

Consumen Laptop Service Notification System In Android-Based Family Computer Shops

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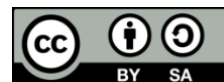
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ABSTRACT

Currently the Family Computer store already has 3 branches and for sales matters it implements an offline and online system. But at this time the store still uses an offline system in terms of service matters such as: Warranty Claims, Service, and Current Status Checks. For this reason, research was carried out which aims to create a program to provide services online so that users when there are problems can provide easier access. This research was made after passing observations and interviews from local parties. Making this program uses the Android Studio application to create an Android application where almost everyone has an Android cellphone, and uses the Firebase Cloud Messaging feature from Google to provide service access to users so that users can monitor and get the latest information from the program without having to come to the store. or notify the admin at the store.

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1. INTRODUCTION

Employees at the Family Computer store consist of shop heads, admins, consultants/marketing, and technicians. In its current operational system, the information processing of laptops that are under repair still uses a conventional system, where customers come directly to check at the store to find out whether the notebook or laptop being serviced has been completed or to check by telephone. This causes detailed information about the status of laptops that are under repair not being known directly by customers, and it takes a lot of time and effort.

The system for receiving services or repairs carried out by this company is still simple, namely by manual bookkeeping carried out by the service admin. The obstacle currently faced by implementing this system is that the admin feels overwhelmed in serving. This is because there is an increase in the number of customers and the Admin often gets questions from customers about the repair history of their computer equipment whether it has been repaired or not. This results in a reduced level of customer satisfaction due to slow service. The services provided are not optimal because on the other hand the service admin duties in the company do not only serve incoming computer devices.

In order to improve service so that customers are satisfied, based on the problems previously described, it is necessary to have a system that can provide information about the development of computer equipment that is being repaired. The information needed by the customer can be directly accessed via a smartphone. Information systems are organized ways to collect, enter, and process and store data, and organized ways to store, manage, control and report information in such a way that an organization can achieve its stated goals (Krismiaji, 2017)

In this case, it cannot be separated from the opinion of Thomas L Friedman, who said that at one time students only had to sit in front of a computer or laptop that was connected to an internet network anywhere, and they could already carry out the teaching and learning process even though they did not state in detail the consequences of Covid-19. This made it inseparable. also about the influence of the internet in everyday life around the world. This allows people to meet each other beyond the boundaries of space and culture (Agus Kusnat, 2020)

Therefore, the solution researchers offer Android is one of the technologies of a smartphone device that is widely used throughout the world. Android is currently widely used in the world, including in Indonesia with a percentage of 92.39% (Statcounter GlobalStats, 22 January 2021). According to Matsun et al, (2018), "Android is an open source operating system designed for mobile devices". One of the advantages of Android is a free license (Open Source) so that it can be developed freely without asking for royalties in any form. program developers can get new programs in the Android.

The existence of this Android-based customer service application is an effort to simplify and build reliability by the management of the Family Computer store which is important in the registration service system, ordering, checking bills and information about the notification system on service laptops that are general in nature.

LITERATURE REVIEW

The Android operating system is an open, developed and supported mobile operating system by Google. Initially, the Android operating system was built specifically for mobile devices and was based on the Linux kernel. On Android has a System Development Kit (SDK) which provides libraries and APIs that allow Android operating system developers to create applications that can be used in various functions (Oliveira, et al, 2014: 29) According to Teguh Arifianto (2018: 1), Android is a mobile device on the operating system for mobile phones based on Linux. According to Hermawan (2011: 1), Android is a mobile operating system that grows amid other operating systems that are currently developing. Other Operating Systems such as Windows Mobile, I-Phone Operating System, Symbian, and many more.

Web Applications (Web Apps)

Web applications are websites that look and feel like native applications developed in web scripting languages such as ASP, PHP, HTML5, and JavaScript. Web applications can only be run using a browser on the device by accessing a special URL then on that page there is an option to create a Bookmark page, for example Facebook via the browser. Simarmata, (2016: 30).

