REPORT

SUBMITTED ON:

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ABSTRACT

Our project aims to create a user-friendly online platform that brings together book management, user-generated content, and collaborative learning. The platform simplifies the process of registering, managing, and purchasing books while also building a community through "thoughtwaves"—a feature for sharing blogs, stories, and discussions.

A standout feature of the platform is the ability for administrators to provide study materials, which customers can enrich by adding multiple-choice questions (MCQs) related to specific chapters. These questions form quizzes, which are dynamically created by randomly selecting customer-submitted questions, allowing users to track their progress with scores.

The platform also includes a marketplace where customers can buy and sell both new and used books. Extra features, such as an audio player for online books and a chatbot for instant support, make the platform even more accessible and engaging. Sellers can easily manage their inventories, while administrators handle categories, users, orders, and study materials.

By automating processes like user authentication, order tracking, and feedback management, the platform ensures a smooth and secure experience for all users. With its innovative approach and focus on user needs, it provides an efficient solution for book management, learning, and community building.

1. INTRODUCTION

EON

EON is an innovative platform designed to simplify the way people manage books, engage with study materials, and participate in a vibrant community of readers and learners. Our platform integrates book management, user-generated content, and collaborative learning into a seamless experience. EON allows users to purchase, sell, and manage books—whether new, used, or digital—effortlessly. It caters to diverse user needs, from academic resources to leisure reading, and empowers users to contribute by creating and sharing thoughtwaves, including blogs, stories, and discussions. A standout feature of EON is the ability for administrators to upload study materials while enabling customers to enhance these resources by adding chapter-specific multiple-choice questions (MCQs). These MCQs dynamically form quizzes, fostering active engagement and progress tracking through scores. For a more inclusive experience, EON features an audio player for online books, enabling accessibility for diverse users. A chatbot provides instant support, ensuring that users navigate the platform seamlessly. Administrators can oversee categories, users, orders, and study materials, while sellers benefit from tools to manage their inventories efficiently. Whether you're a student, a book enthusiast, or a professional seller, EON transforms the way books are managed and knowledge is shared, creating a one-stop solution for learning, community engagement, and commerce.

OBJECTIVE

The primary objective of EON is to create a unified platform that bridges the gap between book management, collaborative learning, and community engagement. It enables sellers to manage their inventories and customers, and allow administrators to oversee categories, study materials, orders, and user interactions. It also provides administrators with tools to upload study materials and enable users to enrich these resources by adding MCQs for dynamic quizzes that track learning progress. Introduce features like an audio player for online books and a chatbot for immediate support, ensuring a user-friendly and accessible experience. And foster a vibrant community through the thoughtwaves feature, encouraging users to share blogs, stories, and discussions while connecting with like-minded individuals. It simplifies the buying and selling of books, including new and used ones, ensuring reliable and secure transactions for all users.

2.SYSTEM STUDY

2.1 SCOPE

The scope of EON lies in revolutionizing the way books are managed, knowledge is shared, and learning is facilitated. It caters to a diverse audience including students, educators, book enthusiasts, and professional sellers by providing a unified platform that supports book transactions, collaborative learning, and community engagement. The platform includes tools for buying and selling books, managing inventories, accessing study materials, creating and participating in dynamic quizzes, and contributing to a vibrant community through blogs, stories, and discussions. Features like an audio player and chatbot ensure inclusivity and seamless user experience, making EON a comprehensive solution for academic and leisure purposes.

2.2 PRELIMINARY STUDY

The preliminary study involved analyzing existing platforms for book management, study material sharing, and collaborative learning to identify gaps and challenges. Current platforms often lack integration, requiring users to rely on multiple tools for different needs. Surveys and user feedback highlighted the need for a unified system that simplifies book transactions, enhances learning with interactive features like quizzes, and fosters a community for sharing ideas and resources. This study laid the foundation for designing EON as a user-centric, all-in-one platform.

2.3 EXISTING SYSTEM

Existing systems typically focus on isolated functionalities such as online bookstores, learning management systems, or content-sharing platforms. These systems often fail to provide a cohesive experience, leading to inefficiencies in book transactions, limited interactivity in learning resources, and fragmented community engagement. Additionally, accessibility features such as audio support and real-time assistance are often inadequate, leaving a significant gap for diverse user needs.

2.4 PROPOSED SYSTEM

EON addresses the limitations of existing systems by offering an integrated platform that combines book management, collaborative learning, and community interaction. Key features include a marketplace for new and used books, tools for administrators to upload and enhance study materials, dynamic MCQ-based quizzes for progress tracking, an audio player for accessible book reading, and a chatbot for instant support. The platform promotes active engagement through the thoughtwaves feature, enabling users to share blogs and participate in discussions. With robust administrative controls and efficient inventory management tools, EON provides a seamless and inclusive experience for all users.

2.5 FEASIBILITY STUDY

ECONOMICAL FEASIBILITY

EON is economically viable due to its scalable business model that includes revenue streams from book sales, subscriptions, and premium features. Initial investment costs are offset by the potential for high user adoption and recurring income from sellers and users. The platform's affordability ensures accessibility to a wide audience, further enhancing its economic sustainability.

TECHNICAL FEASIBILITY

The platform leverages modern web technologies and cloud infrastructure to ensure scalability, reliability, and performance. With tools and frameworks for secure transactions, efficient content management, and real-time interactions, EON is designed to handle high traffic and provide a seamless user experience. Integration of APIs for audio playback and chatbot functionality ensures technical robustness.

OPERATIONAL FEASIBILITY

EON is operationally feasible, with a user-friendly interface and intuitive features that require minimal training for users. The platform includes efficient tools for administrators and sellers to manage their tasks effortlessly, reducing operational complexities. Its design ensures smooth onboarding and engagement, making it practical for widespread adoption.

3. SOFTWARE REQUIREMENT SPECIFICATION

HARDWARE SPECIFICATION

Choosing the right hardware is crucial for the proper functioning of any software. The size and capacity of the hardware must align with the specific requirements of the software to ensure optimal performance. Mismatched or inadequate hardware can lead to performance issues and system failures, emphasizing the importance of thoughtful hardware selection for a seamless software experience.

- **Processor**: Intel(R) Core(TM) i3-5005U CPU @ 2.00GHz 2.00GHz
- **Memory**: 4 GB RAM, 256 GB SSD

SOFTWARE REQUIREMENTS

Choosing software for a system is challenging, involving matching identified requirements with suitable packages. The task is to determine if a specific software aligns with and addresses the system's needs effectively, requiring careful assessment for a seamless integration.

