

HARMONY IN PROGRESS:

**INTEGRATING SCIENCE, TECHNOLOGY,
AND
SOCIAL INNOVATION
FOR SUSTAINABLE DEVELOPMENT GOALS**



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YST021 - BOOK BUDDY

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ABSTRACT

UiTM students always face difficulties in acquiring academic resources, such as the textbook, due to higher costs, limited availability and inefficient mechanism in purchasing, selling, or books exchange. By introducing the Book Buddy app, it gives benefit to UiTM students to get affordable academic resources related to their courses. By streamlining the textbook acquisition process, Book Buddy not only saves time and effort for students but also support the academic community. It empowers students to easily access the resources they need, enable them to focus more on their studies and less on the logistical challenges of securing the textbooks. By combining academic-specific functionality, verified student access, and environmentally conscious features, the Book Buddy app offers a comprehensive solution that goes beyond traditional secondhand book platforms that cater specifically to the needs of UiTM students.

Keywords – Book Buddy, UiTM, buying, resources, selling

INTRODUCTION

Higher education students frequently face difficulties in acquiring the resources due to their high cost, limited availability for resources and lack of an efficient mechanism to purchase, sell or exchange the books with other students. Students search for secondhand academic materials by using the Telegram platform or any general internet marketplaces, and still do not fulfill the academic requirement. The absence of an organized system leads to inefficiency and lack of trust in the searching process. Students also frequently use Telegram groups to search for materials and they needed to request manually and wait for responses. Due to the enormous number of messages in the groups, many posts are missed, students are left out with no responses and no solutions given to them.

The present platforms have searching incapacibilities and prevent the students from filtering the needed books by course, semester, subject or their needs. This will limit the search results because of severe inefficiencies and limited the ability in identifying appropriate information and left the students with few options. Unsecured payment system and user verification mechanisms will expose the students to fraudulent sellers, false listings and payment disputes and will give risk to them. When there is no authentication for user identification and securing the transaction, the sites used might be dangerous.

Book Buddy app addresses these issues by developing an application that is designed specifically to address the unique needs for UiTM students. This app provides a simple

app and secures the process of buying, selling or exchanging textbooks and reference materials. With features such as course-specific search filters, in-app chat functionality and a user verification system, Book Buddy ensures more efficient and reliable experience for students. This platform is tailored to reduce stress, enhance trust and offer a personalized user experience by addressing the limitations of existing methods.

OBJECTIVE

The objectives of Book Buddy application:

- i. To provide an affordable solution for UiTM students to buy, sell, or exchange books directly with their peers.
- ii. To simplify the process of finding and obtaining course-related books by enabling searches based on program, subject, semester, or other filters.
- iii. To ensure a safe environment for transactions through student verification, in-app messaging, and QR code-based transaction confirmations.

DESCRIPTION OF THE PROJECT

Book Buddy app offers easy-to-use interface for both buyers and sellers. It is designed to meet the needs of academic users, provides easy way in buying and selling books and creates a safe and productive space. For buyers' perspective, the app facilitates search and filtering books by a number of factors, including program, subject, and price range. This app also can access required data in order to make wise purchases and can bookmark the products that they are interested. Other than that, the app offers the buyers' personalized book recommendations and offer two delivery methods - COD and shipping.

For the sellers, they are able to post and manage the book listings, update the booking status that allows the seller to indicate whether their books are sold, pending, or available. Furthermore, the buyer and seller can communicate by using the built-in chatbot on the platform and enable sellers to monitor the delivery process and provide updates to purchasers.

The Book Buddy app also offer secure transactions features that need the users to validate their accounts by using UiTM student emails. Notification system features are also included in this app by updating the bookmarked items, new book listings, and other activities in real time. By providing the information, this app helps buyers and sellers remain active on the marketplace and improve the user experience.

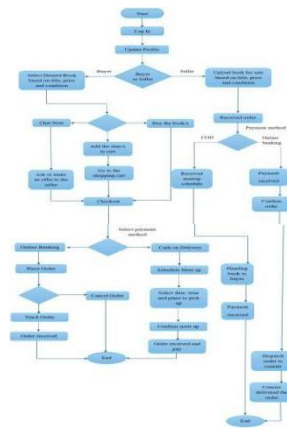


Figure 1: Book Buddy Flowchart



Figure 2: Book Buddy app

NOVELTY

The uniqueness of Book Buddy app is produced for UiTM students and integrated intelligent decision-making support systems and also have many innovative features. Here are some features that can highlight the uniqueness of this app:

1. Student verification - the app connected with UiTM's student verification portals that to verify their status. This exclusivity will cultivates trust within the platform and establish a secure atmosphere for educational transactions.
2. Advanced searching and filtering - enables students to locate books according to course, semester, subject, book condition and price range.
3. Personalized and customized - the buyer can personalize the book recommendations based on a buyer's course or program and can customize their profile information.
4. Dual functionality - allowing transition between buyer and seller positions on the same platform. Sellers can easily list the books with details such as price, condition, and campus location, while buyers can browse and negotiate via secure in-app chat.
5. Secured transaction - using safe payment methods or cash-on-delivery options.
6. Hybrid Chat System - enables buyers to communicate with sellers using AI-powered responses for frequent or suggested.
7. Environmentally sustainable elements - monitors the ecological effects of secondhand book trades, including the carbon savings and promotes sustainability by users incentive's with points for eco-friendly behaviors and fostering a culture of environmental consciousness among the student community.
8. Logistics and delivery options - including campus meet-up points, that make book exchanges more convenient.

CONCLUSION

Book Buddy app has successfully identified and addressed the common issues faced by UiTM students in finding cheaper and more affordable academic resources. The app will provides a good platform for buying, selling, and exchanging textbooks, hence fostering a sense of community among students. Furthermore, Book Buddy app also offers a better alternative rather than informal channels like Telegram groups that are not organized and secure. It comes with course-specific search filters, secure transaction mechanisms and user verification.

The positive feedback during testing phases testifies the demand, therefore, Book Buddy app will satisfy not only the need but also UiTM's mission to continually upgrade educational experiences with innovative technology. Overall, this platform represents one step forward to support the students' academic journey by reducing the logistical burdens associated with resource acquisition.