E-Commerce Mobile Based Application
Foodienesia

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Abstract
In this day and age the development of the e-commerce market is increasing. Lots of companies are on the rise, such as gojek, tokopedia, jd.id, lazada, blibli and many others. On the basis of this it is good to learn how to create one of these e-commerce. Because if we see now the e-commerce market is very profitable even arguably more profitable than retail stores. It is possible that in the coming years this e-commerce market will completely outperformed the retail market.

From this I saw a huge opportunity from the food industry in Indonesia especially since Indonesia is well known for its food, and I got the idea to create an e-commerce platform that allows someone to buy and sell food online. The platform is "Foodienesia". This platform will allow someone to join to buy and sell food online by using this platform.

Keywords: E-Commerce, Food, Development, Platform, Buy and sell

1. Introduction
The development of technology at this time is developing so rapidly, starting from aspects of human life all use technology. Technology has become a necessity that cannot be separated from lifestyle, even in its development humans increasingly depend on technology. In the field of business, the development of information technology has had a significant impact in increasing business activities, especially in terms of data management that provides support for business decision making and in terms of improving services.

Many companies are limited in marketing and selling their products, usually only covering the area of the company itself, this is due to limited marketing. One way to increase the area of marketing is to use internet media. With the internet, everyone from all over the world can connect easily, cheaply and quickly. The internet, which is used as a technical infrastructure, is a collection of global networks connected to one another to be used as a means of disseminating information using a set of protocols. In addition, currently the internet is also a vast network of people and information so that the internet can be used as a business medium in conducting its business, namely selling services and products online, as well as allowing potential customers, prospective customers and business partners to access information relating with their products and services so that in the end make a purchase of these products and services. (H. Dadang Munandar, S.E, M.Sc (2011: 3)).

Web applications and internet browsers have been widely used as a medium of trade between companies or business entities with consumers. One of them is E-Commerce (Electronic Commerce). Electronic Commerce (E-Commerce) emphasizes the use of information and communication technology (ICT) in inter-business and inter-organizational transactions and transactions between businesses and consumers. (H. Dadang Munandar, S.E, M.Sc (2011: 2).

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2. Research Methods

The method used in making e-commerce is to use the waterfall method. The Waterfall Model was chosen because in its application process which is fairly structured from beginning to end and also adjusted to the time constraints obtained in the development of this application, with the waterfall method all analyzes of application system requirements can be defined in their entirety. Furthermore, in this waterfall model there are several stages that are used for the application development process including:

![Waterfall Model Diagram]

- **a. Collecting Data**
  
  In research, data collection techniques are an important factor for the success of research. This relates to how to collect data, who is the source, and what tools are used.

- **b. Analysis**
  
  Analysis is the initial stage carried out by researchers in developing the system. In this step we must obtain several things that are considered to support the research conducted, such as looking for existing problems, collecting data (physical data, non physical)

- **c. System Design**
  
  System design is the next stage after system analysis, this stage is intended to get a clear picture of what is done in the system analysis, then proceed with thinking about how to form the system.

- **d. Coding**
  
  The coding section is the part of programmers to enter the programming code script into a programming software to produce a system that has been designed, programming software that can be used must be adjusted to the design of the system being made. For programming software you can use PHP and others.
e. Testing

This stage is the testing phase and supporting stage which means that the system has been created from the results of the analysis of problems that have gone through the design stages, coding then enters into the system testing, so it will be able to know what the results of the performance of the new system are compared with the old system, then it can also be seen whether in this new system there are still weaknesses which will then be developed by subsequent researchers.

f. Maintenance

Maintenance of a software is needed, including development, because the software is not always just like that. When running it may be that there are still small errors that were not found before, or there are additional features that do not yet exist in the software. Development is needed when there are changes from external companies such as when there is a change in the operating system, or other devices.

![Use Case Diagram](image)

Figure 2.2 Use Case Diagram

Use case diagram of this system aims to determine the flow of the system created. For the admin tasked with managing products in the system, whether editing products, removing products, or adding products. Then for users here who can access the system, or can order products. If the user makes a product order process,
it is required to upload proof of payment for the product, then the admin will verify the order from the user who has placed an order for the product.

3. **Result and Discussion**

The developed application is in the form of mobile app and can be accessed using a mobile phone. Here are the results of the implementation of the application made.

![Login Page](image)

Figure 3.1 Login Page

The above display is the display when the application is launched. At first we can sign in, register, or just buy without registering.
Figure 3.2 Register Page

The above display is a display if in the initial display we select the register. There is some data that must be filled in when registering, but also we must enter a verification code that is useful to ensure the correctness of the data entered. If the code is not sent we can also request to resend the code or change a new email address.

Figure 3.3 Home
Above is the appearance of the home application and also the categories in the application. The categories are divided into 4 namely all, snacks, cakes, and drinks. All four use a similar design but the content is different.

![Image of the home application and categories]

**Figure 3.4 Open Shop**

In this application we can also open our own shop by pressing the three-line button at the top left of the application and selecting the store open option. Later there are some data that must be filled in as store data. If you have finished filling in the data, a shop display will appear like the third image.
In this shop menu there are 3 things we can see, namely products, reviews, and notes. To add products we can choose the green button at the bottom. Later a product will be added menu in which we are told to fill in some product data. After completing the data, our product will then appear on our store display.
When buying a product there is some data that must be pre-filled so that we can proceed to payment. The most important data that must be filled is our address. We can fill our addresses by choosing to add a new address. Address data that has been created later does not need to be written again and will be saved by the system. We also choose the shipping courier and package used. Then the total price will automatically appear plus the shipping cost.
4. **Conclusion**
From the explanation above, it can be concluded that the authors can design mobile-based e-commerce applications. The above system design has been implemented into an e-commerce where user can buy and sell food.

**References**


