

BoiiMela : A Book Selling App

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Roll: 203313-21-0017 | Reg: 313-1111-0301-20

Roll: 203313-21-0036 | Reg: 313-1111-0352-20

In fulfillment of the award of the degree of

Bachelor of Science(Honors)

In

Computer Science (Hons)

Subject - CMSA

Paper - CC-13-P & CC-14-P

Under the supervision of

Prof. Kajari Bhattacharjee

And

Prof. Sonali Gupta

Gurudas College

Department of Computer Science

University of Calcutta

CERTIFICATE

This is to Certify that the research project entitled

BoiiMela : A Book Selling App

Is a bona fide record of work done by Saqib Javed (Roll : 203313-21-0031,Reg : 313-1111-0337-20) ; Gourab Nandi (Roll : 203313-21-0017,Reg : 313-1111-0301-20) ; Swarnadeep Roy (Roll : 203313-21-0036,Reg : 313-1111-0352-20) of under our supervision is fulfillment of the requirements for the award of Degree of Bachelor of Science(Honors) with specialization in Computer science from Gurudas College , university of Calcutta in the year 2023 , at the examination under CBCS semester system.

Prof. Kajari Bhattacharjee

Prof. Sonali Gupta

Project Guide

Project Guide

Department of
Computer Science

Department of
Computer Science

(Gurudas College, C.U.)

(Gurudas College, C.U.)

Prof. Kajari Bhattacharjee

Head of Department

Department of Computer Science

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Date :

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First and foremost, we like to thank our supervisors of this project, Prof. Kajari Bhattacharjee and Prof. Sonali Gupta, for this valuable time and guidance.

We would also like to thank you for providing a good environment and facilities to work on this project.

Saqib Javed

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Abstract:

The abstract concept behind our application is to create a dynamic and inclusive book community that fosters the joy of reading, connects book lovers, and promotes sustainable book circulation. Our application serves as a digital marketplace where users can seamlessly buy and sell books, unlocking hidden literary treasures and ensuring every book finds a new reader. By leveraging technology and user-centric design, our platform aims to revolutionize the way books are discovered, exchanged, and enjoyed.

At its core, our application embodies the values of accessibility, convenience, and community. It provides a user-friendly interface that allows book enthusiasts to easily navigate through a diverse selection of books, connect with like-minded individuals, and engage in meaningful conversations about their favorite reads. By enabling users to buy and sell books with ease, we aim to empower individuals to explore new literary adventures and share their own beloved titles with others.

Furthermore, our application embraces the concept of sustainability by promoting the reuse and circulation of books. By facilitating the buying and selling of used books, we contribute to reducing waste and carbon footprint associated with book production. This aligns with our vision of creating a more environmentally friendly and economically viable approach to reading, where books are cherished and passed on from one reader to another.

In summary, our application embodies the abstract concept of a vibrant and inclusive book community that harnesses the power of technology to facilitate book buying, selling, and sharing. It aims to ignite the love for reading, foster connections among book enthusiasts, and promote sustainability in the world of literature.

Introduction:

- ❖ **Domain description** – This project is about buying and selling old books (new books also if users want to sell). Here our primary goal is to help you sell your nonessential books and buy the books you want at low cost. It works in a secure environment where a user can only buy or sell books if he/she is authenticated by the system. We tried to make it user friendly, so users can use this easily.
- ❖ **Motivation** – The motivation behind this project comes from our personal experience. As a computer science student we don't need our school arts books in the near future, it's only lying around and taking up space in the house. But my juniors in school need those books. By using this app students can buy those books from us. It is beneficial for both. Also our world just suffers a global pandemic. During that the whole world was under lockdown. That moment it was very hard to travel, let alone buy books. It also motivated us to create something that can help users get books without stepping outside.
- ❖ **Scope of the work** – Almost every person needs books at some point in their life. For buying those books they need to search different bookstores and different stores offer different prices for the same book. It is very time consuming and you also get tired from this process. This will help them to search books from their home and also negotiate the price with the seller. Rise of e-commerce in recent years.

Background/Review related work:

To ensure the success and uniqueness of our application, we conducted thorough research on existing websites and Android applications that offer similar functionalities. This research allowed us to understand the current market landscape, identify potential competitors, and gain insights into user expectations and preferences.

Our research process involved the following steps:

1. Identifying Target Audience: We defined our target audience, focusing on book lovers, readers, and individuals interested in buying and selling books. This helped us narrow down our research scope and understand the specific needs and requirements of our target users.
2. Online Research: We extensively researched various websites, forums, and online communities related to book buying and selling. We explored popular platforms and studied their features, user interfaces, and user reviews. This gave us a comprehensive understanding of the existing solutions available in the market.
3. App Store Analysis: We analyzed the Android app store, specifically looking for applications related to book trading, bookstores, and online marketplaces. We examined the top-rated apps, read user reviews, and evaluated their features, design, and overall user experience.
4. Competitor Analysis: We identified direct and indirect competitors in the market and conducted a detailed analysis of their offerings. We examined their strengths, weaknesses, unique selling points, and business models. This analysis helped us identify gaps and opportunities to differentiate our application.
5. User Feedback and Reviews: We paid close attention to user feedback and reviews of existing websites and applications. This provided valuable insights into user expectations, pain points, and areas that could be improved. We used this feedback to shape the features and user experience of our application.

By conducting this comprehensive research, we gained a deep understanding of the existing market landscape and user expectations. This knowledge guided our decision-making process, enabling us to develop a unique and user-centric application that addresses the specific needs of book enthusiasts in a more effective and innovative way.

Hardware requirements:

Requirement	Minimum Specification
Operating System	Android KitKat or above
RAM	Minimum 2GB
Storage	Sufficient storage space for the app installation and book data
Screen Size	Suitable for comfortable app usage and readability
Internet Connection	Required for accessing the app's features and content
Permissions	Appropriate permissions for accessing device features such as camera (for book image uploads), and network connectivity
Processor	Capable of handling the app's operations and performance efficiently
Battery	Adequate battery life to support app usage without frequent interruptions

Methodology:

Problem Formulation:

An Android application that enables users to buy and sell books serves as a practical solution in today's digital age. With the increasing popularity of smartphones and the convenience they offer, having an app specifically dedicated to book transactions makes the process more efficient and accessible. Users no longer need to rely solely on physical bookstores or online marketplaces; instead, they can browse, purchase, and sell books directly from their mobile devices.

The importance of such an application lies in its ability to provide convenience, choice, and cost-effectiveness to users. By consolidating numerous sellers and their inventory into one platform, users can easily search for specific books, explore different genres, and find rare or out-of-print editions. The app promotes competitive pricing, allowing users to compare prices from various sellers and potentially find better deals. Additionally, the app facilitates interactions between buyers and sellers, enabling direct communication, negotiation, and the exchange of information about book condition, editions, or additional details.

For sellers, the app offers a valuable opportunity to reach a wider audience without the need for a physical storefront. Individuals or small businesses can easily list their books, set their prices, and connect with potential buyers directly. This opens up new avenues for entrepreneurs, book enthusiasts, and collectors to monetize their collections or share their literary treasures with others.

What is BoiiMela app? (Patron's Corner)

The application is an Android mobile app specifically designed for users to buy and sell books. It provides a platform where individuals can list their books for sale and potential buyers can browse, search directly from their mobile devices. The app facilitates the entire communication between buyers and sellers.

The application allows users to create accounts, where they can set up profiles, manage their listed books. Users can search for books based on specific criteria such as title, author, genre, or keywords. The app presents search results with detailed book descriptions, pricing information.

In summary, the application is a mobile platform that streamlines the process of buying and selling books, providing users with a convenient and efficient marketplace to connect and exchange literature.

Advantages of Book selling and buying App:

- Convenience: The app provides a convenient platform for users to buy and sell books from the comfort of their mobile devices. They can browse, search, eliminating the need to visit physical stores or rely on desktop computers.
- Wide Selection: The application aggregates books from multiple sellers, offering users a vast and diverse selection to choose from. They can access a wide range of genres, authors, and editions, including rare or hard-to-find books that may not be readily available in local stores.
- Competitive Pricing: With multiple sellers competing on the platform, users can find competitive prices for books. This promotes cost-effectiveness and allows users to compare prices, potentially saving money on their purchases.
- Direct Communication: The app facilitates direct communication between buyers and sellers, enabling them to ask questions, negotiate prices, and exchange information about the books. This interaction adds a personal touch and helps users make informed decisions before making a purchase.
- Seller Opportunities: The application opens up opportunities for individuals and small businesses to sell their books to a wider audience. Sellers can reach potential buyers who may not have access to local bookstores, expanding their customer base and increasing sales potential.

