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A Mobile-Based Fiction and Non-Fiction Book Vertical Marketing System

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ABSTRACT

It is simpler for vendors to advertise and market their goods to a larger audience online. Due to how simple it is to get information online, sales of fiction and non-fiction books are one of the industries that have begun to decline. Therefore, an online sales system is required to assist both purchasers and sellers of books, notably fiction and non-fiction books. It will be possible for resellers to market their books with the aid of this method for selling fiction and non-fiction books. The SDLC approach and the business process system employ UML as their tools to develop or construct a book selling system. The system created for this study is web- and mobile-based, including web-based administrators and a mobile system for resellers and clients. As a consequence of this study, a system that can handle all online book sales procedures for both fiction and nonfiction books has been developed.

Keyword : Fiction and Nonfiction Books; SDLC; UML; Marketing System.

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1. INTRODUCTION (10 PT)

Over the past ten years, there has been a tremendous shift in marketing tactics (He, H., & Harris, L., 2020; Kadekova, Z., & Holienčinova, M., 2018). Instead of functioning in separate funnels, sales, IoT, and marketing departments have become more aligned (Terho, H et al., 2022; Corsaro, D., & Maggioni, I., 2021). The way we gather information about customers has changed, enabling businesses and brands to speak to a more sophisticated audience of prospective customers in a more personal way (Shah, N et al., 2020; Wang, 2021; Perez-Vega el al., 2021). It is simpler for vendors to advertise and market their goods to a larger audience online. If you enjoy reading, you may have fantasized about starting your own bookshop. But having a love of books isn't enough to manage a successful bookstore (Anagha, C. S., & Urolagin, S., 2021). You must be knowledgeable about management, business operations, and the retail sector in order to operate a bookstore (Mulyani, N., 2018). Low profit margins make the bookselling industry hard. However, your bookstore can succeed if you have the necessary resolve and willpower (Zhang L, 2021). Sales of both fiction and non-fiction books. Systems and tactics that may address the needs of potential customers are required for the marketing of both fiction and nonfiction book items (Panda S, 2021).

A vertical marketing system can be utilized to accomplish that. Producers, wholesalers, and retailers make up this vertical marketing system (VMS), which is an integrated system in which they collaborate (Lv, Z., Chen, D., & Li, J., 2021). An alternate option that can be established and formed using an application is a vertical marketing system. To design an application, however, is unquestionably not as easy as one may think; a needs analysis is required to ensure that the process is accurate. The SDLC (System Development Life Cycle) method is one approach that can be employed while creating apps (Faqihuddin, A et al, 2020). The outcomes of the analysis of the current difficulties have a significant

impact on the SDLC process used to design the system. In order to establish a system for marketing fiction and non-fiction books using the SDLC approach, the author intends to conduct

2. RESEARCH METHOD

This research design is built using cloud computing infrastructure so that the system can be accessed anywhere. Cloud computing is the process of processing computing power (both CPU, RAM, network speeds, software, OS, and storage) through a network (usually via the internet). The following is a research design that the author made.

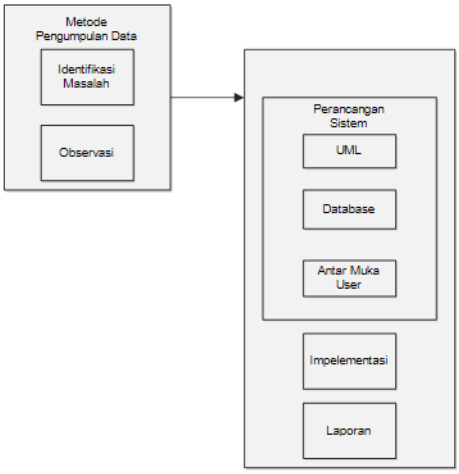

Fig 1. Research Framework

A. Software Development Model

The system development model used by the author in this research is the SDLC (Software Development Life Cycle) method.