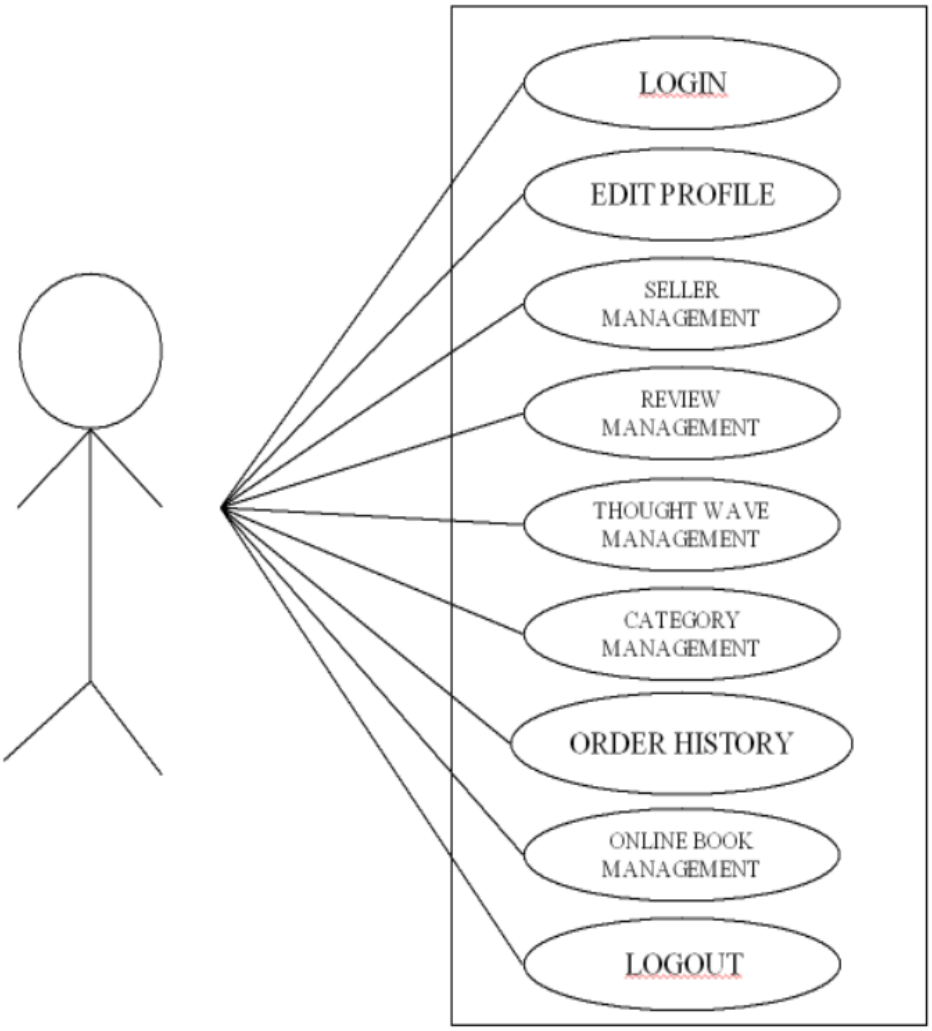
- **Coding Language**: Python
- **Front End**: HTML, CSS, JavaScript
- **Back End**: MySQL, Python
- **Operating System**: Windows 8 or higher
- **Platform**: Android
- **Tools Used**: Android Studio, Pycharm
- **Servers**: XAMPP Control Panel v3.3.0

4. REQUIREMENT SPECIFICATION MODEL

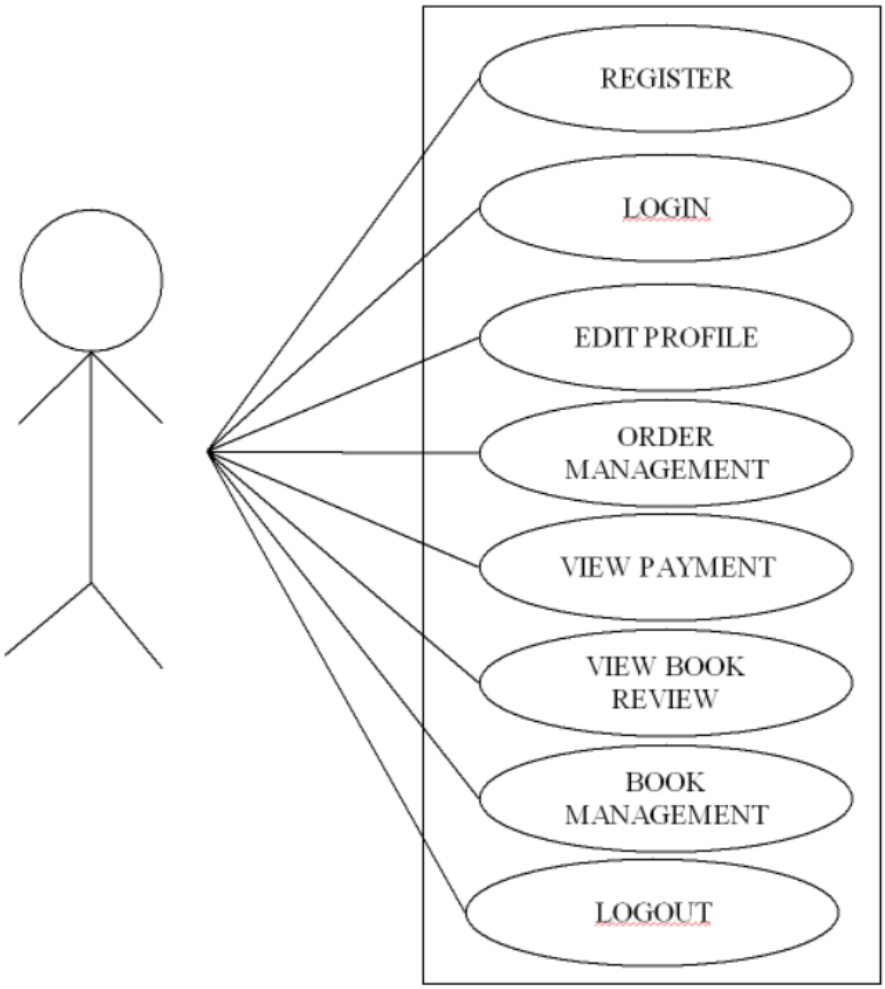
4.1 USECASE DIAGRAM

We have used use case approach in the Unified Modelling Language(UML) to understand the various requirements of each end user. The system is modularized based on users. The main purpose of a use case diagram is to show what system functions are performed by each actor. An actor is a person, organization or an external system that plays a role in one or more interactions of a system.

