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Development of Asset Depreciation Codedification and Calculation System in Management Information System (SIM) Piksi Ganesha Polytechnic Bandung to Improve Asset Recording Accuracy

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ABSTRACT

The design of the Driver's License Piksi Ganesha Polytechnic aims to collect assets in a structured manner and assets can be well identified, with the hope that they can be utilized effectively and efficiently so that they can help make asset policy decisions for policyholders. A driver's license is needed to overcome the lack of information about the condition of assets and the mobility of asset use in asset management. The research methodology used combines quantitative and qualitative approaches, as well as data collection techniques used, including observation, document analysis, and interviews. The US driver's license will include asset recording, asset codification, depreciation, asset condition monitoring, asset write-off, asset transfer or loan, and access rights to users within the scope of the Piksi Ganesha Polytechnic business unit. The SIM-AS provides useful guidance for organizations looking to implement an asset management system and highlights the importance of accurate and up-to-date asset data for effective decision-making.

Keywords: Asset Information System, Asset Codification, Asset Management, Classification, Management Information System, Depreciation

INTRODUCTION

According to (Sugiama, 2013) Asset Management Information System is a set or series of information subsystems that are systematically and rationally created to convert data into information about assets so that they can be useful and play a role in the decision-making process of asset management in an organization." The Asset Management Information System will then be abbreviated as SIM-AS, is a series of systems to assist the asset management process, which is integrated in the information technology network system supported by programming applications. SIM-AS is motivated by changes in the asset management system that were previously carried out manually towards the use of technology and digital data with automatic operating systems and computerized systems (Sulhani & Darisman, 2015). A driver's license that guarantees the availability of quality information related to the type, amount, and location of assets. In asset management what often occurs is the lack of regular and accurate asset data collection, causing managers not to know the status of their assets, whether these assets are still productive or unproductive. In addition, a lack of information about the condition of assets, whether they need repair deletion, or renewal, can cause companies to lose the opportunity to optimize the use of their assets. Then the status and mobility of asset use are also an important focus in data collection to avoid asset loss due to negligence in asset use. An integrated driver's license can accelerate information services, needs, and actions on assets by user needs as an effort to improve information

services (Pradipta, 2015). With the integrated driver's license, it is hoped that the information produced can represent all information based on the life cycle of assets in the Piksi Ganesha Polytechnic. Each type of asset is considered to have data identity either descriptively or in legal documents that show the identity and ownership or rights and obligations to the asset (Sugiama, 2013). The data needed for the implementation of the US SIM is all asset data obtained through the process of asset procurement, data collection, management, maintenance to asset disposal. The management process and assets must be well documented to obtain true, complete, accurate, and "real-time" information if the asset data is needed and trace its existence, condition, and evaluation of future assets, thus assisting in the decision-making process (Wardhani, 2015).

Why is a US driver's license necessary?

In line with the slogan of Piksi Ganesha Polytechnic moving for better change, the design of the US SIM is important so that existing assets need to be managed properly and also integrated in the information technology network system supported by programming applications (Kabetta & Dwiandiyanta, 2012). In asset management what often occurs is the lack of regular and accurate asset data collection, causing managers not to know the status of their assets, whether these assets are still productive or unproductive. In addition, a lack of information about the condition of assets, whether they need repair deletion, or renewal, can cause companies to lose the opportunity to optimize the use of their assets. Then the status and mobility of asset use are also an important focus in data collection to avoid asset loss due to negligence in asset use (Prasetyo, 2003).

SIM Planning Purpose –US

The design of the SIM-AS aims to collect assets neatly, structurally, and identifiably, so that every asset owned by the Piksi Ganesha Polytechnic can be utilized by the academic community and policyholders, to achieve effective and efficient asset management. In addition, the availability of a US-SIM will make it easier to get true, complete, accurate, and "real-time" information, with an application that is easy to operate (Nomor, 64 C.E.).

METHODS

The method used in this study is the Combination Research Method, According to Creswell (2009), the combination research method is an approach in research that combines or connects quantitative and qualitative research methods. It includes philosophical foundations, the use of quantitative and qualitative approaches, and combining both approaches in research.

