Kathmandu College of Technology

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Final Year Project Report

On

Online Library System with Collaborative Filtering

Submitted to

Department of Computer and Information Technology

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In partial fulfillment of the requirement for the Bachelor's Degree in Computer Science and Information Technology

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Supervisor Recommendation

This is to certify that this project entitled, **Online Library System with Collaborative Filtering** prepared and submitted by **Rukesh Kutuwa, Siddhartha Sapkota and Suman Tamang** in partial fulfillment of the requirements of the degree of **Bachelor of science (B.Sc.)** in Computer Science and Information Technology awarded by Tribhuvan University, has been completed under my supervision. I recommend the same for acceptance by Tribhuvan University.

Signature:

Prashant Gautam

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LETTER OF APPROVAL

This project entitled **Online library System and Collaborative Filtering**, prepared and submitted by **Rukesh Kutuwa, Siddhartha Sapkota, and Suman Tamang** has been examined by us and is accepted for the award of the degree of **Bachelor of Science (B.Sc.)** in Computer Science and Information Technology awarded by Tribhuvan University.

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STUDENT'S DECLARATION

We hereby declare that the work presented in this project is our own. All sources used in the report have been properly cited and acknowledged. We affirm that we have adhered to all ethical guidelines and standards in conducting this project and preparing this report.

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We want to use this chance to show our genuine gratitude to the Department of Computer science and Information Technology in Kathmandu College of Technology for enabling us to investigate our passions and concepts in the area of Computer Science through this project.

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ABSTRACT

This report outlines the development of an online library system that incorporates collaborative filtering to provide personalized book recommendations based on users' reading habits and preferences. The system is user-friendly and has an intuitive interface, allowing users to easily search for books and rate them. Collaborative filtering algorithms are used to analyze user behavior and generate recommendations. This online library system is a useful tool for book enthusiasts who want to discover new books and enhance their reading experience.

An online library system is a web-based platform that offers access to a digital collection of resources, including books, articles, and other materials. It is designed to provide users with a user-friendly interface that enables them to search and browse through materials easily. Key features of our system include personalized user accounts, advanced search capabilities, recommendations based on user activity, social features such as user reviews and ratings, and access to digital resources like e-books.

By using collaborative filtering algorithms, this online library system can analyze user behavior and generate book recommendations that are tailored to each user's reading preferences. The ultimate goal of the system is to provide a wide range of materials that users can access conveniently and flexibly while helping libraries understand and serve their user base more effectively. This online library system with collaborative filtering is a valuable tool for book lovers, providing them with a personalized and convenient way to discover new books and enhance their reading experience.

By incorporating technology into the traditional library experience, this system can increase access to knowledge and promote lifelong learning without physical borrowing.

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LIST OF ABBREVIATIONS

CF	Collaborative Filtering
CSS	Cascading Style Sheet
DFD	Data Flow Diagram
ERD	Entity Relationship Diagram
HTML	Hypertext Markup Language
IDE	Integrated Development Environment
WWW	World Wide Web

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CHAPTER 1: INTRODUCTION

1.1 Introduction

As the technology is increasing day by day the content on the internet is increasing rapidly. There are a lot of archive data and other information due to this reason sometimes the user cannot achieve the right content. So, the idea is to create a recommendation system which allows the user to explore what other user's interests. Reading new books is always fascinating as we get to experience new ways, understand many things but one of the main problem about reading a new book is that we might have a limited time and we may not get the best of it. There may be small books yet with vast knowledge or less renowned books with more skills and we may miss it. Our main idea is to create a recommendation system which is used to recommend the books to the user which provides them knowledge which they are seeking for and get the best experience based on another user's perspective. The primary aim of this is to suggest the users on the basis of what other people have liked. This system is targeted to all the Internal as well as External users who gives the information about the best books on each category so that they can get the best of the books and enjoy reading. Using this system, when a user reads a book, he/she gives the rating based of the satisfaction level of the user.

1.2 Problem Statement

Despite the convenience of online resource, traditional libraries still face challenges in terms of accessibility and convenience for users. The purpose of this project is to design and implement an online library system that addresses these challenges and provides users with a seamless and user-friendly platform for accessing and managing library resources, Specifically, the system aims to improve accessibility by providing 24/7 access to resources, enhance user experience by allowing users to search and access materials from anywhere, and streamline library management processes by automating tasks.

An online library system can have several problems, such as lack of clarity, ambiguity, incomplete requirements, unrealistic expectations, lack of usability, security concerns, and compatibility issues.

1.3 Objective

The main objective of our project is to introduce a new way of exploring the new books. Our website displays the rating and review of the books that the user wants to read. The website aims to provide best ways to explore the books. The main aim of working on this project is:

- To collect user ratings on the different books by registered user.

- To increase efficiency compared to traditional library system.

- To recommend different books based on the user rating.

- To Reduce paper work and provide data security in details which will be available on a click.

- To enhance the user experience by providing a user-friendly interface, easy search options, and personalized recommendations.

- To encourage knowledge sharing by making it easy for users to access and share information with others.

1.4 Scope and Limitation

We aim to build online library system to make it convenient for users, which will facilitate wide range of educational resources/books to those who wants to read and experience new educational resources/books. This website provides rating of a book that the user are planning to read which is read by previous users. The Scope of the system includes:

- The Online library encourage knowledge sharing by making it easy for users to access and share information with others.
- The system could provide access to a wide range of educational resources. This could be particularly useful for students who live in remote areas and do not have access to traditional libraries.
- The system could improve the efficiency of the library system in Nepal, by reducing the time associated with physical library visits, and allowing users to access resources from anywhere and at any time.
- The system could help promote a reading culture in Nepal, especially among younger generations who are more accustomed to digital technology. This could help to improve literacy rates and encourage lifelong learning.

Online libraries in Nepal faces some limitations as well. Some of them are:

- In Nepal, internet penetration is still low, with only around 35% of the population having access to the internet. This limits the reach of online libraries as many people cannot access them due to lack of connectivity
- Despite the growing popularity of e-books and other digital resources, there is still a limited availability of such resources.
- Many people in Nepal are still not aware of the existence of online libraries or do not have an interest in using them. This limits the potential user base of online libraries in the country.
- Online libraries may face difficulties in providing resources in all languages, which can limit their accessibility and usefulness to a large section of the population.

1.5 Project Features

The feature of the system is explained below:

1.5.1 Recommendation

The system recommends the newly register user for most rated books which is already read by other users. The system displays personalized recommendation based on the factors that includes ratings and genre.

1.5.2 Review and Rating

The system eschews the traditional ways of letting user to leave long-form reviews, instead encourage the writing of "Reviews"- short messages about a book. In addition to reviews, the system lets user to rate books. System allows to rates each book by assigning values from 1 to 5 to indicate its general popularity when compared to other books.

1.6 Development Methodology

Projects that are managed well are successful. The manager or development team must decide which software development approach will be most effective for the current project if they are to manage it effectively. Each methodology has unique advantages and disadvantages, and they all serve different purposes. For our project we have decided to use prototype model.

1.6.1 Prototype Model

In the context of our online library system project, we use the prototype method to create an initial version of the system with basic features and functionality. This prototype could be used to gather feedback from potential users, such as librarians and patrons, to evaluate their needs and preferences. This feedback can then be used to improve the design of the system and ensure that it meets the requirements of its users. By creating a prototype, we test the feasibility of the system's design and identify areas where improvements can be made. This saves time and resources later in the development process by preventing costly redesigns or changes [1].

Overall, the prototype method was a valuable approach in developing our online library system, as it helped us to gather feedback, identify potential challenges, and refine the system design before the development of the final version.