Features of a Book selling and buying App:

- Search: The search feature allows users to search for specific books based on criteria such as title, author, genre, or keywords. It helps users quickly find the books they are interested in and browse through the available options.
- Chat: The chat feature enables direct communication between buyers and sellers. Users can send messages to sellers to ask questions, negotiate prices, or gather additional information about the books. This facilitates a personalized and interactive buying experience.

- Report: The report feature allows users to report any issues or concerns related to a particular book listing or user. This helps maintain the integrity of the platform by addressing any inappropriate or fraudulent activities and ensures a safe and reliable environment for users.
- Upload Book: The upload book feature enables users to list their books for sale. Sellers can provide details about the book, including title, author, condition, price, and a description. They can also upload images of the book to showcase its physical condition.
- User Profiles: The application can have user profiles where users can set up their accounts, manage their listed books, and view their transaction history. User profiles provide a personalized space for users to track their activities, update their contact information, and manage their preferences.

Key Functionalities:

- Browse and Search: Users can browse through a wide selection of old and new books available for purchase. They can search for specific books based on titles, authors, genres, or keywords to quickly find what they are looking for.
- Buy and Sell: The app allows users to buy books from sellers and sell their own books. Sellers can create listings by providing book details such as title, author, condition, price, and images.
- Chat and Communication: The app facilitates direct communication between buyers and sellers through a chat feature. Users can ask questions, negotiate prices, discuss book details, and arrange payment and delivery options within the app.
- Upload Book Images: Sellers can upload images of the books they are selling, providing buyers with visual representations of the books' condition and appearance.

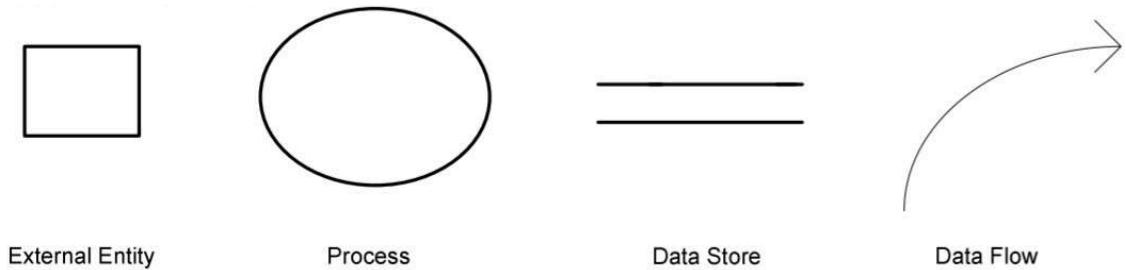
- Notifications: Users receive notifications for various activities, such as new messages, responses to inquiries. This keeps them informed and engaged throughout the buying and selling process.
- Reporting: The app includes a reporting feature that allows users to report any issues or suspicious activities related to book listings or user behavior. This helps maintain a safe and reliable marketplace for all users.
- User Profiles: The app provides user profiles where users can manage their listings, view transaction history, update personal information, and track their activities within the app.

Future updates:

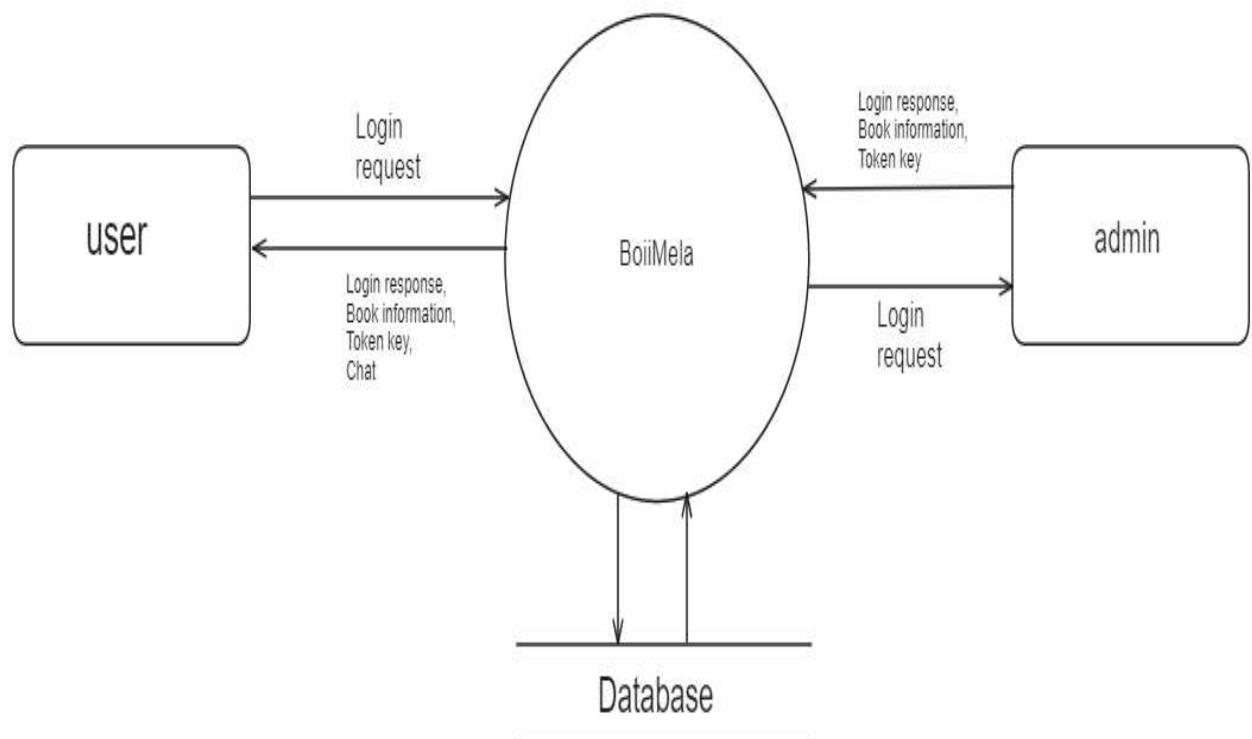
- Secure Payment Integration: Enhance the app's payment system by integrating secure and widely-used payment gateways. This ensures that user payment information is protected and transactions are conducted securely.
- Location-Based Features: Implement location-based features such as geolocation services to enhance the user experience. This could include displaying books available for sale in the user's vicinity or providing location-based search filters to find books within a specific area.
- User Authentication and Authorization: Strengthen the app's security by implementing robust user authentication and authorization mechanisms. This ensures that only authorized users can access certain features, and their personal and financial information remains protected.
- Advanced Search and Filtering: Enhance the search functionality by adding advanced filters and sorting options. This allows users to refine their search results based on specific criteria such as price range, condition, location, or seller rating.
- Wishlist and Notifications: Expand the wishlist feature to include notifications when desired books become available for sale or when prices drop. This helps users stay informed about their preferred books and enables timely purchases.

- Social Media Integration: Integrate social media platforms to enable users to share book listings, recommend books to their friends, or connect with other users who share similar reading interests. This helps in expanding the app's user base and fostering a community of book enthusiasts.
- Enhanced Seller Verification: Implement a system to verify and validate seller profiles, ensuring that users can trust the authenticity and reliability of sellers. This could involve verifying contact information, reviewing seller history, or implementing user feedback mechanisms.
- In-App Shipping Integration: Collaborate with shipping services to offer in-app shipping options. This simplifies the process for sellers to ship books to buyers, providing a seamless and convenient experience for both parties.
- User Ratings and Reviews: Expand the rating and review system to include feedback on the overall transaction experience, shipping time, and book quality. This helps users make more informed decisions and establishes transparency within the community.
- Performance Optimization and Bug Fixes: Continuously improve the app's performance, responsiveness, and stability by identifying and resolving any bugs or performance issues reported by users.

