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Company Asset Management Information System (Case Study: Branch Office Bpjs Ketenakerjaan, Bogor)

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ABSTRACT

Technology helps every job and solves problems quickly and efficiently. BPJS Employment Bogor is one of the companies that uses technology to support every work activity. BPJS Employment is a public program that provides protection for workers to overcome certain socio-economic risks and its implementation uses a social insurance mechanism. The research method used by the author is the waterfall model research method, which is often called the linear sequential model or classic life flow. The waterfall model provides a systematic as well as sequential approach to software development, starting with the specification of user requirements and then continuing through the stages of planning, modeling, construction, and handing over the system to customers / users. The recording of borrowing and retrieval of goods, and stock of goods at BPJS Ketenagakerjaan Bogor still uses a ledger, making it possible for data errors, inaccurate data, and data loss to occur.

1. Introduction

Information mining at the Bogor branch of BPJS Employment in the asset management process still uses a manual system in the form of recording into a ledger, this has an impact that is less effective and efficient when it requires detailed data quickly. The BPJS Employment Institution is a public program that provides protection for workers to overcome certain socio-economic risks and is implemented using a social insurance mechanism. Assets themselves can be defined as goods/objects that can be owned and have economic value, commercial value or exchange value owned or used by a business entity, institution or individual.[1]

Every company has assets to support all operational activities. The function of assets is to support the company, so every asset owned must be managed effectively and efficiently so that these assets can provide the highest benefits for the company. Therefore, it is important to have a proper asset management within an organization/company. [2] In order for asset reporting and monitoring to be managed properly, using the system would be better than recording into a ledger, asset management with the help of technology is considered very appropriate because it can minimize data loss and is more efficient in its use.

Literature Review, The system is a collection of elements that interact to achieve a certain goal. [3] he system is a set of elements consisting of sub-sub and certain parts that interact with one another to achieve a goal. [4]. Based on the understanding of the system above, it can be concluded that the system is a set of components that work together to achieve a goal.

Information, Information is data that has been processed in a way to provide meaning and improve decision making.[5] Information is data that has been processed or data that has meaning.[6] Based on the above understanding, it can be concluded that information is data that has been processed or processed.
Information Systems, Information system is a collection of components within an organization that functions as processing to produce reports that are presented to certain parties. [5] Information system is data that is

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collected, grouped and processed in such a way so that it becomes a unified information that is mutually and mutually supportive so that it becomes valuable information for those who receive it.[7]
Unified Modelling Language Unified Modelling Language (UML) is a visual modeling that describes, illustrates, builds and documents the development of information systems that have an object-oriented paradigm.[8] Use Case Diagram is a diagram that is used to model the behavior of the information system created. Entity Relationship Diagram is a structural diagram used to design a database.[9] Logical record structure, The logical record structure consists of links between record types. This link shows the direction from one record type to another.[10] Activity Diagram, Activity Diagram describes the workflow or activities of a system or business process.[11]

Sequence Diagram , Sequence Diagram describes the behavior of objects in the use case by describing the life time of the object and the messages sent and received between objects.[11] Class diagram Class Diagram is a relationship between classes and a detailed explanation of each class in the design model of a system, also shows the rules and responsibilities of entities that determine the behavior of the system.[11]

2. Method

The research method used by the author is the waterfall model research method, which is often called the linear sequential model or classic life flow. The waterfall model provides a systematic as well as sequential approach to software development, starting with the specification of user requirements and then continuing through the stages of planning, modeling, construction, and handing over the system to customers / users [12]

a. Software Requirements Analysis
   The process of gathering needs is carried out intensively and specifically against device needs in order to understand what the user needs. The specification of software requirements at this stage needs to be documented.
b. Design
   Software design is a multi-step process that focuses on the design of a software program including data structures, software architecture, interface representations, and coding procedures. This stage translates the software requirements from the needs analysis stage into a design representation so that it can be implemented into a program at a later stage. The software design produced at this stage also needs to be documented.
c. Program Code Creation
   The design must be translated into a software program. The result of this stage is a computer program in accordance with the designs that have been made at the design stage.
d. Testing
   Testing focuses on the software logically and functionally and ensures that all parts are tested. This is done to minimize errors and ensure the resulting output is as desired.
e. Support or Maintenance
   It does not rule out the possibility of a software change when it is sent to the user. Changes can occur due to errors that appeared that were not detected during testing or the software had to adapt to a new environment. The support or maintenance stage can repeat the development process from the specification analysis stage to new software changes.