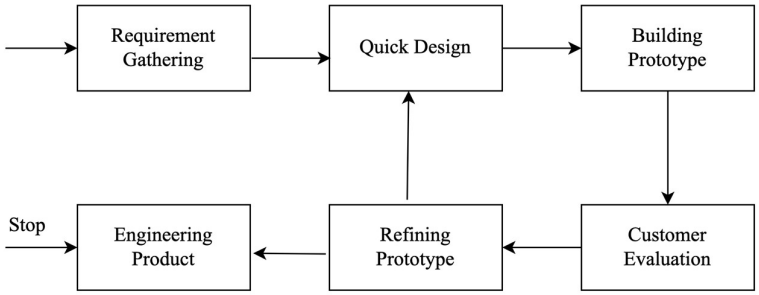


Figure 1. 1: Prototype Model

1.7 Report Organization

Our report is divided into 6 chapters. In chapter 1, Introduction puts emphasis on Background, Problem Statement, Objectives and Scope of the project. Background explains everything that an individual need to know before understanding the project. Problem Statement highlights on the problem for which the project was developed. The project Objectives and Scope are then discussed.

Similarly, in chapter 2, Requirement and Feasibility Analysis explains three important sections which are Literature Review, Requirement Analysis and Feasibility Analysis. Literature Review simply provides the summary of historical background of the previous research. Functional and non-functional requirements of the project are explained by Requirement Analysis and why/how the project is practical is determined by Feasibility Analysis. Likewise, in chapter 3, Methodology includes System Design and framework of project which contains database design, interface design, etc.

Chapter 4 is about implementation and Testing procedures. It contains the detail about the tools that are required to design the system. In testing section, different testing processes are included.

After implementation and testing chapter 5 includes screenshots of output.

Finally, chapter 6 includes the whole conclusion of the project.

CHAPTER 2: BACKGROUND STUDY AND LITERATURE REVIEW

2.1 Literature Review

Andrew Keen, author of The Cult of the Amateur wrote in his book, "How the Democratization of the Digital World is Assaulting Our Economy, Our Culture, and Our Values" that, the history of the web so far says that we are highly motivated to come up with ways to make sense of a world richer and more interesting than the constrained resources of the traditional media let on. True indeed, with the rapid growth and development of the Internet, sharing of knowledge, information and opinions became more comfortable. This increase has played vital role in the development of social networking sites like Facebook, Twitter, and YouTube, etc. The growth of the internet, especially after web 2.0 has brought a lot of exposure for the business, armature artists, writers, etc. Now, authors can share their works with thousands of readers around the world. Amateur-Musicians can get famous faster than ever before just to uploading their tracks. The business community has found more customers and profit from the internet. The variety of online shops, auctions or flea markets opened up on the web [2].

Nevertheless, the popularity of WWW has introduced a new problem i.e the amount of information and items got extremely huge, leading to information overload. The web is a vast collection of completely uncontrolled heterogeneous documents. There are tremendous amounts of information on the internet which often becomes overwhelming for the user, and can be difficult for them to find the exact information they are searching for [3].

A recommendation engine, sometimes known as a recommender system, is a piece of software that examines the data at hand and offers ideas for items that a website visitor might find interesting, including books, videos, jobs, and other options. In social media, e-commerce, and content-based websites, recommendation engines are widespread. One of the very first websites to employ a recommendation system was Amazon. When the business was primarily an online book retailer, it started employing software to recommend books the user would be interested in based on information about their prior behavior as well as that of other users who had made similar selections.

2.2 Collaborative Filtering

The sort of recommendation algorithm known as collaborative filtering bases its predictions and suggestions on the evaluations or actions of other system users. The fundamental idea of collaborative filtering is to find other users in the community that share the same opinions. There are mainly two approaches of the collaborative filtering method.

2.2.1 Item-based approach

Although the user-based strategy is beneficial, as the user base expands, it faces scalability issues. It takes time to search through a user's neighbors. A more scalable version of collaborative filtering, the item-based approach, was introduced in order to make collaborative filtering accessible to a large user base [4]. In the item-based approach, evaluation patterns of a specific item are compared rather than user ratings in order to predict user preferences. Since item similarity is derived from user choice rather than extracted from the item data, the overall structure of this approach to suggestion and personalization appears to be comparable to that of content-based approaches.

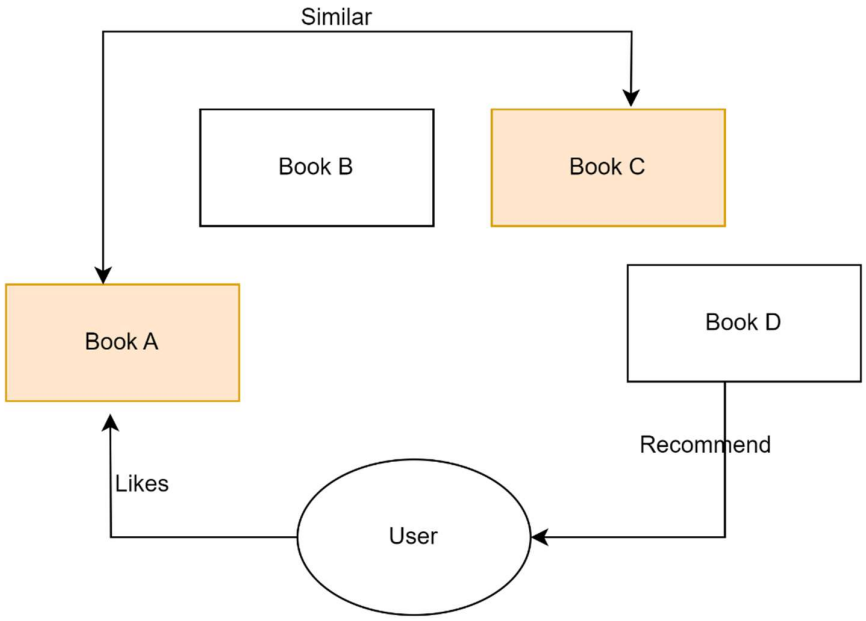


Figure 2. 1: Item-based Collaborative Filter

Algorithm

- Collect book ratings from users to create pivot table. Each row represents a book, and each column represents a user, where user must have give review to at least 10 books.

- Calculate the cosine similarity between books in which at least 5 user has given review.

- Identify the k most similar books to the target user based on their cosine similarity.

2.3 Similar Projects

Recommender system is one of the sought-out topic Recommendation system not only helps in user personalization but also analyses the pattern which helps to grow the business and improve the experience. Here are some of the renowned application which are based on recommendation algorithm.

2.3.1 Amazon.com

Amazon.com is one of the largest internet-bases retailer of US. It uses recommendation by product line and subject area, rate recommended products and rate their previous purchase. Our shopping experience is improved and suggestions are given to the clients based on the items in their shopping cart [5].

2.3.2 whatshouldireadnext.com

What Should I Read Next? is a website that provides personalized book recommendations to users based on their reading preferences and favorite books and authors. The website was created by Anne Bogel, a blogger and author, and uses a recommendation algorithm that analyzes the user's inputted book preferences and returns a list of book recommendations that are similar in genre, writing style, and themes. To use the website, users simply enter the title or author of a book they enjoyed, and the recommendation engine generates a list of books that the user may also enjoy. Users can also create reading lists and track their reading progress on the site. What Should I Read Next? has become popular among book lovers for its simple and easy-to-use interface, and its ability to provide accurate and personalized book recommendations. The website has a large database of books, covering a wide range of genres and topics, making it a useful resource for anyone looking for their next great read.

CHAPTER 3: SYSTEM ANALYSIS

3.1 System Analysis

System analysis is the process of examining a system or organization to identify its components and their interactions in order to understand how the system functions and to improve its performance. The process typically involves gathering data about the system, analyzing that data, and making recommendations for changes or improvements.

System analysis can be applied to a wide range of systems, including technological systems like computer networks, organizational systems like businesses and government agencies, and social systems like communities and societies. The goals of system analysis can vary depending on the system being analyzed and the objectives of the analyst or organization conducting the analysis.

3.1.1 User Requirements Definition

The user requirement for this system is to make the system fast, flexible, less prone to error, reduce expenses, save the time and improve transparency.