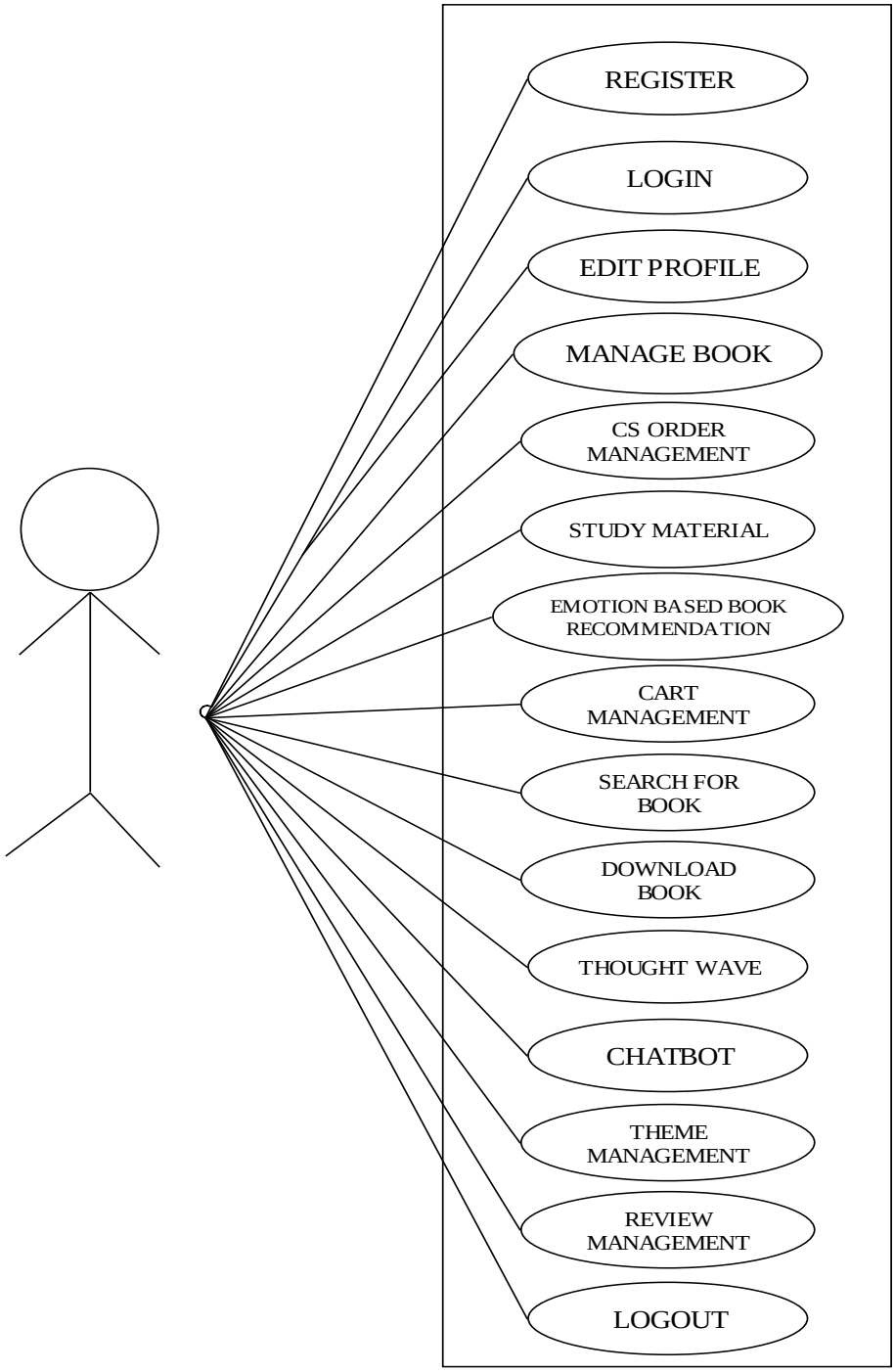
ADMIN



SELLER


REGISTER
LOGIN
EDIT PROFILE
ORDER MANAGEMENT
VIEW PAYMENT
VIEW BOOK REVIEW
BOOK MANAGEMENT
LOGOUT

CUSTOMER

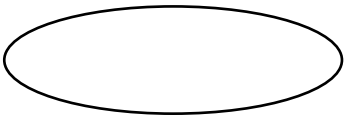

REGISTER
LOGIN
EDIT PROFILE
MANAGE BOOK
CS ORDER MANAGEMENT
STUDY MATERIAL
EMOTION BASED BOOK RECOMMENDATION
CART MANAGEMENT
SEARCH FOR BOOK
DOWNLOAD BOOK
THOUGHT WAVE
CHATBOT
THEME MANAGEMENT
REVIEW MANAGEMENT
LOGOUT

4.2 DATA FLOW DIAGRAM

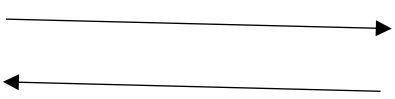
Data flow Diagrams (DFD) is the most commonly used way of documenting the processing of the required system. They are the pictorial way of showing the flow of data into, around and out of the system. They can be understood by the users and are less prone to misinterpretation than textual description. A complete set of DFDs provide a compact top-down representation of the system, which makes it easier for users and analysts to envisage the system as a whole. DFD also known as Bubble Chart has the purpose of clarifying system requirements and identifying major transformations that will become programs in system design. So it is the starting point of the design phase that functionally decomposes the requirements specifications down to the level of details. It does not show the information about the timing processes or information about whether processes will operate in sequence or in parallel. A DFD shows, what kind of data will be put into and out of the system, where data will come from and go to and where data will be stored. A DFD is often a preliminary way of creating the overview of the system.

DFD mainly uses the following symbols:

