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Online Sales Application Typical Cake Aceh Based On Android

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ABSTRACT

The development of smartphones makes mobile-based technology considered very effective and efficient for humans, this device has presented various advanced facilities that can help and facilitate every user in doing work and other needs. Among them is marketing a product, including the typical cake in an area. Aceh is one of the destinations for domestic and foreign tourists. Marketing of Aceh's specialty cakes is a fundamental problem experienced by many cake industries. In addition to the cake industry, consumers who want to buy also have obstacles including not knowing the place, price, and number to contact. So to bridge this problem, an application is made that can help the Acehnese cake industry to promote its products more widely throughout Indonesia. This application was built using the SDLC Waterfall, making it easier for researchers to identify problems and design systems according to the needs of the typical Aceh cake sales application. There are several stages, namely requirements analysis, system design, coding, program testing, and program implementation. This Aceh Typical Cake Sales Application for the Province of Aceh was built based on Android with an attractive, effective, and efficient appearance, making it easier for users to run it. After the implementation of this application, the results obtained are that consumers can place orders in real-time, the transaction process is easier and faster, thereby increasing the marketing of Acehnese cakes.

1. Introduction

Indonesia is a country consisting of various ethnic groups that have a variety of processed dishes that characterize the area. [1] According to the culinary atlas of the archipelago, Aceh Province is one of the areas that offers the most types of typical food. Acehnese specialties are not only big meals but also lots of snacks and drinks. One of them is a typical Aceh cake that is the target of tourists as souvenirs from Aceh. Currently, many Acehnese cake sales are still done offline or only sold in cake shops, souvenir shops, and some sellers who are engaged in home industries make sales by accepting orders, and some also provide cake-making services.

In the business world, companies are required to follow business developments and adapt to the market environment, one of which is through marketing strategies [2]. The attractiveness of the product is not only seen from the taste but also from the product packaging. Good and attractive packaging is needed today to attract buyers. Packaging is the packaging, container, or packing of products that aims to provide protection and play an important role in the handling, distribution, and preservation of food ingredients. In addition, traditional cake production has a market that cannot reach a wider market or become a typical product of one region [3].

Online business is a business activity that utilizes the internet as a marketing medium for a product or service. One of them is by utilizing a smartphone that can be done easily so that it saves more costs and time. With the presence of this online business wherever you are, you can make transactions between the seller and the buyer [4].

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Technology mobile has been increasingly rapid, this is indicated by the number of mobile applications and websites that can be run on mobile. One of the most widely used operating systems on smartphones today is Android [5].

Android-based applications are the choice for Android smartphone users because they contain various features that make it easier for users [6]. Based on the background of the problem above, the researchers built an android-based application for selling typical Aceh cakes.

2. Method

2.1. Applications

Applications are ready-to-use programs that can be used to execute commands from application users with the aim of getting more accurate results in accordance with the purpose of making applications, applications have the meaning of problem-solving using one of the application data processing techniques that are usually based on an expected computation and expected data processing [7].

The application can be interpreted as a program in the form of software that runs on a certain system that is useful for assisting various activities carried out by humans [8]. So it can be concluded that the application is a ready-to-use software program and can be used with the aim of solving computational problems and getting more accurate results as expected.

2.2. Sales Application

Sales can be interpreted as an effort or concrete steps taken to move a product, whether it be in the form of goods or services from producers to consumers as the target. The main purpose of sales is to make a profit or profit [9]. The sales application is a financial transaction application, if something goes wrong it can harm the owner, buyer, and employees. So it is necessary to do testing to ensure the quality of the resulting application[10]. From the statement above, it can be concluded that a sales application is a transaction application in which there are detailed data on a product or service, data on owners, buyers, and so on with the aim of bringing in profits or profits.

2.3. Android

Android is an information system for phones mobile such as smartphones and tablet computers. An open Linux-based android operating system (open source) for developers to build applications or improve Android according to the tools offered in the form of the Android SDK (Software Development Tools) and API (Applications Programming Interface) using the Java programming language. Developed by Google Inc, HTC, Intel, Motorola, Qualcomm, T-Mobile, and Nvidia available in the Open Handset Alliance (OHA), with the intention of supporting an open standard on mobile devices [11].

