



Android-Based Online Bookstore System Design

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Abstract. Indonesia is one of the countries with low interest in reading, given the importance of reading to increase human knowledge, by utilizing technological developments, an application is made that provides books in digital form. The purpose of this research is to design an online bookstore system that can be accessed using an android device. This application serves as a platform for readers so that they can increase their interest in reading with various digital books that can be accessed for free or paid. The research that was conducted was by using a descriptive method of analysis with a qualitative approach. This application development process uses an object-oriented approach, namely system development life-cycle prototyping. The result of this research is to produce an online bookstore and an android-based audiobook that can be read and listened to for free or paid. In the application, there are various types of digital books with features that make it easier for readers. With this android-based online bookstore, users can read books anywhere and anytime without having to carry a lot of books. This research was conducted to make it easier for readers who want to read books effectively and efficiently with only one android device. In the end, this application is a reading medium to improve reading habits, especially the Indonesian people.

Keywords: Android, System Design, Bookstore

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1. Introduction

The rapid development of information technology affects various sectors, it can be seen that there are many activities based on technology. The rapid development of technology and the internet in Indonesia also has a big impact on business changes. Likewise in Bookstores, now it is not only available in offline stores but also available in online stores as digital books or

eBooks [1]. The development of new technology and innovations is expected to increase interest in reading in Indonesia with the presence of this Android-Based Online Bookstore. Because the existence of an online bookstore makes it easier for us to read.

In the android application that is designed, it presents many types of books described in the journal of Aliyatin Nafisah [2]. Now, reading activities can be done anywhere and anytime easily, with only one android device that is always connected to the internet [3]. In a previous study concluded that using an online system could reduce the cost of buying paper [4]. According to previous research has huge potential for online bookstores and is likely to have a long-term impact on readers. But maybe not everyone likes reading books digitally through an Android device and is more interested in hardcopy books [5].

The purpose of this study is to design an Android-based online bookstore system that can facilitate people in reading activities. This research focuses on designing an android-based system which is a combination of the use of technology and business in the form of an online bookstore. The research method used is a descriptive analysis method with a qualitative approach using a method called System Development Life Cycle Prototyping. This method is used for manufacturing or developing software. This research is expected to help the community in the development of technology and can increase interest in reading the Indonesian people [6].

2. Method

The research method used in this research is descriptive analysis using a qualitative approach to convey the description of the research design. In system design, we use Android Studio application for application development, figma for prototype design creation, SQL Server as data management. The development of this system is carried out using the prototyping system method. Prototyping is an experimental process in which a design team implements an idea into a tangible form from paper to digital. Prototypes are built with varying degrees of precision to capture design concepts and test them out with users. With a prototype, you can refine and validate a design. [7, 8]. This method is useful in the development of user interface-focused systems. It takes good cooperation between the user and the developer to overcome the incompatibility that occurs between the two so that the developer will know exactly what the user wants without overriding the technical aspects [9]. The method of developing a prototyping system is shown in Figure 1 [10].

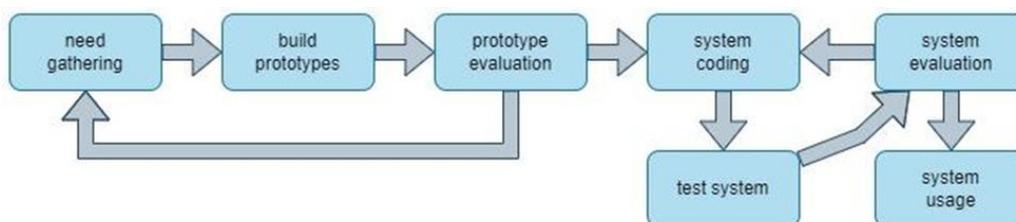


Figure 1. development method

This prototyping development method, the stages that must be carried out before building a prototype is to collect all the requirements for the system, then after the prototype is made, there must be an evaluation carried out before proceeding to the technical stage. The prototype that has been repaired will be implemented with system coding, after which the system will continue to be evaluated until it is completely ready for use by users [10-12].

3. Results and Discussion

3.1 Identification

Bookspace is an online bookstore application designed to make it easier for people to read. Research conducted to map what is needed by a reader in reading activities. This application is also one of the breakthroughs that can be made to increase interest in reading in Indonesia by utilizing technology. The main feature of this Bookspace Application is an E-book or digital book as a substitute for printed books in the application. In addition, the Bookspace application is also equipped with an audiobook feature as one of the developments of the main features that can be another option when users are tired enough to stare at their cell phone screens to read. The menu structure of the Bookspace application is shown in Figure 2.

