

DESIGN OF A BUDGET PROCESSING INFORMATION SYSTEM AT SAT RESKRIM OF POLRES LABUHANBATU WEB BASED.

**Dian Martasya Berkat Silaen¹, Gomal Juni Yanris², Mila Nirmala Sari Hasibuan³,
Elysa Rohayani Hasibuan⁴**

Students of Labuhanbatu University, Informatics Management study program ¹, Lecturer of Informatics Management, Labuhanbatu University ², Lecturer of Informatics Management, Labuhanbatu University ³ Lecturer of Informatics Management, Labuhanbatu University ⁴

Road. SM. Raja No. 126 A KM 3.5 Aek Tapa

Email : diansilaen19diansilaen19@gmail.com¹, gomaljunianris@gmail.com², milanirmalasari7@gmail.com³, elysa.hasby@gmail.com⁴

Abstract.

Capital expenditures carried out by regional governments produce infrastructure in an area both for providing basic services to the community and to encourage regional governments to provide potential sources of local revenue. The Financial Report of the National Police of the Republic of Indonesia consists of a budget realization report, balance sheet, operational report, report on changes in equity and notes on the financial report as attached, which is the responsibility of the National Police which has been prepared based on an adequate internal control system. The aim of this research is to be able to design an information system for processing budget data to unit of Sat Reskrim the Polres Labuhanbatu is web-based so that it can help operational work, especially in processing financial data, to be more effective and efficient.

Keywords: Information Systems, Budget Processing at Sat Reskrim of Polres Labuhanbatu

1. INTRODUCTION

Capital expenditures carried out by regional governments produce infrastructure in an area both for providing basic services to the community and to encourage regional governments to provide potential sources of local revenue. Based on the findings in this research, local governments in Indonesia provide more infrastructure than their capital expenditure for basic community services. In general, regional governments still depend on regional revenues from transfers to regions compared to their own regional revenues. Even though fiscal decentralization has been running for more than 20 years, it has not resulted in regional governments in Indonesia being more independent in administering their government. Amrie Firmansyah (2024).

The role of the expenditure treasurer in financial management is that management of state finances is part of the government's instruments to achieve the desired state goals, namely realizing a just and prosperous society. (Sukendro Simbolon, 2022).

The police's authority to enforce the law in Indonesia comes from Law Number 2 of 2002 concerning the National Police of the Republic of Indonesia. Based on this law, the main task of the police is to maintain security and public order, enforce the law, and provide protection, guidance and service to the community, enforce the law, and provide protection, guidance and service to the community. (Tugimin Supriyadi, 2024).

I. RESEARCH METHODOLOGY

The research methodology used to obtain the required data is as follows :

1.1. Data Type

Using a system that is still manual causes the data to be less efficient and if the staff/administrative and administrative affairs section (Urmintu) is missing, they will ask for absorption data and data that has been realized from the routine budget back to the units in the Criminal Investigation Unit, which will slow down and hinder the performance of personnel in carrying out criminal investigation activities. management is still manual in nature, an information system is needed, which has the aim of making management run more effectively and the process can run well. Of course, methods are also needed.

1.2. Method of collecting data

The method used in collecting data is :

- a. Observation
Collecting data through observation and conducting research directly on the object/system to be built.
- b. Interview
Data collection was carried out directly through direct questions and answers with the relevant sources and then recorded systematically and completely according to the research objectives.
- c. Literature review
This method supports the data collection process by using literature that is related to the subject matter in the research report

1.3. System Development Methods

The system development method used in making this system is a prototype

II. INFORMATION SYSTEM ANALYSIS

In this section, system planning will be carried out for existing problems using the existing theoretical basis.

a. Hardware Requirements (Hardware)

Hardware specifications (The hardware used in this design is 01 (one) Acer AMD E1-1200 APU Raedon(tm) HD Graphics 2.4 GHz laptop unit. with the following specifications :

- a. RAM 2.00 GB 3) DVD RW
- b. Mouse Optick
- c. Hardisk 500 GB.
- d. Flashdisk 64 GB.
- e. Printer Epson L210

b. Software Requirements (Software)

The following are the specifications for designing an information system for Management of Budget Implementation Lists, namely :

- a. Windows 7 Ultimate 32-bit Operating System
- b. PHP and MySQL
- c. XAMPP v4.2.2 and Browser Mozilla Firefox
- d. Notepad++

In building the system this time the author used the XAMPP web server, which is free software which is a compilation of several applications.

III. SYSTEM DESIGN

Information systems consist of two words, namely system and information. A system is a combination of several sub-systems that work together to achieve a common goal.

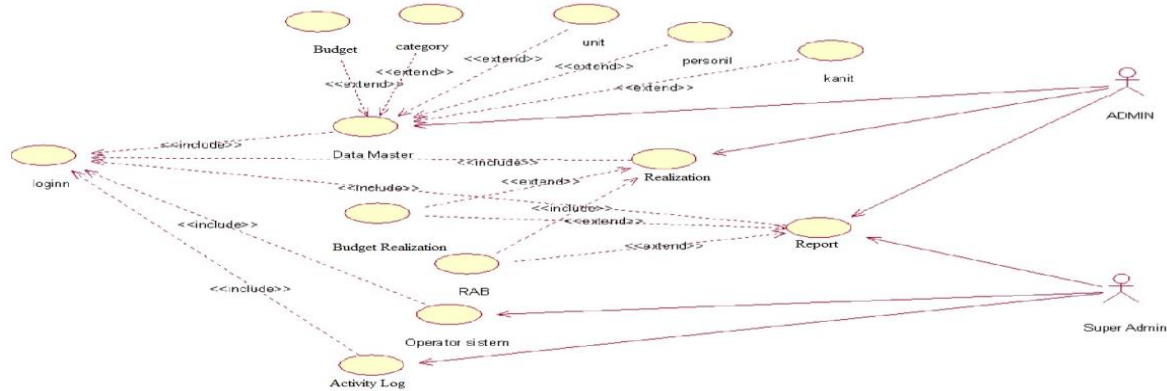
1. Unified Modeling Language (UML)

The definition of Unified Modeling Language (UML) is quoted by (Windu and Grace, 2013) "Unified Modeling Language (UML) is a standard specification language for documenting, specifying

and building software." UML is a methodology for developing object-oriented systems and is also a tool to support system development”.

a. Use case diagram

A use case diagram is a description of the relationship or interaction of one or more actors with the system, and can also provide an overview of what functions exist in the system. The following is the use case design from this research, below :