Android is an open-source operating system built on the Linux 2.6 Kernel. One of the advantages of this open-source operating system is that third-party applications can access all resources owned by the smartphone, without distinguishing it from the core application of the smartphone [12]. Based on this statement, Android can be defined as an operating system for cellular phones such as smartphones. The Android operating system uses the Java programming language and is open source so that it can be developed by third parties.

2.4. UML (Unified Modeling Language)

UML (Unified Modeling Language) is a language based on graphics/images for visualizing, specifying, building, and documenting a software development system based on OO (Object-Oriented). UML itself also provides a standard for writing a blueprint system, which includes business process concepts, writing classes in specific programming languages, database schemas, and components needed in software systems [13].

UML is a "language" that has become the industry standard for visualizing, designing, and documenting software systems. The main goals of UML include providing ready-to-use models, and expressive visual language for developing and exchanging models that are easily and generally understood, providing a modeling language that is free from various programming languages and engineering processes, and incorporating best practices. in modeling [14].

From the statement above, it can be concluded that UML (Unified Modeling Language) is a language or standard used for visualizing, designing, building, and documenting software systems using OO (Object-Oriented) based software. The main purpose of UML, among others, is to provide blueprints or ready-to-use models and provide a modeling language that is free from various programming languages.

2.5. System Development Life Cycle (SDLC) waterfall

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System Development Life Cycle or known as SDLC is a general methodology used to develop information systems. SDLC consists of several phases starting from the planning, analysis, design, implementation to system maintenance phases [15]. The Waterfall is one of the SDLC models that is often used in the development of information systems or software. This model uses a systematic and sequential approach. The stages in this model start from the planning stage to the management stage (maintenance) and are carried out in stages. Developers need to know more about the system development process when using the waterfall model and also the characteristics of the waterfall [16].

Based on the statement above, it can be concluded that the waterfall is one of the SLDC (System Development Life Cycle) that is often used in the development of information systems. This model uses a systematic and sequential approach. The stages in this model start from the planning, analysis, design, implementation to the system maintenance phases.

2.6. System Development Method

SDLC Waterfall method is a sequential software development method in which all work processes have sequential stages which are illustrated continuously flowing down like a waterfall. The stages in the Waterfall are the requirements analysis stage, the system design stage, the code writing stage, the program testing stage, and the last is program operation and maintenance stage as illustrated in Figure 1

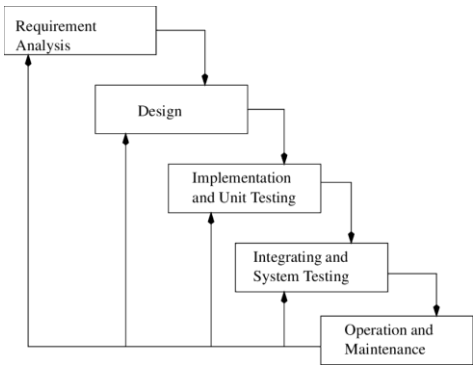

Figure 1. SLDC Waterfall Method

Which is defined in the needs analysis stage as the collection of problem information through observation and analysis. information regarding system input and output, what features are contained in the system, and who participates in the system. After all the data needs are obtained, the next step is to design the system. Included in the system design is the design of the database, user interface (interface), and system flow. Furthermore, these three points are implemented through the preparation of code with the PHP programming language and MySQL database management. The next step is to test the system from the coding script that has been made. The purpose of this test is to check whether the function of the system is running or not. And the last is the operation and maintenance process so that the system continues to work normally.

3. Result and Discussions

3.1 Audit Architecture

This page is an introduction page that will appear first before the user enters the customer interface page. It is this page view that is what distinguishes one application from another, both from the color theme, logo, or application name.