- The system should have user friendly interface.
- The system can be placed for the collective information of the book being read.
- The reviews and rating in the system should be genuine.

3.1.2 The Product and Process Features

The information stored in database for information retrieval and reporting includes:

- Access once the user login to the system.
- Easier to choose books without any hassle.
- Administrators check for some updates.
- Easy update and view of reviews and rating.

3.1.3 System Requirement Analysis

The use case diagram for the system is shown as:

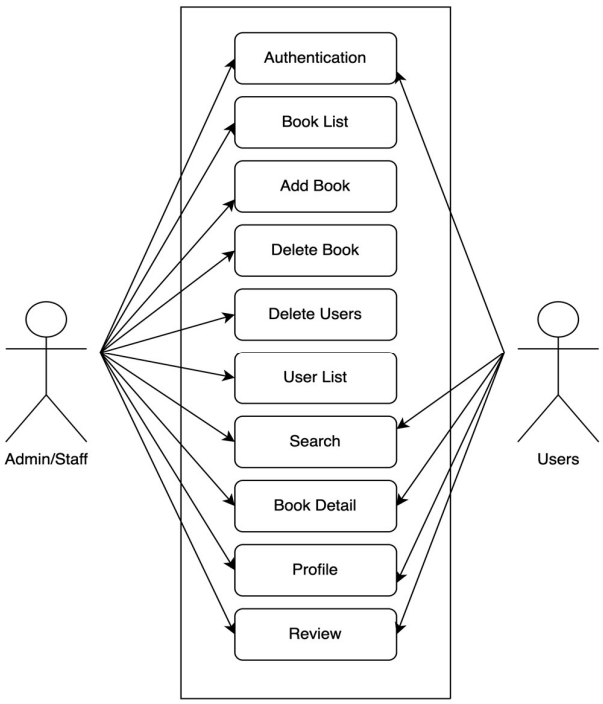


Figure 3. 1: Use Case Diagram

The Functional and Non-Functional requirements addressed by the application are listed below in the Table 1.

Table 3. 1:Functional and Non-Functional Requirements

S.N	Functional Requirement	Non-Functional Requirement
1	User Registration	1. The user can register using a valid email address. 2. Only one account can be created to with an email address. 3. The user should specify about the books.
2	User Login	The user can login with an email and password.
3	Rate and Review Place	The user can rate Books on the scale of 1 to 5 where 1 representing the worst and 5 representing the best. Then also post a review on a particular book.

3.1.4 Website Quality Attributes

The Quality of the system is maintained in such a way that it can be very user friendly to all the user logging in the system.

The website quality attributes are assumed as under:

- Secured
- High speed
- Compatibility
- User Friendly
- Accurate and hence reliable.

3.1.5 Feasibility Analysis

To make our project more feasible, we focus on user needs and preferences. One way to do this is to improve the user interface to ensure it is user-friendly and easy to navigate. Additionally, expanding the number of books in our library system could make it more appealing to users. Implementing a recommendation system that suggests books based on the user's reading history or browsing behavior could further increase user engagement and satisfaction. We also consider adding features like book reviews, ratings to enhance the user experience and encourage engagement. Lastly, promoting our online library system through social media, advertising, and other marketing channels could help reach a wider audience and increase usage. By focusing on user needs, continuously iterating and improving the system based on user feedback, and promoting the system effectively, we can make our online library system more feasible.

3.1.6 Analysis

Analysis refers to the process of examining and breaking down a project into its constituent parts, in order to understand the requirements, constraints, and objectives of the project. The purpose of analysis is to gather information and identify potential problems or issues that may arise during the course of the project, so that they can be addressed and resolved in a timely and effective manner.

3.1.7 Structure Analysis

In order to better understand and evaluate a complex system's operation and behavior, structured analysis is a technique used in systems analysis and design. It

is a top-down approach to system analysis that involves breaking down the system into smaller parts, with an emphasis on data flow and process flow analyzing each part separately, and then integrating them back together to form the complete system. It involves techniques such as data flow diagrams, entity-relationship diagrams, and process specifications to represent the system's structure and behavior. Structured analysis is well-suited for analyzing systems with well-defined inputs and outputs, while object-oriented analysis is better suited for systems with complex and dynamic behavior.

Structured analysis typically involves several steps, including:

i) Entity Relationship Diagram (ERD)

An ERD is a graphic depiction of the system's entities and connections. It is used to model the data that is used and stored within the system, and to identify the relationships between different data elements.

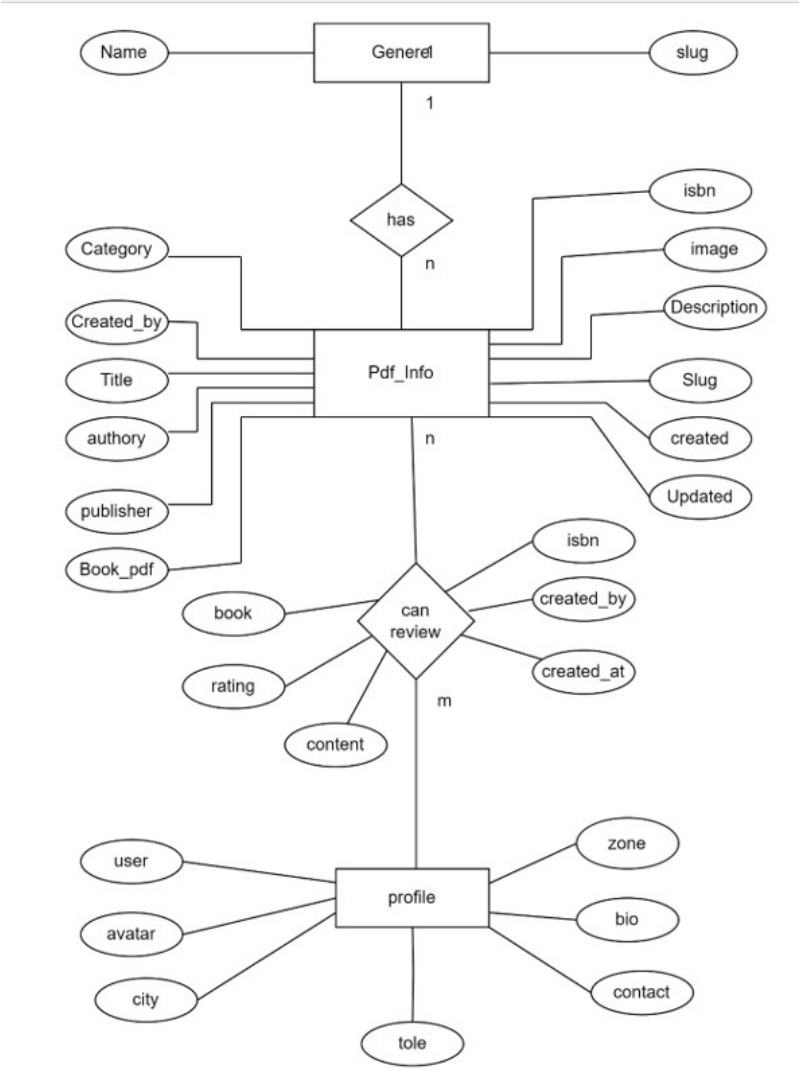


Figure 3. 2: ER Diagram

i) Data Flow Diagram (DFD)

A DFD is a graphic depiction of how data moves through a system. It is used to identify the inputs, outputs, and processes that make up the system, and to understand the relationships between them.

a) Context Diagram

A context diagram is a type of diagram used in system analysis and design that provides a high-level overview of the system and its environment. It shows the system as a single process or entity, surrounded by its external

entities (i.e., users, other systems, or organizations) and the inputs and outputs that flow between them.

In our online library system project, a context diagram is use to depict the system as a single process or entity, surrounded by its external entities. For example, the external entities could include users, admin, publishers, and other library systems that our system interacts with. Inputs to our system could include user requests for books, while outputs could include book recommendations, search results, and notifications.