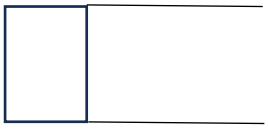
Source/Sink



Process

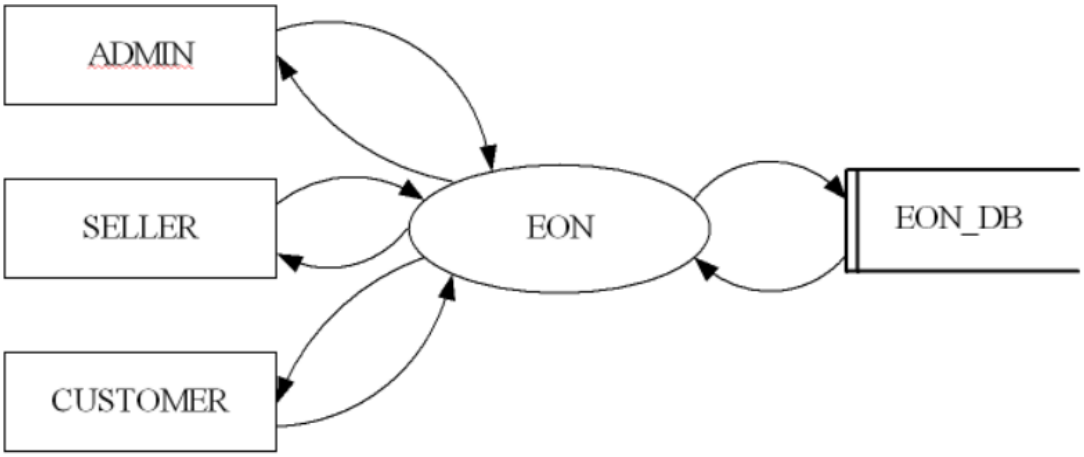


Dataflow

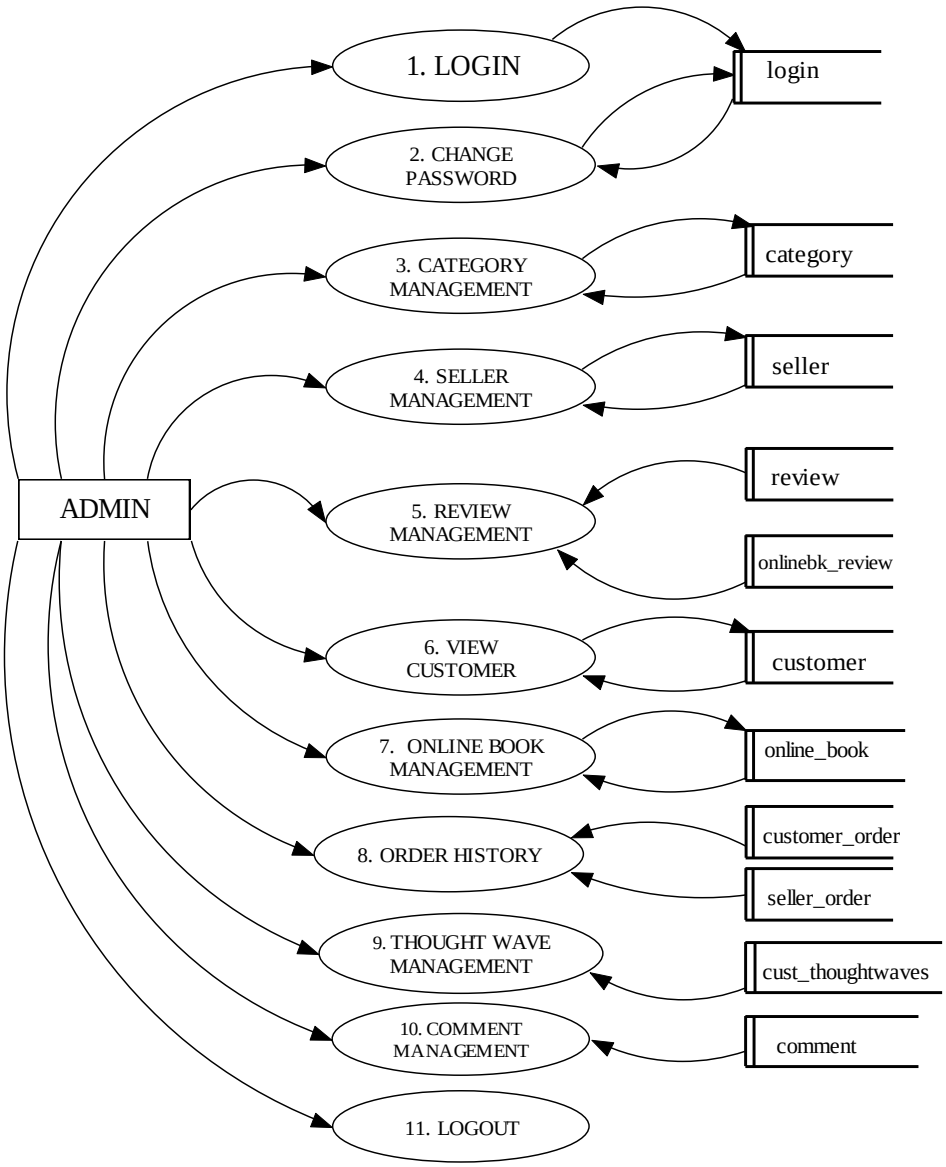


Datastore

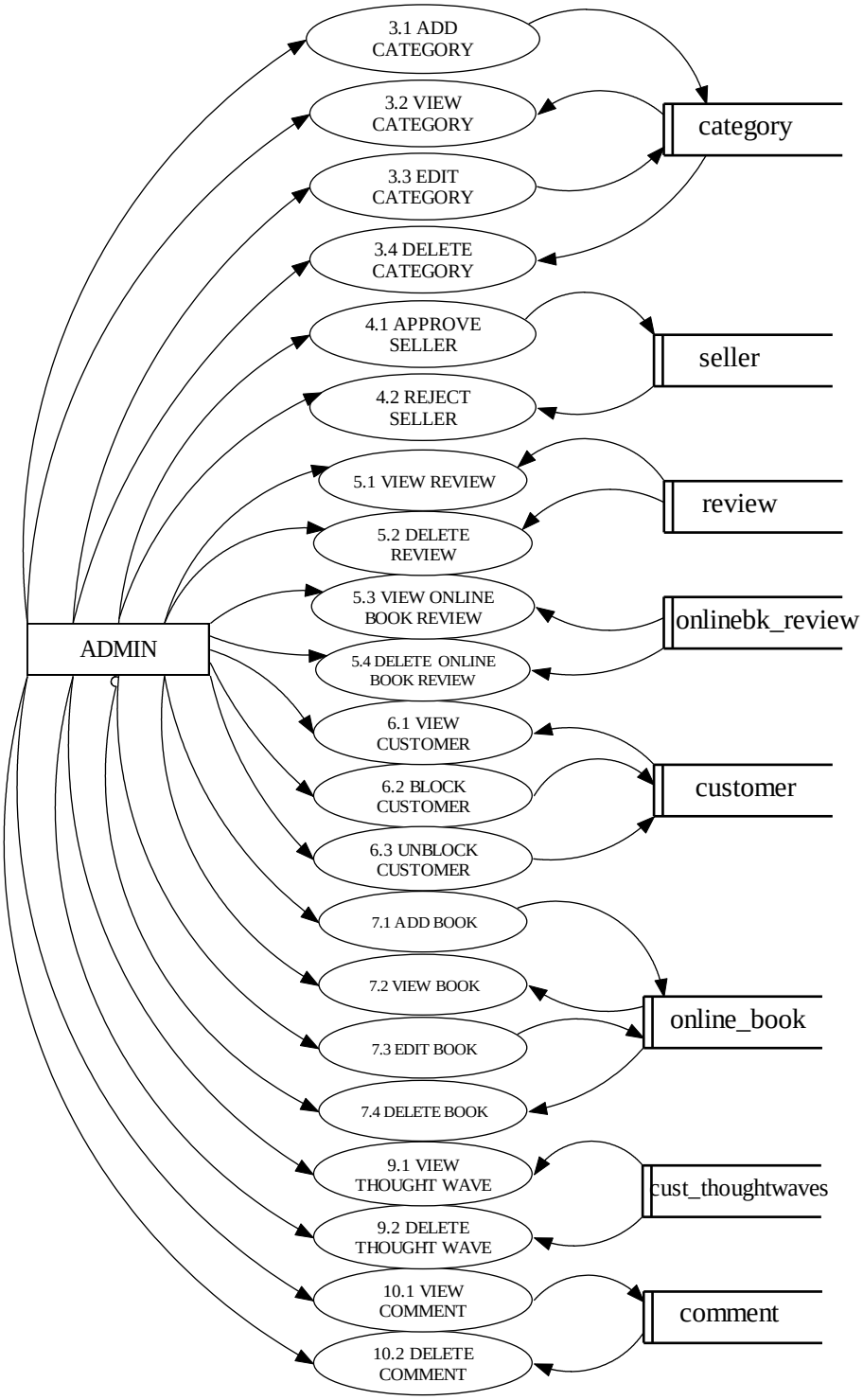
LEVEL 0: EON



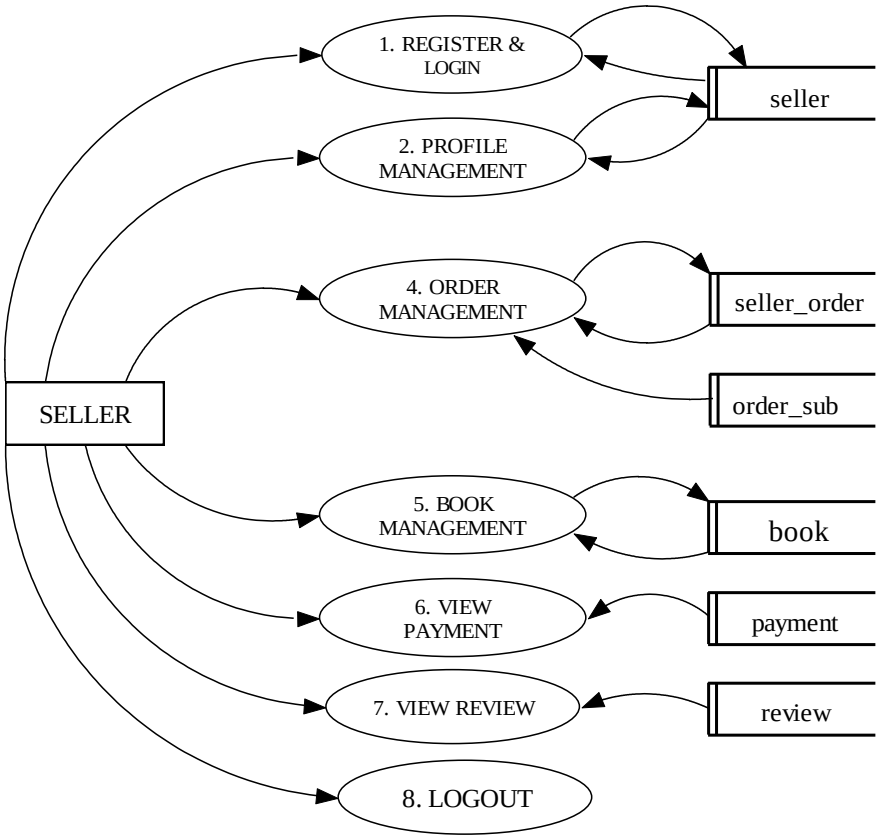
LEVEL 1: ADMIN



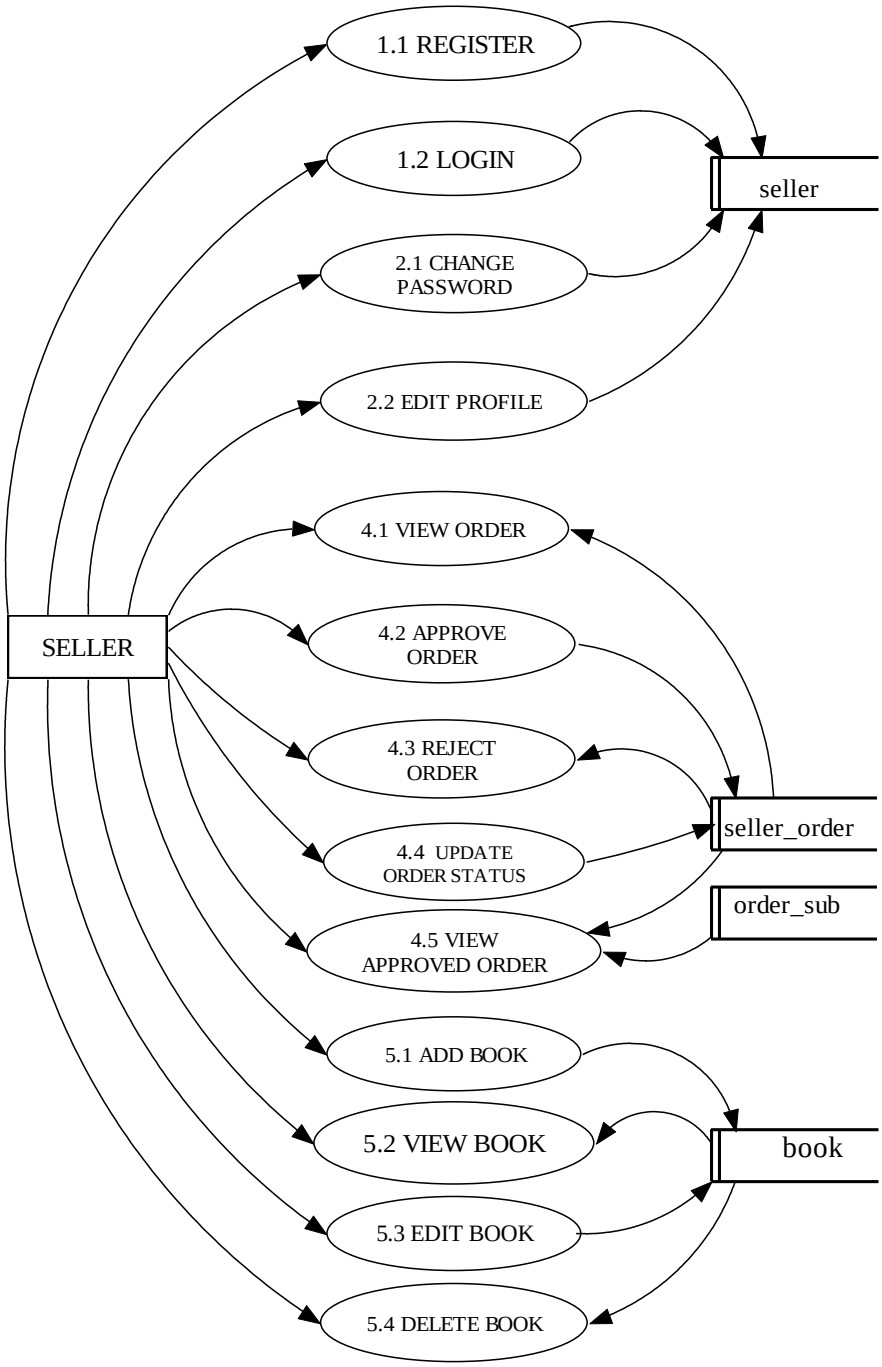
LEVEL 2: ADMIN



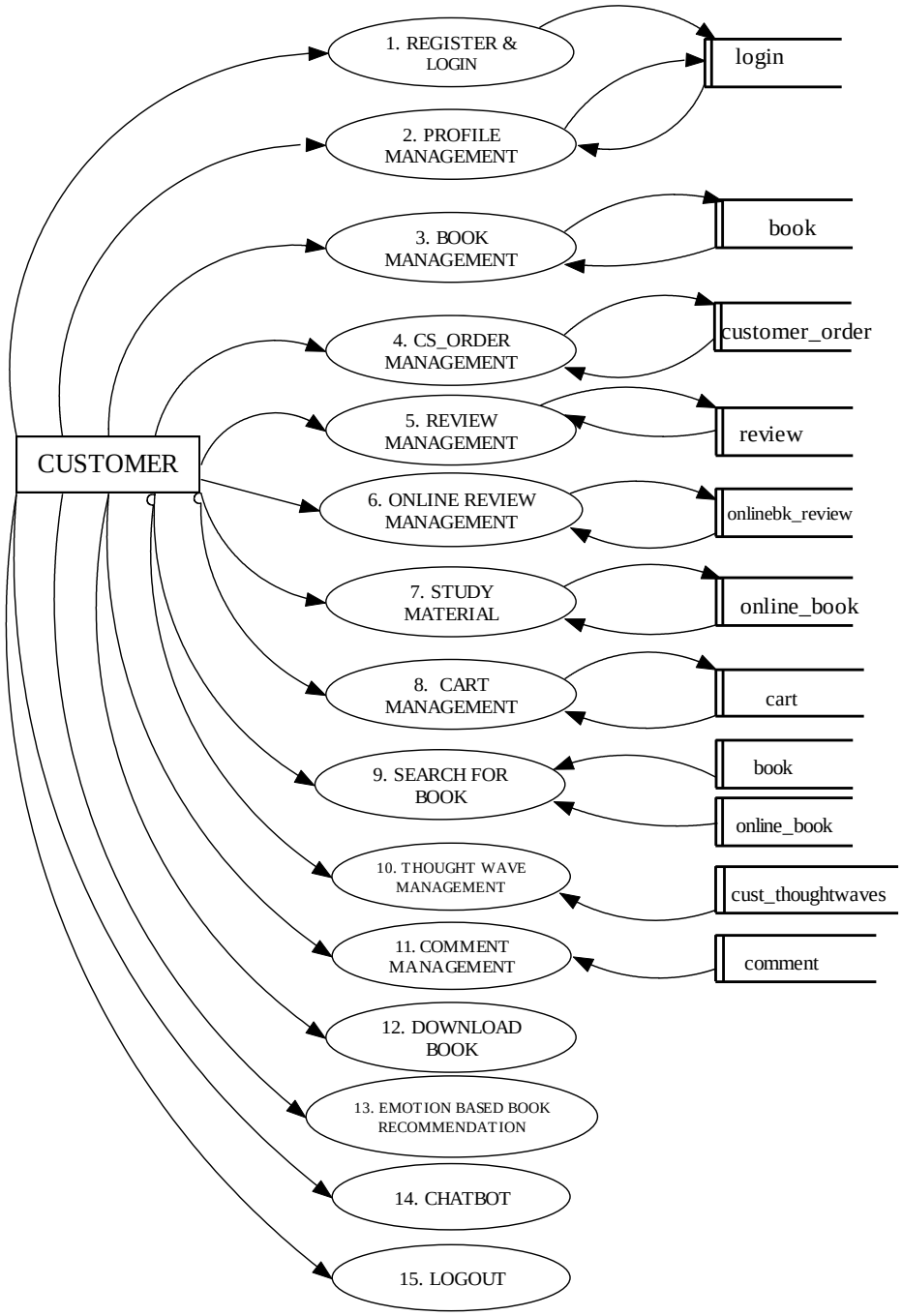
LEVEL 1: SELLER



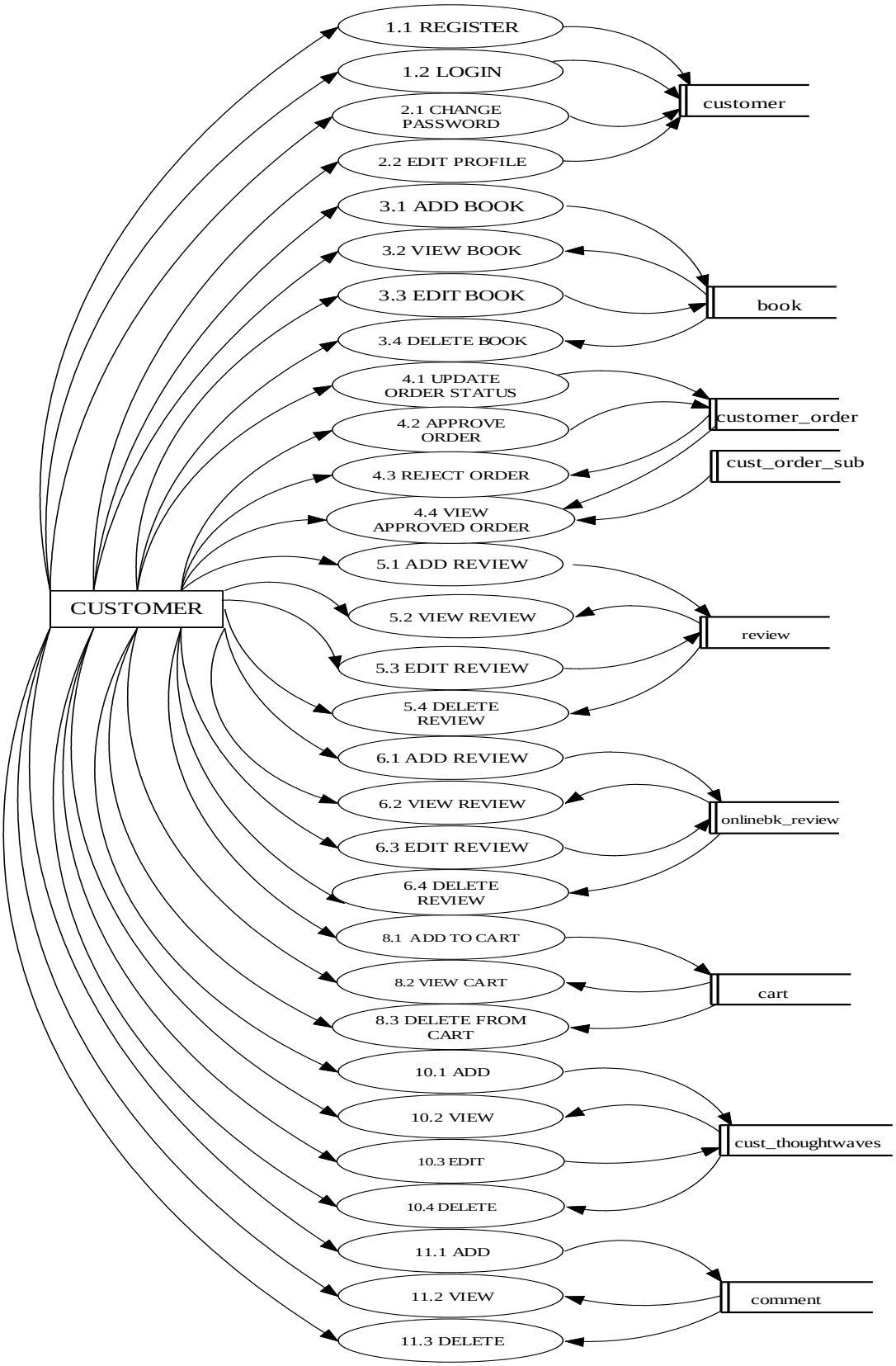
LEVEL 2: SELLER



LEVEL 1: CUSTOMER



LEVEL 2: CUSTOMER



5. SYSTEM DESIGN

System design, the most creative and challenging phase of the development process, serves as the solution to creating the proposed system. It involves crafting technical specifications based on the feasibility study, detailing procedures for implementation. The design specification outlines features, input/output files, and data files, ensuring the system meets requirements for information presentation, accuracy, interaction methods, and overall reliability. Adherence to organizational rules and practices is crucial. Key design objectives encompass practicality, cost efficiency, flexibility, and security, all geared towards fulfilling the specified requirements in the feasibility report.

5.1 MODULES

The proposed system involves 3 modules which are the follows:

1. Admin
2. Seller
3. Customer

5.2 HIGH LEVEL DESIGN

ADMIN

1. Admin has the right to approve and reject the seller by checking the uploaded credentials and admin can Admins can view customer information and can block or unblock customers. They can also view and add different categories. Admin can also add and view online book. They can also view review, view order history, view thoughtwaves, order

history. And can also also view and delete unwanted comment.

