

# Design of XYZ Village Poor Household Information System

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**Abstract**---The manual system for managing community data collection that is currently running is felt to be no longer adequate for handling workloads, especially household data collection poor. This situation demands immediate use of information systems based on computer technology that aims to better organize data so that the information obtained is more accurate. the existence of this system will also facilitate village officials in compiling reports and graphs on the development of community data in their environment. The method used in making the system information on the collection of poor households is an observation method, an interview method. Whereas in the design of information systems conceptually is system analysis, and system design.

**Keywords**---Community data collection system, Poor households, Poor families, Community assistance

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## I. INTRODUCTION

The data collection and management of poor households in XYZ Village has so far been carried out conventionally, not yet stored in a computerized database. Recording is done in a notebook that is not properly archived. Data written in a notebook and not properly archived is prone to damage to the book either intentionally or not, which will result in reduced quality of information in the book and the data can be manipulated. Besides being prone to data and information damage due to damage to the book, not infrequently the data redundancy also occurs, because the data that has been written is rewritten. When data is lost or damaged, village officials collect data again by going directly to the field to collect data on poor families who are entitled to receive assistance. In addition to this, the data search takes quite a long time, the social welfare division in the village has difficulty in recapitulating and reporting poor families to the leaders.

Of the existing problems, it is necessary to have a formula or solution offered to overcome these problems, namely by overcoming the emergence of social jealousy among communities who are entitled to help and who are not entitled to help. Besides overcoming the occurrence of abuse of authority and responsibility by officers who handle assistance aimed at the community or poor families (poor).

Management of assistance to the poor should be more optimized and processed transparently, in order to create equitable social justice, so that the poor can receive assistance more quickly and equitably as it should (Sulianta, 2019).

In order to achieve more optimal and transparent management of poor family data, it is necessary to design a computerized and web-based data management system. This system is really needed to minimize anxiety and errors in overcoming data input. It is hoped that every policy taken by the government is very transparent and can always be monitored directly by the public or stakeholders. In addition, with the existence of a poor family data management information system, the government can easily monitor the number of poor families and what assistance is appropriate to provide to these poor families, so that it is right on target and beneficial to the families concerned.

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## **II. METHODOLOGY**

### **II.I. Research Approach**

This study uses a scientific research approach that is an approach based on interviews, science and technology.

### **II.II. Data Source**

Sources of data in this study using the Library Research technique which is a way to collect data from several books, journals, and other literature that can be used as a reference for discussion in this issue.

### **II.III. Method Of Collecting Data**

Data collection methods used in research for this design are the interview method as the primary data source, and literature study as a secondary data source.

#### **a. Primary Data Source**

Primary data sources obtained by interview techniques, Interview (interview) is a data collection technique by conducting two-way communication to get data from respondents. The purpose of the interview is to get the right information from trusted sources.

#### **b. Secondary Data Sources**

Secondary data sources obtained by data collection techniques by collecting journal literature, books, and readings that are related to the title of the study.

### **II.IV. Data Processing and Analysis Techniques**

This data management analysis is divided into two types namely quantitative analysis methods and qualitative analysis methods. This quantitative analysis method uses statistical data and figures that are very fast in obtaining research data and as for the qualitative analysis method in the form of several records that use very much data as a comparison material to obtain accurate data.

In this study, the authors used a qualitative analysis method. Qualitative analysis is a research procedure that intends to understand the phenomena about what is experienced by the subject such as behavior, perception, motivation, action, and others. Holistically, in a descriptive way in the form of words and language.