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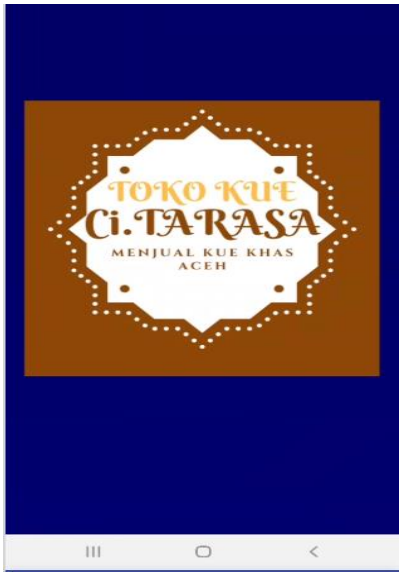

Figure 2. Launcher page

3.2 Audit Architecture

The login page is a page that will appear after the registration process has been completed by the customer. On this page, the customer will log in using a username and password in order to enter the system. But if you already have an account but forgot your password, the customer will get the password via email. On this page users can also register by clicking "Daftar Sekarang".

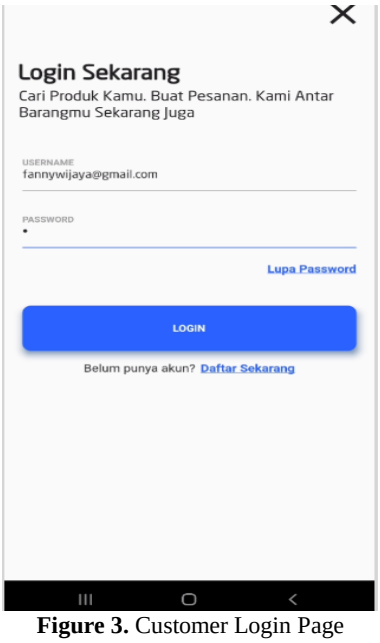

Figure 3. Customer Login Page

3.3 Customer Home Page

The home page is the page that appears after the customer has successfully logged in. On this page, customers can see the available products and also several other menu options with different functions.

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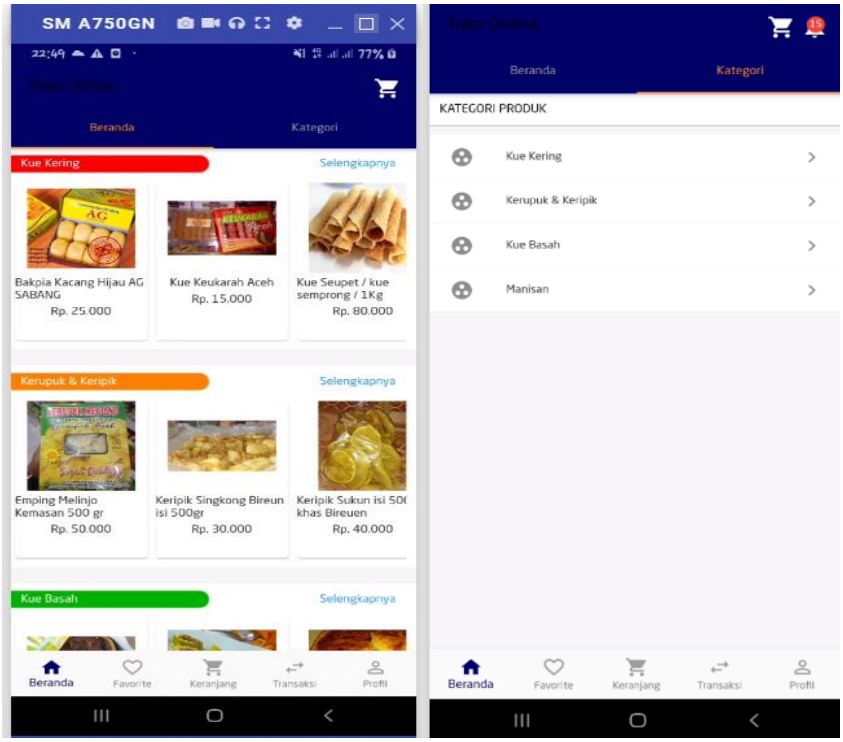

Figure 4. Customer Home Page

3.4 Product Details Page

The product detail page is a page that appears when a customer clicks on a menu. On this page, customers can see the details of the available products and can also see the branch where the product is so that they can see it in more detail.