SELLER

Seller can accept or update their order and can view approved order. They can add, view and update book. They can view the payment details, view review to their books.

CUSTOMER

Customers can add, view, and edit their books. They can approve ,view and update orders. They can add and update reviews for online and seller-provided books They can add and view comment, cart and thoughtwaves.

5.3 LOW LEVEL DESIGN

ADMIN

1. Login: The admin can login to the website by entering username and password. The username and password are stored in the login table.

2. Category management: Admins can manage categories viewing, editing, adding, and deleting them

3. Manage seller: The admin can manage the seller by approving and rejecting them based on their log in credentials which are stored in seller table respectively.

4. Review management: The Admin can view all review placed by the client

and delete inappropriate or unwanted reviews.

5. View customer: Admins can view customer information and manage customer accounts, including the ability to block or unblock customers.

6. Order history: View: The Admin can also view order history of both seller and customer.

7. Thoughtwaves management: Admins can view thoughtwaves uploaded by customers and have the authority to delete any inappropriate or unwanted content.

8. Comment management: Admins can also view and delete unwanted comment.

SELLER

1. Login: The seller can login to the website by entering username and password. The username and password are stored in the login table.

2. Order management: The seller can view, approve and update their order.

3. Book management: The seller can manage their books by adding, viewing, editing, and deleting them.