Picture 1. Use Case Diagram

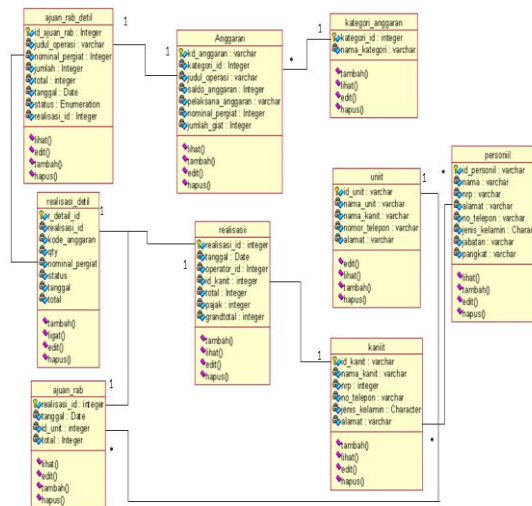
Tabel 1.1. Symbols in Use Case Diagrams

SYMBOL	NAME	INFORMATION
	Symbol Actor	This actor symbol has a human-like shape whose function is as a person or part whose role is to run the system and interact with use cases
	Symbol Use Case	The Use Case symbol has an oval shape whose function is to describe/explain the process/action that will be displayed in the system that will be carried out by the actor/produced by the actor.
	Symbol Association	The Association symbol is in the form of a line and has an arrow whose function is to connect one object to another object, namely between the Use case and Actor symbols.
	Symbol <<Extend>>	The Extend symbol is a relationship from one use case to another use case, where the added use case can stand alone even without additional use cases.
	Symbol <<include>>	The Extend symbol is a relationship from one use case to another use case, where the added use case requires another use case to carry out its function.

b. Class Diagram

A class diagram is a display in the form of several classes and packages in a system or software and each class is interrelated. Classes also describe the state (attributes/properties) of

a system. The Class diagram description of the budget processing information system is below:



Picture 2. Class diagram

Tabel 1. 1. Simbol-simbol pada Class Diagram

SYMBOL	NAME	INFORMATION
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Class Name</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">+ Attribute</div> <div style="border: 1px solid black; padding: 5px;">+Operasi()</div>	Class	Classes are building blocks in object-oriented programming. Classes are described as a box divided into 3 parts. The top part is the name part of the class. The middle part defines the class properties/attributes. The final part defines the methods of a class.
<div style="border: 1px solid black; padding: 5px; width: 50px; height: 50px; margin: 0 auto;"> </div>	Association	An association is the most general relationship between 2 classes and is symbolized by a line connecting the 2 classes. This line can symbolize relationship types and can also display the laws of multiplicity in a relationship. (Example: One-to-one, one-to-many, many-to-many).
<div style="border: 1px solid black; padding: 5px; width: 50px; height: 50px; margin: 0 auto;"> </div>	Composition	If a class cannot stand alone and must be part of another class, then that class has a Composition relationship to the class on which it depends. A relationship composition is depicted as a line with ends in the form of a filled/solid parallelogram
<div style="border: 1px solid black; padding: 5px; width: 50px; height: 50px; margin: 0 auto;"> </div>	Dependency	Sometimes a class uses another class. This is called dependency. Generally, dependency is used to indicate operations on one class that use another class. A dependency is represented as a dotted arrow.

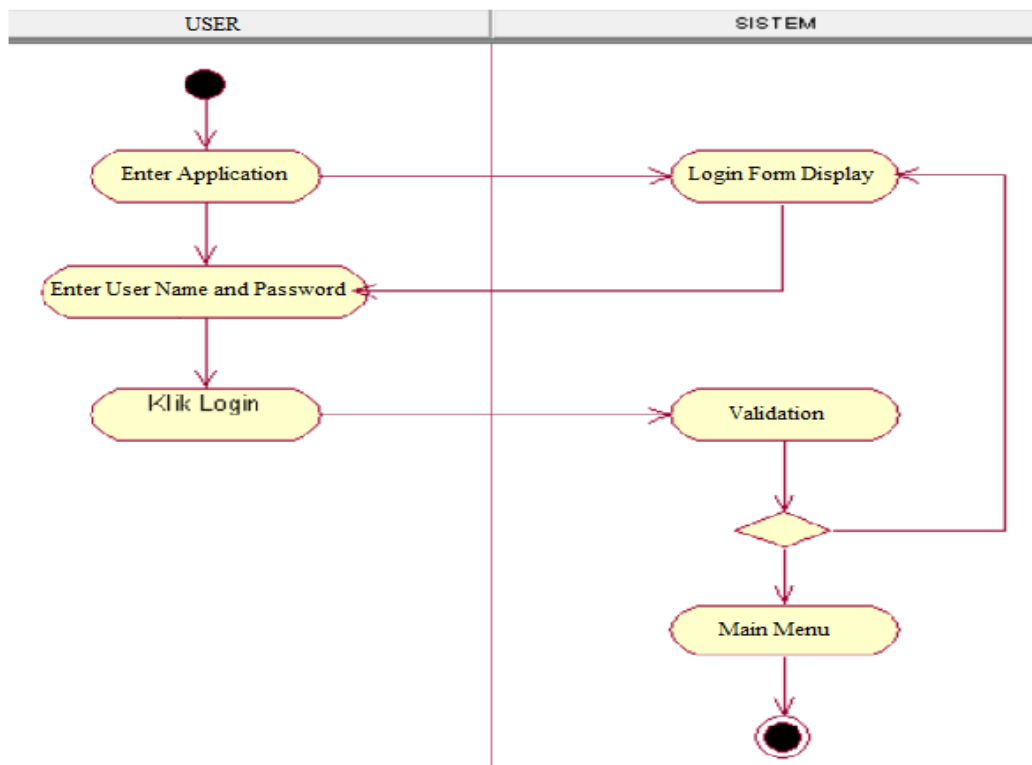
	Aggregation	Aggregation is a symbol that covers all parts of a relationship and is usually referred to as a relationship.
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c. Activity Diagram

The activity diagram that will be implemented in the budget processing information system is as follows :

1. Activity Diagram of the Login

The activity diagram of the login data form can be seen in the image below :