3. Result and Discussion

3.1 Use Case Diagram

Use case diagrams are modeling for the behavior of an information system to be created

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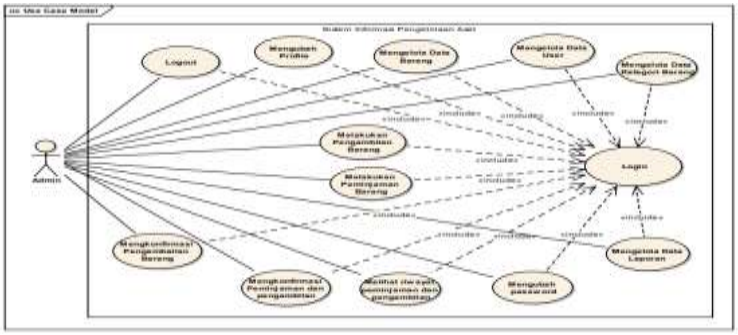


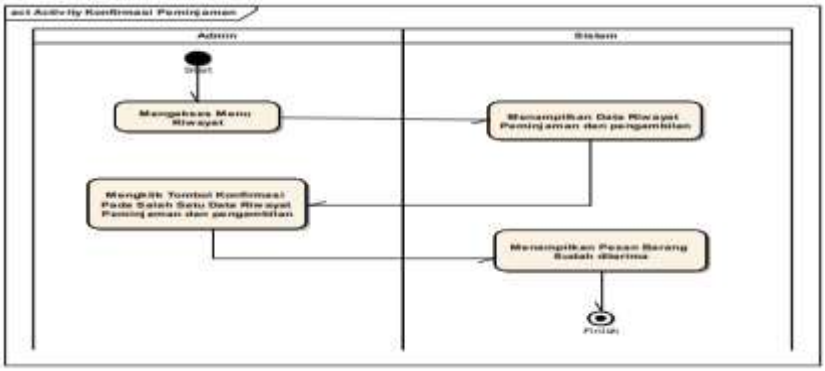
Picture 1. Use Case Diagram User Admin Page

In the picture above illustrates the Use Case Diagram of the Admin Page

3.2 Diagram Activity

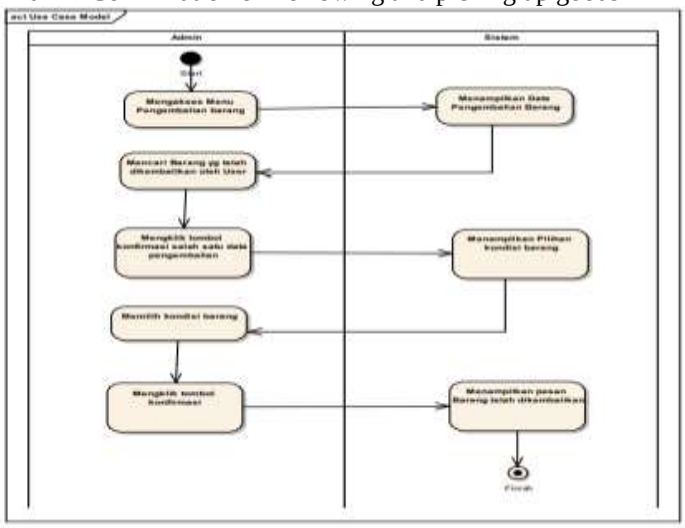
Activity diagrams describe the workflow or activities of a system or business process or menu in the software

a. Activity Diagram Admin Confirmation of Borrowing and picking up goods



Picture 2. Activity Diagram Admin Confirmation of Borrowing and picking up goods

b. Activity Diagram Admin Confirmation of Borrowing and picking up goods



Picture 3. Activity Diagram Admin Confirmation of Borrowing and picking up goods

In the picture above, the Activity Diagram of the Admin Confirmation of Loans and taking goods