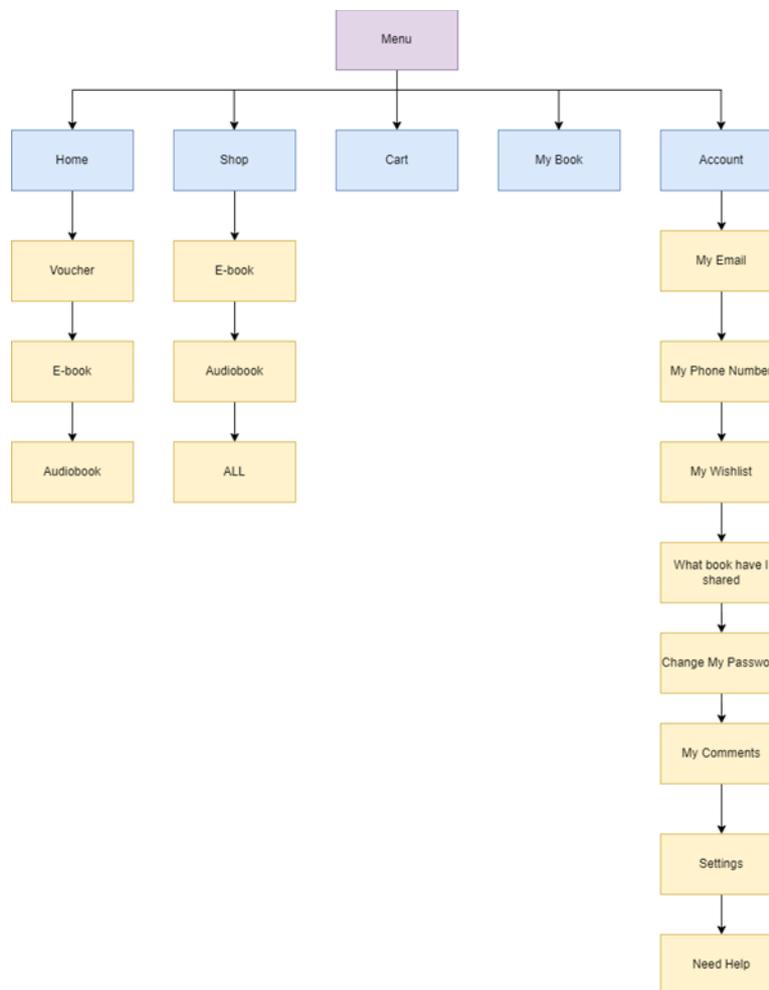


Figure 2. Menu Structure

Figure 2 shows the design of the menu structure in the Bookspace application. The Home menu is the main menu in the application which contains 3 sub-menus, namely vouchers, e-books, and audiobooks. The shop menu is a menu to select the book to be purchased, in this menu there are 3 sub-menus, namely the e-book menu to display e-books, audiobooks to display audiobooks, and all, namely the menu to display e-books and audiobooks. Then there is the cart menu, which is a menu to store the selected book and then to make the payment process. My Book is a menu to save the books that have been purchased. In the account menu,

which contains a sub-menu regarding user accounts, there are 8 sub-menus, namely, my email, my phone number, what book I have shared, change my password, my comments, settings, and need help.

3.2 The Display in The Prototype

In the early stages of prototyping, the developer designs the start page of the Bookspace application (see Figure 3). The start page of the application contains the logo and the name of the application.

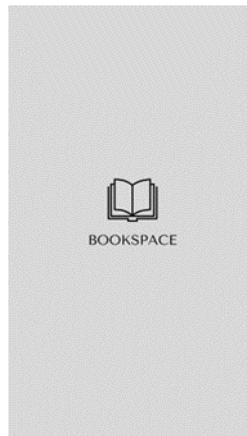


Figure 3. Bookspace Application Start Page

Figure 3 shows the start page of the Bookspace application before the user enters the Sign In or Sign-Up page. From the start page, there is a book icon that is used as the application logo and also the name of the Bookspace application, both of which mean book space, where various types of books are provided in digital form that can be used as a reading space for users. The Sign In page and the Sign-Up page are shown in Figure 4.

