

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“JnanaSangama”, Belgaum -590014, Karnataka.



## MOBILE APPLICATION DEVELOPMENT REPORT on

## FLIP-EBOOK

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*Under the Guidance of*

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**Associate Professor, BMSCE**

*in partial fulfillment for the award of the degree of*

**BACHELOR OF ENGINEERING**

*in*

**COMPUTER SCIENCE AND ENGINEERING**



**B.M.S. COLLEGE OF ENGINEERING**

**(Autonomous Institution under VTU)**

**BENGALURU-560019**

**April-2024 to July-2024**

**B. M. S. College of Engineering,**  
Bull Temple Road, Bangalore 560019

(Affiliated To Visvesvaraya Technological University, Belgaum)

**Department of Computer Science and Engineering**



**CERTIFICATE**

This is to certify that the project work entitled “**FLIP**” carried out by **ASHNI GUPTA (1BM22CS057), GANASHREE C M (1BM22CS097) and C NEHA (1BM22CS074)** who are bonafide students of **B. M. S. College of Engineering**. It is in partial fulfillment for the award of **Bachelor of Engineering in Computer Science and Engineering** of the Visveswaraiiah Technological University, Belgaum during the year 2023-2024. The project report has been approved as it satisfies the academic requirements in respect of **Mobile Application Development (23CS4AEMAD)** work prescribed for the said degree.

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**B.M.S. COLLEGE OF ENGINEERING**  
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



***DECLARATION***

We, **C NEHA**(1BM22CS074), **GANASHREE C M**(1BM22CS097), **ASHNI GUPTA** (1BM22CS057), students of 4th Semester, B.E, Department of Computer Science and Engineering, B. M. S. College of Engineering, Bangalore, hereby declare that, this Mobile Application Development entitled "FLIP" has been carried out by us under the guidance of Laxmi Neelima, Assistant Professor, Department of CSE, B. M. S. College of Engineering, Bangalore during the academic semester April-2024 to July-2024

We also declare that to the best of our knowledge and belief, the development reported here is not from part of any other report by any other students.

Signature

Ashni Gupta (1BM22CS057)

C Neha (1BM22CS074)

Ganashree C M (1BM22CS097)

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## **Abstract**

"Flip" is a versatile ebook reader app designed to enhance the reading experience through integrated features. Users can seamlessly switch between reading ebooks and listening to corresponding audiobooks, offering flexibility and accessibility. The app provides a curated marketplace where users can discover and purchase books tailored to their interests, ensuring a personalized library experience. In addition to individual exploration, "Flip" fosters a community aspect with its chat functionality, enabling users to connect and discuss books with like-minded readers. This social dimension enhances engagement by facilitating conversations, recommendations, and sharing of insights within the app. With a user-friendly interface and robust features, "Flip" aims to redefine digital reading by combining traditional ebook functionalities with modern conveniences like audiobooks and social interaction, making it a comprehensive platform for all types of readers to explore, connect, and enjoy literature effortlessly.

# Introduction

## App Development for "Flip" Ebook Reader

Overview: Flip revolutionizes digital reading with an innovative mobile application designed to enrich the reading experience. The app combines traditional e-book functionality with modern features, offering users a seamless transition between reading e-books and listening to corresponding audiobooks.

### **User Experience:**

#### **1. Reader:**

- Library Management: Easily organize and access ebooks and audiobooks.
- Reading Modes: Switch effortlessly between reading and listening modes.
- Purchase and Discovery: Browse, purchase, and discover new titles tailored to personal interests.

#### **2. Community Interaction:**

- Social Integration: Engage in discussions and connect with fellow readers through chat features.
  - Recommendation System: Receive personalized book recommendations based on reading preferences.
  - User Profiles: Create and manage profiles to share insights and interests with the community.
- Flip aims to redefine digital reading by providing a comprehensive platform that enhances accessibility, engagement, and personalization for all book enthusiasts.