This SIM-AS research was conducted within the Piksi Ganesha Polytechnic Bandung, using descriptive and sampling types of research, to get an overview of the types of assets owned, asset management (asset lending, asset write-off, asset procurement, and asset renewal) and the obstacles faced with the current system. In addition, qualitative and exploratory research is also carried out to obtain fact-based information related to asset management and the development of the latest technology to obtain new ways, both to design a driver's license and to identify assets. The data collection techniques are observational methods, document analysis, interviews, and literature studies.

RESULTS

Analysis of the running system

System analysis is a stage of process understanding that aims to find out what processes are involved in the system, how the work of each process is involved in the system and the relationship of a process to other processes. From understanding the process, an evaluation and proposal of the existing system can be carried out, to be further developed (Christian et al., 2018).

System analysis running here means how an analysis carried out can understand or study the system that has been applied today to find out what obstacles are experienced and found. So these questions can provide solutions to the system to be proposed. Based on the results of field research conducted by observing and interviewing one of the speakers. It can be known that the delivery of information carried out today is still using Via Social Media, one of which is in the form of WhatsApp Group. Because information management is done manually, the delivery of information has not run optimally (Fitri et al., 2022).

Asset Codification Design

The design of asset codification is made to define an asset object briefly, and assets can be classified in a structured manner. The coding design will combine the use of codification standardized by State-Owned Entities referring to Minister of Finance Regulation no.29/PMK.06/2010 by adjusting existing asset codes to facilitate asset recognition and also avoid the same asset codes (Officials, 1996).

Figure 1
Asset planning

Figure 2
Asset codification rules based on BMN-Minister of Finance Regulation no.29/PMK.06/2010

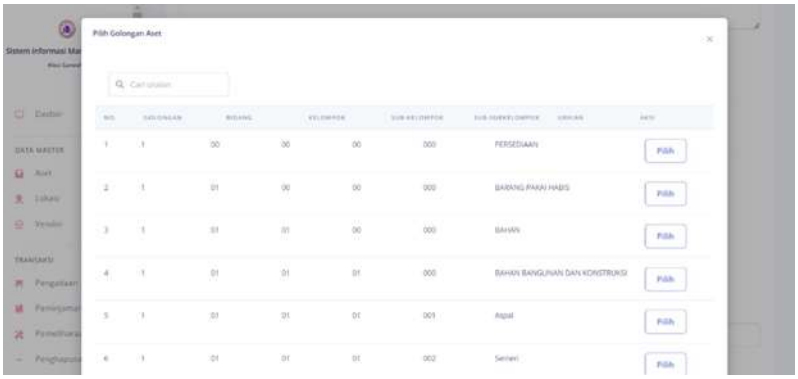


Figure 3
Asset Class Options

Figure 4
Total Asset Class Data Based on BMN-Minister of Finance Regulation no.29/PMK.06/2010