4. View payment: The seller can view the payment done by the customer.

5. View review: The seller can view the reviews done by the customer.

CUSTOMER

1. Login: The customer can login to the website by entering username and

password. The username and password are stored in the login table.

2. Manage Book: The customer can manage their books by adding, viewing, editing, and deleting them.

3. Order management: The customer can view, approve and update their order.

4. Online book review: The customer can view, add, edit and delete online book review provided by admin.

5. Customer and seller review: The customer can view, add, edit and delete review to book provided by seller and other customer.

6.Study material: The customer can view study material provided by admin.

7. Emotional based book recommendation: Customers can discover books that match their emotions through emotional-based book recommendation feature.

8. Comment management: The customer can view, add and delete comment

9. Cart management: The Customers can manage their shopping cart by viewing, adding, and deleting books.

10.Search for books: The customer can search for books.

11.Download content: Customers can download book contents for offline reading.

12. Thoughtwaves: Customers can share their thoughts by adding thoughtwaves, and also edit, view, or delete them as needed.

5.5 DATABASE DESIGN

1. LOGIN TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
username	varchar	null
password	varchar	null
usertype	varchar	null

2. CATEGORY TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
categoryname	varchar	null
discription	varchar	null

3. SELLER TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
LOGIN_id	int	Foreign Key
sellername	varchar	null
email	varchar	null
phonenumber	varchar	null
place	varchar	null
post	varchar	null
pincode	varchar	null
certificate	varchar	null

4. BOOK TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
GENRE_id	int	Foreign Key
LOGIN_id	int	Foreign Key
book_name	varchar	null
author	varchar	null
publisher	varchar	null
description	longtext	null
price	int	null
discount	varchar	null
image	varchar	null
bookcondition	varchar	null
type	varchar	null
availability	varchar	null
numberofpages	varchar	null

5. ONLINE_BOOK TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary key
GENRE_id	int	Foreign key
book_name	varchar	null
author	varchar	null
description	varchar	null
book_format	varchar	null
image	varchar	null
filesize	varchar	null
language	varchar	null
no_ofpage	varchar	null
upload_date	varchar	null
type	varchar	null
subject	varchar	null
content	varchar	null
emotion	varchar	null

6. CUSTOMER TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary key
LOGIN_id	int	Foreign key
image	varchar	null
firstname	varchar	null
lastname	varchar	null
dob	varchar	null
age	varchar	null
gender	varchar	null
email	varchar	null
phonenumber	varchar	null
place	varchar	null
post	varchar	null
pin	varchar	null

7. CUSTOMER_ORDER TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
CUSTOMER_id	int	Foreign key
CUSTOMER_se_id	int	Foreign key
date	varchar	null
orderstatus	varchar	null
paymentstatus	varchar	null
paymentmethod	varchar	null
totalamount	varchar	null
discount	varchar	null
place	varchar	null
city	varchar	null
state	varchar	null
colony	varchar	null
house	varchar	null
pin	varchar	null
deliverydate	varchar	null
return_or_refund	varchar	null
ordernotes	varchar	null
ordercancellationreason	varchar	null