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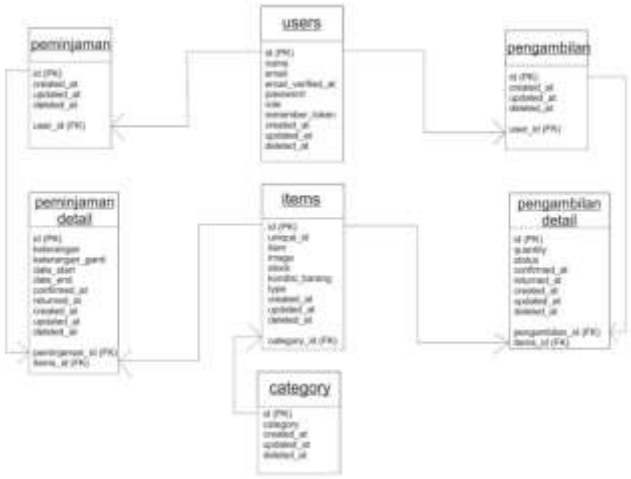
3.3 Entity Relationship Diagram

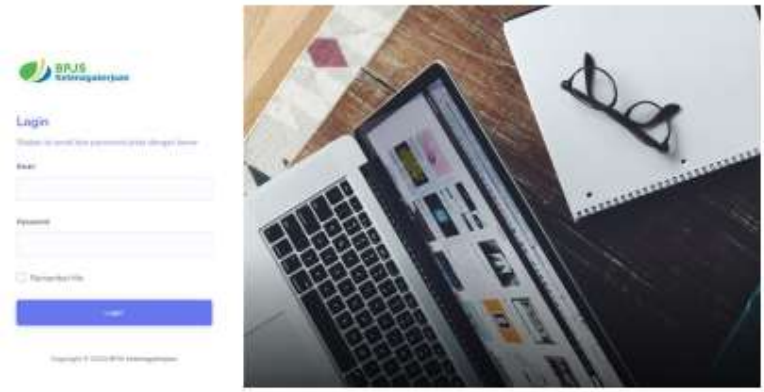
Picture 4. Entity Relationship Diagram

3.4 Logical Record Structure (LRS)



Picture 5. Logical Record Structure (LRS)

3.5 Display



Picture 6. Interface Form Login

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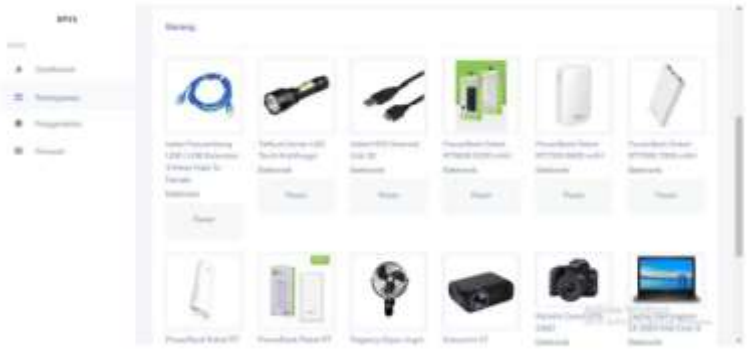
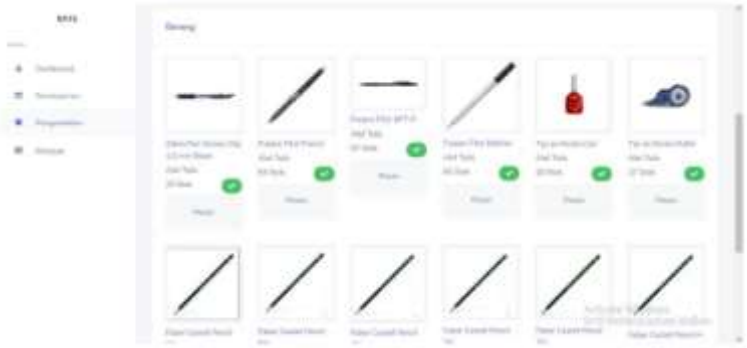


Picture 7. Interface Peminjaman Barang



Picture 8. Interface Pengambilan Barang

4. Conclusion

BPJS Employment Bogor is one of the companies that uses technology to support every work activity. The BPJS Employment Institution is a public program that provides protection for workers to overcome certain socio-economic risks and is implemented using a social insurance mechanism. The recording of borrowing and retrieval of goods, and stock of goods still uses a ledger, making it possible for data errors, inaccurate data, and data loss to occur. With this application, it makes it easier for admins to manage goods and check stock, and make it easier for employees who want to borrow or pick up goods.

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