



## Android Mobile Based Customer Policy Reminder Application

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### ABSTRACT

In the business world, the risks faced can be in the form of loss due to fire, damage, loss, or other risks. To reduce unwanted risks in the future, we need an insurance company that is willing to bear this risk, where every problem faced by its customers, whether individuals or business entities, is an insurance company that is willing and able to bear these risks. An insurance company that has many marketing agency offices. The payment system that has been running so far is carried out using a conventional process, where customers come to the company to make payments. However, there are many obstacles faced by customers when paying a policy such as not remembering the insurance policy number, due date, and the total premium that must be paid. With the design of the mobile android-based customer policy reminder application, it will make it easier for customers and the company. This android based mobile application design uses the Java Eclips program language, PHP, and is supported by the MySQL database. This android mobile-based customer policy reminder application will later provide flexibility, namely notification of payment due dates to customers when the customer uses the application, information about the share price of each unit in the company, information about hospitals in Indonesia that work with the company, and also convenience. for customers in making policy payments every month. The applications that have been implemented currently are credit card, home, motor vehicle, health, life, and education insurance

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## 1. Introduction

The development of technology is currently very rapid so that many changes are made, especially in the field of information. These technological advances are expected to be able to solve various problems in various sectors, especially in the insurance service sector. The Insurance company that has many marketing agency offices. With so many agencies scattered, companies must also improve their services, so that prospective customers can be attracted to and like the products on offer. To become a customer, you need to complete several documents. After completing the documents that have been approved by the company, a document will be issued containing an agreement between the insured party (customer) and the insurer (the insurance party) which is commonly referred to as the policy. In every transaction to pay for insurance, customers need to bring policy documents that have been provided by the company. A large number of documents makes customers feel bothered to always carry the policy wherever they travel. Problems that often occur can also be seen with the limited ability of customers to be able to remember policy due dates and forgetting to pay the policy which results in the policy being lapse (inactive). In previous research (Edy, 2014). Information System for Website-Based Life Insurance Transaction Processing at Sun Life Syariah.

The previous system still used a website with a website template that seemed rigid so that users became less interested, and Application Design (Adi Nugroho, 2014). Mobile for the introduction of Javanese characters, where the previous system could be used on the iPhone only. To overcome this problem, an application is needed that can be utilized and makes it easier for customers to access policy-related information such as viewing profiles, accessing policy information, and also being able to make payment transactions without having to always carry a very ineffective policy book. The formulation of the problem in this study is how to make it easier for customers to access information related to their insurance policy data and remind customers of payment due dates and make it easier for customers to make insurance payment transactions (Chandra Kirana, 2018).

The purpose of this research is to create an application that can display information about insurance policies owned by customers, reminds about payment due dates, and makes insurance payment transactions



and can be used in all types of smartphones (Surawijaya Surahman, 2017). Mobile applications are software applications that are made specifically to run on tablets and smartphones. Mobile can be interpreted as an easy transfer from one place to another, for example, a mobile phone means that a telephone terminal can move easily from one place to another without disconnection or breakdown of communication (Komarudin, 2016).

The mobile application system is an application that can be used even if the user moves easily from one place to another without interruption or interruption of communication. This application can be accessed via wireless devices such as pagers, such as cell phones, and PDAs (Sariyun Naja Anwar, 2015). Android is a set of software intended for mobile devices including the operating system, middleware, and key applications. Android Software Development Kit (SDK) (Sherief Salbino, 2014) provides the tools and Application Programming Interface (API) needed to develop applications on the Android platform using the Java programming language. Android was developed by Google together with the Open Handset Alliance (OHA), an open mobile device alliance consisting of 47 hardware, software, and telecommunications companies aimed at developing open standards for mobile devices (Komarudin, 2016).

## 2. Methods

In this study, the authors use the waterfall method, where the waterfall method or often referred to as the linear sequential model provides a sequential or sequential approach to the life flow of software starting with analysis, design, coding, testing and supporting stages (Lamhot Sitorus, 2015) & (Sutanta, 2011). The stages in the waterfall method are as follows:

### 2.1 Software Development Methods

Modeling in software engineering is something that is done at an early stage (Rosa, 2015). In software engineering, it is still possible without doing modeling. This can no longer be done in the software industry because with modeling it will be easier to understand the system both the software developer itself and the customer. Thus, developers will be faster in designing and constructing programs for the software based on existing models that have been mutually agreed upon. This modeling is also often referred to as a systems development methodology. (Education, Informatics, Engineering, & Country, n.d.)

#### a) Needs analysis

The process of gathering requirements is carried out intensively to specify software requirements so that users can understand what kind of software is needed. Software requirements specifications at this stage need to be documented.

#### b) System Design and Software

System design in this study, to meet the needs of users or users, as well as provide an overview and design of the system to be made. The process for filing motor vehicle claims will be much easier. Customers only need to access the web on a computer or smartphone, in this case, the claim submission process no longer needs to come directly to the conventional motor vehicle claim submission process.