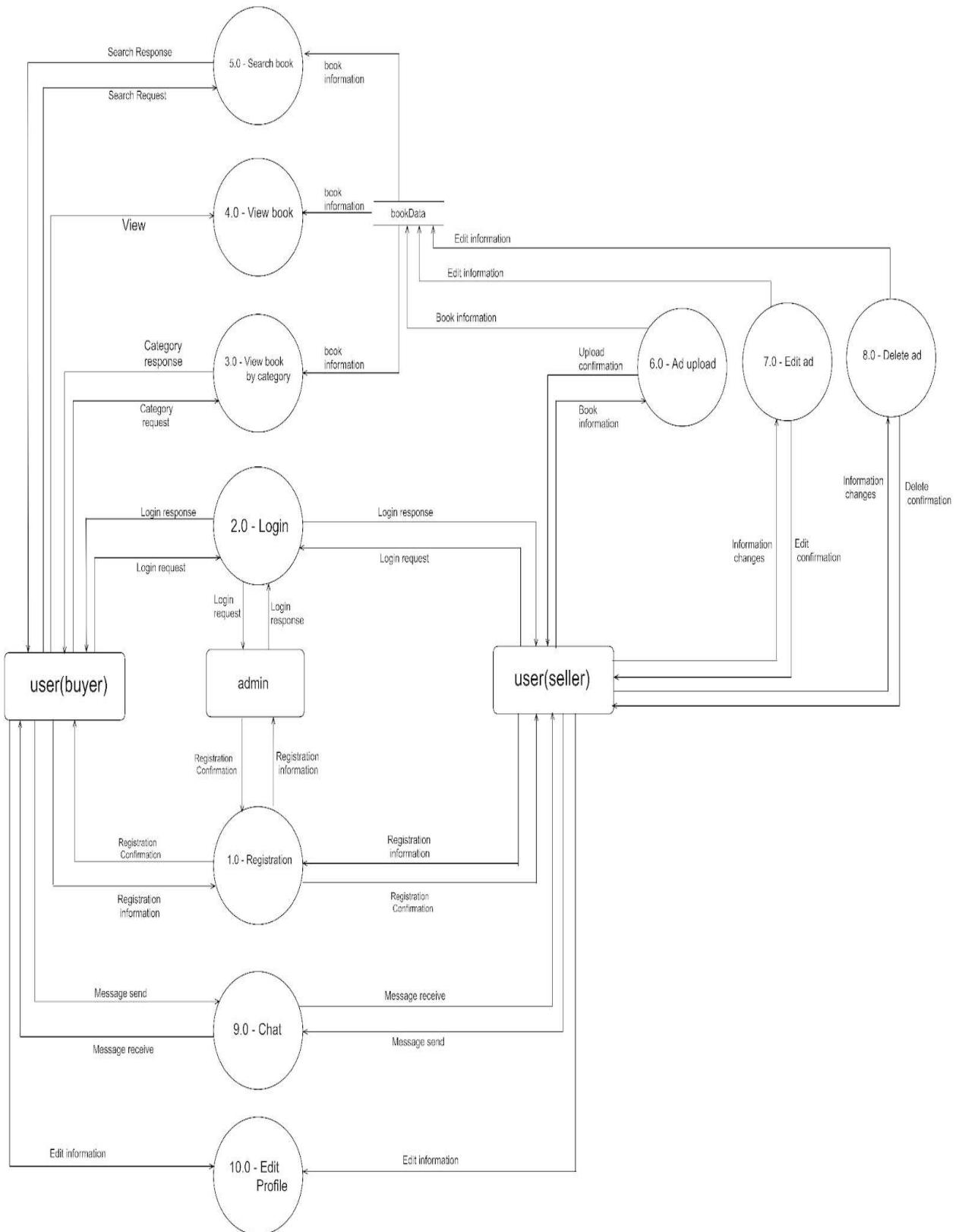
DFD:



Level 0

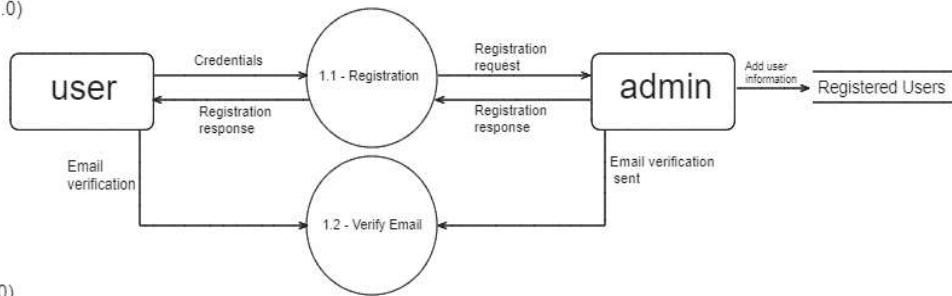


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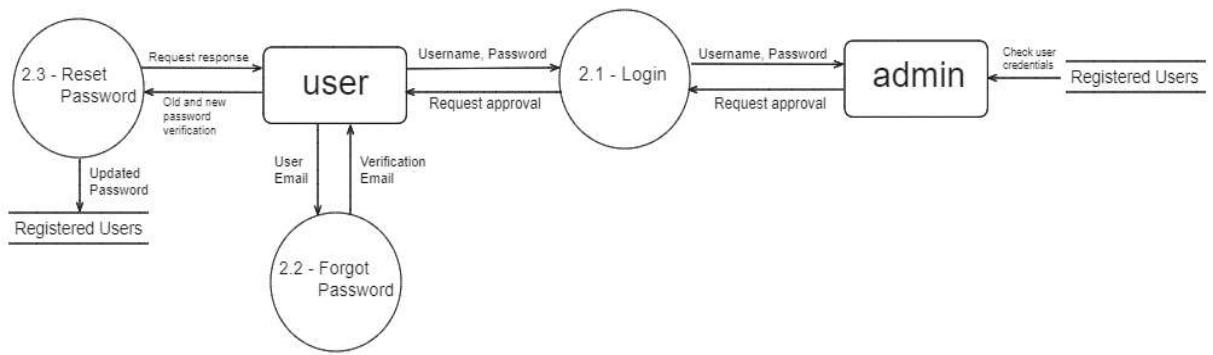


Level 2:

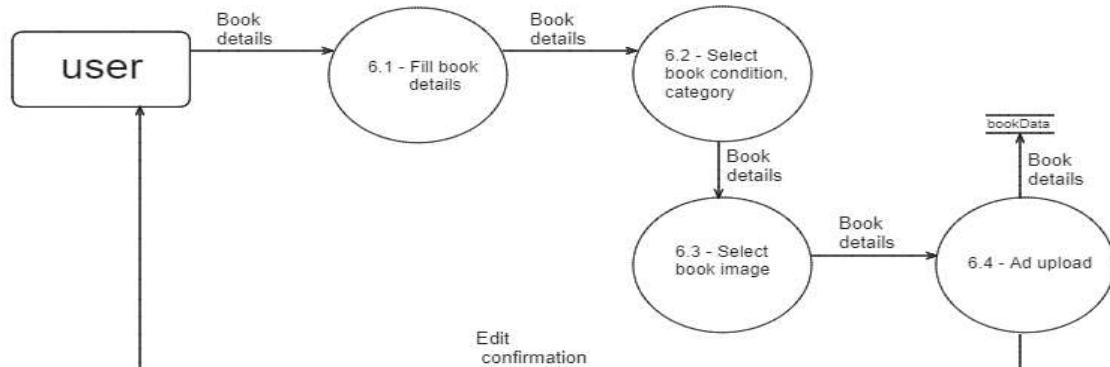
Level 2 (1.0)



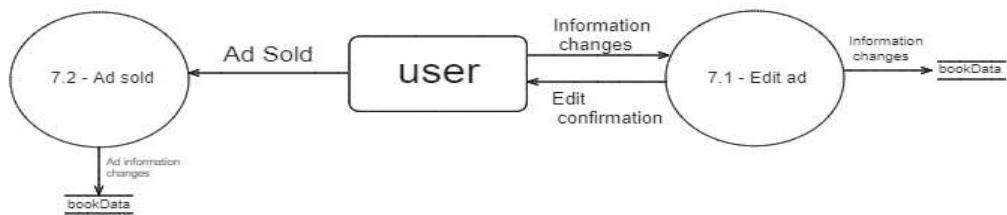
Level 2 (2.0)



