## **BOOKWORM CYCLE**

#### A PROJECT REPORT

#### Submitted by,

K. Rajesh Kumar Reddy	- 20201CST0078
J. Sri Ranga Dinesh	- 20201CST0016
P. Parameshwar Reddy	- 20201CST0045
U. Bharath Karthik Rao	- 20201CST0054
K. Sritha	- 20201CST0027

Under the guidance of,

Ms. Riya Sanjesh

in partial fulfillment for the award of the degree of

## **BACHELOR OF TECHNOLOGY**

ΙN

COMPUTER SCIENCE AND TECHNOLOGY
[ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING]



# PRESIDENCY UNIVERSITY BENGALURU JANUARY 2024

#### PRESIDENCY UNIVERSITY

## SCHOOL OF COMPUTER SCIENCE ENGINEERING

#### CERTIFICATE

This is to certify that the Project report "BOOKWORM CYCLE" being submitted by Kummetha Rajesh Kumar Reddy (20201CST0078), J. Sri Ranga Dinesh (20201CST0016), Paireddy Parameshwar Reddy(20201CST0045), U. Bharath Karthik Rao (20201CST0054), Sritha Kanala (20201CST0027), in partial fulfilment of requirement for the award of degree of Bachelor of Technology in Computer Science and Technology (Artificial Intelligence and Machine Learning) is a bonafide work carried out under my supervision.

Ms. RIYA SANJESH

Asst. Prof. School of CSE

Presidency University

Dr. A. JAYACHANDRAN

Professor & HoD School of CSE&IS Presidency University

Dr. C. KALAIARASAN

Associate Dean School of CSE&IS Presidency University Dr. L. SHAKKEERA Associate Dean School of CSE&IS

Presidency University

Dean

School of CSE&IS Presidency University

Dr.MD. SAMEERUDDIN KHAN

#### PRESIDENCY UNIVERSITY

## SCHOOL OF COMPUTER SCIENCE ENGINEERING DECLARATION

We hereby declare that the work, which is being presented in the project report entitled BOOKWORM CYCLE in partial fulfilment for the award of Degree of Bachelor of Technology in Computer Science and Technology [Artificial intelligence and Machine learning], is a record of our own investigations carried under the guidance of Ms. RIYA SANJESH, School of Computer Science & Engineering Presidency University, Bengaluru.

We have not submitted the matter presented in this report anywhere for the award of any other Degree.

K. Rajesh Kumar Reddy	20201CST0078	Perielly
J. Sri Ranga Dinesh	20201CST0016	- Sand
P. Parameshwar Reddy	20201CST0045	Brankell
U. Bharath Karthik Rao	20201CST0054	TStoratt.
	20201CST0027	21
K. Sritha	20201CS10027	201

#### **ABSTRACT**

Are you sick and tired of being held back by pricey or unobtainable books? Presenting a ground-breaking Android software that creates book circles to fire your passion for reading! With readers who share your interests, spread the joy of reading. Want that uncommon first edition badly? Using our platform, you may meet book owners who are as passionate about reading as you are. Get rid of expensive book copies and instead borrow, lend, and find hidden treasures in your neighborhood.

No more trips to read by yourself. Locate your group! Explore our user-friendly layout, apply genre and interest filters, and establish connections with others who share your interests in books. Make a request for that coveted limited-edition book or start a conversation about your best pages. It's a refuge for book lovers, helping you make friends and broaden your horizons in terms of literature. In addition to lending, our app creates a lively community of readers. Take part in heated debates, share book suggestions, and run online book clubs. Exchange reviews, dissect characters, and immerse yourself in one another's literary exploits. It's about developing a shared passion of reading, not just checking out a book. Come read with us, overcome your obstacles to reading, and discover a world of limitless opportunities. Launch the app, then start your journey!

#### **ACKNOWLEDGEMENT**

First of all, we indebted to the GOD ALMIGHTY for giving me an opportunity to excel in our efforts to complete this project on time.

We express our sincere thanks to our respected dean **Dr. Md. Sameeruddin Khan**, Dean, School of Computer Science Engineering & Information Science, Presidency University for getting us permission to undergo the project.

We record our heartfelt gratitude to our beloved Associate Deans **Dr. Kalaiarasan** C and **Dr. Shakkeera** L, School of Computer Science Engineering & Information Science, Presidency University and **Dr. A. Jayachandran** Head of the Department, School of Computer Science Engineering & Information Science, Presidency University for rendering timely help for the successful completion of this project.

We are greatly indebted to our guide **Ms. Riya Sanjesh**, School of Computer Science Engineering, Presidency University for her inspirational guidance, and valuable suggestions and for providing us a chance to express our technical capabilities in every respect for the completion of the project work.

We would like to convey our gratitude and heartfelt thanks to the University Project-II Coordinators **Dr. Sanjeev P Kaulgud, Dr. Mrutyunjaya MS** and also the department Project Coordinator **Mr. Yamanappa**.

We thank our family and friends for the strong support and inspiration they have provided us in bringing out this project.

K. Rajesh Kumar Reddy J. Sri Ranga Dinesh P. Parameshwar Reddy U. Bharath Karthik Rao K. Sritha

## LIST OF FIGUERS

Sl.no	Figure Name	Page.No
i)	Work Flow of Proposed system	7
ii)	Architecture	10
iii)	SDLC	12
iv)	Use Case Diagram	16
v)	Class Diagram	17
vi)	Sequence Diagram	18
vii)	Collaboration Diagram	19
viii)	Deployment Diagram	19
ix)	Activity Diagram	20
x)	Component Diagram	21
xi)	ER Diagram	21
xii)	Data Flow Diagram	22

## TABLE OF CONTENTS

CHAPTER NO.	CONTENT	
	Certificate	II
	Declaration	III
	Abstract	IV
	Acknowledgement	V
	List Of Figures	VI
1	INTRODUCTION	1
	1.1 Motivation	1
	1.2 Problem Statement	1
	1.3 Objective of the Project	2
	1.4 Scope	2
	1.5 Project Introduction	3
2.	LITERATURE SURVEY	4
	2.1 Related Work	4
3.	RESEARCH GAP IN EXISTING METHOD	5
	3.1 Existing System	5
	3.2 Disadvantages	5
4.	PROPOSED METHODOLOGY	6