### **II.V. Design Method**

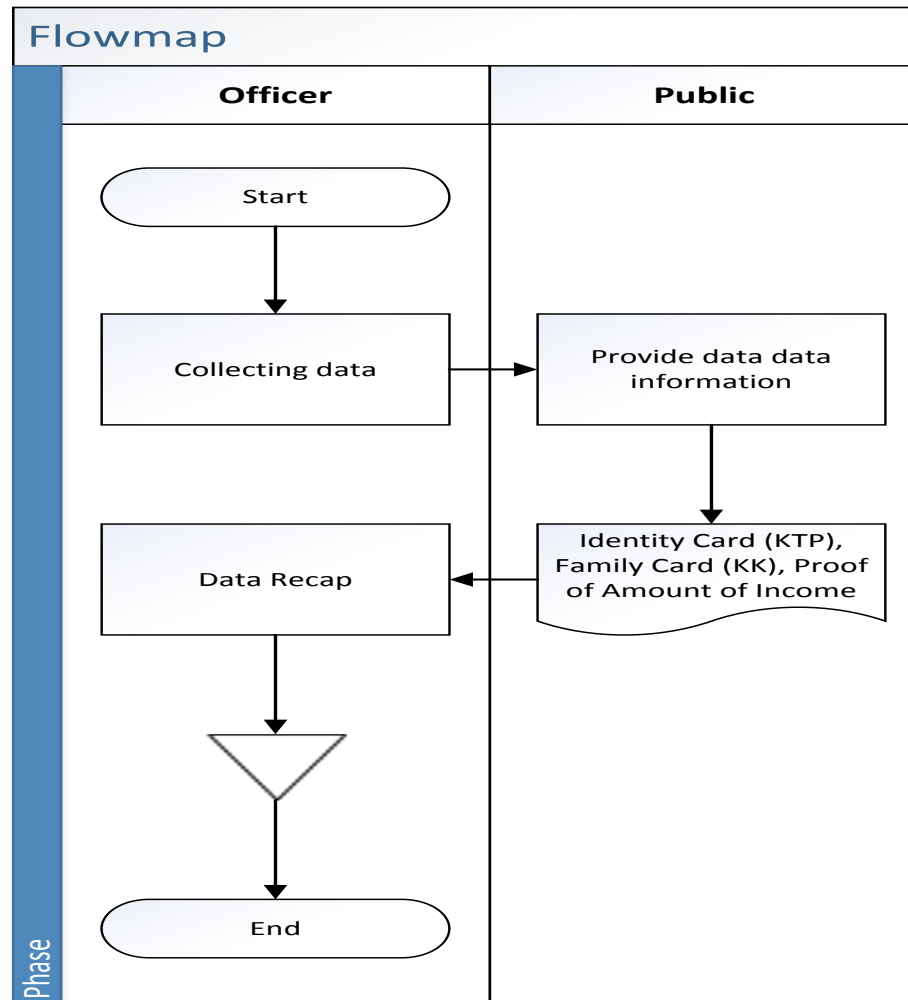
In this study, the system design method used is object-oriented approach, the authors describe the interaction between the user and the system with use case diagrams.

## **III. RESULT AND DISCUSSION**

System analysis is carried out in order to describe the whole information system into its component parts with the aim of identifying and evaluating problems, opportunities, obstacles that occur and the expected needs so that improvements can be proposed. System analysis is carried out aiming to find out what problems are being faced by an organization that is useful for comparing and making alternatives given to the new system, so that the proposed new system can solve the problems and problems that are happening.

### **a. Analysis of Current Systems**

The following analysis of the current system is described in the form of flowmap.