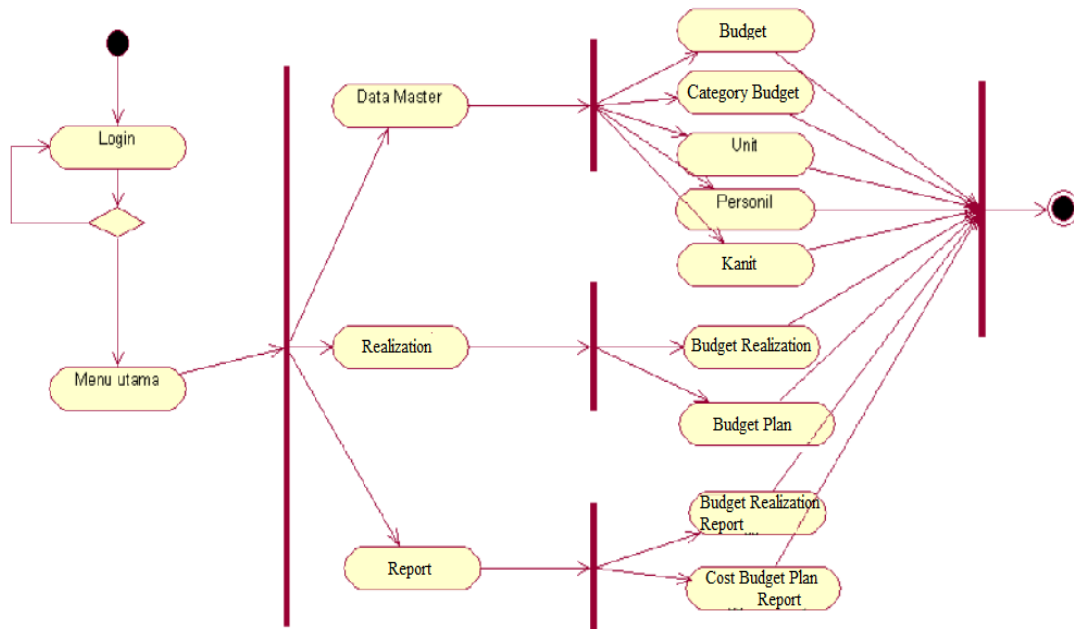


Picture 3 Activity Diagram login

2. Activity Diagram Main Menu

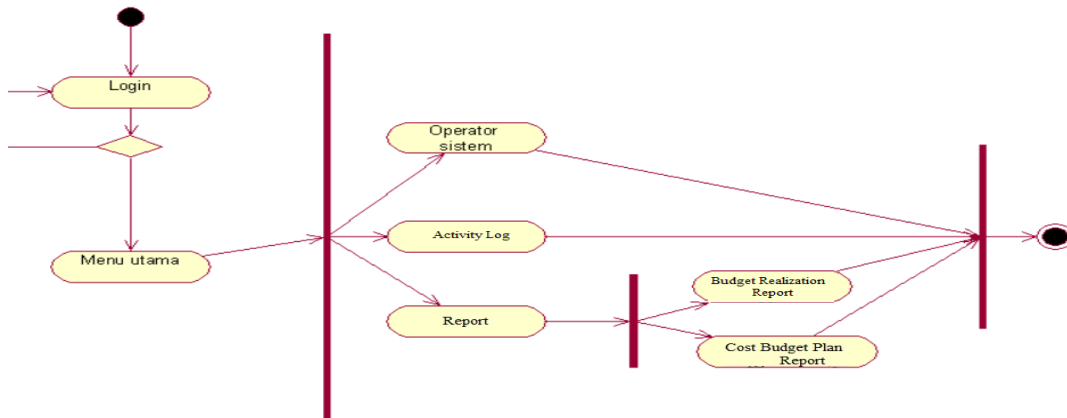
In the system that will be built, of course in accessing the information system there is user management and access rights, which include :

- a. Activity diagram form The main admin menu can be seen in the image below :



Picture 4. Activity diagram menu utama admin

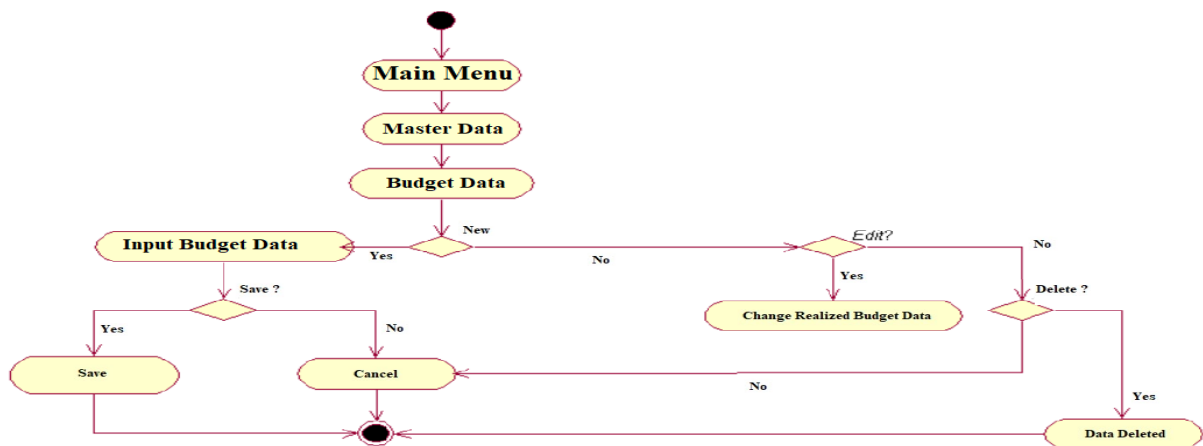
b. Activity diagram form Main menu in Superadmin, can be seen in the image below :



Picture 6. Superadmin main menu activity diagram

3. Activity Diagram data Anggaran

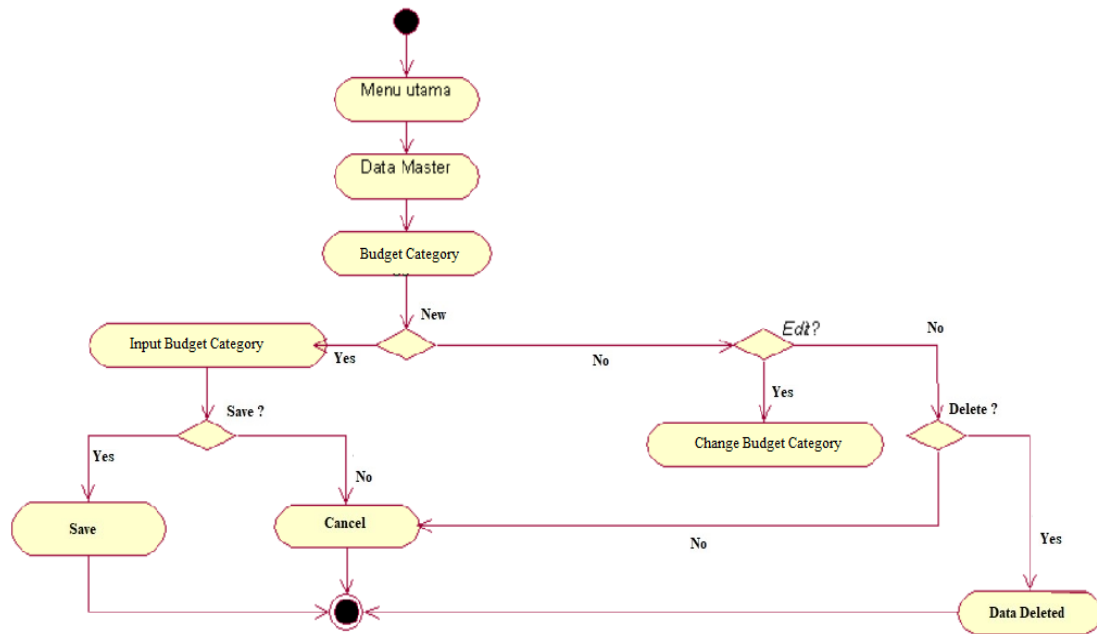
The activity diagram of the budget data form can be seen in the image below :