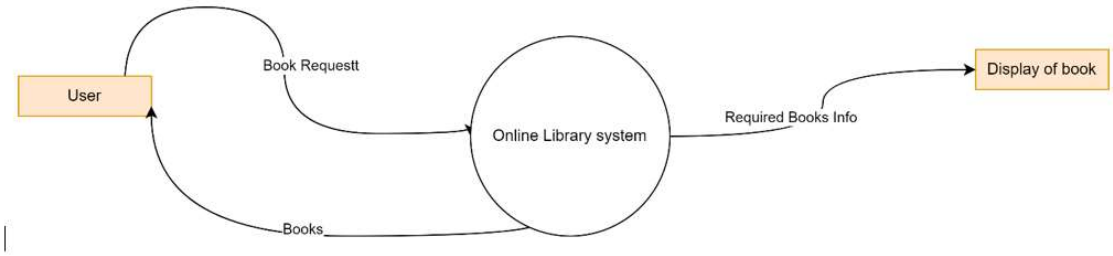


Figure 3. 3:Context Diagram

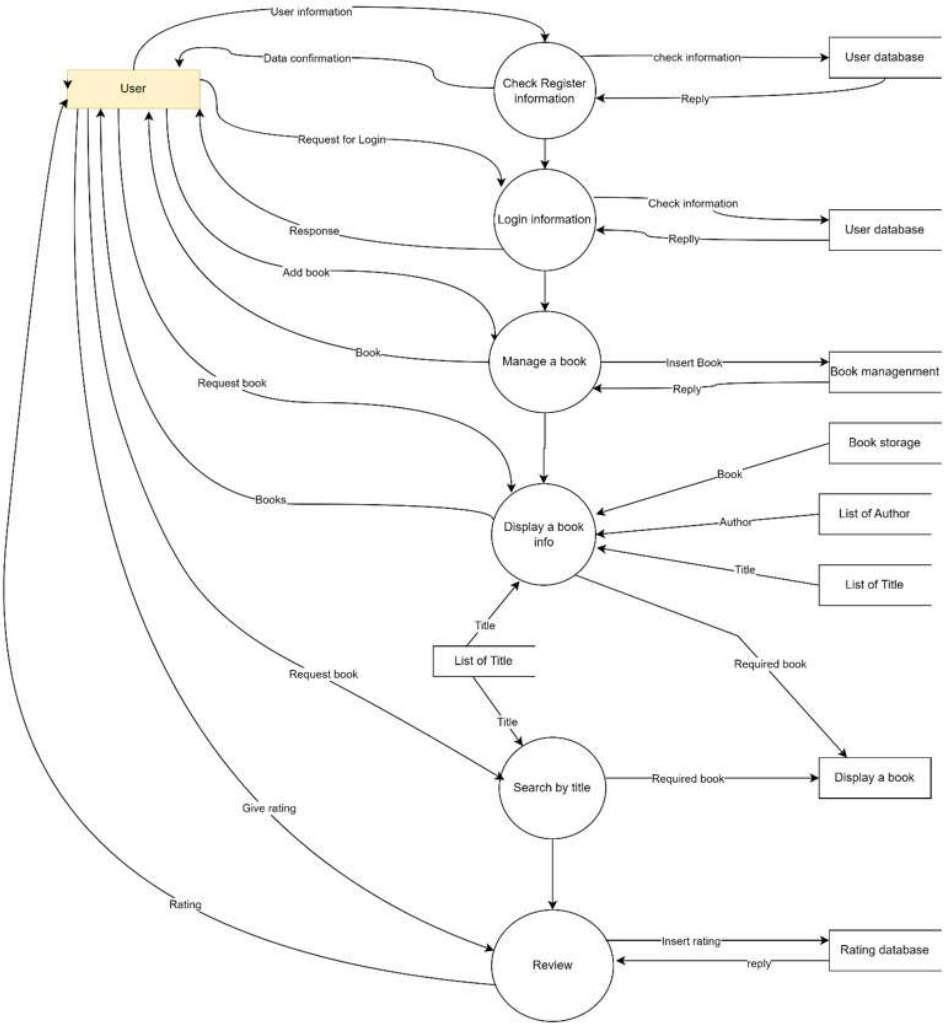


Figure 3. 4:DFD (level 1)

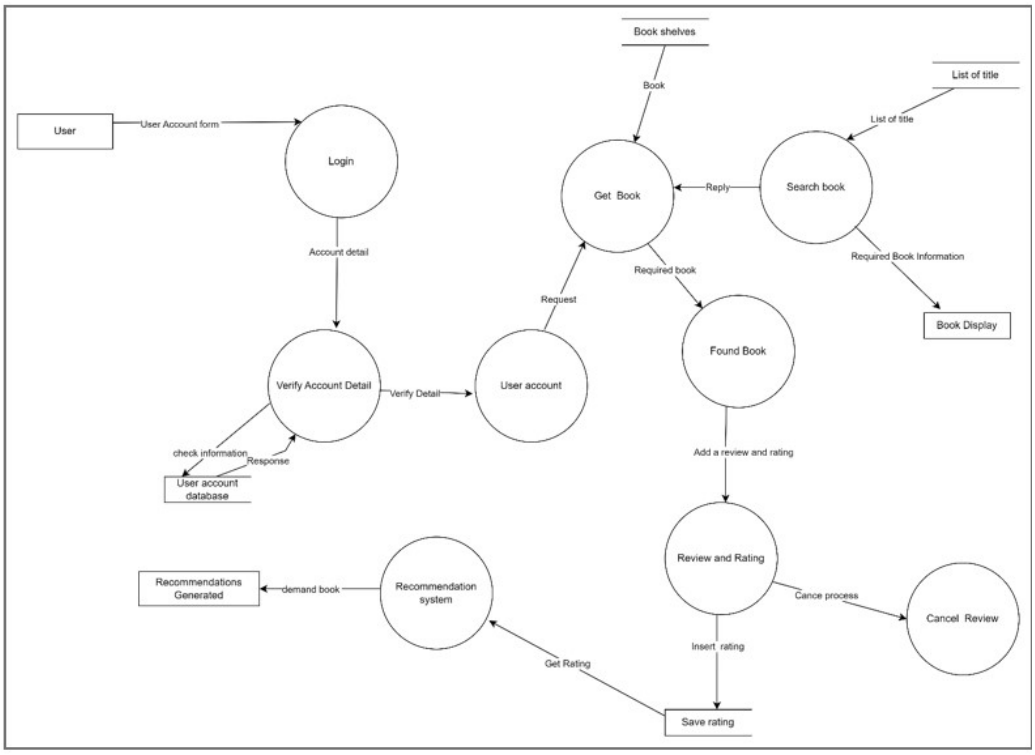


Figure 3. 5:DFD (level 2)

CHAPTER 4: SYSTEM DESIGN

4.1 System Design

We designed our online library system with both item-based and user-based collaborative filtering using Django, we considered the key components of the system, including user authentication and management, book database management, collaborative filtering engine, recommendation engine interface, user feedback and rating system, and admin panel. The system is designed to provide a personalized reading experience for users by analyzing their reading behavior and preferences and recommending books accordingly. The use of Django provides a robust and scalable platform for the system, with built-in features for user authentication, database management, and template rendering, simplifying the development process and improving the user experience.