# Hardware and Software Requirements

## 2.1 Hardware Requirements

**Processor:** Modern processors (e.g., Apple A-series for iOS devices, Qualcomm Snapdragon for Android devices) capable of handling complex computations and rendering smooth user interfaces.

**Storage:** Devices should have sufficient internal storage to install the app and store cached data, preferences, and offline content. Recommend devices with 32GB or more of storage capacity for better user experience.

**Connectivity:** Support for Wi-Fi and mobile data (3G/4G/5G) connectivity for accessing real-time data, processing transactions, and syncing with backend servers.

**Real-time Data Integration:** Integrate with third-party APIs (e.g., airlines, hotels, booking systems) to fetch real-time data on flights, hotel availability, tour packages, and pricing. Ensure accurate and up-to-date information for users.

**Payment Gateway Integration:** Facilitate secure online transactions for booking travel services. Integrate with payment gateways to support various payment methods and ensure smooth and secure payment processing.

**GPS and Location Services:** Devices equipped with GPS capabilities for accurate location tracking, geolocation-based services, navigation, and proximity-based notifications. This is crucial for features like mapping and itinerary planning.

## 2.2 Software Requirements

These following software requirements are crucial for developing a robust and feature-rich travel app like Travel Go using Flutter. They ensure seamless integration of functionalities, real-time data updates, secure user interactions, and optimal performance across both iOS and Android platforms.

**Flutter SDK:** Utilize the latest stable version of Flutter SDK, which includes the Flutter framework and Dart programming language. Ensure compatibility with both iOS and Android platform.

**Integrated Development Environment (IDE):** Use popular IDEs such as Android Studio with Flutter plugin, IntelliJ IDEA, or Visual Studio Code for development, debugging, and testing of Flutter applications.

**Third-Party APIs:** Integrate third-party APIs for accessing real-time travel data such as flight schedules, hotel availability, and booking services. Examples include airline APIs, hotel booking APIs, and location-based services like Google Maps API for mapping and geolocation functionalities.

**State Management:** Implement efficient state management solutions provided by Flutter, such as Provider, River pod, or Bloc pattern with Flutter Bloc library. Ensure smooth data flow and synchronization across different screens and widgets within the app.

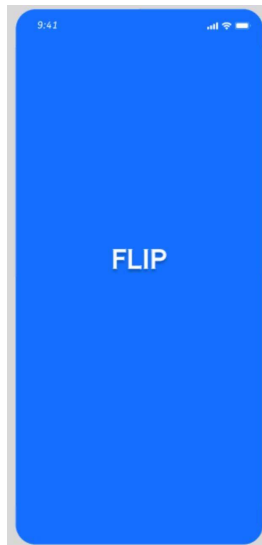
**Firebase or Backend Service:** Integrate Firebase or another backend service for user authentication, real-time data synchronization, and cloud storage. Use Firebase Firestore or Realtime Database for storing user data, booking information, and preferences.