	4.1 Proposed System	6
	4.2 Advantages	6
	4.3 work Flow of Proposed system	7
5.	OBJECTIVE	8
	5.1 Functional and non-functional requirements	8
	5.2 Hardware & Software Requirement	9
	5.3 Architecture	10
6.	SYSTEM DESIGN AND IMPLEMENTATION	13
	6.1 UML Diagrams	13
7.	TIMELINE FOR EXECUTION OF PROJECT	21
8.	OUTCOMES	22
9.	SYSTEM TEST	23
10.	IMPLEMENTATION AND RESULTS	25
	10.1 Modules	25
11.	CONCLUSION	26
12.	FUTURE ENHANCEMENT	27
	REFERENCES	28
	APPENDIX-A Pseudo code	29
	APPENDIX-B Screenshot	31

#### INTRODUCTION

#### 1.1 Project Introduction:

The rising popularity of smartphones and the growth of mobile networks have boosted people's capacity to interact and communicate with one another. Mobile networks may be used to alter many traditional social activities. Bookcrossing, or book sharing, is the most interesting and noteworthy shift. Bookcrossing, the practice of readers exchanging books they've finished reading in public places like park benches, began in Europe in the 1960s. Those who are interested in the same book can check it out for later reading. Readers might assume the role of future sharers once they have finished reading. This kind of book sharing facilitates the free flow of knowledge.

#### 1.2 Motivation:

Rekindling the Joy of Shared Stories is the Project's Spark.

The spark behind our initiative is fed by a complex passion:

- 1. Reviving the Magic of Serendipity: We miss the excitement of discovering a new book by chance, or of a fortuitous meeting that initiates a thrilling reading journey. Rekindling that magic, networked bookcrossing turns the globe into a secret story treasure trove just waiting to be unearthed.
- 2. Building Bridges Through Books: We think that telling stories to one another encourages closer bonds. The goal of our platform is to unite readers who share similar interests geographically by using literature as a common language across continents. Every page that is shared contributes to a world that is more compassionate and cohesive.

#### 1.3 Problem Statement:

In a world where knowledge sharing is fundamental, there exists a significant challenge for avid book readers who wish to explore a diverse range of books without the burden of constant book purchases. The lack of a centralized platform for book enthusiasts to connect, share, and borrow books limits the potential for widespread knowledge exchange and mutual benefit.

community of book readers for the purpose of sharing and borrowing books creates a void in the reading ecosystem. Readers with an extensive collection of books often find themselves with limited avenues to share their knowledge, while those in search of specific books face challenges in locating like-minded individuals willing to lend. Furthermore, the high cost of books and limited accessibility to certain publications hinder the ability of many readers to broad their reading horizons. This creates a gap in the reading community, preventing the establishment of a seamless network for sharing and borrowing books.

Therefore, the problem at hand is to develop an Android application that serves as a digital platform for readers to connect, share, and borrow books within a community of like-minded individuals. The application should address the challenges of limited accessibility, high book costs, and the absence of a centralized platform for book enthusiasts to connect and collaborate. By doing so, the project aims to foster a culture of knowledge sharing, providing readers with the opportunity to expand their reading repertoire and contribute to the intellectual growth of others.

#### 1.4 Objective of the Project:

The Bookworm Cycle Project's goals are:

#### 1. Make Books More Accessible:

Expand the audience for rare and expensive books by allowing them to be borrowed and lent.

Lower the entry-level financial barrier for readers.

#### 2. Promote a Reader Community:

Assist readers in finding common ground and foster a feeling of community.

Encourage book-related conversations and suggestions.

#### 3. Promote the Find of New Books:

Identify books for readers that are outside of their comfort zones and typical genres. Introduce them to fresh writers and viewpoints.

#### **1.5 Scope:**

Yes, this is the extent of the networked bookcrossing initiative:

The intended audience

 Readers of various ages and interests: The platform is made to accommodate a broad spectrum of readers, with interests in all literary genres, from kids to adults. People and communities: People may use the platform to borrow and return books, and communities can use it to plan events, book clubs, and other activities.

#### Types of Books:

• Fiction and non-fiction: All genres of literature, including children's books, audiobooks, and non-fiction, will be available on the platform. Books, both digital and physical: While digital books may eventually be added to the site, physical books will be the main focus at first.

#### 2. LITERATURE SURVEY

#### 2.1 Related Work:

#### **Book Shala Android Application:**

**Objective:** Create an Android app called Book Shala for sharing books and building a community.

**Features:** Includes speech recognition, a wallet system, and a prediction feature for suggesting future purchases.

**Benefits:** A cost-effective way for users to access knowledge through their Android phones.

#### **Private Book Sharing System in the Sharing Economy:**

Focus: Explores private book sharing systems within the modern sharing economy model.

**Findings:** Establishing a shared platform efficiently utilizes idle resources, contributing to improved supervision and management mechanisms.

#### **Application for Sharing Books in Second Home Areas:**

**Purpose:** Provides a solution for sharing books in second home areas.

**Development:** Consists of a specialization project and a master's thesis, determining web application requirements for book sharing in these areas. Resulted in the creation of Hyttebiblioteket, a tailored web application.

#### 3. RESEARCH GAP IN EXISTING METHOD

#### 3.1 EXISTING METHOD

Issue: The current system faces challenges because there is a lack of diversity in the reading material available. This limitation restricts the group's exposure to different genres, authors, and viewpoints.

Varied Engagement: Members of the group may have different levels of engagement with the books. Some might have thoroughly read the material and have a lot to contribute, while others may have only skimmed through or prefer different types of reading.