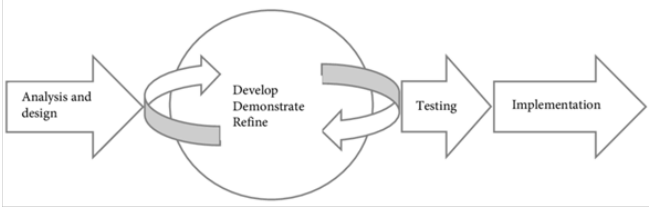

Fig 2. SDLC Method (Salsabila et al., 2021)

1. Analysis
   The software requirements analysis phase is carried out intensively to specify the system requirements so that the system can understand what the user needs.
2. Design
   Program design, comprising data structures, system architecture, and interface representation, is the process' main focus. In order to eventually be incorporated into a program, this stage converts the system requirements from the requirements analysis stage to the design representation.
3. Testing
   The testing step makes sure that all components have been tested and concentrates on the system's logical and functional aspects. This is done to reduce errors and make sure the final product is what is needed.
4. Implementation
   The system's implementation will display the findings of this study's interface design for people to use.

B. Requirements Analysis

For this study's analysis and implementation of a website-based fiction and non-fiction book marketing system, system requirements analysis was used to determine and gather information about what is needed to develop a system. Numerous sub-discussions, such as problem analysis, functional analysis, and non-functional requirements, are included in the needs analysis.

1. Problem analysis
   The absence of promotion and information about the costs of fiction and non-fiction books to the public makes it difficult to compete with businesses in the sales business process that is engaged in the field of book materials that wish to develop in terms of infrastructure. There is no system that offers fiction and non-fiction books using website-based media, which is already advanced, so in this problem analysis it is necessary to build and implement a website-based marketing system for fiction and non-fiction books so that people can quickly find the books they need. By utilizing cloud computing technology can provide convenience for the community by being able to access the system online so that it is very easy.
2. Functional analysis
   Functional analysis is to pinpoint the requirements or features that will belong to a system, particularly the marketing scheme for both fiction and non-fiction works. There are 2 users: user and admin.
   a. Admin
      The fiction and non-fiction book marketing system interface will be used by the admin user in accordance with the following application specifications.
      - Able to log in to applications.
      - Access dashboard information.
      - Accesses data from admin login
      - Access product information
      - Able to view categories
      - Check out the information on fresh orders.
      - View Fix Order information
      - Enter product information

   b. User
      The fiction and non-fiction book marketing system's customers will use the system to make the following purchases.
      - Able to log in to applications
      - Can register
      - Access to the primary menu
      - View product information
      - Check out your shopping cart's information
      - See profile information

C. Design System

A business process system design is required to facilitate application development. The UML (Unified Modeling Language) Model is used in this study for the business processes in the system.

Use Case Diagrams are employed at this point in the business process system, as seen in Figure 3. below.

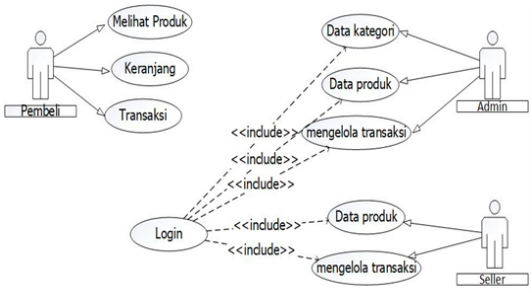

Fig 3. Use Case Diagrams System

The way the administrator, seller, and customer interact with the system is shown in Figure 3. Several existing menus that can be handled based on access rights are shown in the image.

The following activity diagram depicts a number of activity flows in the system as it was developed, used to describe how an operation is formed so that it can be utilized for other activities like use cases. The author's efforts that are described include those that are illustrated in the explanation that follows.

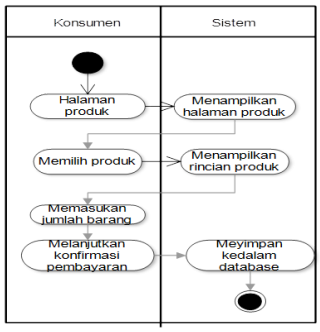

Fig 4. Activity Diagrams System

When a product page is first opened, the system displays all of the products it has in stock. This is how the purchasing process is carried out, as seen in Figure 4. The customer then chooses the book product to buy by adding it to the cart before moving on to the payment confirmation stage.
As shown in Figure 5 below, the class diagram system design is as follows.