2. METHOD

The stages carried out in this study are Waterfall Method Research

- a) Case Analysis
This stage is carried out to investigate and analyze the scope of work that is the source of the problem.,
- b) Application Design
At this stage it is done by drawing a design to make an application.
- c) Library Studies
At this stage it is carried out by collecting the necessary data by studying and selecting books, journals, papers and several sites related to the title.Studying Literature Related to the Title
- d) Implementation / Testing
At this stage, the system is first made into a small application and tested whether it is suitable or not.
- e) Testing
At this stage it is done so that the application that has been developed meets the standards, limitations, and deficiencies that are made.
- f) Maintenance
Software that has been finished and has been used will be maintained regularly by the user. Maintenance includes fixing errors that were not found in the previous step, improving system unit implementation and improving system services as new requirements.

3. RESULTS AND DISCUSSION

Modelling

Modeling is given to provide an overview of the research design. This design refers to the interface that will be built for each consumer laptop servis notification system in android-based family computer shops

1. Use case Diagram

The use case is a model that displays the flow of the consumer laptop servis notification system in android-based family computer shops. Figure 1 is a use case design for information system research that is built.

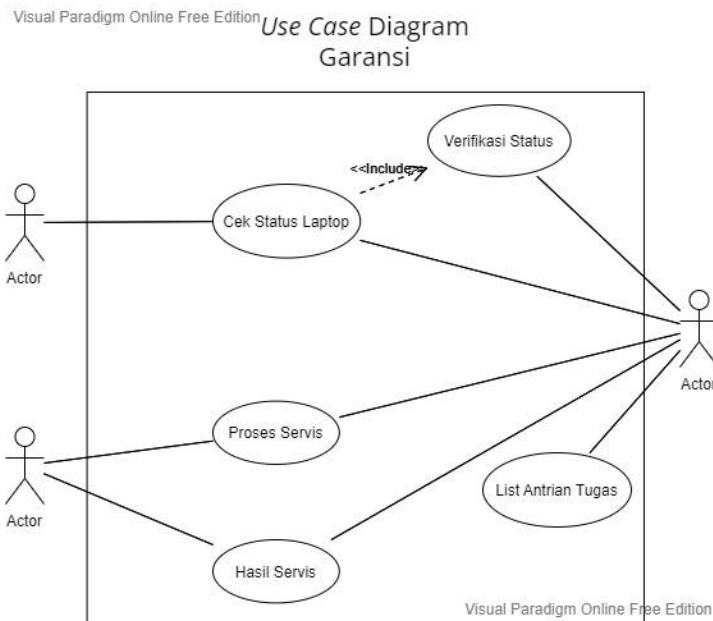


Figure 1 Use Case Research Diagram

2. Non Warranty Use Case Diagram

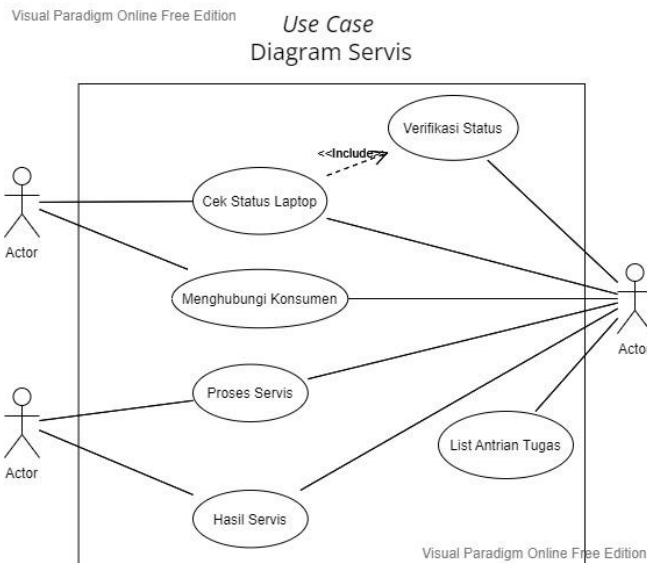


Figure 2 Admin Activity Diagram

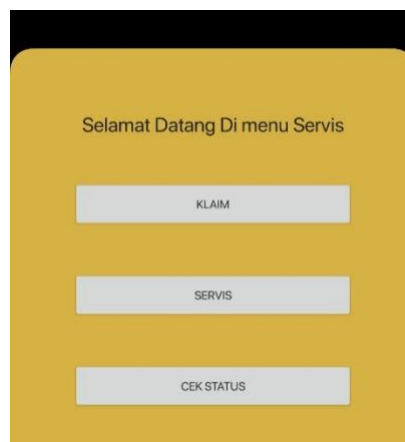
Figures 3.1 and 3.2 represent the interaction between the Actor and the system. This interaction occurs due to actions and reactions in the application. This Actor will act as a User, Admin, and Technician. This Actor will take an action, the application will respond. Actions and reactions can be seen in Table 3.1.