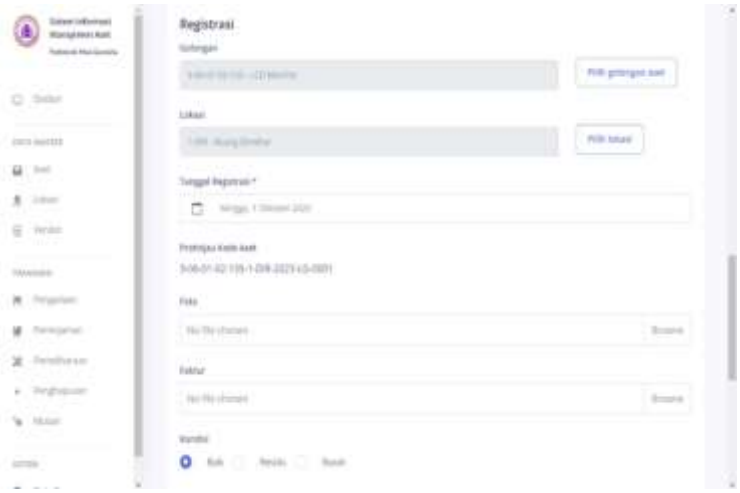


Figure 5
Asset Data Input Design Planning

Figure 6
Asset Data Report View

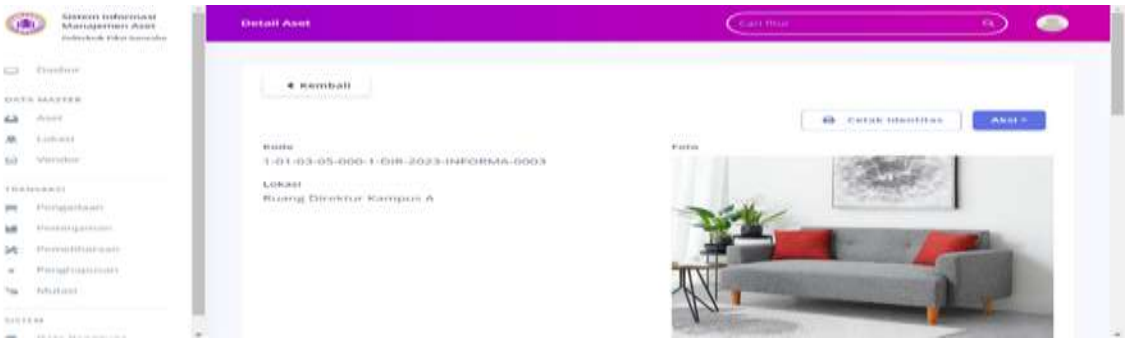


Figure 7
Asset Identity View

Depreciation of Depreciation of Assets

Depreciation is the process of reducing the value of an asset in accounting to reflect a decrease in the value or reduction in the beneficial value of that asset over time.

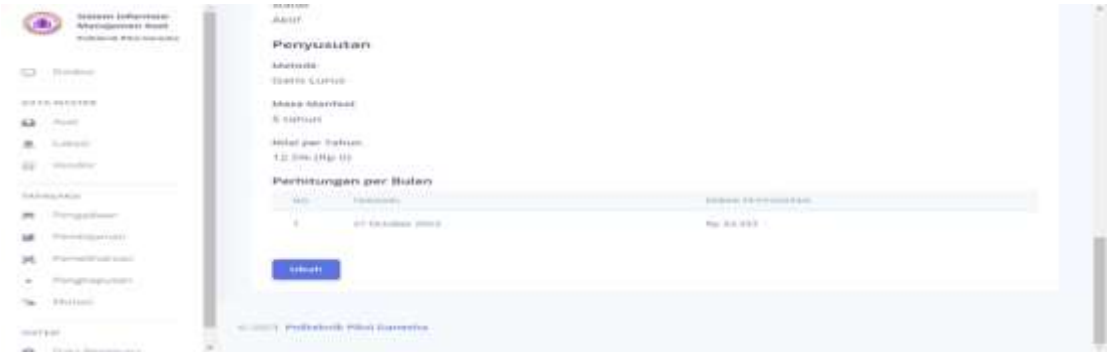


Figure 8
Depreciation depreciation on assets

Figure 9
Depreciation depreciation on assets

One of the commonly used methods for calculating depreciation is the straight-line method. The straight-line method is one of the 4 simplest and most widely used ways to calculate the depreciation value of fixed assets. Any fixed asset will give it a loss of its ability to provide services over time. Thus, the cost of acquiring assets must be transferred to the expense account. Various factors that cause a decrease in the ability of fixed assets to provide services can be analyzed as depreciation or depreciation functionally (Shonhadji, 2012). When an asset is used only for some time during one year, then that annual depreciation is calculated proportionally. To make it easier to apply the straight-line method, the annual depreciation can be converted into a percentage of depreciable costs. This percentage can be determined by dividing 100% by the number of years of function life of the asset.

Picture 10
Depreciation per month

Asset Transaction Planning

Asset Transaction Design includes:

a. Asset Procurement: in this process

Prosedur pengadaan aset dapat terjadi karena kebutuhan kampus diantaranya aset yang diperlukan belum ada atau kondisi aset yang sudah tidak layak. Dengan pengadaan aset ini diharapkan pada saat pengajuan aset seluruh user dapat mengetahui status aset yang akan tersedia, disetujui atau tidak. User dapat mengajukan melalui form pengadaan aset, yang akan saling terhubung dengan SIM- KEU status akan disetujui atau tidak pengadaan tersebut.

b. Asset Borrowing

The information system that will take place in the asset lending process is borrowing then approving and monitoring borrowed assets, printing loan receipts / returning assets.