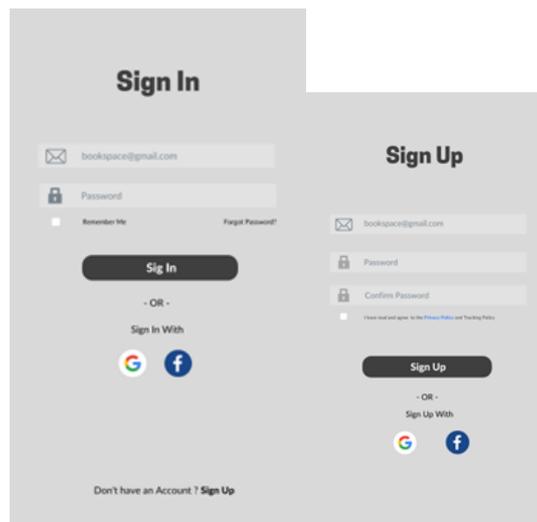


Figure 4. Sign In and Sign-Up Pages

On the next page after the application start page is the page for Sign in and Sign-Up which contains the email and password used to enter the main page of the Bookspace application. If the user does not have an account, he must first create an account as shown in the Sign-Up

image above. Signing in or creating an account in the Bookspace application can also be done using Google or Facebook. The main page of the Bookspace application is shown in Figure 5.

On the main page there are several menus such as vouchers to display various kinds of vouchers that can be used when purchasing e-books, the e-book menu displays a list of various types of e-books that can be accessed by users, the audiobook menu displays a list of audiobooks that can be listened to, and other menus. The Bookspace application also provides a variety of free e-books and audiobooks that users can enjoy without having to make a purchase. On the main page of the Bookspace application there is also a Search feature that can help users to find the desired reading without having to search one by one. The Shop page and E-book details of the Bookspace application is shown in Figure 6.

Figure 6 shows the Shop Page and E-book Details from the Shop feature in the Bookspace application. The Shop page contains various lists of e-books and audiobooks that can be purchased by users. If the user has selected an e-book or audiobook from the list, the user will be directed to the product detail page (e-book or audiobook) before proceeding with the purchase transaction. The detail page displays the details of the product that we are going to buy starting from the price to the product description, then the user enters the e-book or audiobook into the cart and processes the transaction. The Charts and Transactions page is shown in Figure 7.

The Cart page contains a list of e-books or audiobooks that the user will buy, then the user will proceed to the transaction process on the payment page. The payment page contains details of the price to be paid along with the voucher that will be used. Figure 8 shows the pages of all the books the user has.