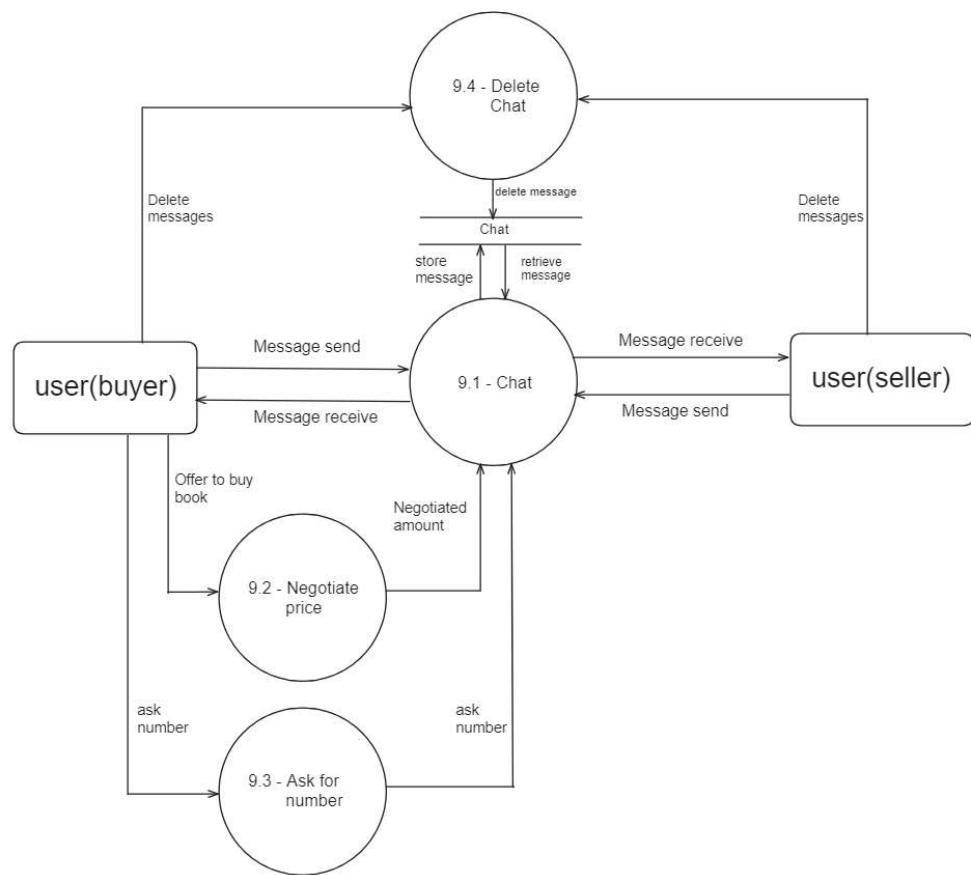
Level 2 (6.0)



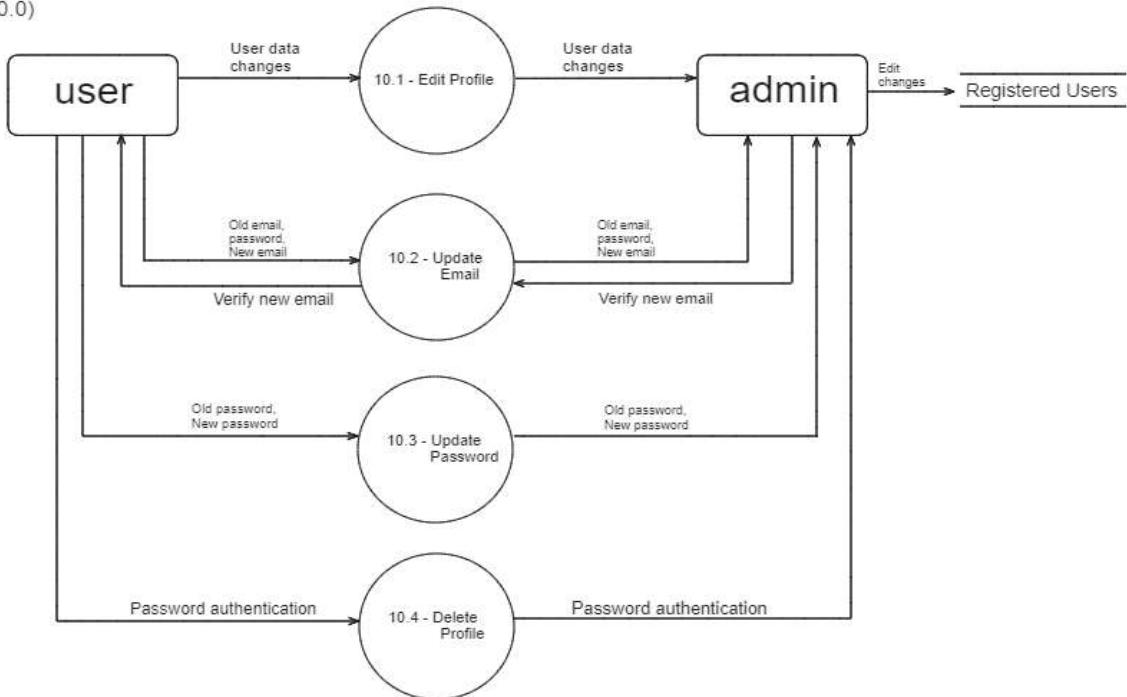
Level 2 (7.0)



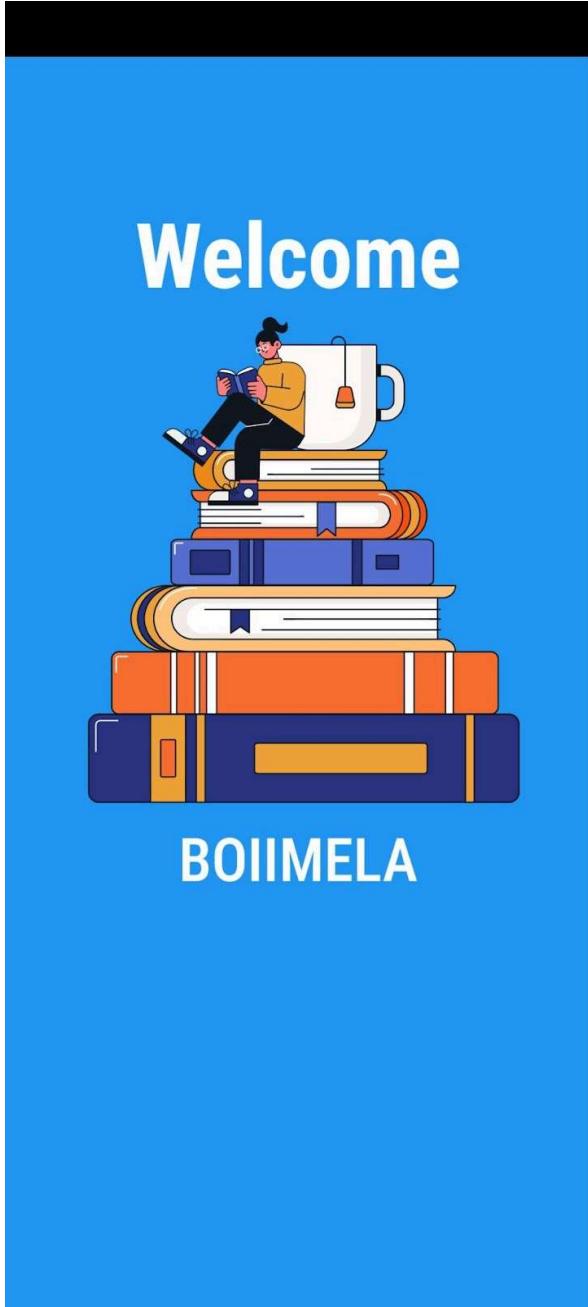
Level 2 (9.0)