#### 3.2 Disadvantages:

Unfriendly User Interface:

- Problem: The user interface (UI) of the current system is not user-friendly.
- Impact: Users may find it challenging to navigate or interact with the system efficiently. Inability to Find Suitable Books:
- Issue: Users might face difficulties in finding the right books from other users.
- Consequence: This could lead to frustration and limit the effectiveness of the booksharing process.

In simpler terms, the current system has limitations in the variety of reading material available, which affects the group's exposure to different content. Additionally, there are issues with the user interface being not user-friendly, and users may encounter challenges in finding suitable books from others.

#### 4. PROPOSED METHODOLOGY

#### **4.1 Proposed System:**

#### User:

1)Purpose: People use this platform to share their physical books with each other.

2)Getting Started: Users start by creating an account, a process known as registration.

3)Accessing the Platform: After registration, users log in to the platform using their credentials.

4)Adding Books: Once logged in, users can easily add the books they own to the platform, indicating that they are open to exchanging them.

5)Book Exchange: Users can connect with each other through the platform and exchange the books they've added.

#### Admin:

- o Role: The admin is like the manager of the platform.
- o Access for Admin: The admin logs in using their credentials to manage the platform.
- Adding Books: Admin has the ability to seamlessly add new books to the platform. This
  helps in creating a digital library with a personal touch.
- Enhancing User Experience: The admin's role includes making sure users have easy and
  efficient access to the platform. They also manage the overall organization of books,
  ensuring a smooth and interactive experience for users.

#### 4.2 Advantages:

Expanded Book Access: Check out pricey, rare, or out-of-print books that you would not otherwise be able to purchase or locate.

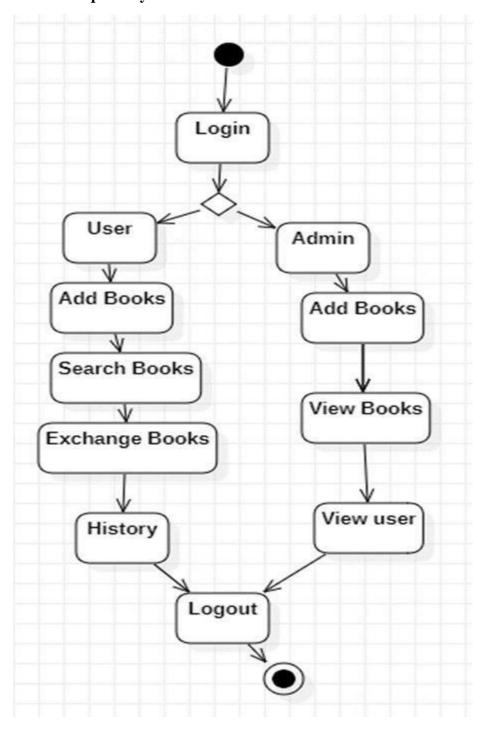
Find New Books: Using suggestions and common interests, venture outside your comfort zone and investigate new genres and writers.

Join a Community: Locate other readers who share your interests, talk about books, and take part in online or live book clubs and events.

Save Money: Lending your own books might make you money, and it can also help you cut down on the amount of money you spend on books.

Increased Sustainability in Reading: By lending books to others, you may extend their useful lives and cut down on paper waste.

## 4.3 Work Flow of Proposed system:



Work Flow of Proposed system Fig no:1

#### 5. OBJECTIVE

Goal: Create and release an intuitive Android application that, through making physical book sharing and borrowing more accessible, creates a lively community of readers by removing financial and practical barriers to a variety of reading experiences and sparking a culture of knowledge sharing.

This goal encapsulates the spirit of the undertaking by fusing:

Technology: Creating and releasing an Android application.

Community: Establishing a thriving literary community.

Dismantling obstacles to a variety of reading experiences is known as accessibility.

Knowledge Sharing: Encouraging a culture of knowledge sharing by allowing people to borrow and share books.

As a result of its power, clarity, and conciseness, it is the perfect overall goal for your project.

Please feel free to use this as a starting point and make any adjustments to suit your needs and the particulars of the project.

#### **5.1 Functional and non-functional requirements:**

**Functional requirements:** Requirement analysis is a crucial stage in deciding if a software or system project will be successful. The two primary types of requirements are functional and non-functional.

Functional Requirements: These are the specifications that the end user expressly requests be included to the system as standard functionality. Each of these features must be present in the system, as specified in the agreement. This symbolizes or explains the activity performed, the data that has to be entered into the system, and the anticipated result. Essentially, unlike non-functional demands, these requirements are user-specified norms that are immediately apparent in the finished product.

Functional requirements include things like:

- 1) User verification for every login attempt.
- 2) Should a cyberattack occur, system shutdown
- 3) Every time a person registers for the first time on a software system, they receive a verification email.

**Non-functional requirements**: To put it simply, these are the standards of quality that the system needs to satisfy in order for the project to be finished on time. The importance or degree of execution of these components varies depending on the project. They are also known as non-behavioral requirements.

The following issues are mostly addressed by them:

These qualities include: portability, security, sustainability, dependability, scalability, performance, reusability, and flexibility.

Non-functional needs examples include:

- 1) Emails pertaining to the activity must be sent out within 12 hours of the event.
- 2) There should be a maximum of 10 seconds between queries.
- 3) When there are more than 10,000 concurrent visitors, the page should load in three seconds or fewer.