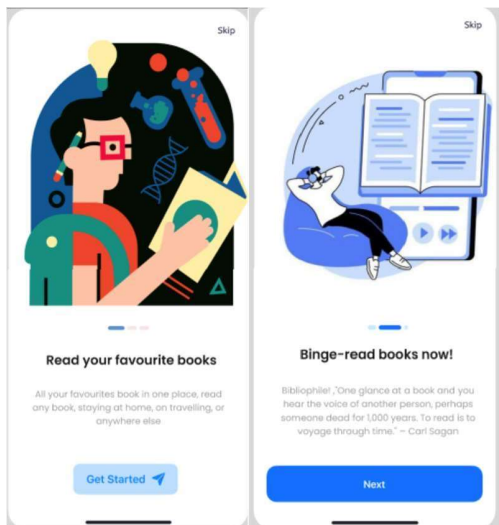
## Chapter 3

### Design Layouts: Screen Shots of Mobile App

**First Page Fig:1.1**



**Get Started Fig:1.2**



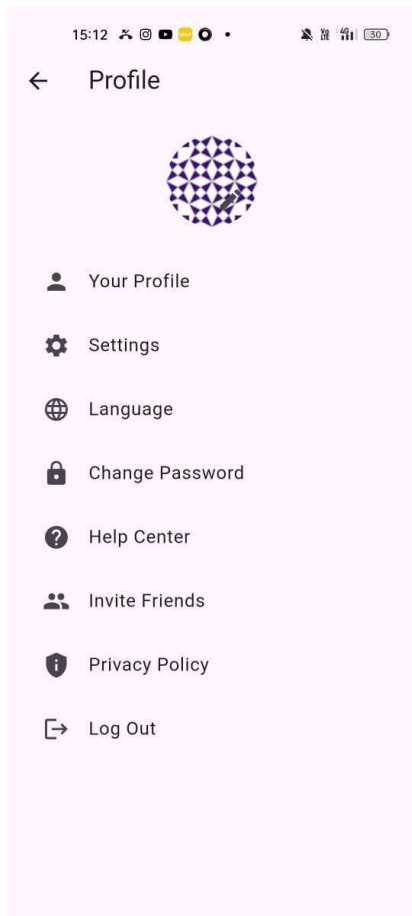
## Sign in, Sign up Fig:1.3

The image displays two side-by-side mobile app screens. The left screen is titled "Sign in now" with the subtitle "Please sign in to continue our app". It features three input fields: "Enter your Email-ID", "Enter your Number", and "Enter your password" (with a toggle icon). Below these is a "Forgot Password?" link, a blue "Sign In" button, a grey "Sign In with Google" button, and a link "Don't have an account? Sign up". The right screen is titled "Sign up now" with the subtitle "Please fill the details and create account". It features three input fields: "Enter your Name", "Enter your Email-ID", and "Enter your password" (with a toggle icon). Below these is a grey "Sign Up" button, a white "Sign In with Google" button, and a link "Don't have an account? Sign up". Both screens have a back arrow in the top left corner and status bars at the top.

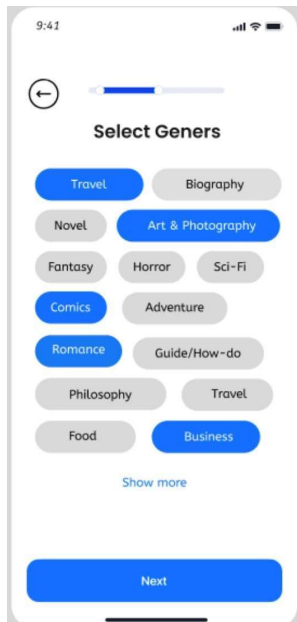
## Forgot Password Fig:1.4

The image shows a mobile app screen titled "Reset Password" with the subtitle "Enter your email to receive a password reset link". It features a single input field labeled "Enter your email" and a blue "Reset Password" button. The screen has a back arrow in the top left corner and a status bar at the top.

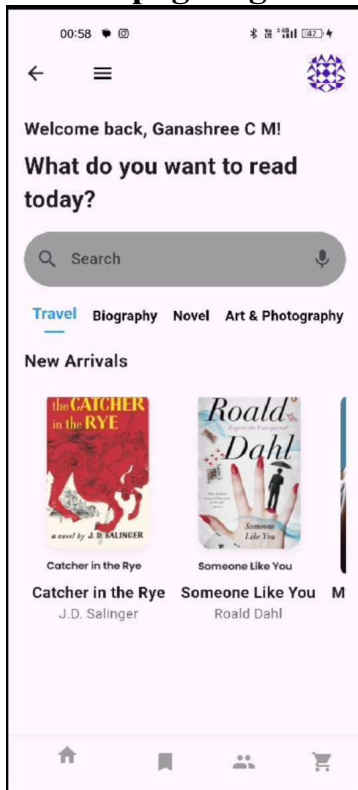
## Profile Fig:1.5



Genres Fig:1.6



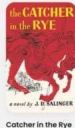
Home page Fig:1.7



## Read book Fig:1.8

15:12

← Book Detail



**Catcher in the Rye**  
J.D. Salinger  
★★★★☆ 4.0

**About the author**  
J.D. Salinger was an American writer, best known for his 1951 novel *The Catcher in the Rye*. Before its publication, Salinger published several short stories in *Story* magazine.