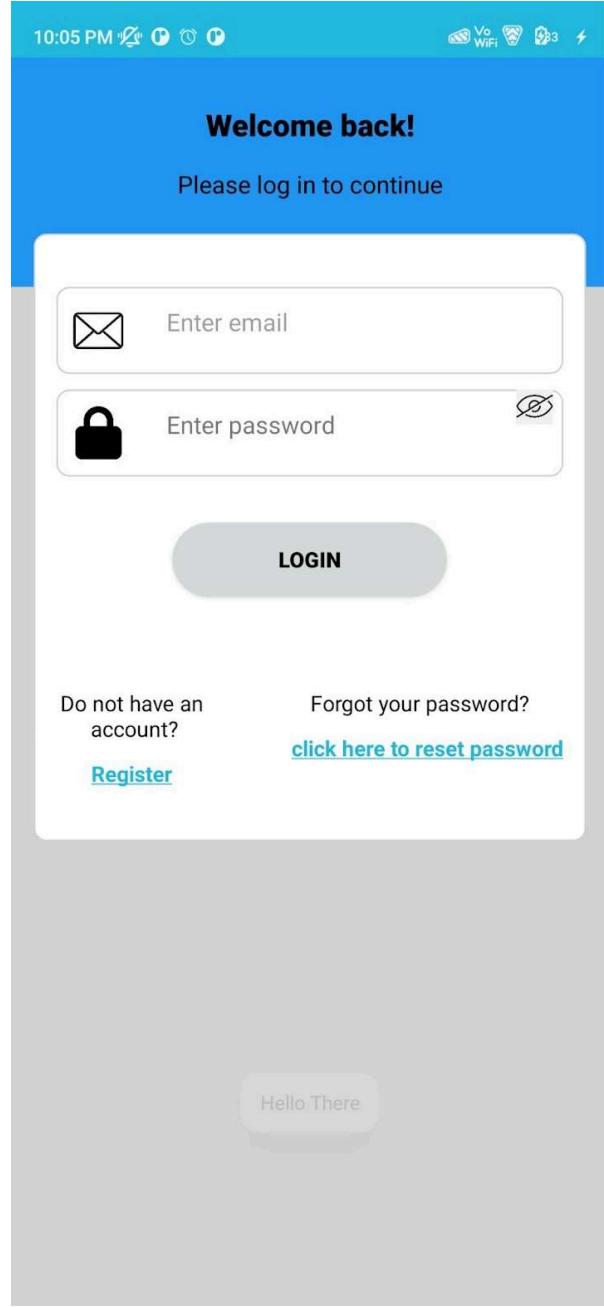
Level 2 (10.0)



Implementation:



SPLASH SCREEN



LOGIN PAGE

10:05 PM Vo WiFi 3G

Sign-up

Please register yourself to continue

enter your full name

enter your email address

DD/MM/YYYY

Female Male

enter your mobile no. (without +91)

enter your password

enter your password

I agree with the Terms of Service and Privacy Policy

REGISTRATION PAGE

10:05 PM Vo WiFi 3G

Forgot your password?

Please enter your registered email to receive password reset link

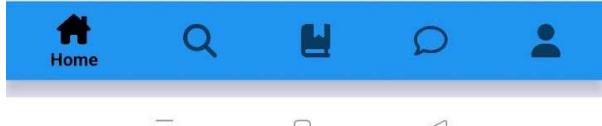
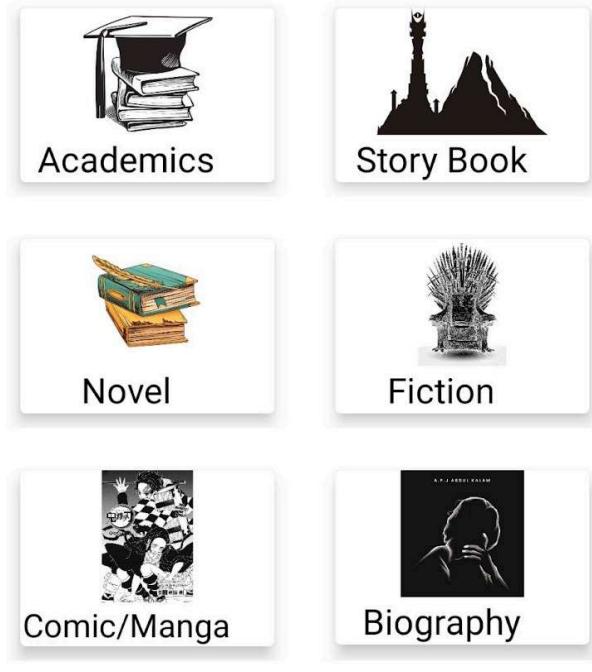
enter your registered email

FORGOT PASSWORD PAGE

Welcome

Saqib Javed

large enough or a book long enough to suit me. - C.S. Lewis



[HOME PAGE](#)

BoiiMela

Angels and Demons
Dan Brown 200

Animal Farm
George Orwell 140

A Christmas Carol
Charles Dickens 160

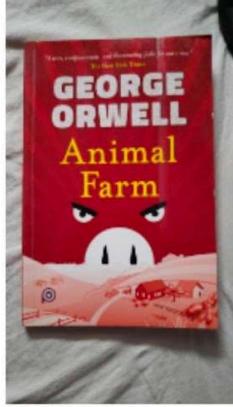
BSc Computer Science Honours Question Papers
T. Debnath 140

Guy de Maupassant 101 Short Stories
Guy de Maupassant 150

The Casebook of

The search bar at the top of the right-hand sidebar contains the text "BoiiMela". Below it, there is a list of book titles with their authors and prices. The sidebar also features a blue navigation bar with icons for Home, Search, File, Chat, and User, along with three other unlabelled icons.

[SEARCH PAGE](#)



Animal Farm

₹ 140 INR Soft Cover

Book Details

Book Title : Animal Farm
Author Name : George Orwell
Publisher Name : Words Power

Book Description

Book Condition : New (Book is new)

Home Search Save Chat Profile

☰ ⌂ ◀

AD PAGE

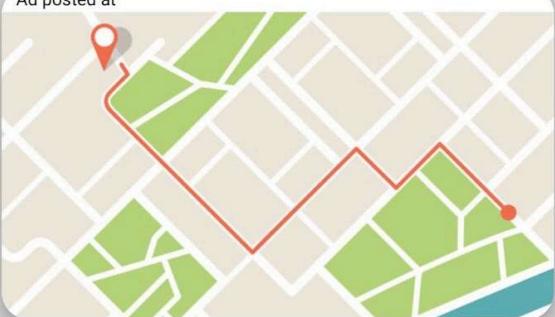
Other : Satire

User Description : Best beast fable

Seller Details

Seller Name : Saqib Javed
Seller Address : 39/1/H/3, SIR SYED AHMED ROAD, KOLKATA - 700014
Seller Number : +91 XXXXXX612 [ask for number](#)

Ad posted at



CHAT MAKE AN OFFER

AD ID : 08c5d98f-b11 [Report this AD](#)

Home Search Save Chat Profile

☰ ⌂ ◀

AD PAGE

Enter your book details

🏷️

Title

👤

Author name

📄

Publisher

Book Cover

- Hard Cover
- Paperback
- Soft Cover
- No Cover

Book Condition

- Good (Book is in a good condition with all pages attached)
- Old (Book is old and might have some pages missing)
- New (Book is new)

UPLOAD PAGE

Category

- Academics
- Story Book
- Novel
- Biography
- Fiction
- Comic/Manga

Other Category

Please specify category if not mentioned above

📝

Description

₹

Price

📱

Phone

📍

Address

[Only 3 photos will be uploaded]

UPLOAD PAGE

The screenshot shows a form for uploading item details. It includes fields for Description (with a document icon), Price (with a rupee symbol icon), Phone (with a phone icon), and Address (with a location pin icon). Below these is a section for uploading photos, indicated by a large light purple placeholder area. At the bottom are buttons for SELECT IMAGE, CLEAR IMAGE, and UPLOAD.

Description

₹ Price

Phone

Address

[Only 3 photos will be uploaded]

SELECT IMAGE

CLEAR IMAGE

UPLOAD

UPLOAD PAGE

The screenshot shows a listing for a book titled "A guide book on Computer Awareness" by Saqib Javed, categorized under the "Buy" tab. The listing includes a placeholder image for the book cover. At the bottom of the screen is a blue navigation bar with icons for Home, Search, and Chats.