#### **5.2 HARDWARE & SOFTWARE REQUIREMENTS**

#### HARDWARE CONFIGURATION:

Processor
 - I3/Intel Processor

• Hard Disk -160GB

• Key Board - Standard Windows Keyboard

• Mouse - Two or Three Button Mouse

Monitor - SVGA

• RAM - 8GB

#### **SOFTWARE CONFIGURATION:**

• Operating System : Windows 10

• JDK : Java

• Server side Script : PHP

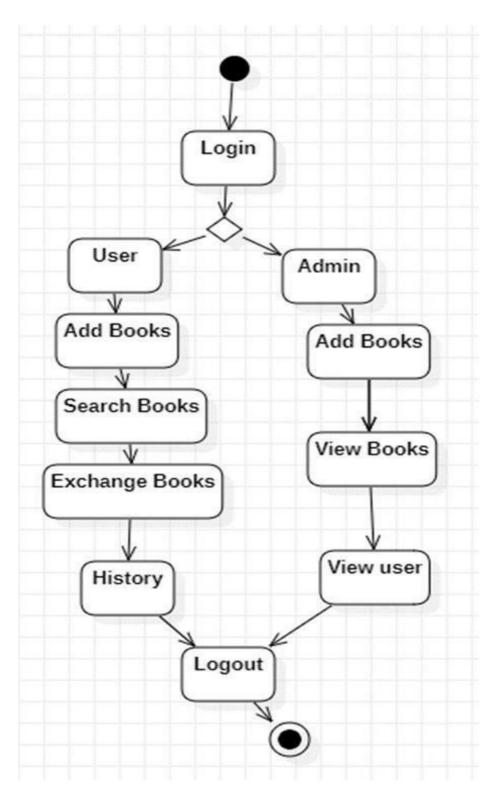
• Plugin : Kotlin

• SDK : Android

• IDE : Android Studio

• Database : My SQL

#### **5.3 ARCHITECTURE:**

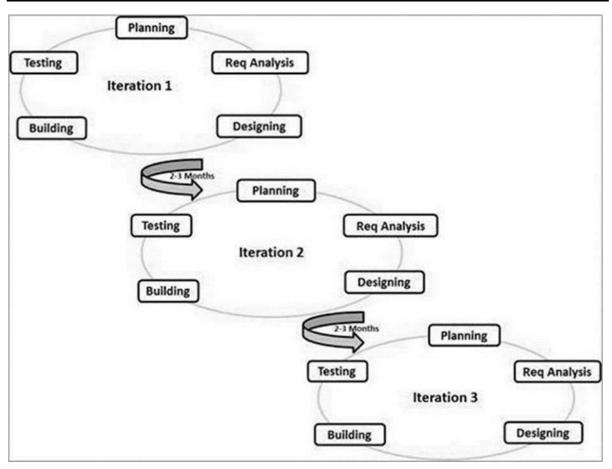


Architecture Fig no:2

## **SOFTWARE DEVELOPMENT LIFE CYCLE – SDLC:**

Agile, which means quick and flexible, is a phrase used to describe an iterative approach to software development. This strategy avoids heavy long-term planning by breaking tasks into smaller iterations. The requirements and scope of the project are established from the beginning. Plans are created in advance that specify the quantity, length, and scope of iterations. An iteration is a brief "frame" of one to four weeks during which a development team completes all phases of the software development life cycle, including requirements analysis, design, coding, testing, and planning. This procedure speeds up project delivery while reducing project risks.

Many development methodologies, including Crystal, Scrum, Extreme Programming (XP), Lean development, and Unified Process are all included in the Agile paradigm. It uses iterative development, breaking down needs into manageable, incremental components that are created across several-week-long iterations. Long-term plans are eschewed, and the focus is on delivering increments to customers after each time-box, with a fixed end date for each iteration. The Agile model's core principle is delivering customer increments regularly, ensuring adaptability and responsiveness.



Software Development Life Cycle Fig no:3

#### Agile model tenets:

consumer Collaboration: Throughout the development process, be in constant communication with the consumer. Include a client representative in the group to ensure that the needs are understood. Discuss developments on a regular basis with stakeholders.

Working Software: Put less emphasis on copious documentation and more on working software.

Regular Delivery: Provide the client representative with updated software versions every several weeks.

Flexible Requirements: Encourage and efficiently incorporate requirement changes from the customer.

Improved contact: Give priority to effective team members and in-person contact above formal documentation.

Ideal Team Size: To promote effective face-to-face contact and a collaborative work atmosphere, keep the development team small (5 to 9 members).

Pair Programming: Use this technique, in which two programmers collaborate at a single workstation while routinely switching responsibilities.

Advantages:

Quality Code: Pair Programming produces well-written, error-reduced code.

Reduced Development Time: Incremental deliveries allow for customer feedback, making it easy to adapt to changing requirements.

Disadvantages:

Communication Challenges: Decisions taken at different phases may be misunderstood if there are no official papers.

Problems with Maintenance: When developers go on to new projects, it may be difficult to maintain the produced product if there is inadequate documentation

#### 6. SYSTEM DESIGN AND IMPLEMENTATION

#### **Input Design:**

The unprocessed data that is used to create output in an information system is called input. The input devices, such as PC, MICR, OMR, etc., must be taken into account by the developers throughout the input design.

As a result, the system's output quality is determined by the quality of its intake. thoughtfully crafted input forms and screens have following properties —

- Effectively storing, recording, and retrieving information is just one example of how it could be used. Accurate completion is guaranteed.
- It should be simple to fill out and easy to understand.
- Consistency, simplicity, and user attention should be its main priorities.
- All of these goals are attained by applying an understanding of fundamental design principles concerning It ensures proper completion with accuracy.

#### **Output Design:**

Developers choose the necessary output types, report layout prototypes, and output controls during output design.

#### **Objectives of Output Design:**

The objectives of input design are:

- To create output designs that fulfill requirements and prevent output that isn't needed.
- To create an output design that satisfies the needs of the final user.
- To provide the correct amount of output.
- To prepare the output in the proper format and send it to the correct individual.
- To provide timely access to the output so that wise decisions can be made.

#### **6.1 UML DIAGRAMS**

Unified Modelling Language is known as UML. An industry-standard general-purpose modelling language used in object-oriented software engineering is called UML. The Object Management Group developed and oversees the standard.

The intention is for UML to spread as a standard language for modeling object-oriented software. The two main parts of UML as it exists now are a notation and a meta-model. In the future, UML may also include other processes or methods that are connected to it. A common language for business modeling and other non-software systems, as well as for defining, visualizing, building, and documenting software system artifacts, is called Unified Modelling Language.