#### c) Implementation and Testing

The testing stage is the stage of testing the results of the analysis that has been made using the program code and evaluating the goodness of the results obtained so that repeated testing of the sample can be done.

### 2.2 Data Collection Methods

Collecting data makes direct observations by visiting one of the insurance companies through the customer data collection process and using several media, namely journals and books to obtain additional information. The journals used by researchers as reference material are journals related to the theme or topic of the research being carried out.

### 2.3 Systems Development Method

According to (Putri, Ayu, & Wulandari, 2016) the waterfall model is “the simplest SDLC (Software Development Life Cycle) model. This model is only suitable for software development with unchanging specifications”. The waterfall SDLC model is often referred to as a linear sequential model or classic life cycle. The waterfall model provides a sequential or sequential approach to the software life flow (Shalahuddin & Sukanto, 2018). Starting from analysis, design, coding, testing, and support stages and can be seen in Figure 1 below:



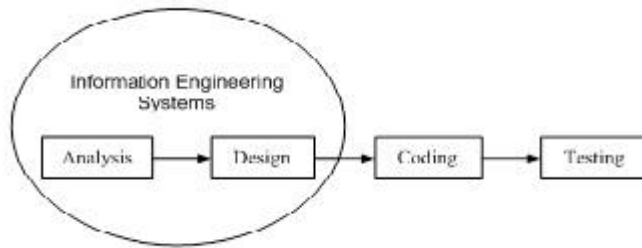


Fig 1. Stages of waterfall model

### 3. Results and Discussion

#### 3.1 Discussion

##### a) Use Case Diagram

In preparing a program, a data model in the form of a diagram is needed which can explain an information system process flow to be built. The following is the Use Case Diagram of the customer policy reminder application at PT. Sun Life which can be seen in Figure 2 below:

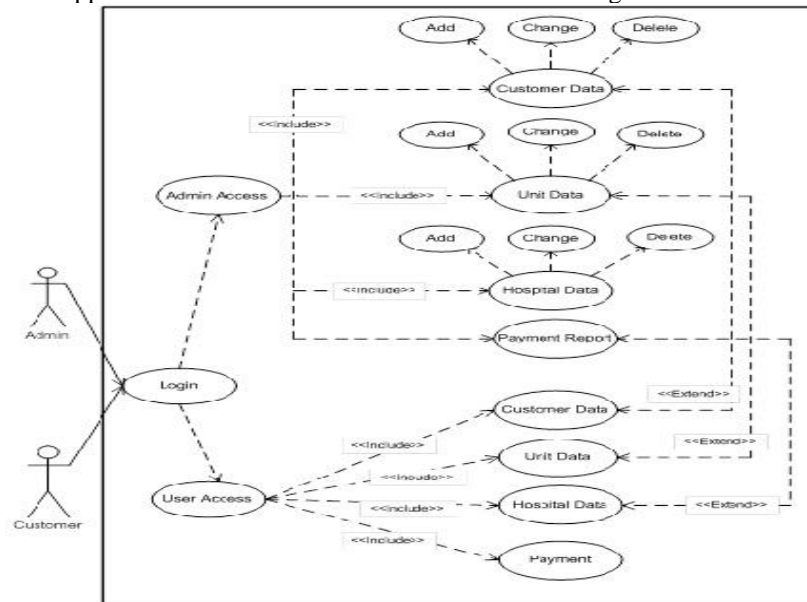
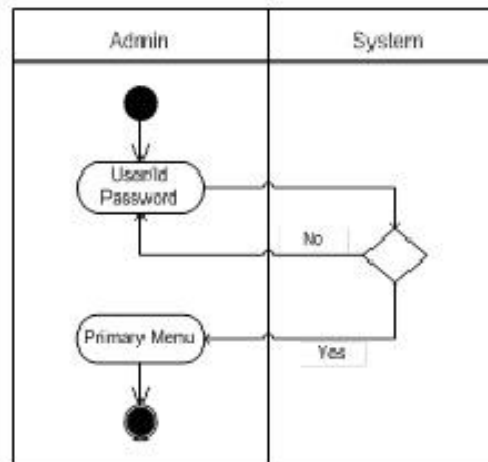


Fig 2. Use case diagram use customer

**b) Activity Diagram**

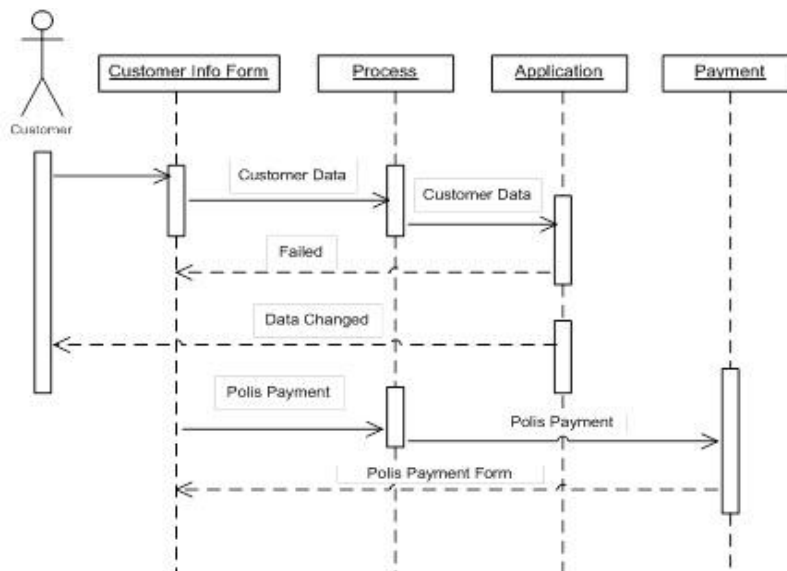
Activity Diagrams describe the workflow (workflow) or activities of a system or business process or menu in the software. The following is one of the Activity Diagrams about Admin Login which can be seen in Figure 3 below:



**Fig 3.** Activity diagram

**c) Sequence Diagram**

Is one type of UML modeling diagram that explains the interaction of objects based on the time sequence or stages that must be taken to be able to produce something. The design of the customer data info sequence diagram can be seen in Figure 4 below:



**Fig 4.** customer info sequence design

**3.2 Results**

Analysis of the results carried out using this Android-based application design using the Java Eclips program language, PHP, and supported by the MySQL database is how customers can easily access information related to their insurance policy data and remind customers of payment due dates to facilitate insurance payment transactions. App display on an Android Smartphone in Figure 5 below:



Fig 5. Display applications on a smartphone

The login menu page is given if the application user presses the enter button on the home page. Application users are required to fill in the user id and password data on the login page to go to the PT. Sun Life menu. Can be seen in Figure 6 below:



Fig 6. Login page

After the login, the main page of the customer will appear if the customer has successfully logged in to this application. The display of the customer's main page can be seen in Figure 7 below:



Fig 7. Customers main page

After completing the insurance transaction, there will be a payment report page which is only used by the admin to view data on customers who have made payments through the application. The image of the payment report page can be seen in Figure 8 below:



Fig 8. Payment report

#### 4. Conclusion

Based on the results of the analysis and testing descriptions, the application that is built can make premium payments via an Android mobile phone, and the data is sent into the Mysql database used on the server. With this application, it can help the company to facilitate and improve services to customers, especially in premium payments. And can help the company to minimize the possibility of a lapsed policy.

## 5. References

- [1] Edy Irwansyah dan Jurike V. Moniaga. 2014. *Pengantar Teknologi Informasi*. Deepublish.
- [2] Adi Nugroho. 2014. *Rekayasa Perangkat Lunak Menggunakan UML dan Java*. Andi Offset
- [3] Rosa S. A dan M. Shalahuddin. 2015. *Rekayasa Perangkat Lunak terstruktur dan Berorientasi Objek*. Informatika
- [4] Chandra Kirana, Eza Budi Perkasa, Riki Angga Saputra, 2018. Rancang bangun aplikasi Pengajuan klaim asuransi kendaraan bermotor menggunakan *Smartphone* berbasis Android
- [5] Surawijaya Surahman, Eko Budi Setiawan.2017. Aplikasi *Mobile Driver Online* Berbasis Android Untuk Perusahaan Rental Kendaraan
- [6] Sariyun Naja Anwar, Isworo Nugroho dan Endang Lestariningsih.2015, Perancangan Dan Implementasi Aplikasi *Mobile Semarang Guidance* Pada Android
- [7] Sherief Salbino. 2014. *Buku Pintar Gadget Android untuk Pemula*. Kunci Komunikasi.
- [8] Lamhot Sitorus. 2015. *Algorita dan Pemrograman*. Andi Offset.
- [9] Sutanta, Edhy. 2011. Basis Data Dalam Tinjauan Konseptual. Yogyakarta : Andi Offset.
- [10] Komarudin, Suwanto Raharjo, Muhammad Sholeh.2016. Aplikasi mobile asuransi kendaraan bermotor Menggunakan android, Jurnal jarkom vol. 4 no. 1 juni 2016 e- issn: 2338-6304
- [11] Putri, M. E., Ayu, D., & Wulandari, N. (2016). Sistem Informasi Monitoring Siswa Berbasis Web Dan SMS Gateway Pada SMK Negeri 37 Jakarta, *II*(2), 49–55.
- [12] Anton Sujarwo, Adika May Sari, Rina Lestari, Desri Yani.2020. Sistem Informasi Pengajuan Klaim Asuransi Kendaraan Berbasis Web Menggunakan UML, Jurnal Sistem Komputer dan Informatika (JSON)Hal: 294-300 Volume 1, Nomor 3, Mei 2020e-ISSN 2548-8368 DOI10.30865/json.v1i3.219
- [13] Suryanto, A. (2016). Rancang bangun sistem informasi pendaftaran artis berbasis web menggunakan model waterfall (studi kasus : team management agensi). *Khatulistiwa informatika*,iv(2), 117–126
- [14] Shalahuddin, M., & Sukanto. (2018). *Rekayasa perangkat Lunak Terstruktur dan Berorientasi Objek*. Bandung: INFORMATIKA