Picture 7. Activity diagram menu budget data

4. Activity Diagram of budget category data

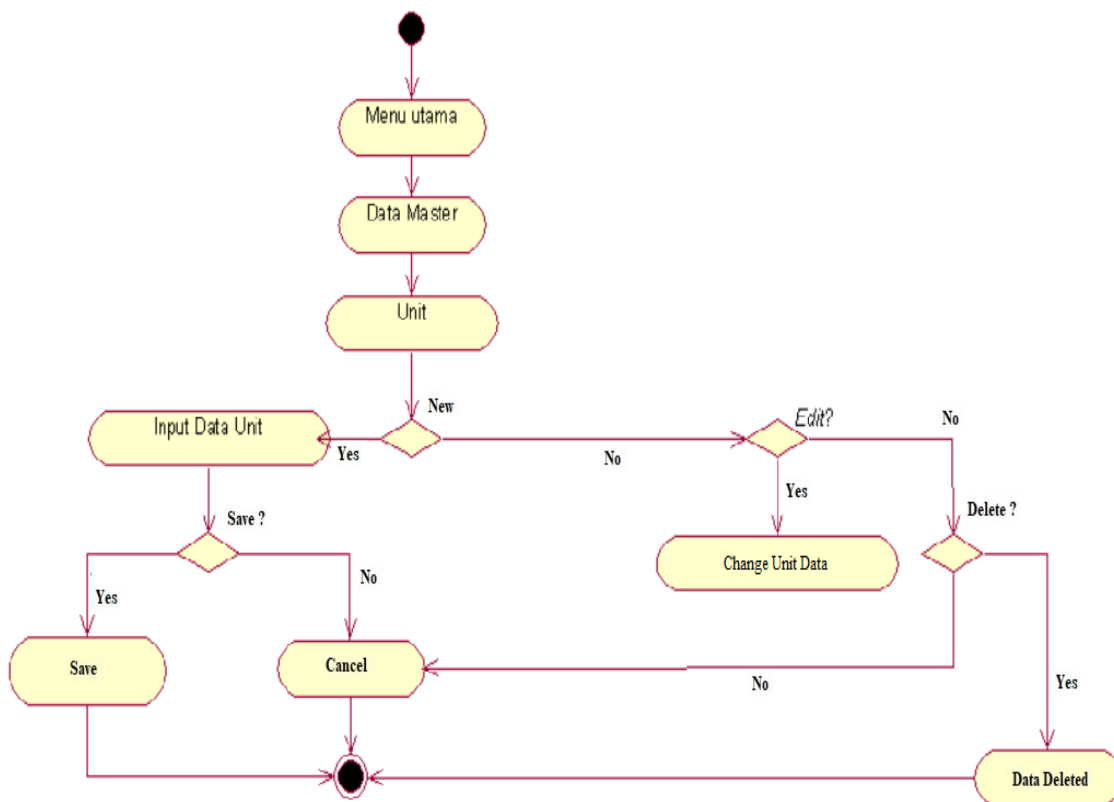
The activity diagram for budget category data can be seen in the image below :



Picture 8. Activity Diagram of budget data

5. Activity Diagram data unit

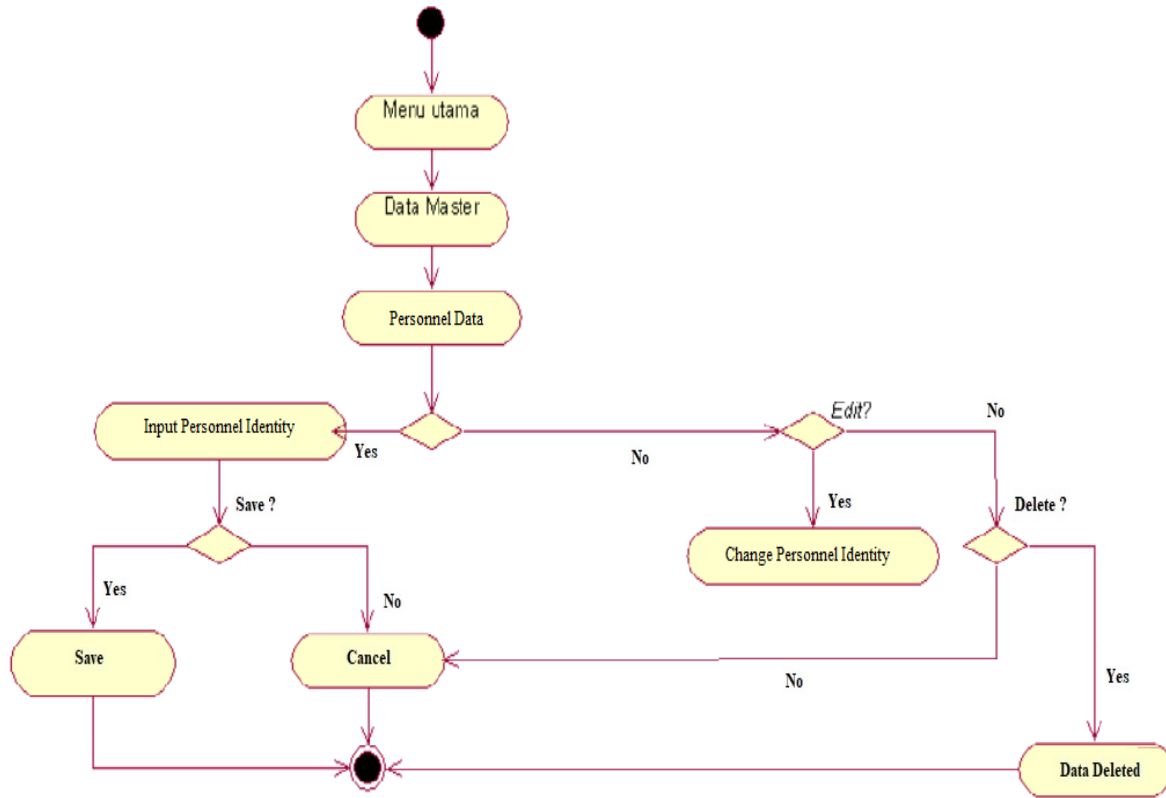
The activity unit data diagram can be seen in the image below :