The UML is an assembly of top engineering techniques that have been successfully applied to the modeling of complicated and sizable systems.

Creating objects-oriented software and the software development process both heavily rely on the UML. The UML primarily expresses software project design through graphical notations.

#### **GOALS:**

The Primary goals in the design of the UML are as follows:

- 1. Give users access to an expressive, ready-to-use visual modeling language so they can create and share valuable models.
- 2. To expand the fundamental ideas, offer tools for specialization and extendibility.
- 3. Be unaffected by specific development processes or programming languages.
- 4. Offer a structured foundation for comprehending the modeling language.
- 5. Promote the market expansion for OO tools.
- 6. Encourage the use of higher level development ideas like components, frameworks, partnerships, and patterns.
- 7. Combine the finest techniques.

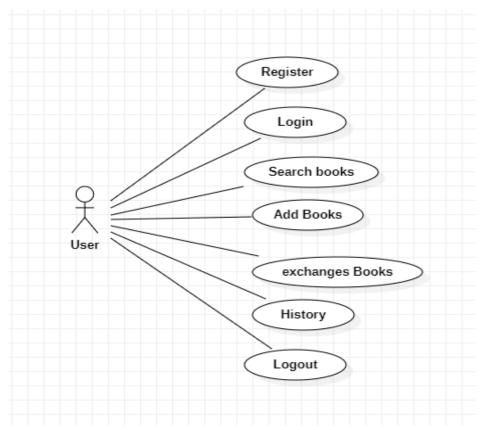
#### **USE CASE DIAGRAM**

Definition: A use case diagram is a kind of behavioral diagram in the Unified Modeling Language (UML). It is produced by use-case analysis and offers a graphic representation of the features of a system. Actors, their objectives (represented as use cases), and any

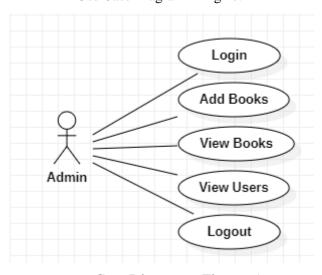
interdependencies among those use cases are all included in this.

 Use case diagrams are primarily used to show the many roles that a system plays for various players. The roles that actors play inside the system are graphically represented.

Said another way, a use case diagram clarifies the kinds of tasks that different users or actors can have a system accomplish. It illustrates how these behaviors relate to the various roles that users may play inside the system.



Use Case Diagram Fig no:4

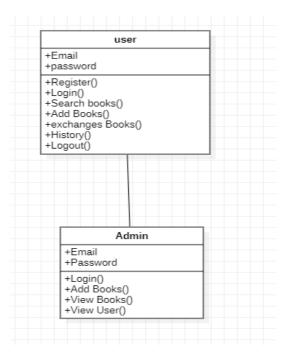


Use Case Diagram Fig no :5

#### **CLASS DIAGRAM**

Definition: A class diagram in software engineering is a form of diagram that displays a system's structure using the Unified Modeling Language (UML). It emphasizes on the classes that make up the system, describing their properties, functions, and relationships with one another.

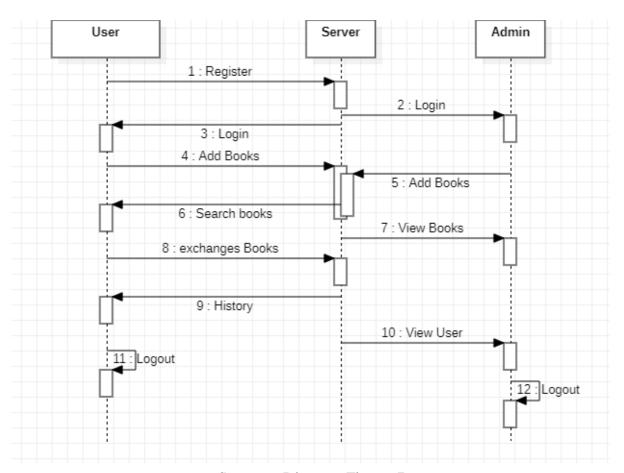
Purpose: The main goal of a class diagram is to explain how information is organized within different classes. It visually represents the building blocks of the system and how they are connected



Class Diagram Fig no :6

#### **SEQUENCE DIAGRAM**

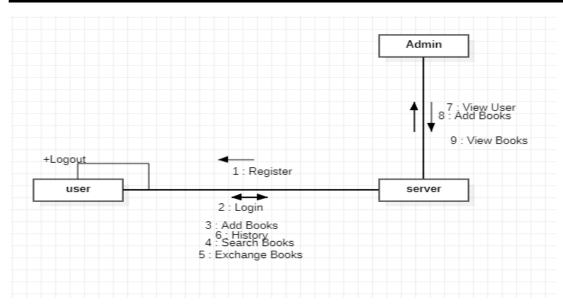
Inside the context of Unified Modeling Language (UML), a sequence diagram functions similarly to a visual storyteller, illuminating the relationships between various operations inside a system and the chronological order in which they transpire. Consider it as a live picture taken from a message sequence diagram. These diagrams, which are sometimes referred to as timing diagrams, event scenarios, or event diagrams, offer an overview of how activities and events unfold in a certain order. In essence, it is a means of showcasing the dance of processes inside a system, demonstrating their linkages and order in a comprehensible and organized fashion.



Sequence Diagram Fig no :7

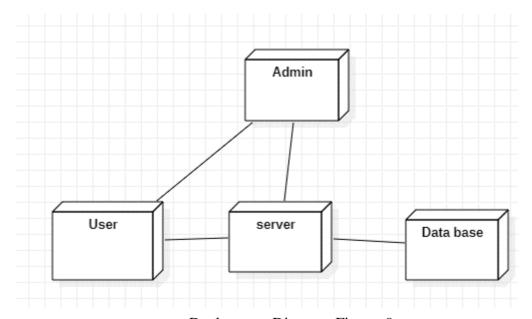
#### **COLLABORATION DIAGRAM:**

The method call sequence in a cooperation diagram is denoted by a numbering scheme, as seen below. The sequence of the approaches is indicated by the number. The order management system that we are using to explain the cooperation diagram is the same one. The calls to the methods are akin to those in a sequence diagram. The cooperation diagram, on the other hand, depicts the object structure, but the sequence diagram does not explain it.