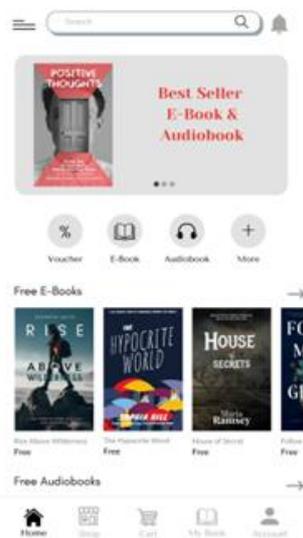


Figure 5. Main page

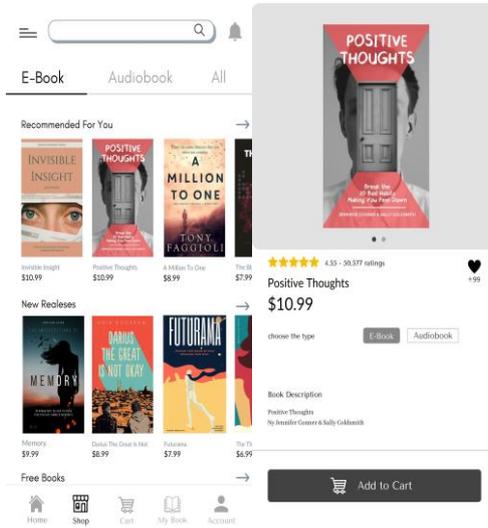


Figure 6. Shop Page and E-book Details

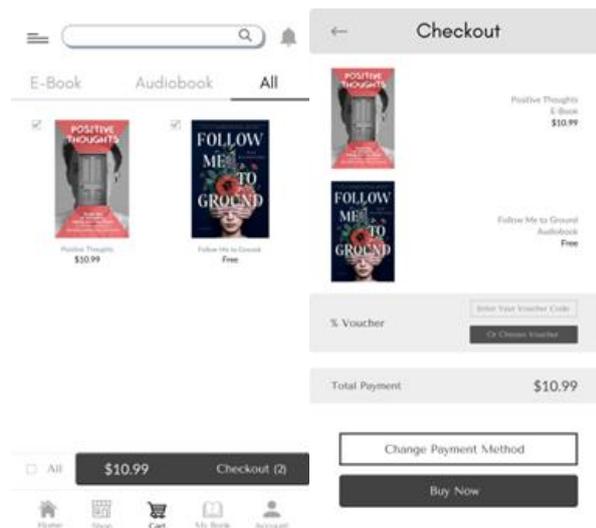


Figure 7. Cart Page and Payment Page

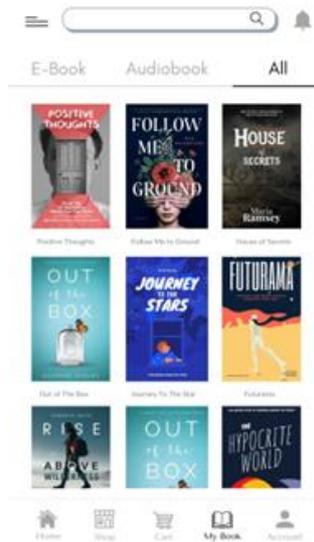


Figure 8. My book menu page

My book menu page contains a list of various digital books that users have purchased. The e-book page and reading page (see Figure 9) are pages where in the e-book page the user can set the duration of reading by pressing the alarm button. On the reading page there are also several features, namely settings to manage writing, saves, which is a feature to save quotes from books, home, which is to return to home, and help, which is how to use eBooks. In addition, users can also highlight e-books with various colours, besides that, this eBook also has a translation feature.

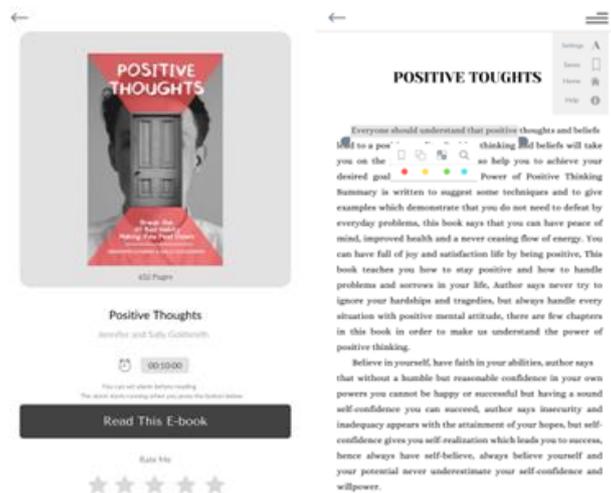


Figure 9. eBook page and reading page

In addition, the audiobook feature is also available in this application, the audiobook page (see Figure 10) where users can listen to the contents of the book without reading it, there are several features, namely an alarm to set the duration of reading, then a feature to increase or

decrease the audio speed and a feature to advances to the next 30 seconds or the previous 30 seconds.

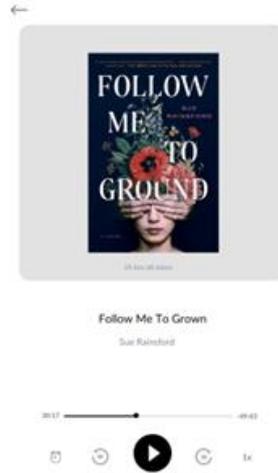


Figure 10. My book menu page

In the picture below (see picture 11) is a settings page that contains settings for the overall appearance of the application, there are mobile notification settings to enable or disable notifications on the user's mobile phone.



Figure 11. Settings page

Figure 12 is an account page to display various menus related to user account information. In addition, users can also change the profile picture. There are several sub menus on this account menu, namely my email to display the user's email, my phone number which is to display the user's cell phone number, my Wishlist is to display the books that the user likes, what book I shared sub menu is a sub menu to display any book which has been shared with other users, my comments is a sub menu regarding book reviews or comments that have been shared, the change my password sub menu is for changing passwords, settings is for

application settings, and the need help sub menu is an explanation of how to use the Bookspace application

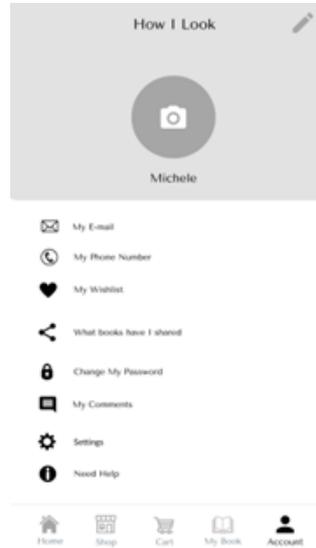


Figure 12. Account menu page

4. Conclusion

Bookspace application is designed for online bookstore which can be used by all users. Bookspace is an application for buying and selling digital books based on Android as well as being an application that facilitates reading activities for users. In this application there are various types of digital books, but not only the reading feature is available, there is also a feature for listening. This feature can be an option for users when they are too tired with the phone screen, so they can continue to enjoy the story by listening. This application also provides many types of fiction and non-fiction digital books for students.

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