8. CUSTOMER_ORDER_SUB TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
BOOK_id	int	Foreign key
CUSTOMER_ORDER_id	int	Foreign key
quantity	varchar	null

9. CUST_THOUGHTWAVES TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
CUSTOMER_id	int	Foreign key
thoughtname	varchar	null
content	varchar	null
category	varchar	null
publish_date	varchar	null

10. APPVDSELLER TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
SELLER_id	int	Foreign key
email	varchar	null
phno	varchar	null

11. CART TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
BOOK_id	int	Foreign key
CUSTOMER_id	int	Foreign key
quantity	int	null

12. CONTENT TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
CATEGORY_id	int	Foreign key
contents	varchar	null
content_title	varchar	null
content_type	varchar	null
description	varchar	null
date	varchar	null
content_description	varchar	null
publication_date	varchar	null
content_format	varchar	null

13. LIKE TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
CUSTOMER _id	int	Foreign key
THOUGHTNAME_id	int	Foreign key

14. COMMENT TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
CUSTOMER_id	int	Foreign key
THOUGHTNAME_id	int	Foreign key
date	varchar	null
cmts	varchar	null

15. SELLER_ORDER TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
CUSTOMER_id	int	Foreign key
SELLER_id	int	Foreign key
date	varchar	null
orderstatus	varchar	null
paymentstatus	varchar	null
paymentmethod	varchar	null
totalamount	varchar	null
discount	varchar	null
city	varchar	null
state	varchar	null
colony	varchar	null
house	varchar	null
pin	varchar	null
deliverydate	varchar	null
return_or_refund	varchar	null
ordernotes	varchar	null

customerfdbck	varchar	null
ordercnclreason	varchar	null

16. ORDER_SUB TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
BOOK_id	int	Foreign key
SELLER_ORDER_id	int	Foreign key
quantity	varchar	null

17. PAYMENT TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
CUSTOMER_id	int	Foreign key
ORDER_id	int	Foreign key
payment_date	varchar	null
payment_method	varchar	null
payment_status	varchar	null
amount	varchar	null

18. QUESTION TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
CUSTOMER_id	int	Foreign key
ONLINE_BOOK_id	int	Foreign key
option_a	varchar	null
option_b	varchar	null
option_c	varchar	null
option_d	varchar	null
questions	varchar	null
answers	varchar	null

19. CHATBOT TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
CUSTOMER_id	int	Foreign key
chat	longtext	null
date	varchar	null
type	varchar	null

20. REVIEW TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
BOOK_id	int	Foreign key
CUSTOMER_id	int	Foreign key
chat	varchar	null
date	varchar	null
type	varchar	null

21. ONLINEBK_REVIEW

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
CUSTOMER_id	int	Foreign key
ONLINE_BOOK_id	int	Foreign key
date	varchar	null
revw	varchar	null
rating	varchar	null

22. REPLY TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
rply	varchar	null

23. RESULT TABLE

DATA ITEM	DATA TYPE	CONSTRAINTS
id	int	Primary Key
CUSTOMER_id	int	Foreign key
ONLINE_BOOK_id	int	Foreign key
marks	varchar	null
date	varchar	null

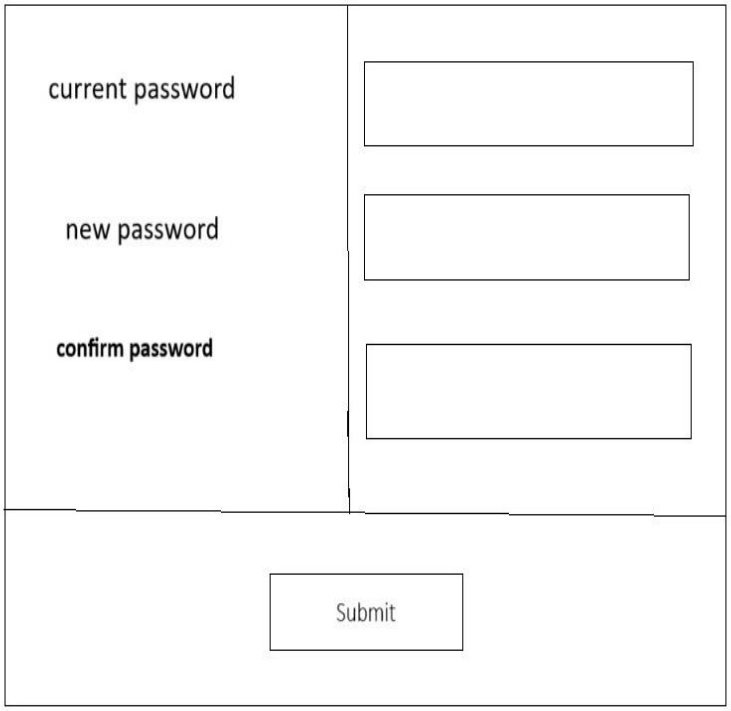
5.5 USER INTERFACE

1. LOGIN

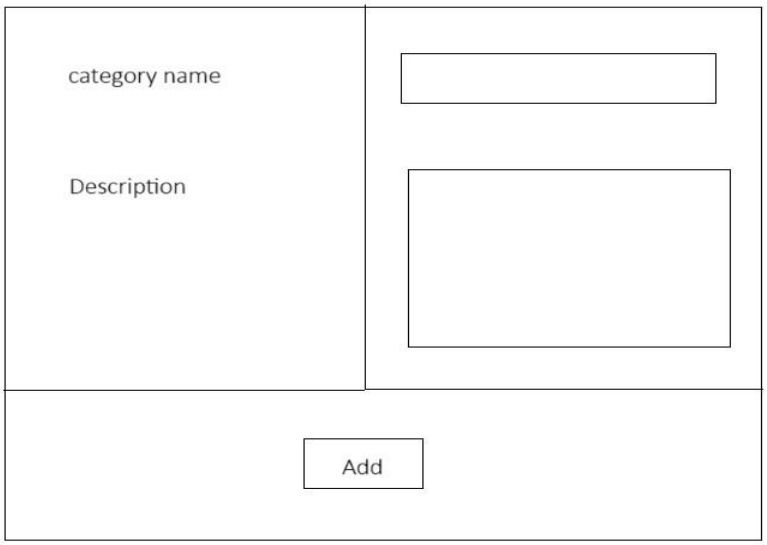
2. SELLER REGISTER

3. CUSTOMER REGISTER

4. CHANGE PASSWORD



5. CHANGE PASSWORD



6. SELLER BOOK ADD

7. CUSTOMER BOOK ADD

8. THOUGHTWAVE ADD