4.2. Interface Design

Interface design is useful for designing viewsn konsumen laptop service notification system interface at an Android-based family computer store

a. Menu Overview Design

The following is a draft overview of the application made from the Menu as follows.



Application Menu Design image

b. Draft Warranty Claims

The following is a draft description of the application made from the Warranty Claim as follows

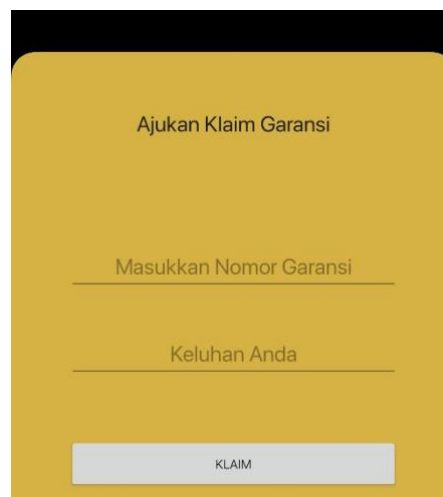
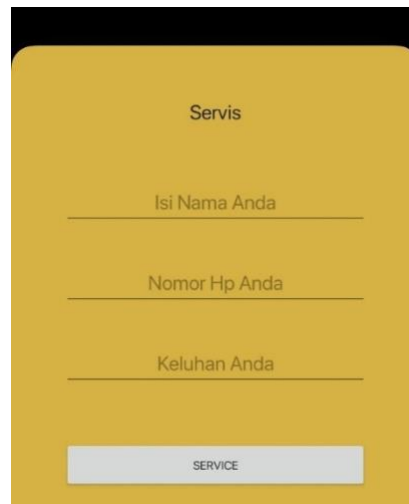


Image of Warranty Claim Menu Design

c. Service Overview Draft

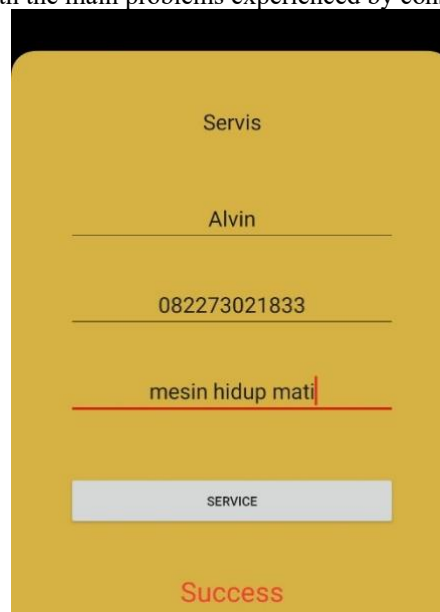


A screenshot of a mobile application form titled "Servis". The form has a yellow background and contains three input fields: "Isi Nama Anda", "Nomor Hp Anda", and "Keluhan Anda". Below the fields is a grey button labeled "SERVICE".

Service Menu Design Image

d. Servis

In the image above, we must fill out the form, namely: Fill in your name, your cellphone number, your complaint. Fill in Your Name Fill in the konsumen name, Fill in your cellphone number with a personal cellphone number so that konsumen can be contacted regarding laptop problems. Your complaint is filled in with the main problems experienced by konsumen laptops, as shown below



A screenshot of the same mobile application form titled "Servis", but now filled out. The input fields contain the following text: "Alvin", "082273021833", and "mesin hidup mati". Below the fields is a grey button labeled "SERVICE". At the bottom of the form, the word "Success" is displayed in red text.

Image Admin Menu Design

4. CONCLUSION

Based on the previous chapter, it can be concluded as follows:

1. With this notification system, it is hoped that work will become simpler and more accurate.
2. This system is built using Android Studio and Firebase applications which can be used for free.
3. This notification system will be used on Android devices where almost everyone has these devices.

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