Buy

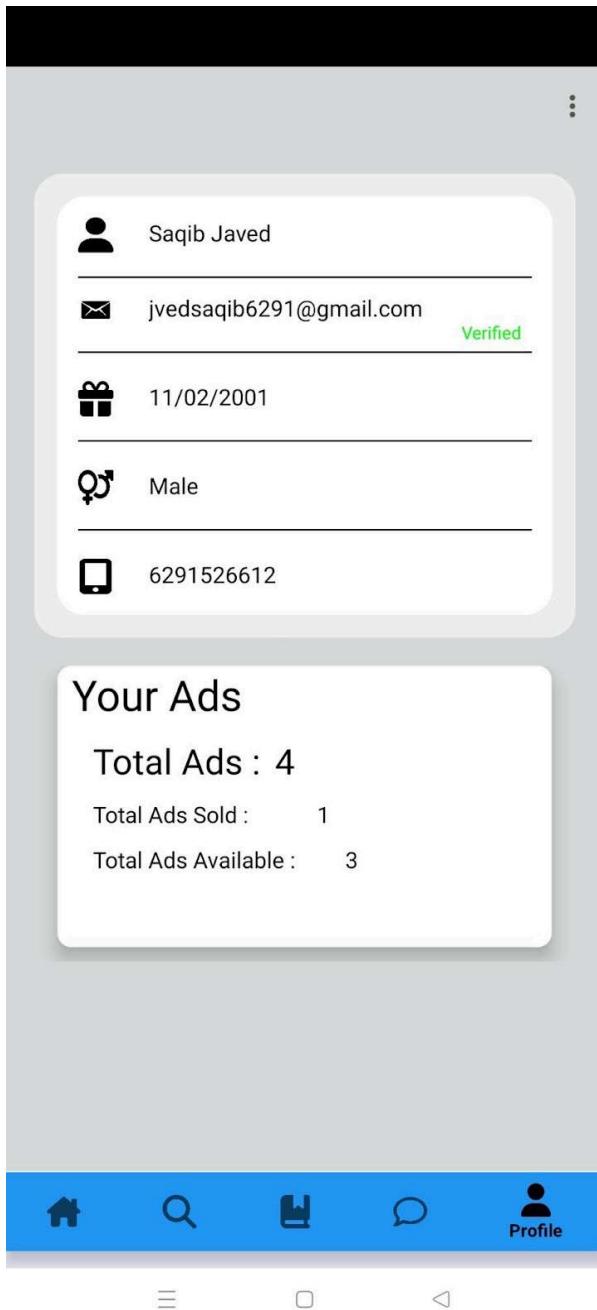
Sell

A guide book on Computer Awareness

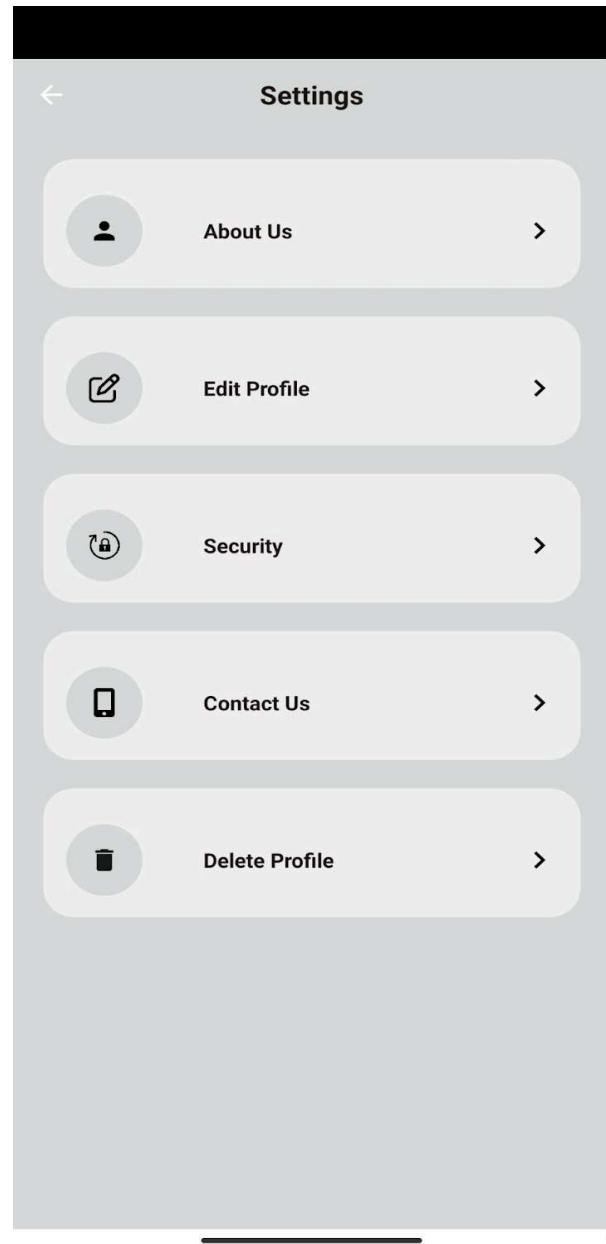
Saqib Javed

Chats

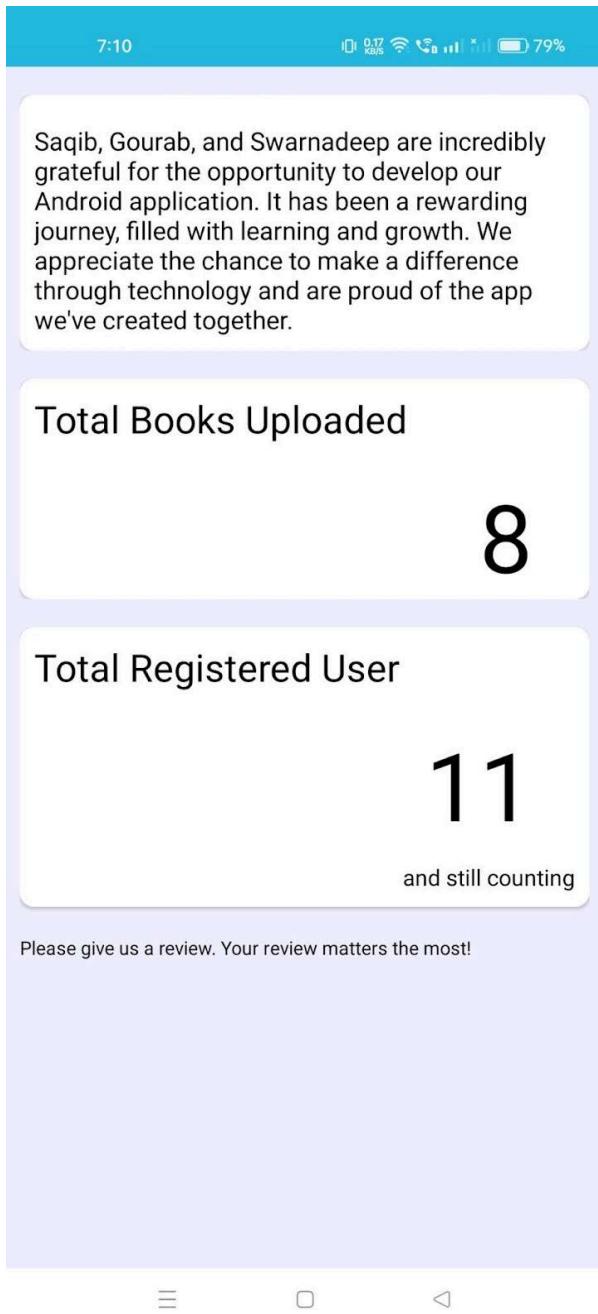
CHAT PAGE



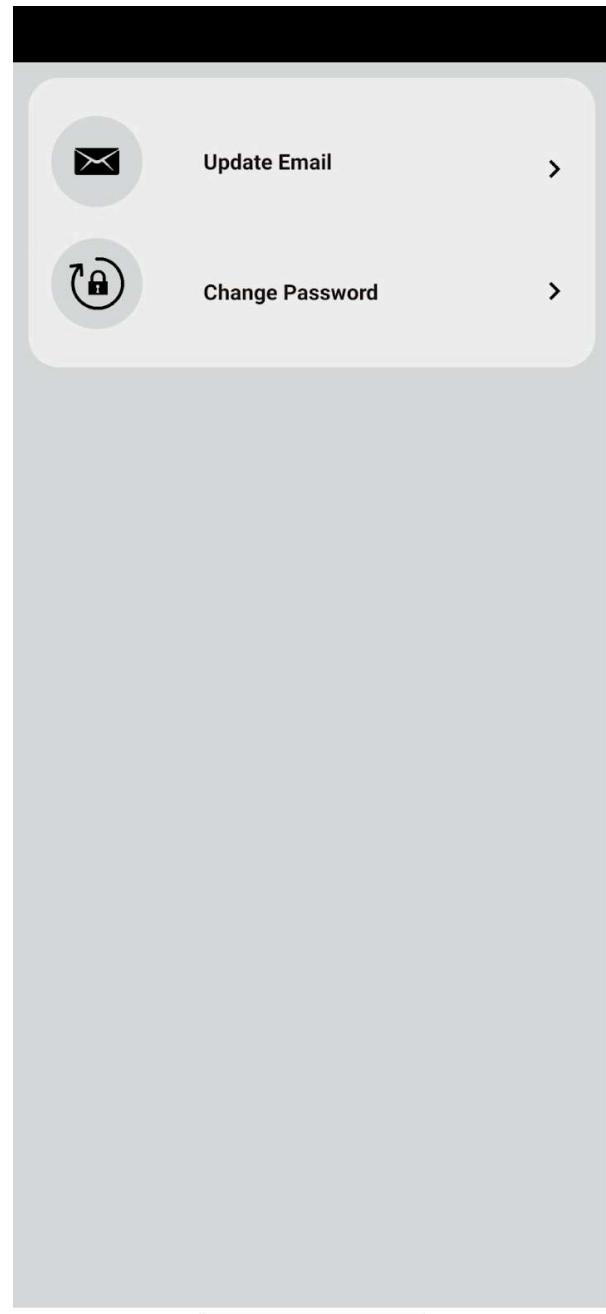
PROFILE PAGE



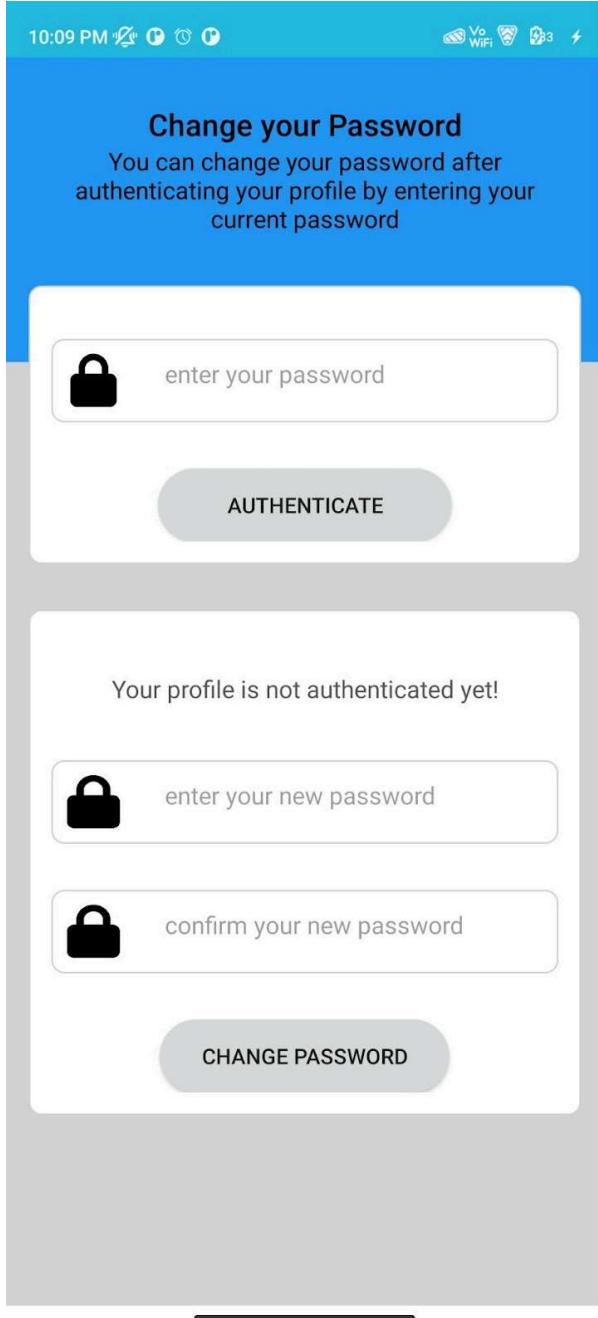
SETTINGS PAGE



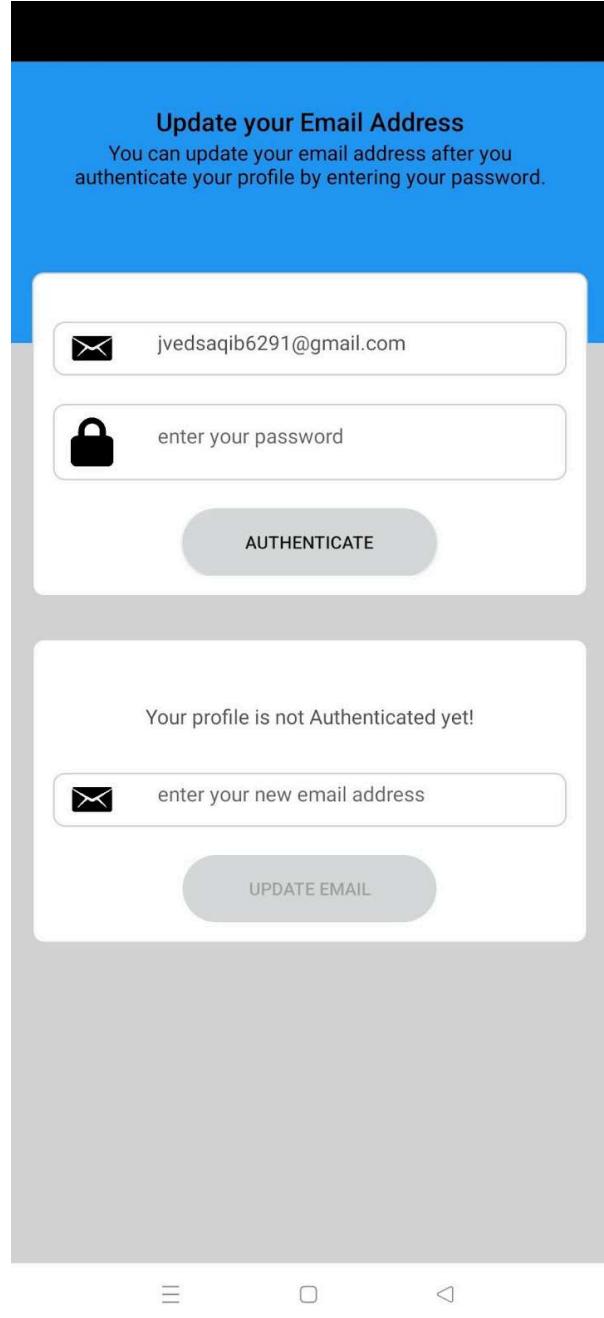
ABOUT US PAGE



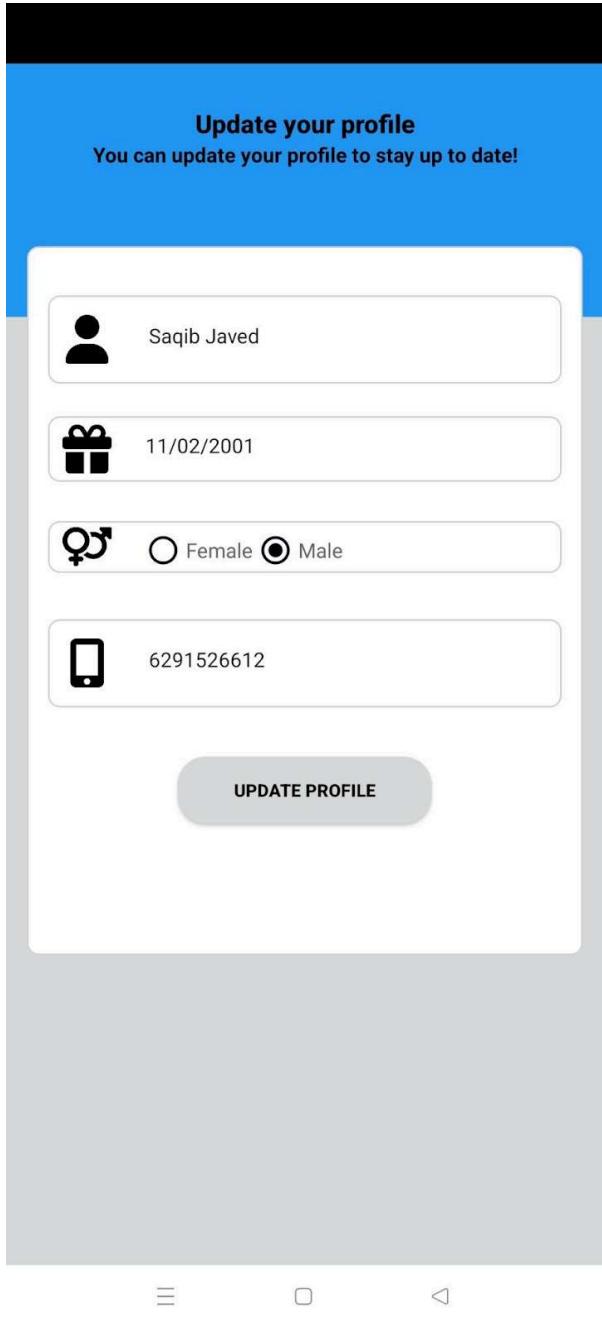
EDIT PROFILE PAGE



CHANGE PASSWORD PAGE



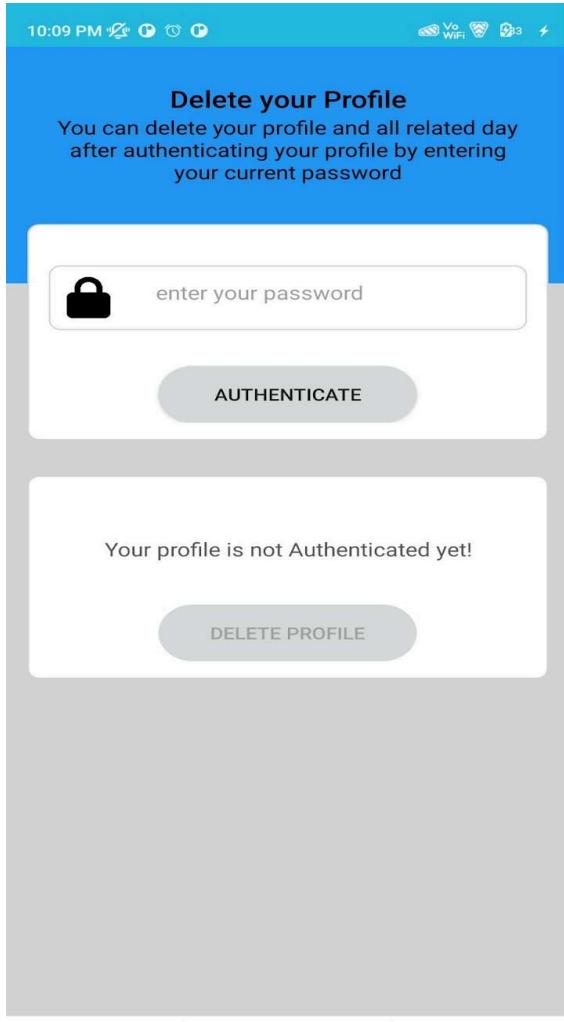
UPDATE EMAIL



UPDATE PROFILE PAGE



CONTACT US PAGE



DELETE PROFILE PAGE

Result and discussion:

Based on our discussion, the result is a comprehensive Android application designed for buying and selling old and new books. The app incorporates essential features such as browsing, searching, buying, and selling books. It also includes functionalities like chat for communication between buyers and sellers, reporting system, and uploading book images.

Future updates discussed include integrating secure payment options, implementing location-based features, enhancing user authentication and authorization, improving search functionality, and incorporating social media integration. Other updates involve in-app shipping integration, advanced seller verification, and optimizing the app's performance and stability.

Overall, the discussion has resulted in a comprehensive and user-friendly Android application that meets the needs of book enthusiasts by providing a seamless platform for buying and selling books. It ensures convenience, security, and an engaging experience for users while fostering a vibrant community of book lovers.

Conclusion and Future Related Work:

In conclusion, our Android application for buying and selling books is a valuable platform that provides convenience, choice, and a vibrant marketplace for book enthusiasts. It offers features such as browsing, searching, buying, and selling books, along with chat functionality, reporting system, and the ability to upload book images.