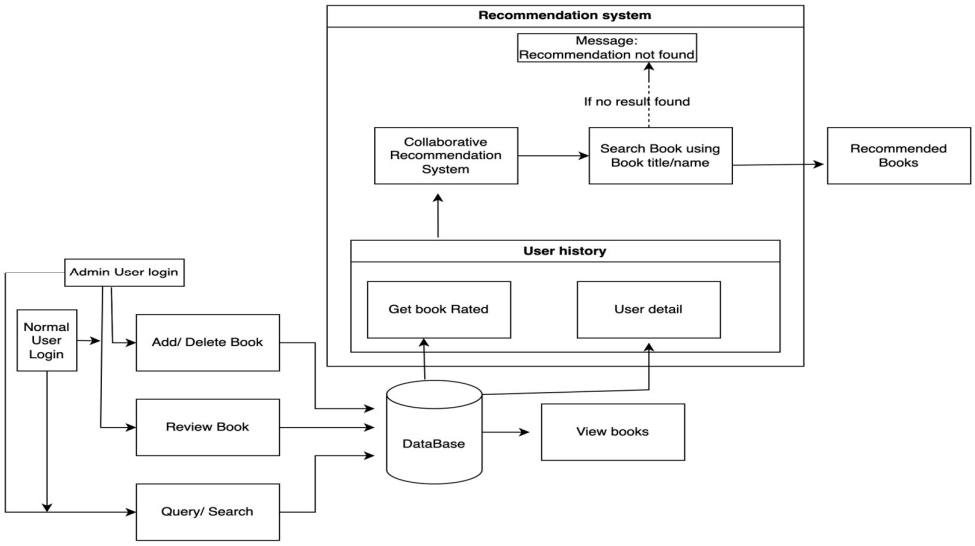


Figure 4. 1: System Architecture

4.1.1 Database Design

The database design for an online library system with both item-based and user-based collaborative filtering using Django is crucial to the system's success. The system's database will need to store user information, book information, and data related to users' reading history and preferences. We use a relational database management system such as Sqlite to manage the system's database. The database

schema is designed to support efficient querying and indexing, enabling the system to provide personalized book recommendations quickly. We have used database normalization techniques to ensure data integrity and avoid data redundancy. Finally, using database optimization techniques such as caching and sharding to improve the system's performance and scalability.

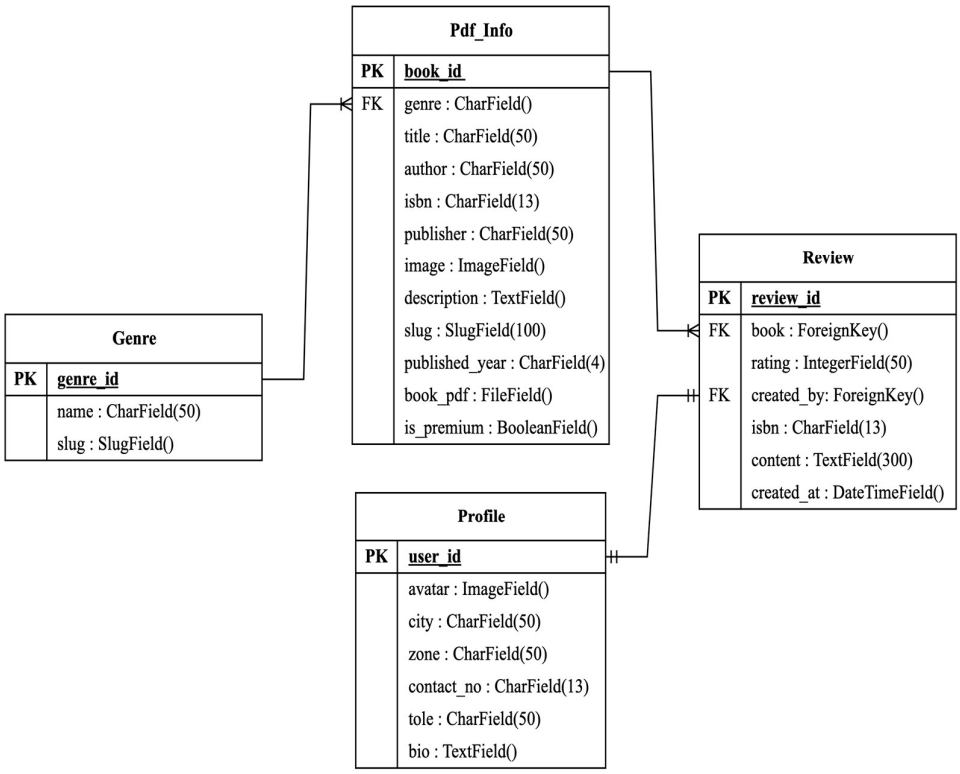


Figure 4. 2:Database Schema

CHAPTER 5: IMPLEMENTATION AND TESTING

5.1 Implementation

Implementation refers to the process of putting the plan into action by deploying the solution, system, or product to its intended environment. It involves executing the activities defined in the project plan, including building, testing, and installing the software or hardware components. Implementation also involves closing down of project. To be practical, after the conceptual design of this system, coding begun to achieve functionality that we need to have. The idea behind this project always was to develop a system that should be ease in availability, usability and access.

Although the process of documentation proceeds throughout the lifecycle, it receives formal attention during the implementation phase. The tools, technologies and the techniques used to implement this project are briefly discussed on the following section.

5.1.1 Design and Development Tools

- Django: For back-end design

- Sqlite: For database design

- HTML and CSS, Bootstrap: For front-end

5.1.2 Application Used for Report Writing

- Microsoft Word: To prepare document.

- Microsoft Excel: To prepare Gantt charts

- Draw.io: To draw DFD, E-R diagram

5.2 Testing

Testing is the integral part of the software development process. It ensures that quality of the software by using method or by any measures. Testing process begun at very early stage of developing process. But the actual testing is done during the implementation phase. For our project we did some unit testing to check if our programs is working properly or not. From the testing we got following results:

Table 5. 1:User Authentication testing

Test Case ID	Module to be tested	Valid Input	Invalid Input	Expected Output	Generated Output	Pass/ Fail
TC-01	Signup	Username: rukesh Email: rukesh@ gmail.com Password: password1 Confirm Password: password1		Login page should be opened	Login page should opened	Pass
TC - 02	Registration with invalid Email		Username: rukesh Email: rukesh gmail.com Password: password1 Confirm Password: password1	Registration should fail with message "please include @ in your email"	Remain in same page with message "please include @ in your email"	Pass
TC - 3	Registration with invalid password		Username: rukesh Email: rukesh@gmail.com Password: password1 Confirm Password: password2	Registration fail with message "Two password field does not match"	Remain in same page with message "Two password field does not match"	Pass

Table 5. 2:User Login

Test Case ID	Module To be Tested	Valid Input	Invalid Input	Expected Output	Generated Output	Pass/ Fail
TC-01	Login	Username: rukesh Password: password1		Dashboard page should opened	Dashborad page opened	Pass
TC - 02	Login		Username: rukesh Password: password	Loggin should fail with message ” Username or Password is incorrect”	Remain in same page with message ” Username or Password is incorrect”	Pass

Table 5. 3:Forgot Password

Test Case ID	Module to be tested	Valid Input	Invalid Input	Expected Output	Generated Output	Pass/ Fail
TC-01	Forgot Password	Email: rukesh@gmail.com		Password reset link should be sent to email	Password reset link sent to email	Pass
TC - 02	Forgot password	Password : password1		Login page should opened	Login page opened	Pass

		Confirm password: password1				
TC - 3	Forgot Password		Password : password1 Confirm password: password2	Should show the message ” Two password field does not match”	Remain in same page with message ” Two password field does not match”	Pass

Table 5. 4:Add Book

Test Case ID	Module to be tested	Valid Input	Invalid Input	Expected Output	Generated Output	Pass/ Fail
TC-01	Add book	Fulfill all the form requirement		New book should added with message “Book added successfully”	Home page is opened	Pass
TC - 02	Add Book		Fulfill all the form requirement except image	Should remain in same page with message “Please select a file”	Remained in same page with message “Please select a file”	Pass

Table 5. 5:Add review

Test Case ID	Module to be tested	Valid Input	Invalid Input	Expected Output	Generated Output	Pass/ Fail
TC-01	Review	Rating : 4 Comment: excellent		New Review should be added	New review added	Pass
TC - 02	Review		Rating: 3	Process should be canceled	Process canceled	Pass