Collaboration Diagram Fig no :8

#### **DEPLOYMENT DIAGRAM**

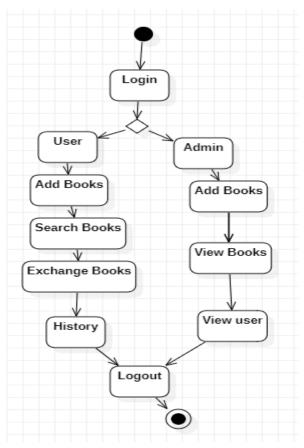


Deployment Diagram Fig no:9

#### **ACTIVITY DIAGRAM:**

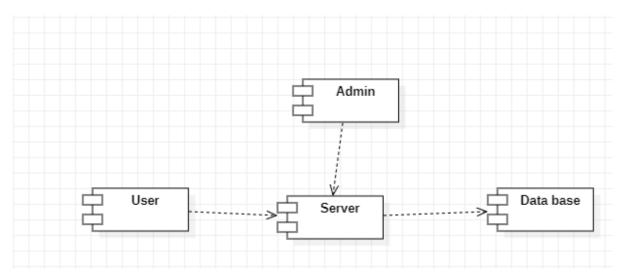
Activity diagrams serve as visual guides that represent step-by-step workflows, illustrating various activities and actions within a system. These diagrams, part of the Unified Modeling Language (UML), are particularly handy for depicting complex processes with elements like decision points, repetitive tasks, and simultaneous activities. Imagine it as a roadmap showcasing the journey of activities within a system.

Activity diagrams are essential in the UML world for explaining the business and operational processes of various system components. They provide a comprehensive view of how these components interact and carry out their tasks. Unlike other diagrams, an activity diagram doesn't just focus on the intricate details but offers a high-level overview, showing the overall flow of control within the system. It's like capturing the big picture of how activities unfold i a visually intuitive manner.



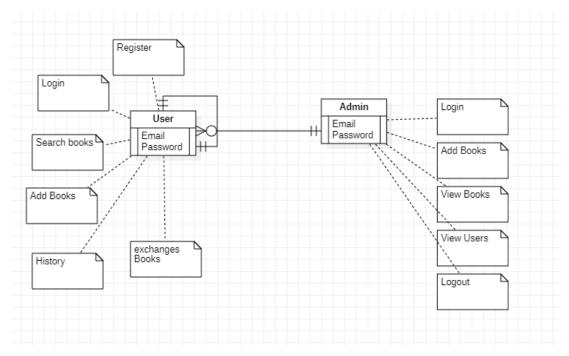
Activity Diagram Fig no :10

#### **COMPONENT DIAGRAM:**



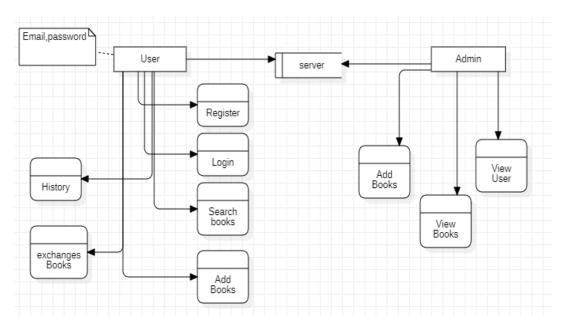
Component Diagram Fig no:11

#### **ER DIAGRAM:**



ER Diagram Fig no :12

## **Data Flow Diagram**



Data Flow Diagram Fig no :13

## 7.TIMELINE FOR EXECUTION OF PROJECT

	2023				2024
Review 0	Planning				
Review 1		Research			
Review 2			Design		
Review 3				Implementation	
Final Review					Design

#### 7. OUTCOMES

Increased Knowledge Exchange: The development of the Android application will lead to a significant increase in knowledge exchange among avid book readers. Users will have a platform to share their insights, recommendations, and experiences, fostering a culture of continuous learning and intellectual growth.

Community Building: The application will facilitate the formation of a vibrant community of book enthusiasts. Users with diverse reading interests will connect, share, and borrow books, creating a supportive network that transcends geographical constraints.

Enhanced Accessibility: The digital platform will address the challenge of limited accessibility to certain publications by providing users with a wider range of books available for sharing. This will enable readers to explore a diverse array of books that may not have been easily accessible through traditional means.

Cost-effective Reading: Readers will benefit from a cost-effective reading experience as the platform encourages sharing and borrowing, reducing the need for constant book purchases. This financial relief will make literature more accessible to a broader audience.

Seamless Book Circulation: The application will overcome the constraints of offline book sharing by leveraging mobile networks. Users can track the status and location of shared books, ensuring a more seamless and widespread circulation, thus maximizing the impact of knowledge dissemination.

Diverse Reading Repertoire: Readers will have the opportunity to expand their reading repertoire by discovering books recommended by like-minded individuals. The recommendation features and diverse range of shared books will contribute to a more enriched and varied reading experience.

Establishment of a Reading Ecosystem: The Android application will fill the void in the reading ecosystem by providing a centralized platform for book enthusiasts. This will contribute to the establishment of a dynamic reading ecosystem where users actively participate in knowledge sharing, collaboration, and community engagement.

Fostering a Culture of Sharing: The project aims to cultivate a culture of knowledge sharing among readers. By encouraging users to share their books and experiences, the application will contribute to the creation of a supportive and collaborative environment within the reading community.

#### 8. SYSTEM TEST

#### **Testing Scenarios:**

#### **Sign-up Authentication:**

ID for Test Case: #CVD001

Steps in the Test:

Go to the registration page.

Enter your username, password, mobile number, email address, and location.

Press the register button.