**Overview**  
The *Catcher in the Rye* is a novel by J. D. Salinger, partially published in serial form in 1945-1946 and as a novel in 1951. It was originally intended for adults but is often read by adolescents for its theme of angst, alienation, and as a critique of superficiality in society.

[Read Preview](#)[+ Add to Cart](#)

15:13

The Catcher in the Rye

CHAPTER-1 :

If you really want to hear about it, the first thing you'll probably want to know is where I was

born, an what my lousy childhood was like, and how my parents were occupied and all before

they had me, and all that David Copperfield kind of crap, but I don't feel like going into it, if you

want to know the truth. In the first place, that stuff bores me, and in the second place, my parents

would have about two hemorrhages apiece if I told anything pretty personal about them. They're

quite touchy about anything like that, especially my father. They're nice and all-- I'm not saying

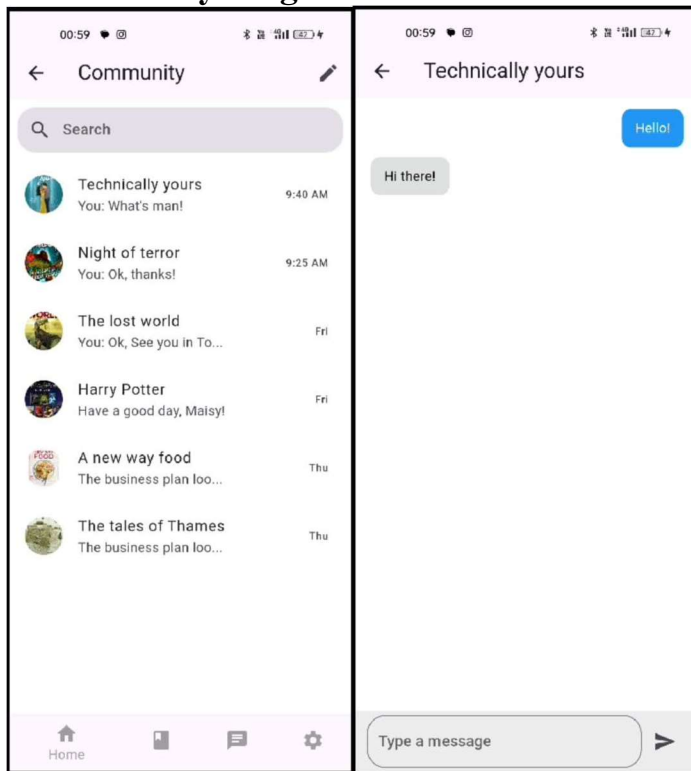
that--but they're also touchy as hell. Besides, I'm not going to tell you my whole goddam

autobiography or anything. I'll just tell you about this madman stuff that happened to me around

last Christmas just before I got pretty run-down and had to come out here and take it easy. I mean

that's all I told D.B. about, and he's my brother and all. He's in Hollywood. That