c. Asset Maintenance

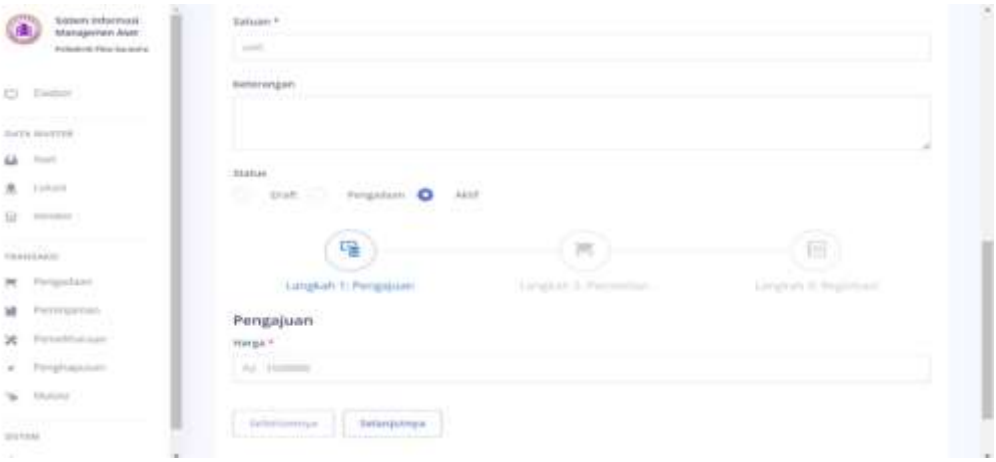
In this maintenance, technician users can propose changes in the status of new assets.

d. Asset Write-Off

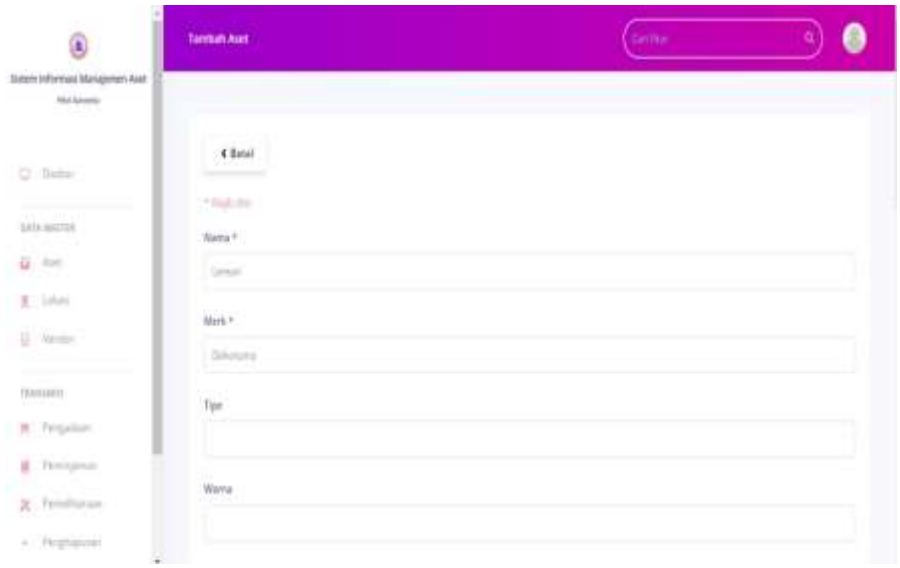
Assets can be deleted in asset data if they are discontinued due to evolving campus needs. This status change can be submitted, taking into account the date of asset write-off.

e. Mutasi Aset

Asset mutation aims to document the movement of assets from the original location to the new location. Users can do asset mutation forms by paying attention to the date, and location.



Picture 11
Input Asset Purchase Data

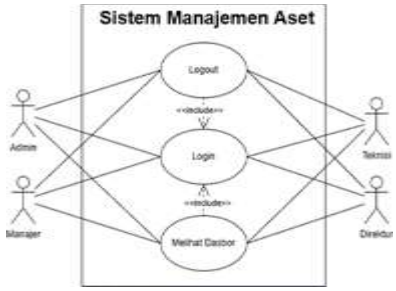


Picture 12
Input Data Aset

System Design

a. Use Case Diagram Beranda

Describe administrators, managers, engineers, and directors when logging in, logging into the homepage, and logging out.