The app empowers users to easily find and purchase books, connect with sellers. It enhances the book-buying experience by providing a user-friendly interface, direct communication channels, and competitive pricing options. Additionally, the app opens up opportunities for sellers to reach a wider audience and monetize their collections.

While there may be challenges such as limited user base, trust concerns, competition, limited book availability, user interface, and technical challenges, these drawbacks can be addressed through targeted marketing, trust-building measures, strategic partnerships, and ongoing improvements to the app's performance and user experience.

Overall, our Android application strives to create a thriving and trusted marketplace for book transactions, catering to the evolving needs of users in the digital age. By focusing on user satisfaction, security, and continuous development, we can ensure that our app remains a valuable resource for book enthusiasts, fostering a community of literary exchange and promoting the love for reading.

References

Concepts Name	Website links/ Books	Brief concept
Java Basic Concept	<ul style="list-style-type: none"> • Oracle Java Tutorials: https://docs.oracle.com/javase/tutorial/ • Codecademy Java Course: https://www.codecademy.com/learn/learn-java • Java Tutorial for Beginners by Derek Banas: https://www.youtube.com/watch?v=TBWX97e1E9g • Java Beginners Tutorial by TutorialsPoint: https://www.tutorialspoint.com/java/java_basic_syntax.htm • Java Programming for Beginners by John Purcell (Udemy course): https://www.udemy.com/course/java-tutorial/ 	<p>Java is a widely-used programming language known for its portability and versatility. Its basic concepts include objects, classes, inheritance, polymorphism, and encapsulation, enabling object-oriented programming and platform independence.</p>
Oops Concept	<ul style="list-style-type: none"> • "Head First Java" by Kathy Sierra and Bert Bates • "Effective Java" by Joshua Bloch • "Java: How to Program" by Paul Deitel and Harvey Deitel • "Thinking in Java" by Bruce Eckel • "Java: A Beginner's Guide" by Herbert Schildt 	<p>OOP (Object-Oriented Programming) is a programming paradigm that organizes code around objects. Its basic concepts include encapsulation, inheritance, and polymorphism, enabling modular and reusable code for efficient software development.</p>