Table 5. 6:Book Delete

Test Case ID	Module to be tested	Valid Input	Invalid Input	Expected Output	Generated Output	Pass/ Fail
TC-01	Book Delete	Delete		Book should be deleted form database	Book be deleted form database	Pass

Table 5. 7:Search

Test Case ID	Module to be tested	Valid Input	Invalid Input	Expected Output	Generated Output	Pass/ Fail
TC-01	Search	Keyword: Programming		List of books with	C Programming C Programming	Pass

				starting letter 'C'	An Introduction	
TC - 02	Search		Keyword: machine	Should show message "No search result found"	Show message "No search result found"	Pass

Table 5. 8:Recommendation

Test Case ID	Module to be tested	Valid Input	Invalid Input	Expected Output	Generated Output	Pass/ Fail
TC-01	Recommendation	Keyword: C Program-ming		Should show list of 8 recom-mended books	List of 8 recommended books	Pass
TC - 02	Recommendation		Keyword: C program-ming	Should show message "Recomm-endation Not found"	Show message "No search result found"	Pass

Table 5. 9: Change Password:

Test Case ID	Module to be tested	Valid Input	Invalid Input	Expected Output	Generated Output	Pass/ Fail
TC-01	Change password	Old password: password1 New password: password2 Confirm password: password2		Password should change and should redirect login page	Redirect to login page	Pass
TC - 02	Change password		Old password: password1 New password: password2 Confirm password: password3	Should remain in same page and should show new password and confirm password doesn't match	Remain in same page with no change in password	Pass

CHAPTER 6: CONCLUSION AND FUTURE RECOMMENDATION

6.1 Conclusion

Our System provides personalized book recommendations to users based on their reading history and preferences. The system uses the collaborative filtering technique to analyze the similarities and differences between users' reading behaviors and suggest books that they may be interested in.

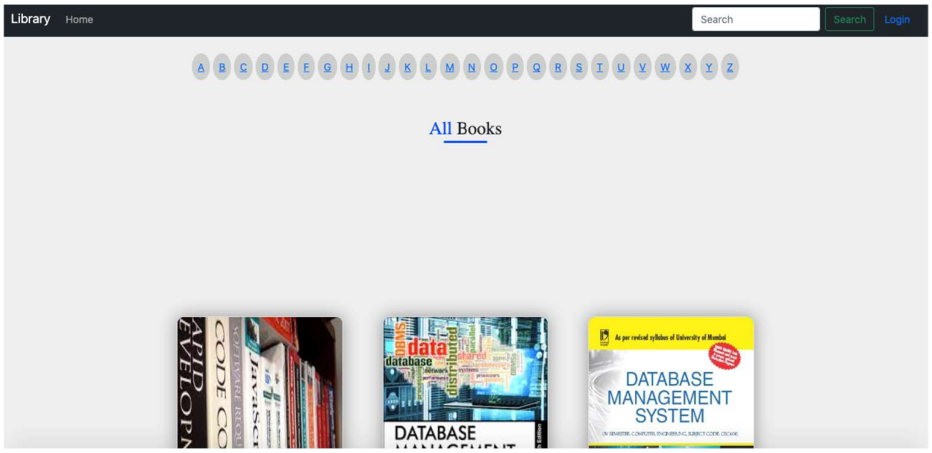
The use of Django as the web development framework provides a robust and scalable platform for our online library system. Django's built-in features for user authentication, database management, and template rendering helped to simplify the development process and improve the overall user experience.

In conclusion, our system can provide a personalized reading experience to users, and the use of Django makes the development process more efficient and effective.

6.2 Future Recommendation

The System can be made more efficient by implementing social site signup i.e by log in either google account or Facebook account. Similarly, using stronger algorithm for recommendation helps the system to much enhanced. Subscription based approach can be applied such that user with subscription will likely to have more features than the users without the subscription.

Appendix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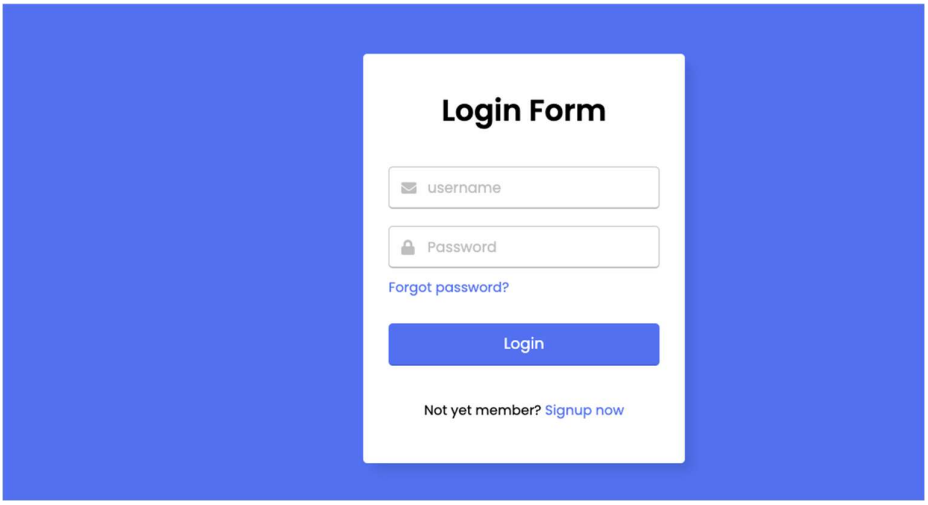
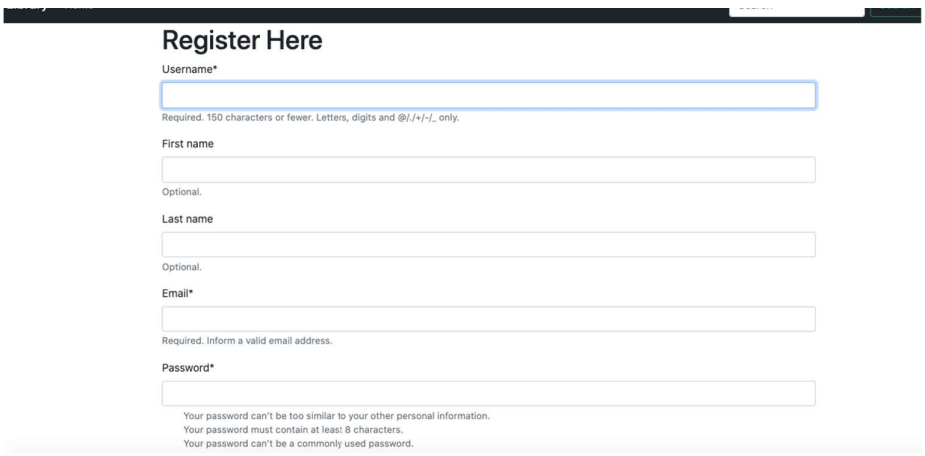
All Books
DATABASE
DATABASE MANAGEMENT SYSTEM


Login Form
username
Password
Forgot password?
Login
Not yet member? Signup now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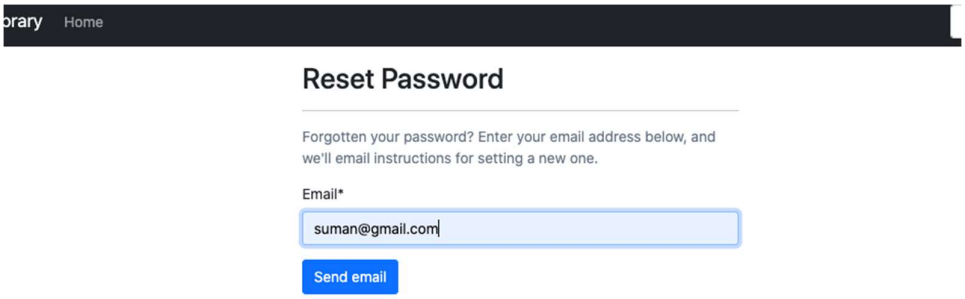
Required. 150 characters or fewer. Letters, digits and @/./+/-/_ only.
First name
Optional.
Last name
Optional.
Email*
Required. Inform a valid email address.
Password*
Your password can't be too similar to your other personal information.
Your password must contain at least 8 characters.
Your password can't be a commonly used password.