Requirements: User information is accessible.

Test Data:

Username

Password

Mobile

Email

Location

Expected Result: User data should be successfully stored in the database.

Actual Result: As Expected,

**Test Status:** Pass

**Login Authentication:** 

Test Case ID: #CVD002

Prerequisites: User data (Username, Password) is available.

**Test Data:** 

Username

Password

**Expected Result:** User data should be authenticated successfully.

**Actual Result:** As Expected

**Test Status:** Pass

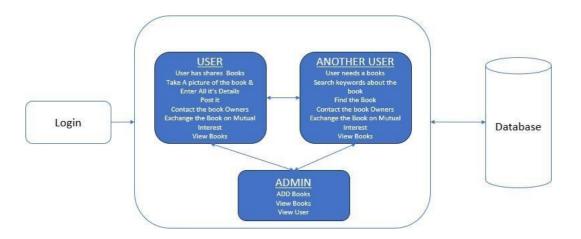
#### 9. IMPLEMENTATION AND RESULTS

## 9.1 Modules

#### **Module And Functionalities**

- User: Used by people to share hardcopies of books with each other. The user can register first after that need to login and add the books and exchange books each other.
- Admin: Admin will login with his email and password. He can add books and view Books and he can View User.

#### **Architecture:**



Architecture Fig no:14

#### 10. CONCLUSION:

The novel concept of private shared books, rooted in the combination of "Internet + books," is a revolutionary force in the dynamic environment of China's quickly growing sharing economy. This innovative method of reading books combined with the power of large data on the Internet presents a revolutionary idea: the temporary transfer of book use rights. This not only transforms the reading experience, but it also positively impacts society as a whole in real ways. Redefining old rules for Chinese readers, one of the notable effects of this transformation is the significant reduction in reading expenses. The reading environment has changed significantly from its historical limitations, which included things like difficult loaning and returning books, expensive book costs, and restricted book availability. These obstacles have been effectively removed by the private shared books system, ushering in a time where people are no longer constrained by scarcity, finances, or practical difficulties when they want to read.

#### 11. FUTURE ENHANCEMENT:

Global Bookcrossing Network: Expand the application to create a global bookcrossing network, allowing users to connect with readers worldwide, diversifying the pool of available books and fostering international knowledge exchange. In-App Book Reviews and Recommendations: Integrate a feature where users can leave reviews for the books they've read, helping others make informed decisions. Implement an algorithm for personalized book recommendations based on individual reviews and preferences. Digital Lending Library: Introduce a digital lending library system, allowing users to temporarily share e-books securely. Implement a fair usage policy to balance lending and ensure the protection of authors' rights.

#### 13.REFERENCES:

- 1. Communication and Mobile Networks:
  - S. Misra and S. Mondal (2017). The effects of mobile communication technologies on society. 177(6), 1–5, International Journal of Computer Applications.
- 2. Bookcrossing and the Spread of Knowledge:
  - Hsu, M. H., and C. M. Chiu (2007). Online Bookcrossing: Book Trading as a Collaborative Knowledge Sharing Platform. Systems for Decision Support, 43(2), 372–382.
- 3. Smartphones and the Shift in Society:
  - M. Castells (2009). Oxford University Press, Communication Power.
- 4. Obstacles to Conventional Book Sharing:
  - L. M. Rosenblatt (1978). The Transactional Theory of the Literary Work: The Reader, the Text, the Poem. Southern Illinois University Press.
- 5. A Centralized Site for Fans of Books:
  - Lee, L., and Su, B. (2010). Social media platforms as Online Communities of Practice.
     112- 125 in Journal of Knowledge Management, 14(1).
- 6. Digital Channels for Information Sharing:
  - In 2005, Wasko, M. M., and Faraj, S. Why Am I Need to Share? An analysis of knowledge contribution and social capital in electronic networks of practice. 29 MIS Quarterly, 35–57.
- 7. An Android App for Book Sharing:
  - Rogers, Yulian (2006). Not so much as Weiser's Vision of Calm Computing: Interesting UbiComp Experiences. In Ubicomp 2006 Proceedings, 404–421.
- 8. Developing a Community for Android Applications:
  - Preece, J., and Nonnecke, B. (2003). Silent Participants: Getting to Know Lurkers Better. In CHI 2003 Proceedings, 110–117.
- 9. High book prices and problems with accessibility:
  - Merga (2017) M. K. A Literature Review on the Social and Economic Costs of Expensive Textbooks. 12(10): 587–597 in Educational Research and Reviews.
- 10. A Smooth Network for Book Sharing and Checkout:
  - In 2019, Kim, J., and Lee, J. A Structure for Smooth Content Distribution in Pervasive Settings. 747–761, Wireless Personal Communications, 106(2).

