use design and smooth functionality make online book shopping simple and accessible for everyone.

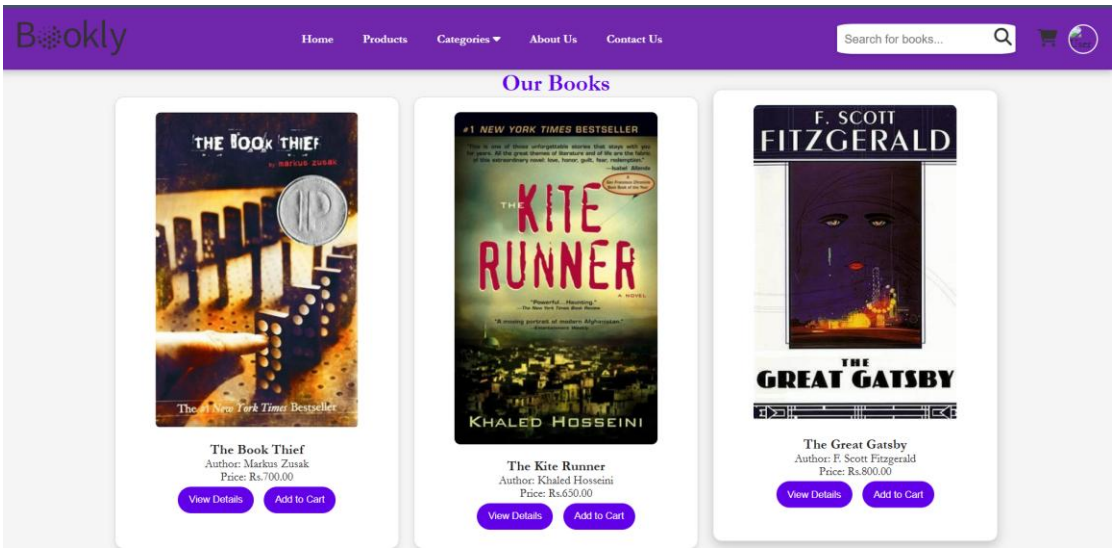


Figure 12.1 Production Section

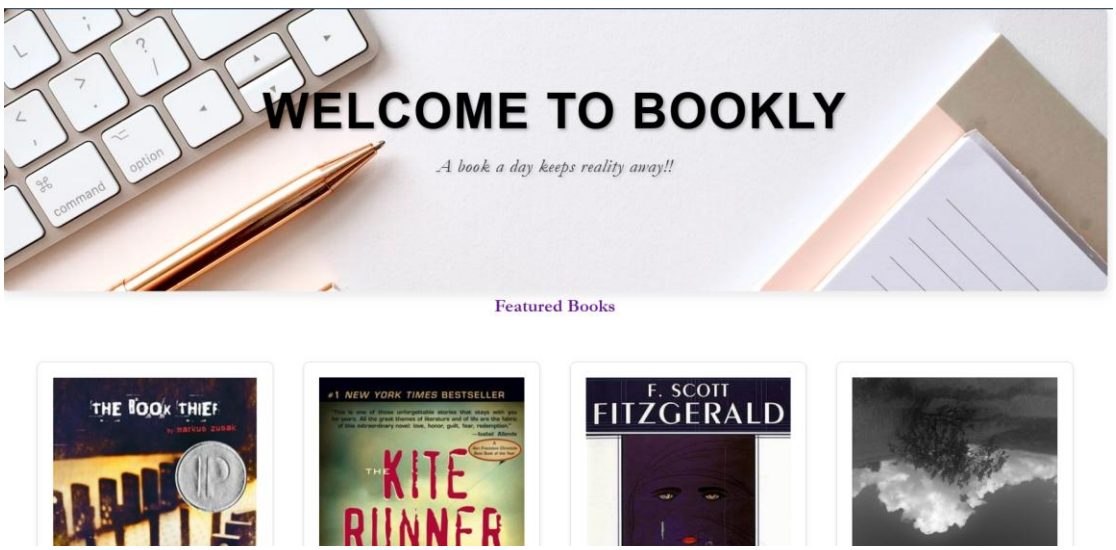


Figure 12.2 Home Section

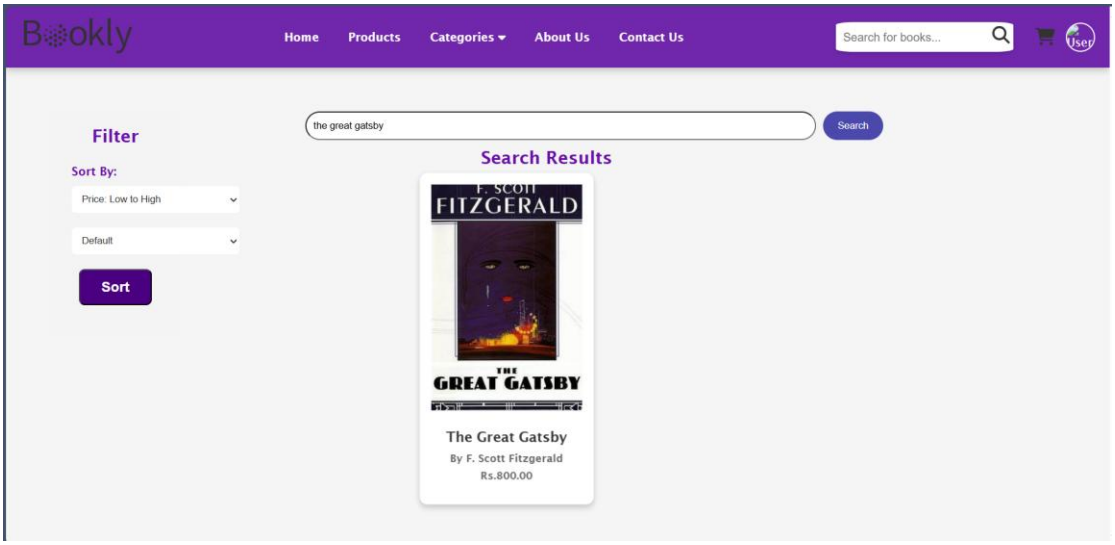