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To: suman@gmail.com
Date: Wed, 03 May 2023 12:02:45 -0000
Message-ID: <168311536573.51678.18097150617789088709@apples-MacBook-Pro.local>


Hello,

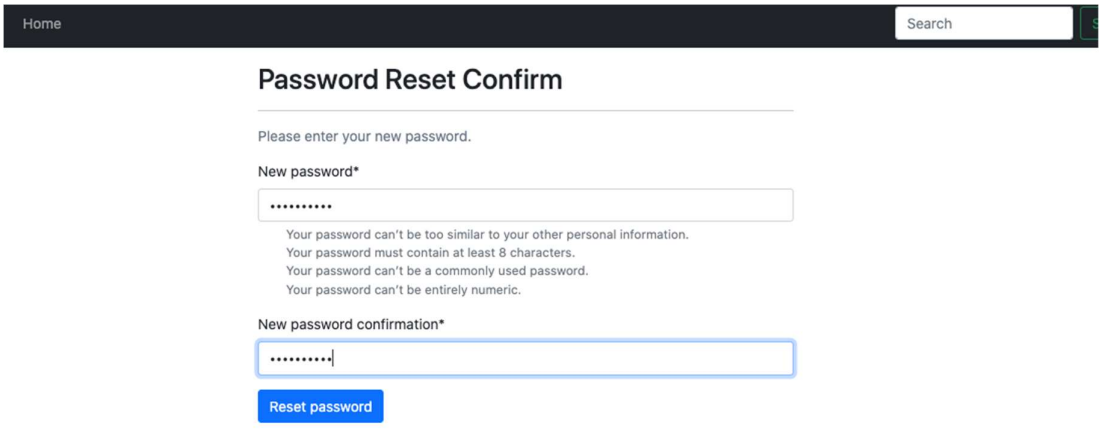
We received a request to reset the password for your account for this email address. To initiate the password reset process for
your account, click the link below.

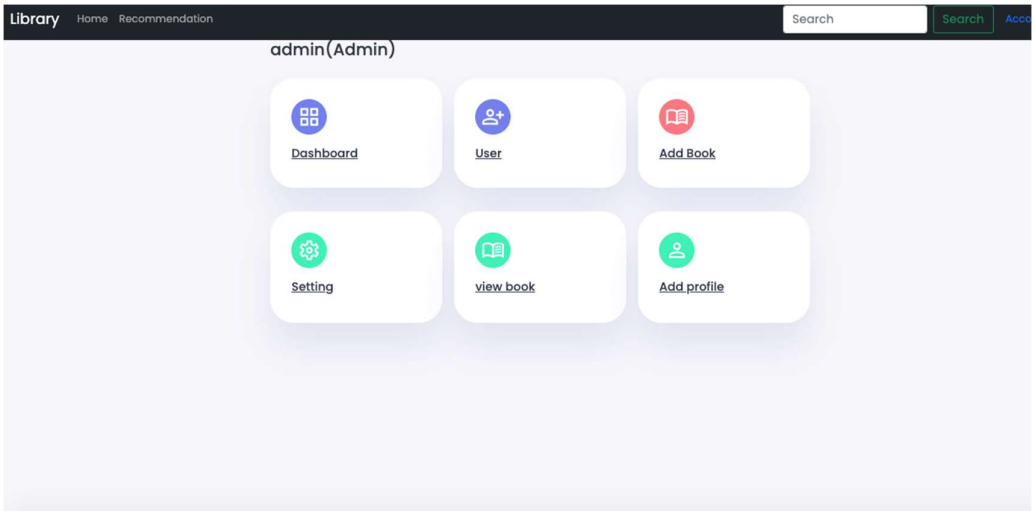
http://127.0.0.1:8000/reset/Nw/bnmhgl-412e7c4b8950635c46528932fd86c276/

This link can only be used once. If you need to reset your password again, please visit http://127.0.0.1:8000 and request anothe
r reset.

If you did not make this request, you can simply ignore this email.