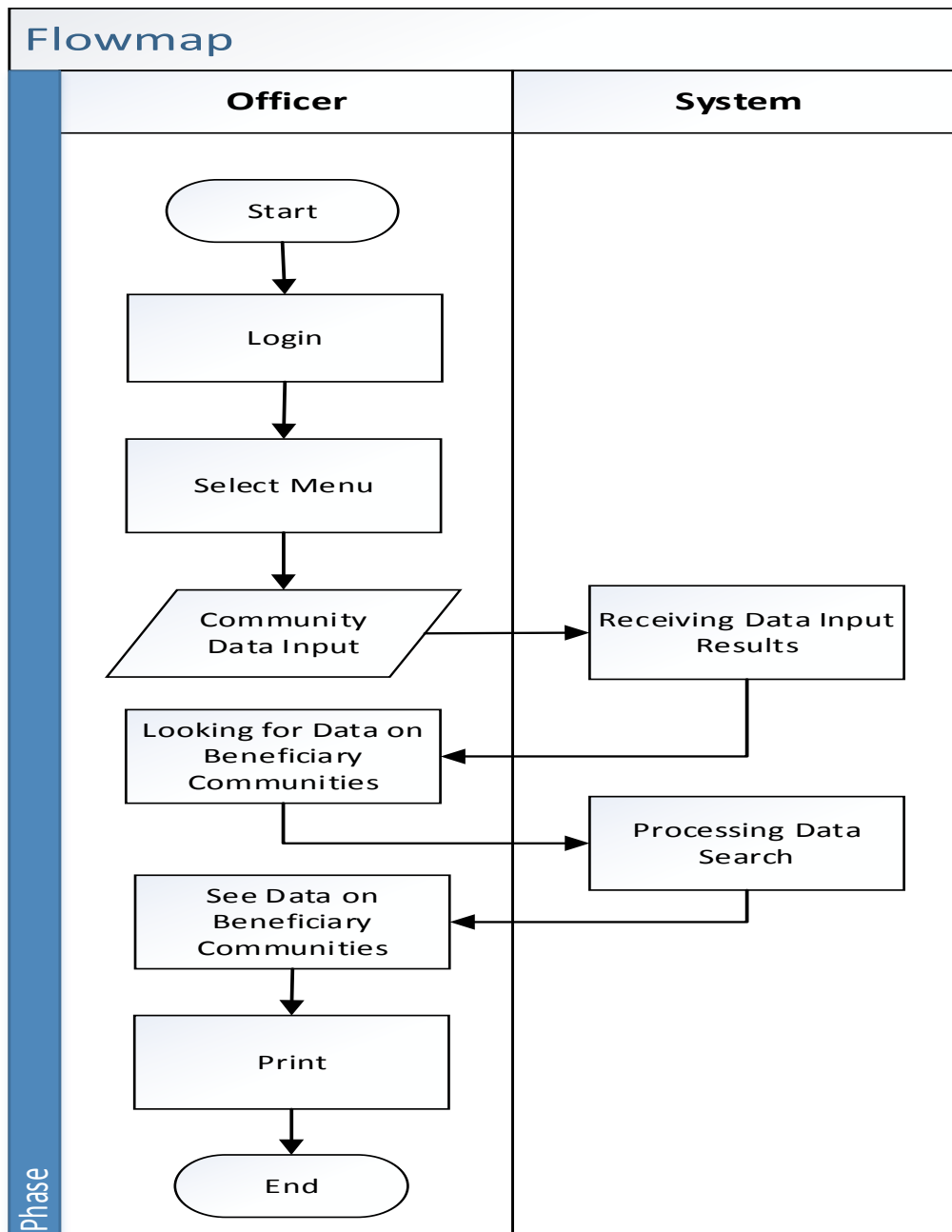


**Figure 1:** Analysis of the current system

In Figure 1 above is a flowmap diagram of the system that is running, the flowmaf explains the stages in entering data conducted by officers, starting from village officials to collect data on the community, by recording data such as Identity Cards (KTP), names of family heads, family card, the amount of monthly income, and others.

b. Analysis of the Proposed System

Following flowmap diagram of the proposed system analysis



**Figure 2:** Analysis of the Proposed System

In Figure 2 explains the stages in conducting data collection conducted by officers with the system, starting with the officers logging in, then the officers carry out the process of entering community data, the officers continue to search for data that is entitled to receive assistance and then process the beneficiary data, and finally do printing data as information.

At this stage of the analysis consists of problem analysis, needs analysis and weakness analysis.

1. Problem Analysis

Paying attention to the obstacles and problems that occur in the community data collection process, namely where officers have difficulty in collecting data of poor families accurately, the absence of data that is stored properly and correctly as a complete database, uneven and targeted target distribution of assistance to poor families and reporting systems which is still not systematic.

2. System Requirements Analysis

a) Interface Requirements

Interface design is an important aspect in application design, because it deals with appearance and interaction that makes it easy for users to use it.

Here are some requirements in building this system including:

- 1) The system displays the login page, as an initial process between the user and the system.
- 2) The system will display population data and beneficiary data.
- 3) The system designed will have a user interface that is familiar and easy to use.

b) Data Requirements

The use of databases on the system to be made, serves to store data data needed to build the system, such as population data, assistance data, parameter data, beneficiary data, and other important data.

The following data is processed by the system including:

- 1) Population data.
- 2) Parameter data
- 3) Beneficiary data

c) Functional Needs

This functional requirement is a translation of the function process in the form of a detailed explanation of each function used in solving problems.