## APPENDIX-A PSUEDOCODE

	C* 1	
HCAT	nroti	Δ
-user	וועונו	ıc
	P	

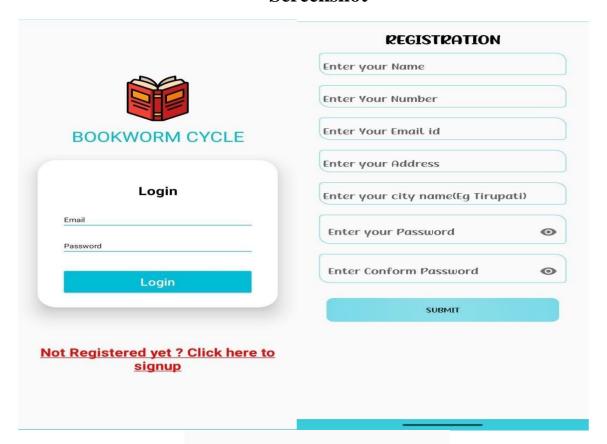
The details of the user

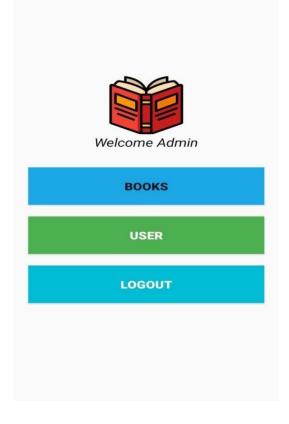
- 2. User Registration:
- 2.1 Heading as a Bookworm Cycle
- 2.2 Asks user to create an account or log in
- 2.3 If new user:
- 2.3.1 Collect user details (name, email, password)
- 2.3.2 Create user profile.
- 2.4 If existing user
- 2.4.1 Asks for login credentials
- 2.4.2 Validate credentials
- 2.5 Display Login
- 3. Main Menu:
- 3.1 Add Books:
- 3.1.1 Capture the picture of the book
- 3.1.2 Enter the name of the book
- 3.1.3 Enter Author name
- 3.1.4 Enter book Description
- 3.1.5 After entering all the book details click on Add Book
- 3.1.6 To check the books which are all added by you
- 3.2 Search Books
- 3.2.1 Enter the Book name which you want to request.

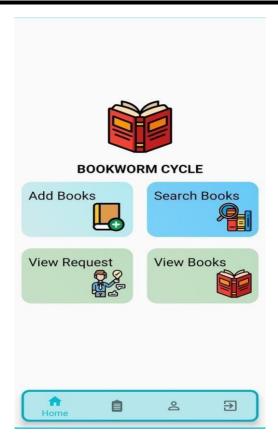
- 3.3 View Requests:
- 3.3.1 Shows the requests for the book which you have uploaded
- 3.4 View Books:
- 3.4.1 Shows the books which are added by the admin
- 4. User Dashboard
- 4.1 Home
- 4.2 History
- 4.3 User Profile
- 4.4 Logout
- 5. Update profile
- 5.1 The user details can be Updated
- 6. Book History:
- 6.1 Retrieves the request sent by the user for a particular book
- 6.2 Status of the book will be displayed

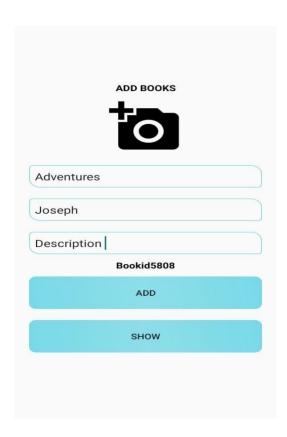
#### **APPENDIX-B**

## **Screenshot**



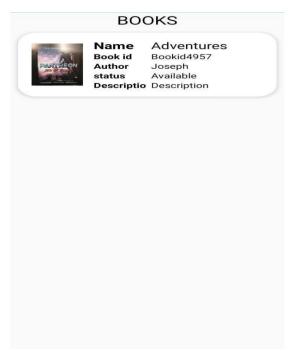












## CST3

ORIGIN	ALITY REPORT				
_	6% ARITY INDEX	11% INTERNET SOURCES	2% PUBLICATIONS	9% STUDENT F	PAPERS
PRIMAR	Y SOURCES				
1	kupdf.ne				4%
2	Submitte Anantap Student Paper	ed to JNTUA Co our	llege of Engine	eering,	1%
3	Submitte Student Paper	ed to Ravensbo	urne		1%
4		ed to Jawaharla ty Kakinada	l Nehru Techn	ological	<1%
5	lomimas Internet Source	exoguxi.weebly	y.com		<1%
6	royallib.				<1%
7	Submitte Enginee Student Paper	ed to Milwauke ring	e School of		<1%
8	docplaye	e	F0		<1%

34

Paper id: IJRAR\_280964 – Acceptance Notification and Review Result.

**TITLE - Book Worm Cycle.** 

Your Paper Accepted Complete Below Process and Publish it.

Your Email id: raju79972@gmail.com <u>Track</u> your paper : https://IJRAR.org/track.php?r\_id=280964



+916354477117



editor@ijrar.org



**IJRAR.org** 



International Peer Reviewed & Refereed Journals, Open Access Journal

ISSN: E-ISSN 2348-1269, P- ISSN 2349-5138 | Impact

factor: 7.17 | ESTD Year: 2014





Your manuscript with Registration/Paper ID: IJRAR\_280964 has been Accepted for publication in the IJRAR - INTERNATIONAL JOURNAL OF RESEARCH ANDANALYTICAL REVIEWS (IJRAR) | www.IJRAR.org | ISSN: E-ISSN 2348-1269, P- ISSN 2349-5138 | International Peer Reviewed & Refereed Journals, Open Access Online and Print Journal.

IJRAR Impact Factor: 7.17 | UGC Approved Journal No: 43602(19)

Check Your Paper Status: https://IJRAR.org/track.php

Your Paper Review Report:

Registration/Pap	er ID:	280964			
Title of the Pape	f the Paper: Book Worm Cycle		Book Worm Cycle		
Criteria:	Understanding and Illustrations	Text structure	Explanatory Power	Continuity	Detailing
Points out of 100%:	87%	89%	92%	93%	88%
Unique Contents: 87%			Paper Accepted: Yes		

Overall Assessment (Comments): Reviewer Comment Store in Online RMS System









































The Bookworm Cycle intertwines sustainable development with a continuous, cyclical process. Beginning with education and awareness, individuals evolve into "bookworms" by absorbing knowledge about sustainability. This newfound understanding translates into action, implementing sustainable practices at personal, community, and organizational levels. Following this, a crucial phase involves reflection, assessing impacts, and identifying areas for improvement.

The cycle emphasizes continuous learning and adaptation, symbolized by the evolving bookworm. Individuals and communities share experiences, fostering a collective commitment to sustainability. Advocacy for sustainable policies becomes integral, with bookworms influencing higher-level changes.

The cycle closes by highlighting the interconnected nature of sustainable development. The bookworm signifies a commitment to ongoing learning, acting, reflecting, and influencing. This holistic approach ensures a resilient and sustainable society, emphasizing the cyclical nature of positive change for the benefit of the present and future generations.