Picture 9. Activity Diagram data unit

6. Activity diagram of personnel data

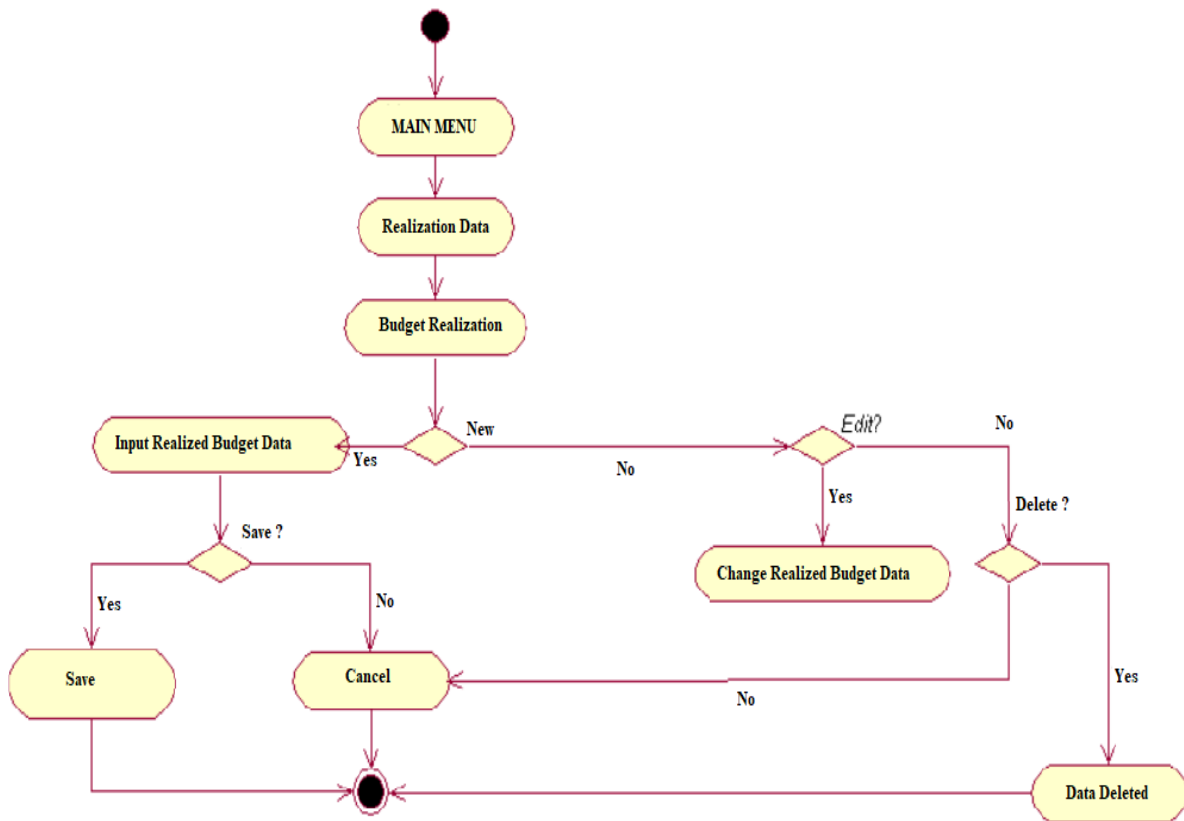
The activity diagram for budget personnel data can be seen in the image below :



Picture 10. Activity diagram menu data personil

7. Activity Diagram of budget realization

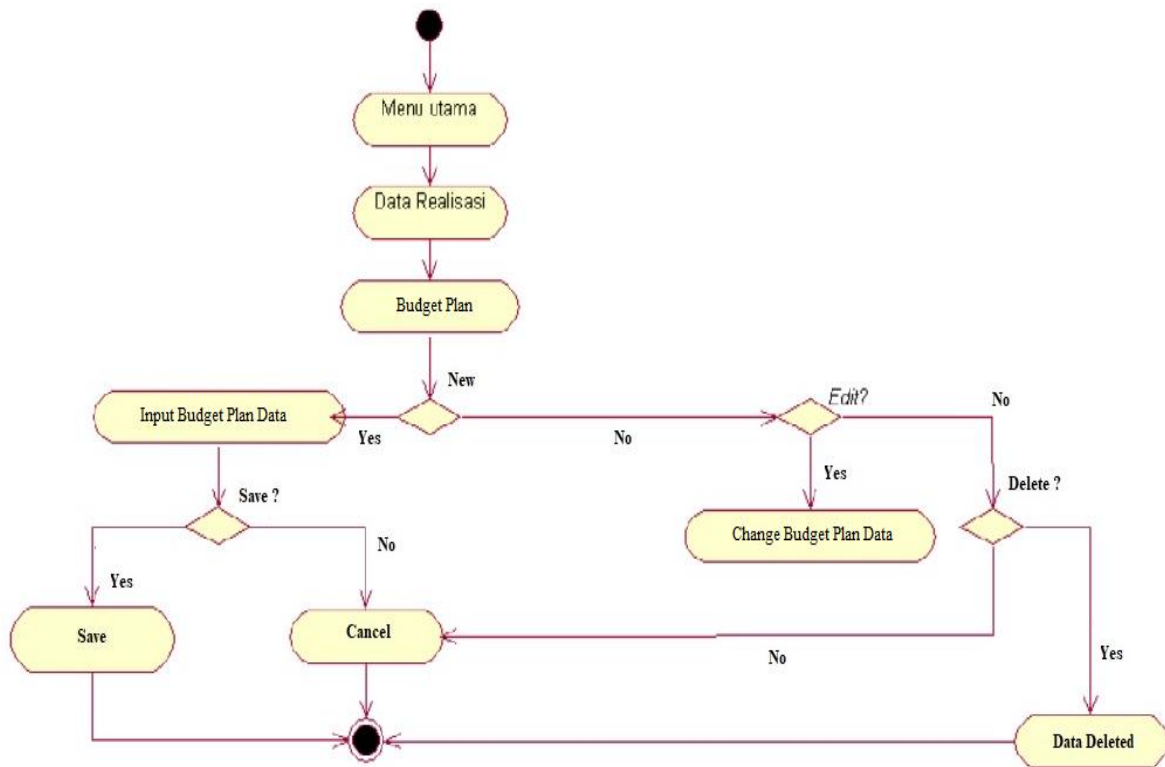
The budget realization activity diagram can be seen in the image below :



Picture 11. Activity Diagram form for budget realization

8. Activity Diagram Cost Budget Plan (RAB).

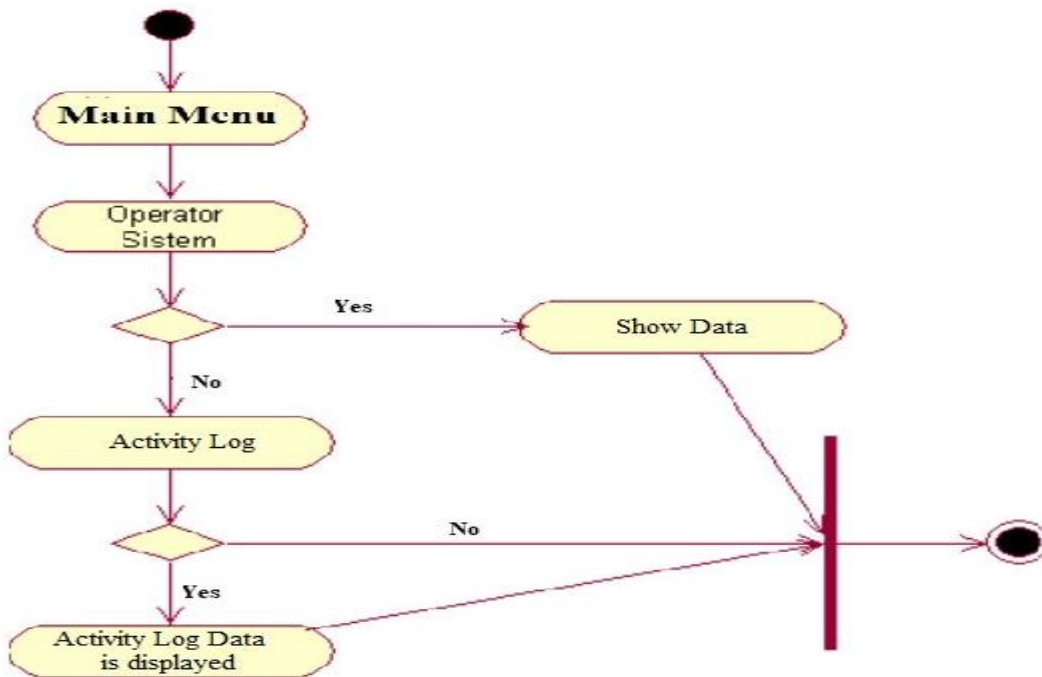
The activity diagram for the budget plan can be seen in the image below :