Concepts Name	Website links/ Books	Brief concept
Xml	<ul style="list-style-type: none"> ● W3Schools XML Tutorial (https://www.w3schools.com/xml/) ● XML.com (https://www.xml.com/) ● Tutorialspoint XML Tutorial (https://www.tutorialspoint.com/xml/) ● "XML: Visual QuickStart Guide" by Kevin Howard Goldberg ● "Beginning XML" by Joe Fawcett, Danny Ayers, and Liam R. E. Quin 	<p>XML (Extensible Markup Language) is a markup language used for structuring and storing data. Its basic concepts include tags, elements, attributes, and hierarchies, allowing for flexible and platform-independent data representation and exchange.</p>
Android	<ul style="list-style-type: none"> ● Android Developer Documentation(https://developer.android.com/docs) ● Vogella Android Tutorials (http://www.vogella.com/tutorials/android.html) ● AndroidHive (https://www.androidhive.info/) ● "Head First Android Development" by Dawn Griffiths and David Griffiths ● "Android Programming: The Big Nerd Ranch Guide" ● "Professional Android 4 Application Development" by Reto Meier 	<p>Android development is the process of creating applications for the Android operating system. It involves designing user interfaces, writing code in Java or Kotlin, and utilizing Android SDK and tools for building mobile apps.</p>

Concepts Name	Website links/ Books	Brief concept
Firebase	<ul style="list-style-type: none"> • Firebase Documentation (https://firebase.google.com/docs) • Firebase YouTube Channel (https://www.youtube.com/c/firebase) • Fireship (https://fireship.io/) • "Firebase Essentials - Android Edition" by Neil Smyth • "Firebase Cookbook: Over 70 Recipes to Help You Create Real-time Web and Mobile Applications with Firebase" by Houssem Yahiaoui • "Learning Firebase: Build and Deploy Apps with the Real-time Database, Cloud Storage, and Authentication" by James Tamplin and Michael McDonald 	<p>Firebase is a product of Google which helps developers to build, manage, and grow their apps easily. No programming is required on the firebase side which makes it easy to use its features more efficiently. It uses NoSQL for the database for the storage of data.</p>