The functions possessed on this system include:

- 1) Displays population data
- 2) Displays beneficiary data
- 3) Display graph data
- 4) Display report data for beneficiaries

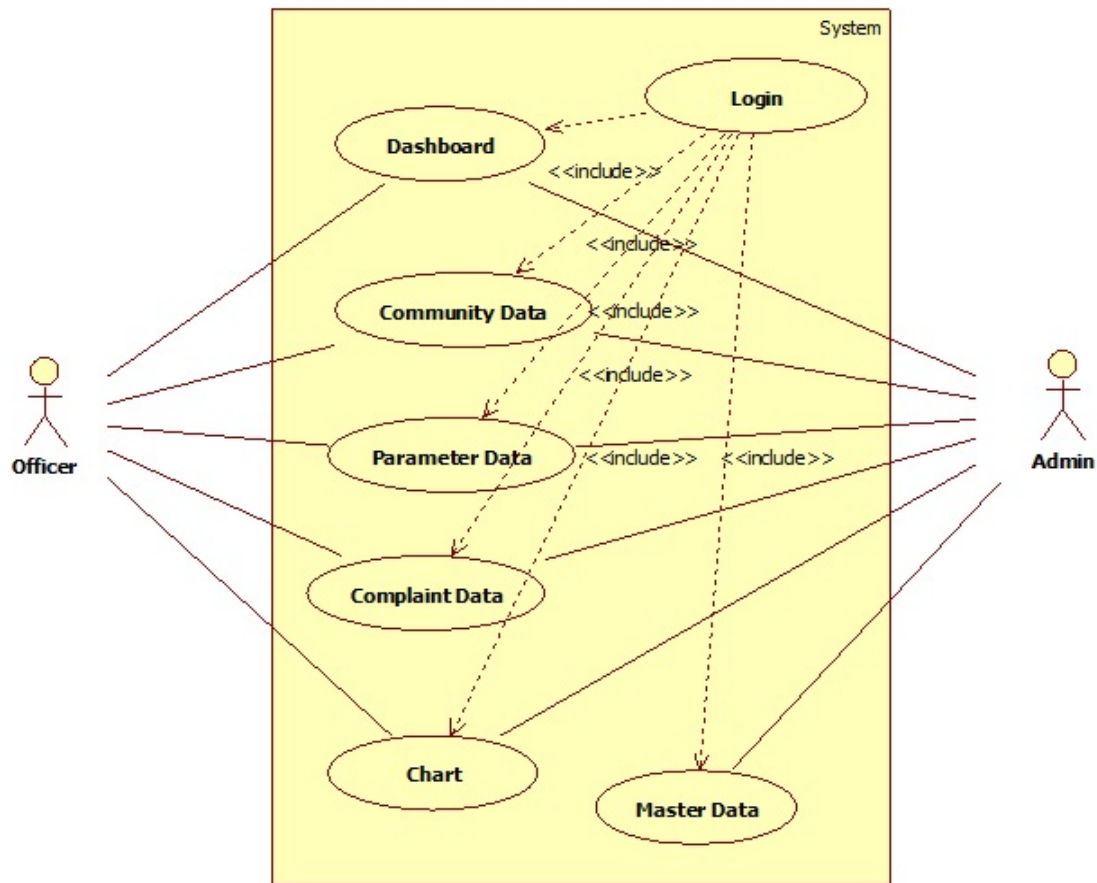
d) System Weaknesses

This poor family's data collection system is a system that runs on a web platform used by village officials to collect data, but this system is only limited to community data collection in the XYZ Village environment and does not display further information.

c. System Planning

1. Use Case Diagram

Use case diagrams are illustrative scenarios of interactions between users and the system. Use case diagrams illustrate the relationship between actors and the activities they can do to the system. Based on the results of the needs analysis conducted, the use case diagram of the system to be made is as follows:



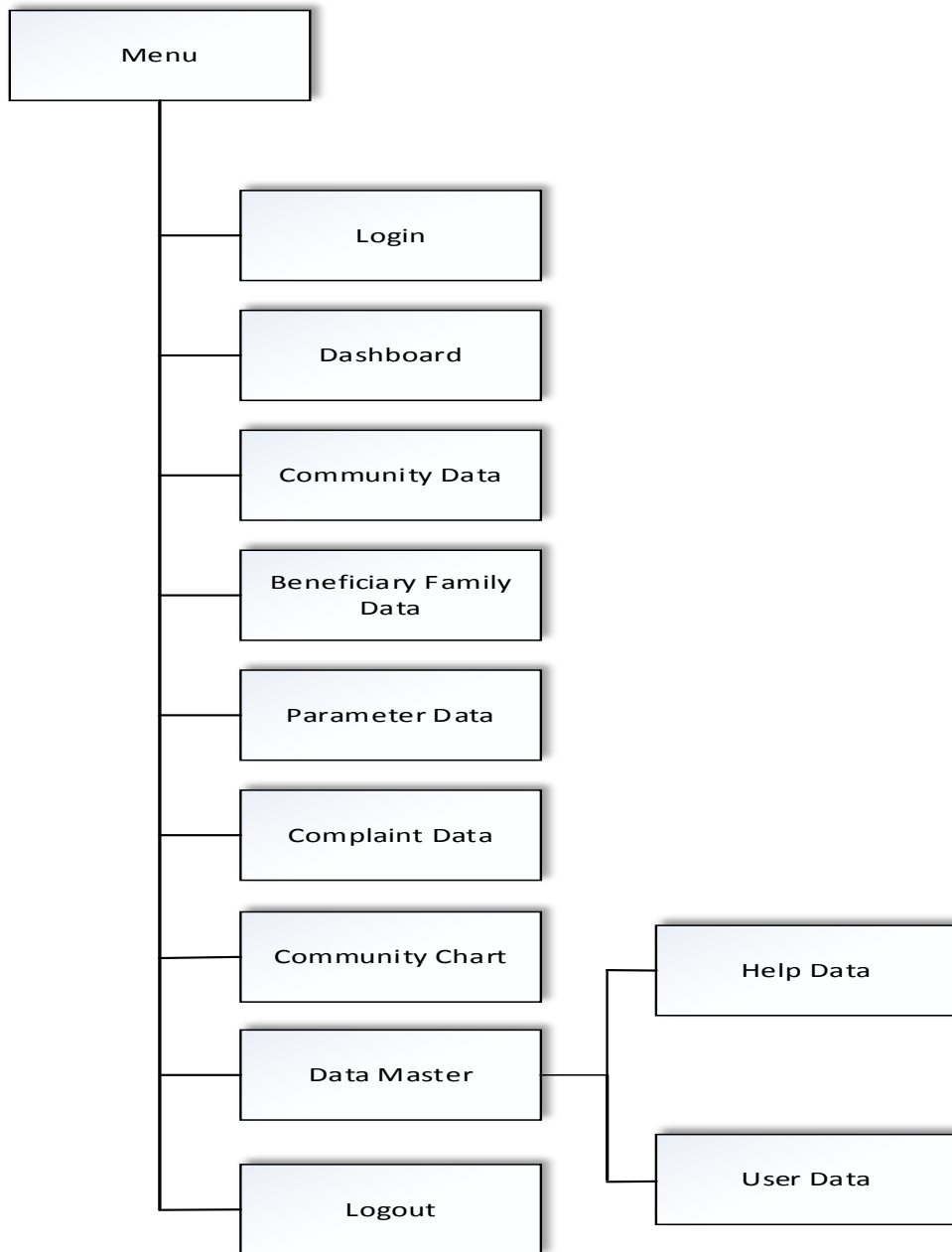
**Figure 3:** Use Case Diagram of Poor Family Data

### Collection Information System

In Figure 3 this illustrates the access rights of each user, where the Admin can access the login page, dashboard, resident data, complaint data, parameter data, help graphs, and master data. Whereas Officers can only access the login page, dashboard, population data, complaint data, parameter data and help graphs.

### 2. Navigation Structure

This Poor Family Data Collection information system uses the Hierarchical Model navigation structure, where the main menu is the navigation center which is a link to all features of the system. Following is a picture of the navigation structure of the system to be made:



**Figure 4:** *Navigation Structure*

From the navigation structure shown in Figure 4, switching between available features can be done via the menu. Where there are eight main menus, namely dashboard, population data, beneficiary data, complaint data, parameter data, population charts, then the master data menu which has two sub menus namely help data, user data, and finally the logout menu.

#### **IV. CONCLUSION**

Based on the results of the analysis of the management information system of poor family assistance data, it can be concluded that:

1. This information system runs in accordance with its function of managing data for distribution of aid to the poor.
2. This system is easy to use so that village officials have no difficulty in using this system.

3. With this system in place, village officials have made it easier to collect data and determine the distribution of aid to poor families.

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