## Community Fig:1.9



## Cart-Payment Fig:1.10

←

Your bag

Catcher in the Rye

J.D. Salinger

Rs250

— 1 +

Total

Rs250.0

Checkout

20:47

📶

🔋

←

Payment

Payment Details

Card Number

Expiry Date

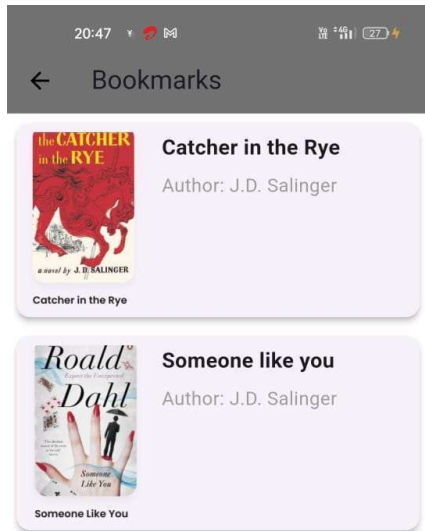
CVV

Card Holder Name

Pay Rs.250

11

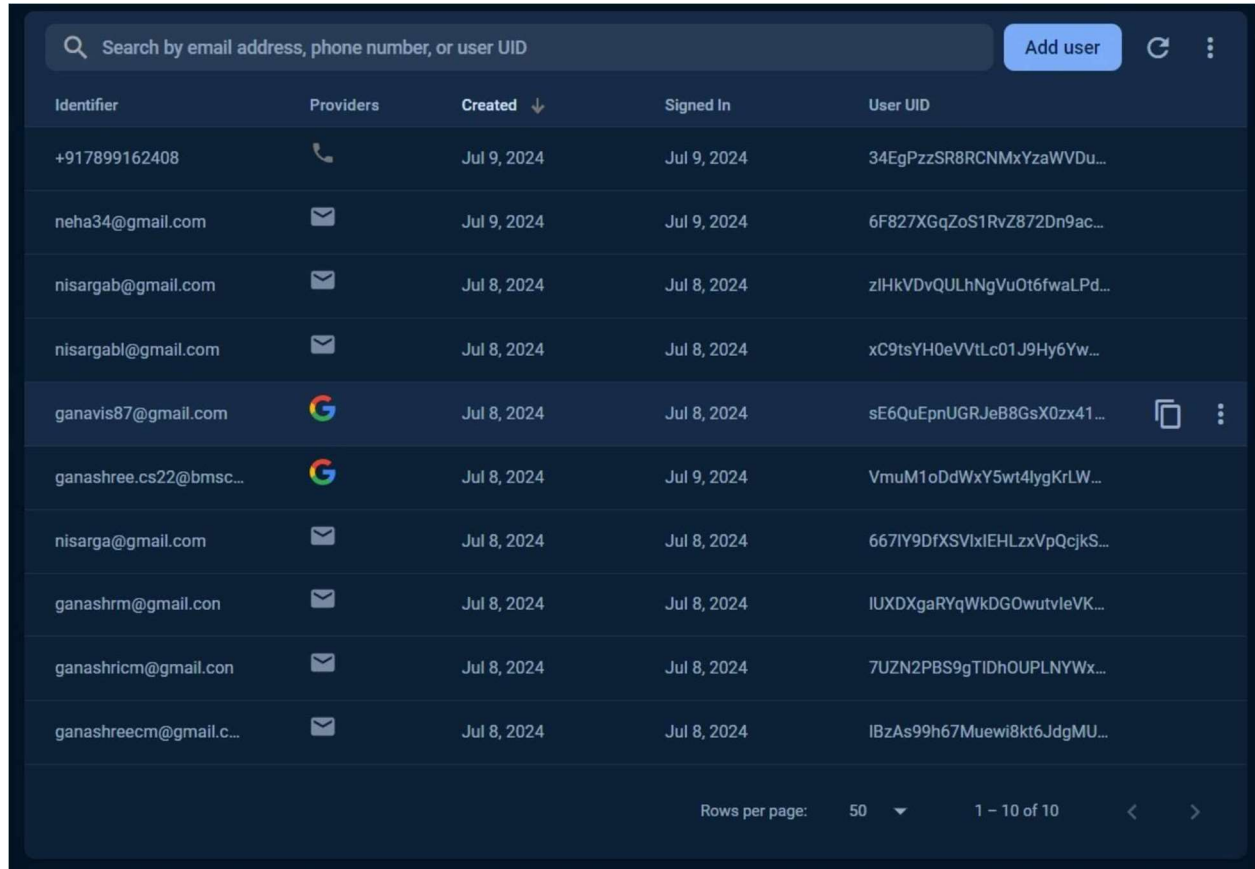
## BOOKMARK Fig:1.11





## Database Table Screen shots

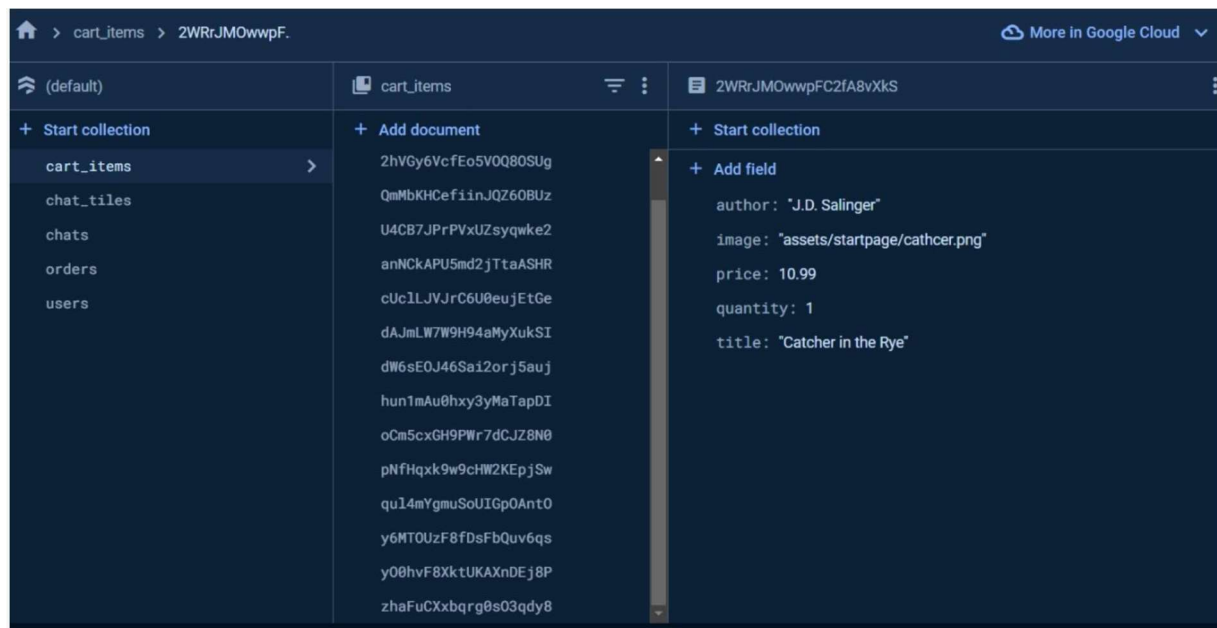
### Database Tables



The screenshot displays a web interface for a database table. At the top, there is a search bar with the placeholder text "Search by email address, phone number, or user UID" and a blue "Add user" button. To the right of the search bar are icons for refresh and a menu. Below the search bar is a table with five columns: "Identifier", "Providers", "Created", "Signed In", and "User UID". The table contains ten rows of data. The "Providers" column uses icons to represent different providers: a phone icon for phone numbers, an envelope icon for email addresses, and a Google 'G' logo for Google accounts. The "Created" and "Signed In" columns show dates in "Jul 8, 2024" or "Jul 9, 2024" format. The "User UID" column contains long alphanumeric strings. The row with the identifier "ganavis87@gmail.com" is highlighted in blue and has a copy icon and a menu icon to its right. At the bottom of the table, there is a pagination bar showing "Rows per page: 50" and "1 - 10 of 10", along with navigation arrows.