Picture 12. Activity Diagram Cost Budget Plan (RAB)

9. Activity Diagram system operator form and Activity Log

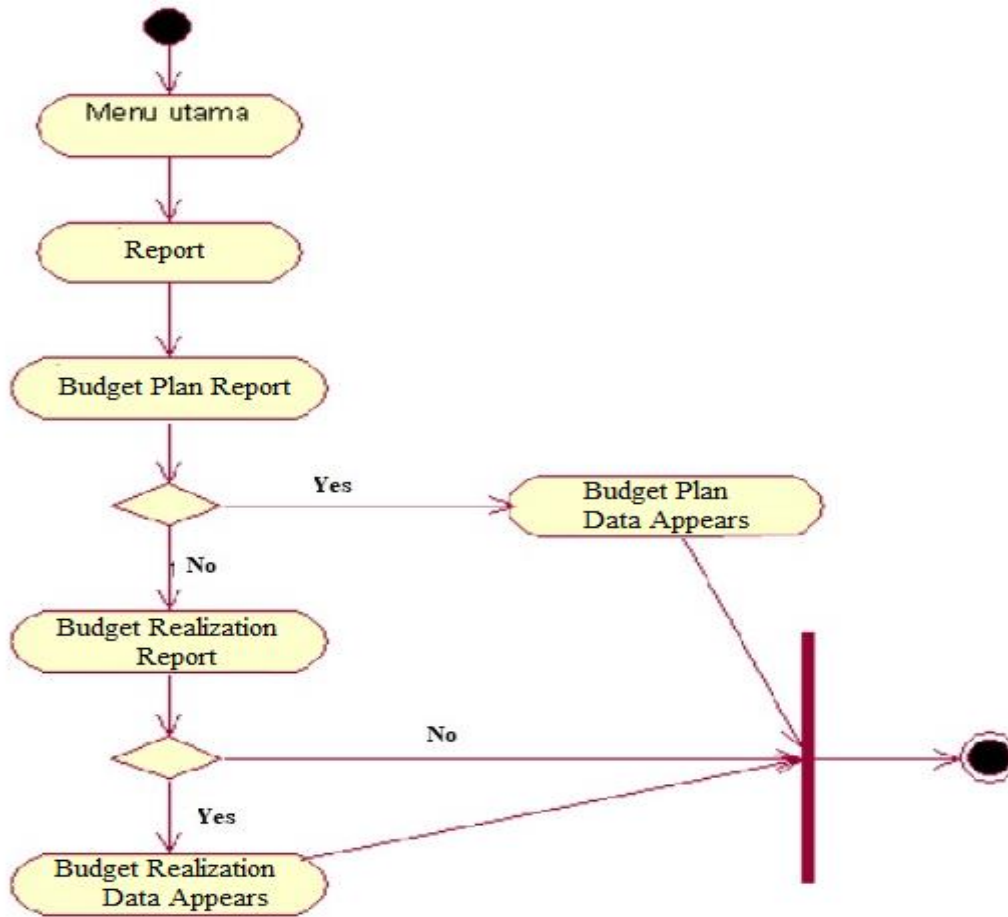
The system operator form activity diagram and activity log can be seen in the image below :



Picture 13 Activity Diagram system operator form and Activity Log

10. Activity Diagram report

The report activity diagram can be seen in the image below :