Figure 5. Product Details Page

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3.5 Customer Cart Page

The customer cart page is a page that has stored product data entered by customers in the form of product name information, prices, and the number of products in the basket. Then the customer can continue the checkout process which will be stored in the transaction menu.

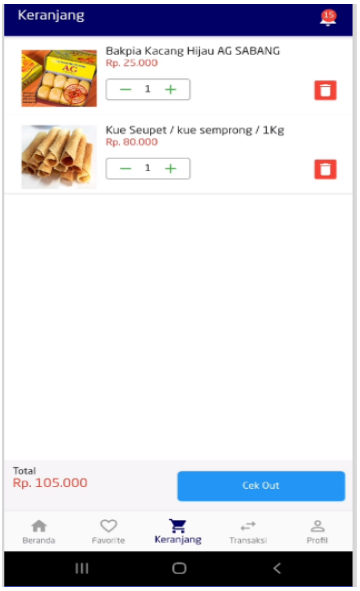

Figure 6. Customer Cart Page

3.6 Customer Transaction Page

The customer transaction page is the checkout process notification page, this page also contains some information about the transaction process that has been processed by the branch in the form of orders processed, delivered, completed, and canceled. This transaction information will be entered on the customer transaction page so that customers will easily find out how far their orders have been processed.

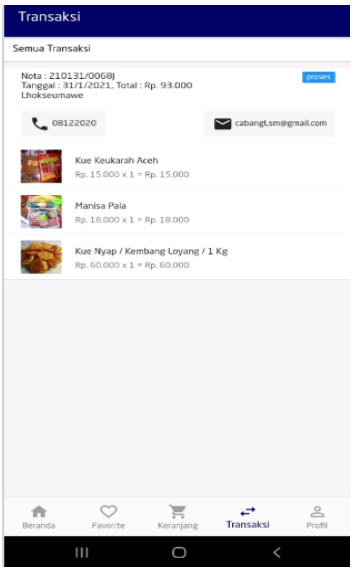

Figure 7. Customer Transaction Page

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3.7 Customer Profile Page

The customer Profile page is a page that appears when a customer selects the profile menu on the home page. On this page, the customer can change the profile and exit the account from the application.

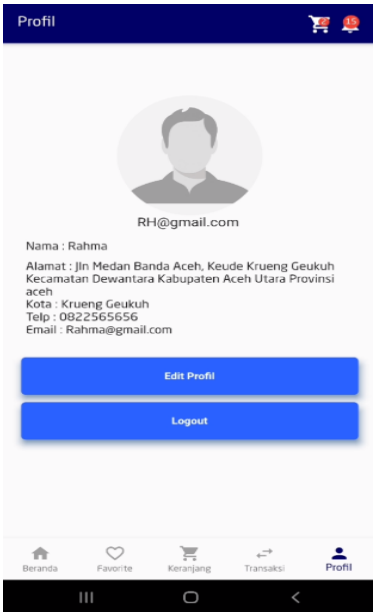

Figure 8. Customer Profile Page

4. Conclusion

Based application for selling cakes typical of Aceh, the province of Aceh, the following conclusions were obtained: The design of the Aceh Typical Cake Sales Application throughout the Aceh Province was built based on Android with an attractive appearance so that the use of this application is more effective and efficient. With this application, it can make it easier for customers who will checkout, where customers can see the available typical Aceh cake products along with price details, product descriptions, and also product stock available at several existing branches. The transaction process is easy and faster. Sellers will also find it easier to update each product stock. In addition, sellers will find it easier to manage applications because of different access between admins and branches.

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