Figure 12.3 Searching Section

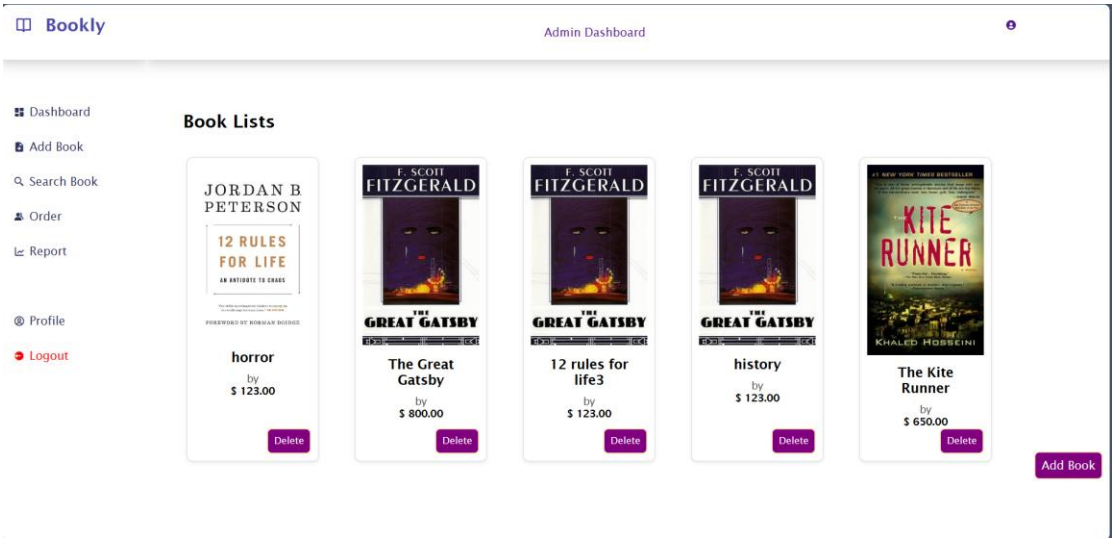


Figure 12.4 Admin Product

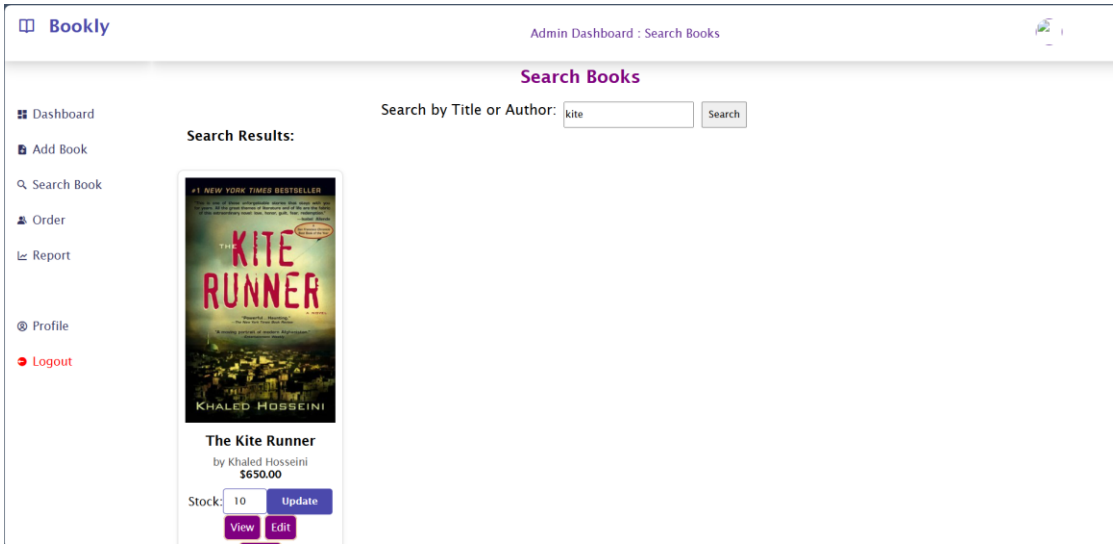


Figure 12.5 Admin Search

Figure 12.6: Dashboard Admin

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