Sincerely,
The Website Team
```

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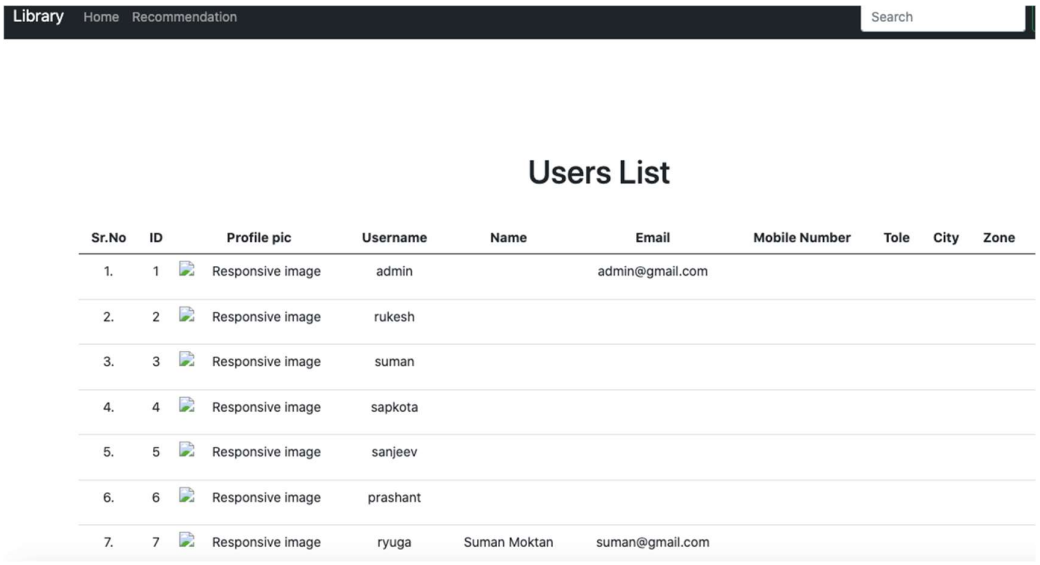
Home
Recommendation
Search
Search
admin(Admin)
Dashboard
User
Add Book
Setting
view book
Add profile


Library
Home
Recommendation
Search
Users List
Sr.No
ID
Profile pic
Username
Name
Email
Mobile Number
Tole
City
Zone
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2. 2 Responsive image rukesh
3. 3 Responsive image suman
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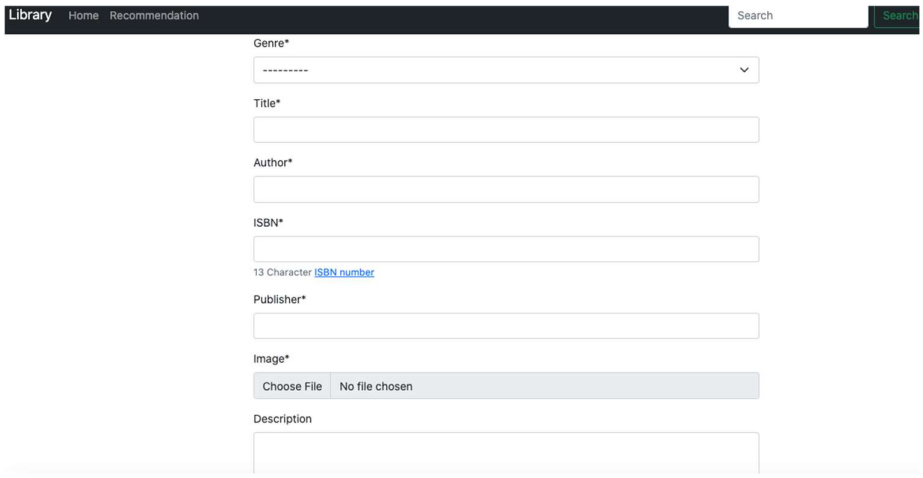
7. 7 Responsive image ryuga Suman Moktan suman@gmail.com


Library
Home
Recommendation
Search
Search
Genre*

Title*
Author*
ISBN*
13 Character ISBN number
Publisher*
Image*
Choose File
No file chosen
Description

All Books List

S/N	Book Name	Author	Publication	ISBN Number	Category	Delete
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2.	Database Management Systems(A Practical Approach)	Dr.Rajiv Chopra	KCT pvt Ltd	ZDmqrBT1UVqSk	Database Management	Delete
3.	Database Management System(IV Semester Computer Engineering)	Safa Hamdare, Bhavesh Panday	KCT pvt Ltd	pOorZOTWq54QU	Database Management	Delete
4.	Database Management System (Schaum's Outline)	Ramon A Mata-Toledo, Pauline K Cushman	KCT pvt Ltd	1fT2cxJ0j3vtJ	Database Management	Delete
5.	Database Management System(Ashirwad's)	Arihant Khicha, Neti Kapoor	#######	mSxc9tDrBfZwS	Database Management	Delete
6.	Database Management System(For Madras University)	Dr. R. Manjula Devi, V. Sicaranjani, M. Sangeetha	######	cKYkBKeNHFXOO	Database Management	Delete
7.	Database Management System(DBMS)	P. S. Gill	######	h7u5yOTJbYSEi	Database Management	Delete
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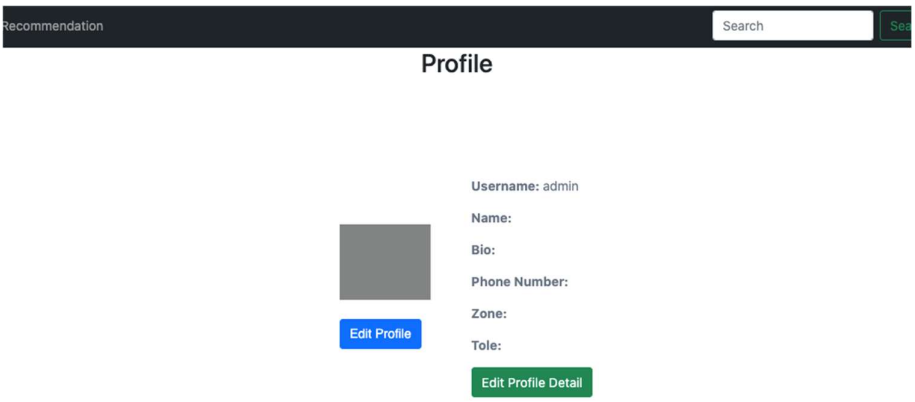

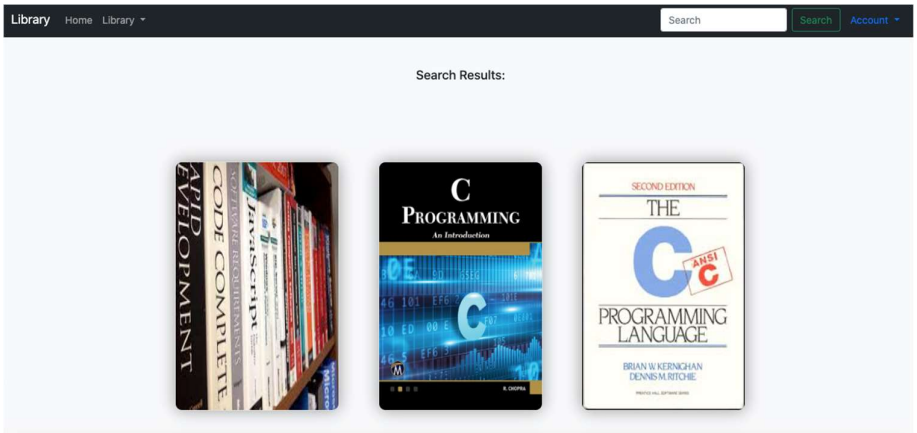

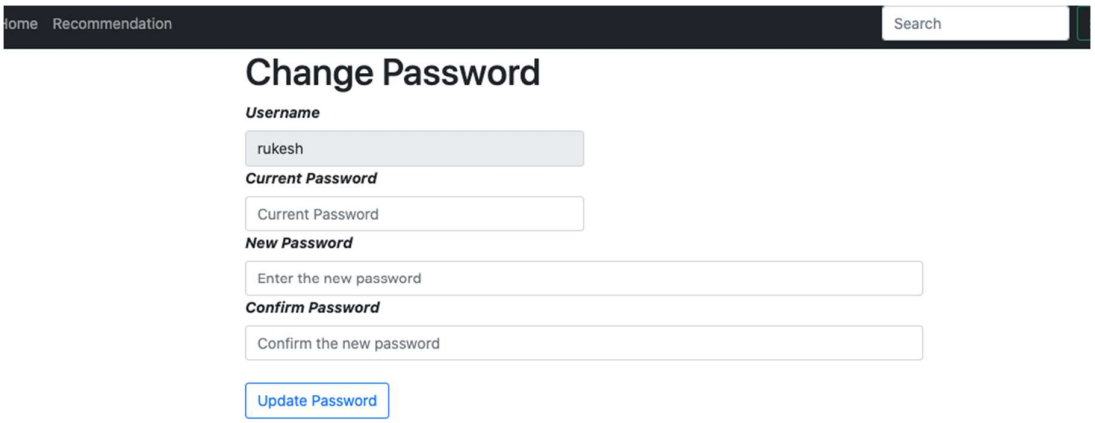
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Recommendation
Search
Change Password
Username
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Current Password
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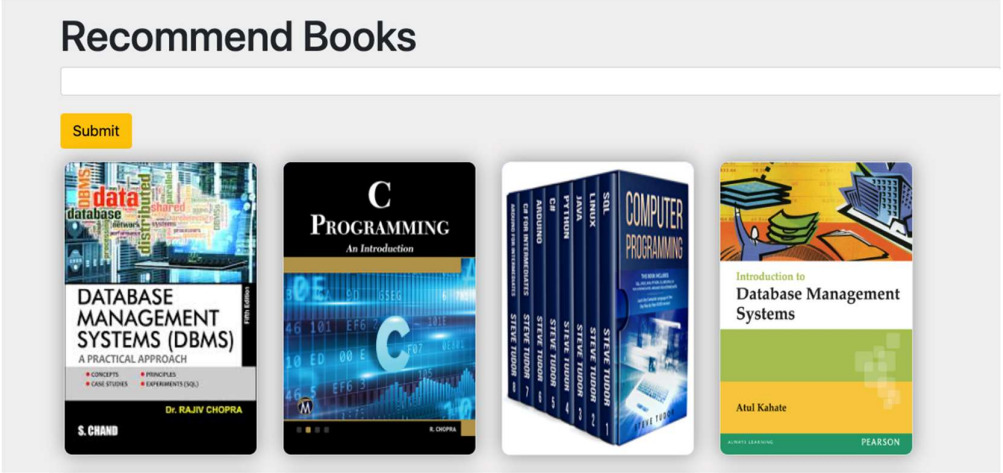
New Password
Enter the new password
Confirm Password
Confirm the new password
Update Password


Recommend Books
Submit
DATABASE MANAGEMENT SYSTEMS (DBMS)
A PRACTICAL APPROACH
Dr. RAJIV CHOPRA
S. CHAND
C
PROGRAMMING
An Introduction
COMPUTER PROGRAMMING
STEVE TUDOR
Introduction to
Database Management Systems
Atul Kahate
PEARSON

References

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