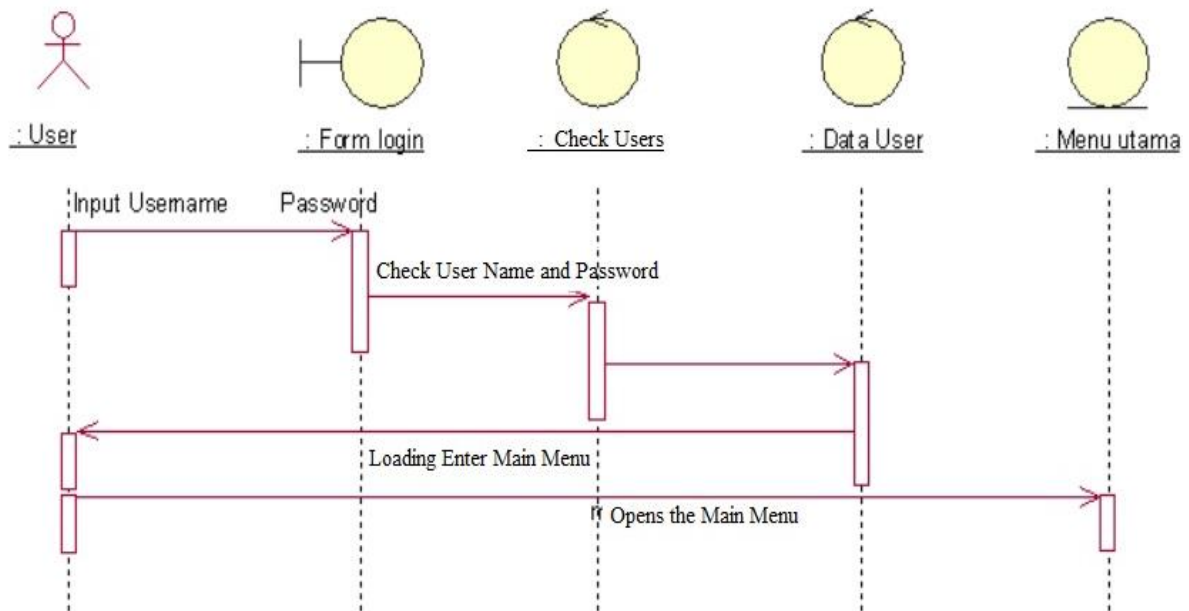


Picture 14. *ctivity Diagram* form laporan

11. Sequences Diagram

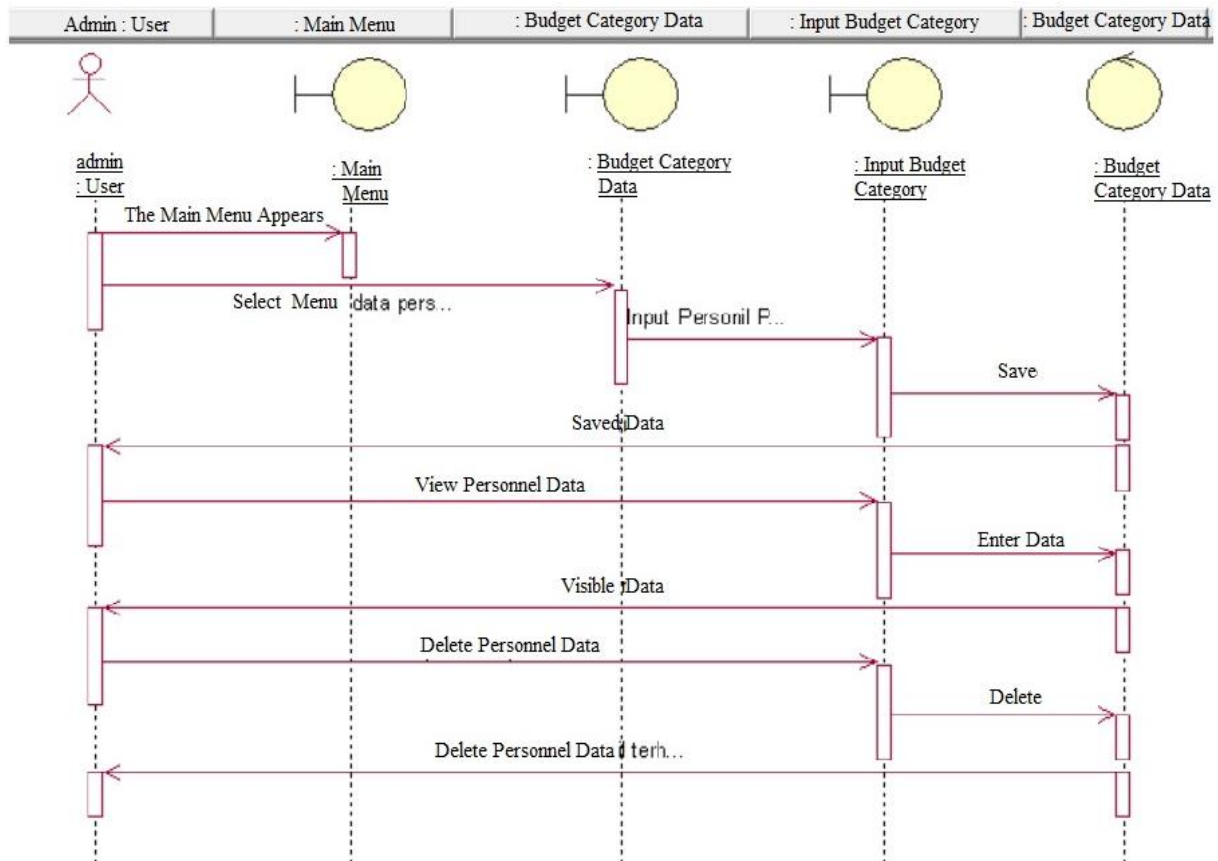
The sequence diagram which is a picture of the system that will be built in the Budget Processing Information System is as follows :

a. Sequence diagram logged into the system



Picture 15. Sequence diagram logged into the system

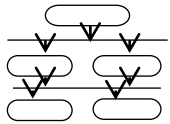
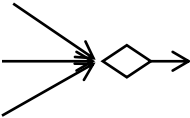

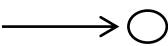
b. Sequence diagram form data personal



Picture 16. Sequence diagram form personnel data

Tabel 2. 2. Simbol- simbol dalam Activity Diagram

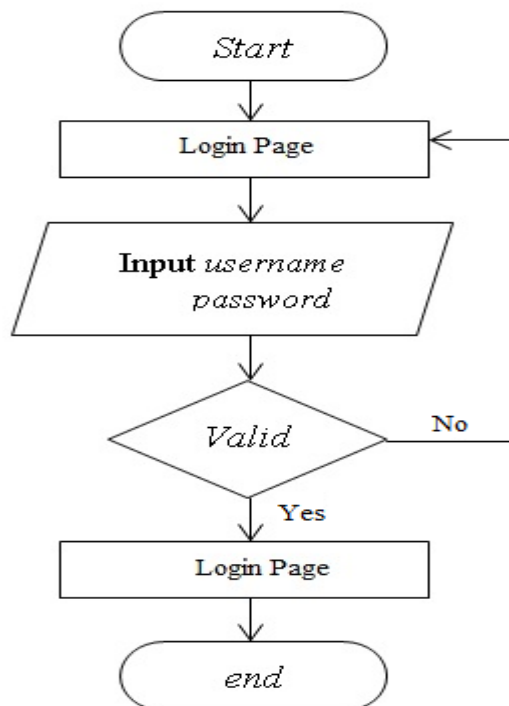
SYMBOL	NAME	INFORMATION
	<i>Start Point/ Initial State</i>	Small black circles, which indicate the initial action or activity starting point for each activity diagram.
	<i>Symbol Activity</i>	To show activities carried out or currently occurring in an activity diagram.
	<i>Symbol Action flow</i>	Used to transition from one action to another or indicate the next activity after the previous activity.
	<i>Symbol Decision</i>	A dot or point that indicates a condition where there is a transition difference.

	<p><i>Synchornization</i></p>	<p><i>Synchornization is divided into 2, namely fork and join.</i> <i>1. A fork or branch is a symbol used to break behavior into parallel activities or actions.</i> <i>2. Join is a symbol for recombining parallel activities or actions.</i></p>
	<p><i>Marge Event</i></p>	<p>Merge Event functions to combine flows that are broken up by decisions.</p>
	<p><i>Swimlanes</i></p>	<p>Swimlanes function to break activity diagrams into rows and columns to divide the responsibilities of the objects carrying out the activity.</p>
	<p><i>Final State/ EndPoint</i></p>	<p>Final State shows the final part of the activity.</p>

2. Flowchart

In this system, the program being designed is described using Flowchart, which is a chart with symbols that describe the sequence of processes in the system in detail and illustrates the relationship between one process and another.