Identifier	Providers	Created ↓	Signed In	User UID
+917899162408	📞	Jul 9, 2024	Jul 9, 2024	34EgPzzSR8RCNMxYzaWVDu...
neha34@gmail.com	✉️	Jul 9, 2024	Jul 9, 2024	6F827XGqZoS1RvZ872Dn9ac...
nisargab@gmail.com	✉️	Jul 8, 2024	Jul 8, 2024	zIHkVDvQULhNgVuOt6fwaLPd...
nisargabl@gmail.com	✉️	Jul 8, 2024	Jul 8, 2024	xC9tsYH0eVVtLc01J9Hy6Yw...
ganavis87@gmail.com	🌐	Jul 8, 2024	Jul 8, 2024	sE6QuEpnUGRJeB8GsX0zx41...
ganashree.cs22@bmcs...	🌐	Jul 8, 2024	Jul 9, 2024	VmuM1oDdWxY5wt4lygKrlW...
nisarga@gmail.com	✉️	Jul 8, 2024	Jul 8, 2024	667IY9DfXSVIxIEHLzxVpQcjkS...
ganashrm@gmail.con	✉️	Jul 8, 2024	Jul 8, 2024	IUXDXgaRYqWkDGOwutvleVK...
ganashricm@gmail.con	✉️	Jul 8, 2024	Jul 8, 2024	7UZN2PBS9gTIDhOUPLNyWx...
ganashreecm@gmail.c...	✉️	Jul 8, 2024	Jul 8, 2024	IBzAs99h67Muewi8kt6JdgMU...