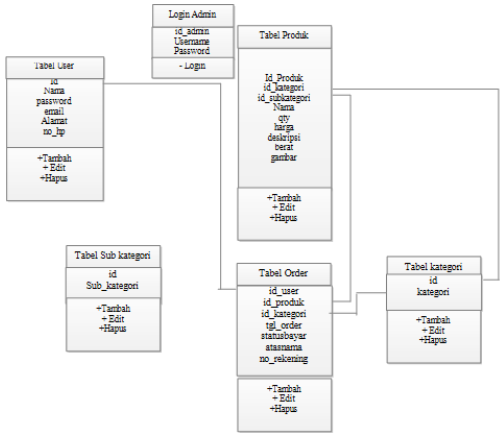

Fig 5. Class Diagrams System

3. RESULTS AND DISCUSSION

The outcomes of the system that has been developed are demonstrated and discussed once a sequence of procedures, starting with problem analysis and ending with the creation of the next system, have been completed.

A. Results

The website-based marketing system for both fiction and non-fiction books is seen from the user's perspective as a system used by the user. This system serves as a platform for buying book products that can be utilized by various societal segments. The view shown below can be perceived as follows.

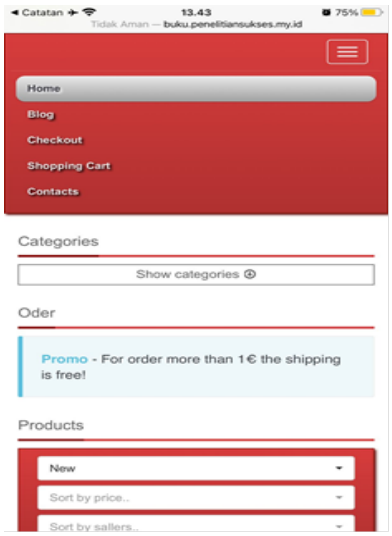

Fig 6. User Page View

Without logging in, the user can view/order immediately from the fiction and non-fiction book marketing system's main menu on the system display.

The user can view/order directly from the fiction and non-fiction book marketing system's main menu on the system display without having to log in.

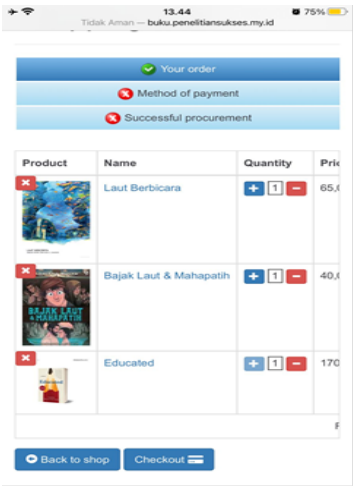

Fig 7. Cart Menu View

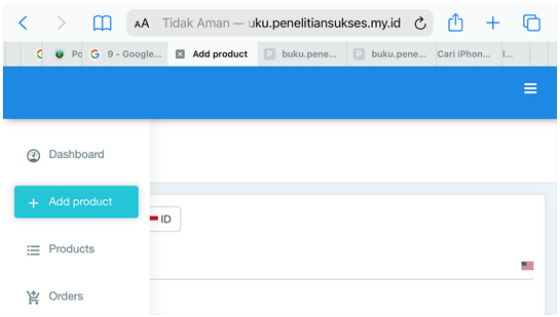

Fig 8. Add Produk Reseller

Resellers enter the products they wish to market in this display menu, along with images and descriptions of the books that will be promoted by the system.

B. Discussion

This mobile-based fiction and non-fiction vertical marketing system has undergone software testing using the SDLC methodology. The test's outcomes all function properly and according to plan. It may be concluded from these findings that the goal of developing a vertical marketing system for mobile-based fiction and non-fiction books has been accomplished.

4. CONCLUSION

In the description of a series of research on making a website-based fiction and non-fiction book marketing system, several conclusions can be drawn, including:

1. Both fiction and non-fiction publications can benefit from a marketing strategy created using the SDLC process.
2. The marketing system for both fiction and non-fiction books leverages UML as a tool in the business process.
3. Resellers who concentrate on selling both fiction and non-fiction books can use the system that was established.

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