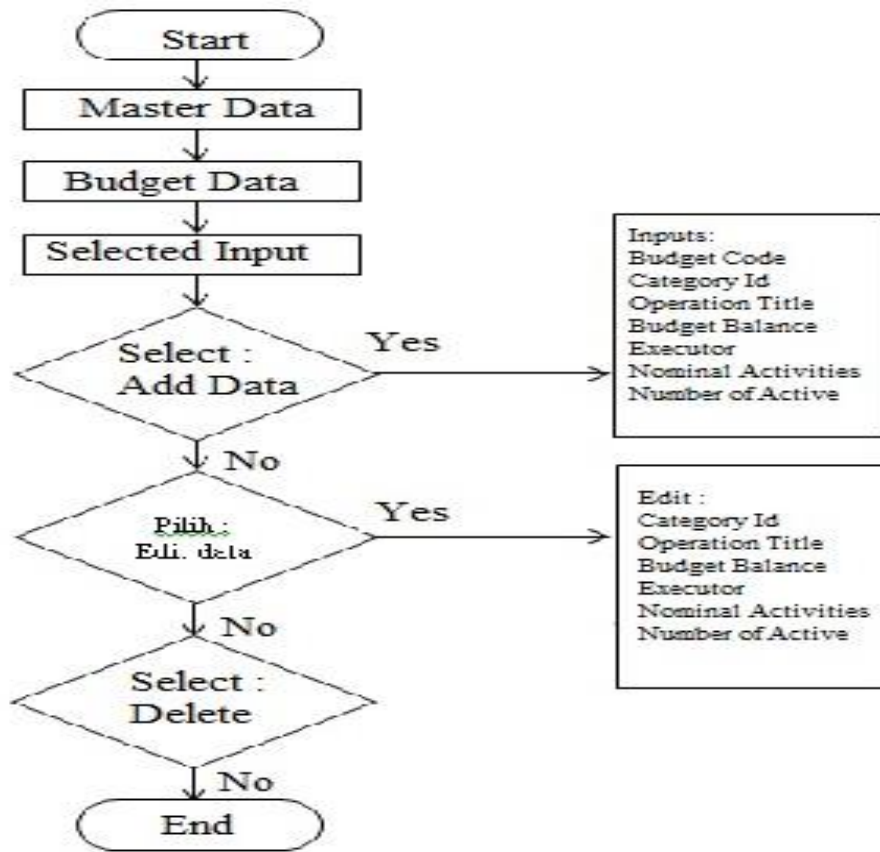
a. Flowchart login



Picture 17. Flowchart login

b. Flowchart Budget Data

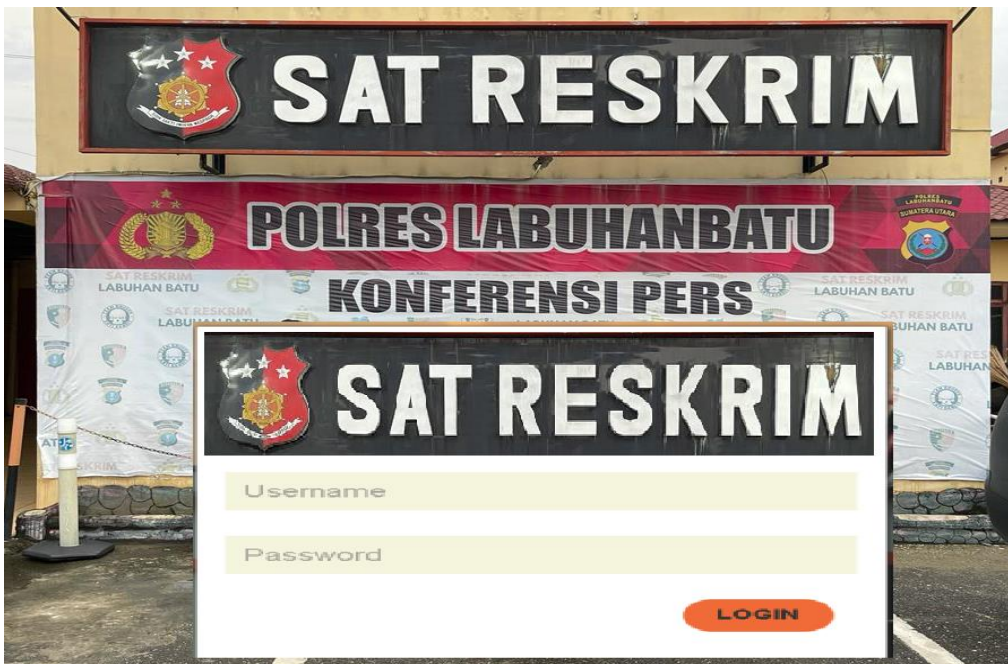
The Program Flowchart in the budget sub menu describes the process sequences in the system in detail, as in Picture 3.25, as follows :



Picture 18. Flowchart Budget Data

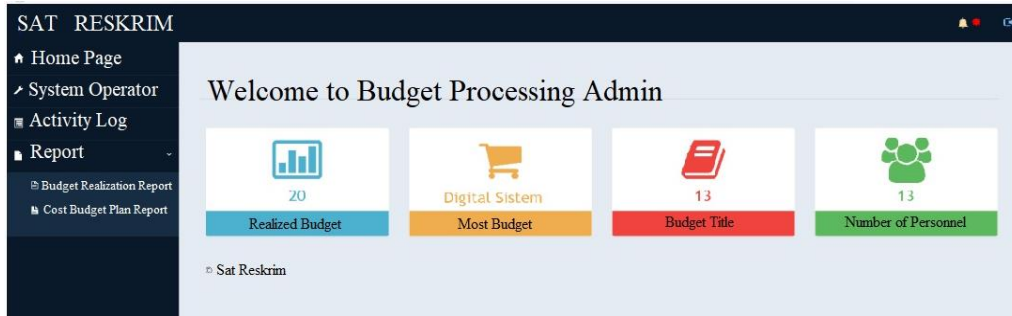
IV. SYSTEM IMPLEMENTATION

1. Login page



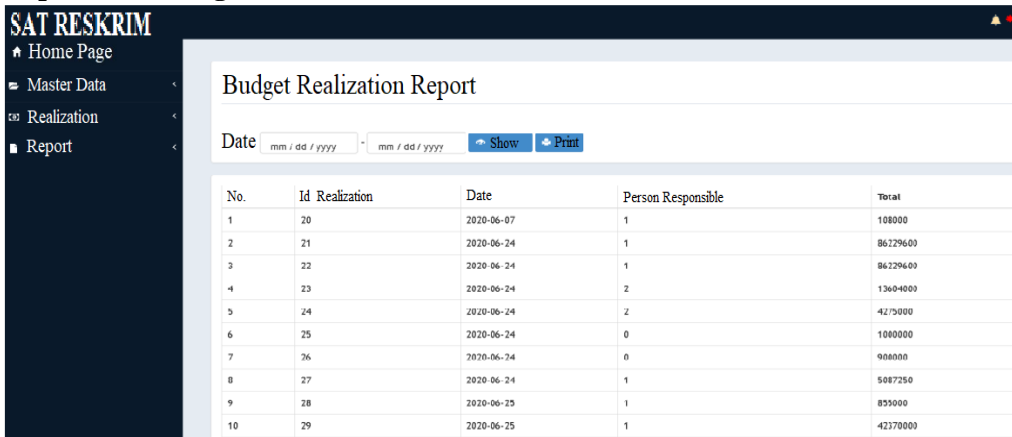
Picture 3.1. Tampilan form login

2. *Superadmin main menu display*



Picture 3.2. *Superadmin main menu display*

3. **Report Menu Page**



Picture 3.3. Report Menu Page

4. **Budget Realization Report**



Picture 3.4. Budget Realization Report

V. **CONCLUSION AND SUGGESTIONS**

1. **CONCLUSION**

Based on the results of research conducted at the Satuan Reserse Kriminal (Reskrim) of the Polres Labuhanbatu regarding budget processing, the author can draw the following conclusions :

- a) By using this budget processing information system, it will certainly make it easier for users to archive data more effectively and efficiently, because it does not take up much space and the level of error or the possibility of losing data is very small.

- b) The system also provides convenience in planning a monthly budget, where the Head of the unit can plan his budget directly through the system so that it becomes more effective and efficient.

2. SUGGESTIONS

After designing and building a budget processing information system, there are several suggestions, including :

- a) In accordance with the increasingly rapid development of technology, human needs in solving their problems will also be increasingly difficult, so it is necessary to analyze the information system that will be used to determine whether or not to add or develop system features according to needs.
- b) The design of the budget processing information system is expected to be a reference for developing a new system based on Android so that it will be more effective and efficient and support work, especially in managing the budget at the Satuan Reserse Kriminal (Reskrim) of the Polres Labuhanbatu.
- c) This information system can also be a reference in making the budget processing information system into an online-based application.

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