**Fig:2.1**



**Fig:2.2**

## ER Diagram

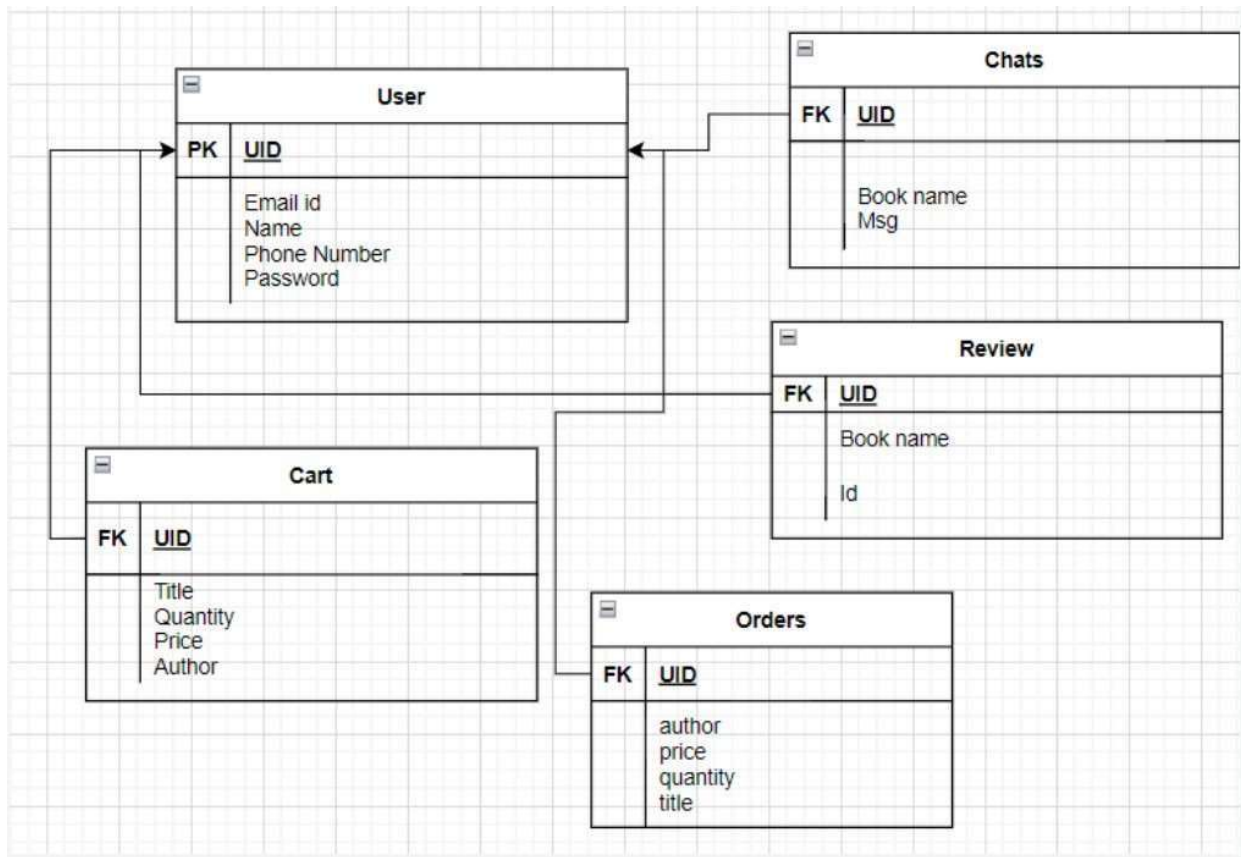


Fig 3.1: ER diagram of FLIP Database

## Chapter 5

### Conclusion and Future Work

#### **Conclusion:**

Flip reimagines the ebook reader experience by integrating seamless transitions between reading and listening modes, empowering users to explore and enjoy literature effortlessly. With robust library management, personalized recommendations, and vibrant community engagement, Flip fosters a dynamic reading environment. Whether discovering new titles, connecting with like-minded readers, or enhancing accessibility through audiobooks, Flip offers a holistic approach to digital reading. Emphasizing convenience and social interaction, Flip is poised to enrich the reading journey for users worldwide, making it a preferred choice for both avid readers and newcomers to the digital book landscape.

#### **Future Work:**

Looking ahead, Flip envisions several enhancements and expansions to further elevate the digital reading experience.

1. **Enhanced Personalization:** Implementing advanced algorithms to refine book recommendations based on user preferences, reading history, and community interactions. This will ensure tailored suggestions that resonate deeply with each user's interests.
2. **Interactive Reading Features:** Introducing innovative features such as annotations, bookmark sharing, and real-time collaborative reading sessions. These additions will promote deeper engagement and foster interactive discussions among readers.
3. **AI-Powered Insights:** Utilizing artificial intelligence to analyze reading habits and

provide insightful analytics. This will help users track their reading progress, identify trends in their preferences, and discover new genres or authors.

4. Expanded Community Features: Strengthening community engagement with virtual book clubs, author Q&A sessions, and live discussion forums. These initiatives will create a vibrant community where readers can connect, exchange ideas, and expand their literary horizons.

5. Integration with Educational Platforms: Partnering with educational institutions to integrate Flip into curriculum materials. This will support students in accessing digital textbooks, supplementary readings, and interactive learning resources.

6. Accessibility Improvements: Continuing to enhance accessibility features for users with disabilities, ensuring that everyone can enjoy the benefits of digital reading without barriers.

7. Global Expansion: Expanding Flip's reach to new markets and languages, thereby broadening access to diverse literary content and fostering a global community of readers.

8. Enhanced Security Measures: Implementing robust security protocols to safeguard user data, transactions, and interactions within the app, ensuring a secure and trusted environment for all users.

## References

- Flutter Documentation.
- Pub.Dev
- Firebase Documentation
- [https://youtu.be/FkFvQ0SaT1I?si=8RZ\\_sxTku2uy7p43](https://youtu.be/FkFvQ0SaT1I?si=8RZ_sxTku2uy7p43)
- <https://youtu.be/gnbhFImcSv0?si=NsnYe5HgQMZmhh0>
- [https://youtu.be/QieFszQSI?si=HP1Y2oul\\_XO-5iOw](https://youtu.be/QieFszQSI?si=HP1Y2oul_XO-5iOw)
- <https://youtu.be/4wOf50R2P9o?si=KuBkbH7srh4g5IM9>