Picture 13
Use Case Diagram

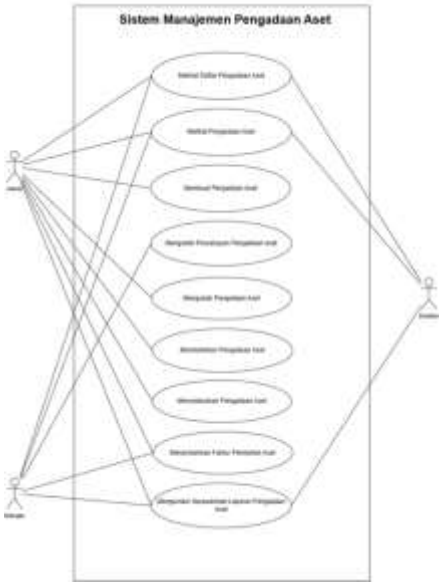
b. Use Case Diagram Manajemen Master Aset

Describe administrators and managers when managing asset master data, and describe engineers and directors when viewing asset master data including reports.

Picture 14
Use Case Diagram, Manajemen Master

c. Use Case Asset Procurement Management Diagram

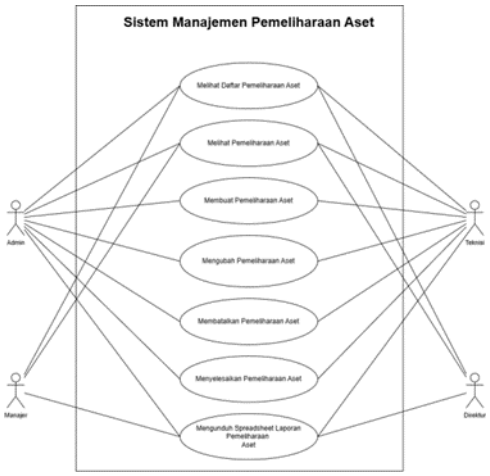
Describe administrators and managers when managing asset procurement, and describe directors when viewing asset procurement including reports.



Picture 15
Use Case Diagram Manajemen

d. Use Case Asset Maintenance Management Diagram

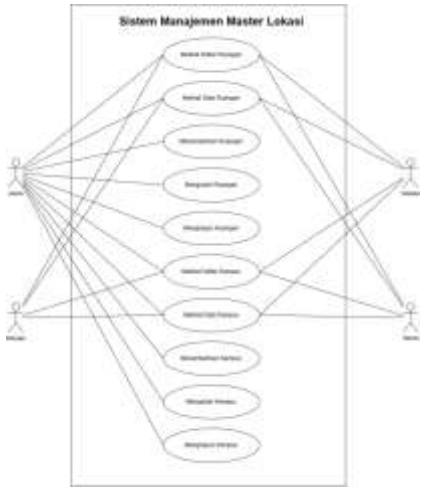
Describe administrators and technicians when managing asset procurement, and describe managers and directors when viewing asset maintenance including reports.



Picture 16
Use Case Diagram Manajemen

e. Use Case Site Master Management Diagram

Describe administrators when managing site master data, and describe engineers, managers, and directors when viewing site master data.



Picture 17
Use Case Site Master Management Diagram

CONCLUSION

Piksi Ganesha Polytechnic needed to solve the problem of asset management that was previously done manually, which prompted this research. To improve the efficiency of asset management at Piksi Ganesha Polytechnic, the Asset Management Information System (SIM-AS)

is designed to ensure neat and structured asset data collection The SIM-AS is also intended to aid better decision-making by providing easy access to accurate and real-time asset information Asset recording Asset condition monitoring, asset coding, and depreciation calculation are part of the research topic This research uses an approach quantitative and qualitative, with data collected through interviews, observation, document analysis, and literature studies. Research performance indicators include accuracy, security efficiency, scalability, integrity, and user satisfaction with the US-SIM. In addition, the design of the US driver's license involves codifying assets to facilitate asset identification and organization as well as comply with government regulations and BAKUN standards. The calculation of asset depreciation is carried out using the straight-line method. which reduces the value of assets over time by common accounting practices. The procurement, borrowing, and maintenance of assets are also included in the design of asset transactions which are all important components and execution of the US driver's license

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