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## **The Development of Information Systems for Poor Population Data**

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### **Abstracts**

The poor population is the main problem for an area, so a good collection of poor population is something that must be done. Information system is one of the effective ways in term of data collection for poor population. The existence of an information system will certainly provide accurate data, so the policies taken by local governments are in accordance with the needs of their communities. Data collection of the poor population can also determine the direction of policy for local government in term of programs to reduce poverty. This research aimed to design a computerized data collection system for the poor population. The method used in making information system for the poor population was the System Development Life Cycle (SDLC).

Stages started with system planning, system analysis, system design, implementation and maintenance. This information system was built using the Microsoft Visual Basic 6.0 programming.

Keywords: Information System, Data Collection, Poor Population, Way Khilau Sub-District

## **El Desarrollo De Sistemas De Información Para Datos De Población Pobres**

### RESUMEN

La población pobre es el principal problema para un área, por lo que una buena colección de población pobre es algo que debe hacerse. El sistema de información es una de las formas efectivas en términos de recolección de datos para la población pobre. La existencia de un sistema de información ciertamente proporcionará datos precisos, por lo que las políticas tomadas por los gobiernos locales están de acuerdo con las necesidades de sus comunidades. La recopilación de datos de la población pobre también puede determinar la dirección de la política para el gobierno local en términos de programas para reducir la pobreza. Esta investigación tuvo como objetivo diseñar un sistema de recolección de datos computarizado para la población pobre. El método utilizado para crear un sistema de información para la población pobre fue el Ciclo de vida del desarrollo del sistema (SDLC). Las etapas comenzaron con la planificación del sistema, el análisis del sistema, el diseño del sistema, la implementación y el mantenimiento. Este sistema de información se creó utilizando la programación Microsoft Visual Basic 6.0.

Palabras clave: Sistema de información, recopilación de datos, población pobre, subdistrito Way Khilau

### 1. INTRODUCTION

#### 1.1 Background

The region can be said to be prosperous if the poor population in the area is absent or reduced from previous years, and seen from the Law of the Republic of Indonesia Number 11 Year 2009 Regarding

Social Welfare Article 1 states that Social Welfare is a condition of material, spiritual, and social can be fulfilled to be able to live properly and be able to develop themselves, so they can carry out their social functions

The government has regulated and attempted through the instruction of the President of the Republic of Indonesia number 3 year 2003 concerning the policy of the national strategy of e-government development so all needs related to information technology can certainly be met in each region and implemented properly.

In Way Khilau Sub-district, the management for the data collection of the poor population is still done conventionally. In this case, the recording of the data collection of the poor population still used traditional tools in form of stationery and books, so as to allow accidental damage and the data can be manipulated. In addition, the search for data takes a long time. In Way Khilau Sub-District, facility such as the information system for collecting data on poor population is not yet available. Information system is one way of solving needs at the level of data collection of the poor population.

## 1.2 Research Problem

The formulation of the problem that can be seen from the background is:

- a. The data collection system of the poor population in Way Khilau sub-wstill uses a conventional system that uses traditional tools such as stationery and books
- b. How to make a computerized poor population information collection system

## 1.3 Limitation of the Problem

- a. The study was conducted in Way Khilau sub-district
- b. This information system handled the processing of poor population data collection
- c. The information provided is limited to the data collection of the poor population
- d. Editor for designing the program used Visual Basic 6.0

## 1.4 Research Objective

This study only aimed to produce an information system for data collection of poor people who previously still used conventional systems, namely by recording the poor people data with stationery and book.

### 1.5 Significance of the Research

- a. Helping employees work in processing data collection on poor people in Way Khilau Sub-District
- b. Finding information on poor population data is getting faster and easier
- c. The government in Way Khilau sub-district has poor population data
- d. Providing better and clearer information on poor population data

## 2. Literature review

### 2.1 Definition of Poverty

Poverty has various meanings. Classifying the notion of poverty, at least it has five classes, namely first absolute poverty, if a person's income level is below the poverty line or the amount of his or her income is insufficient to fulfill the minimum living needs, including food, clothing, health, housing and education needed for living and work. Second, relative poverty, if someone who has income above the poverty line, but is relatively lower compared to the income of the community. Third, cultural poverty, refers to the attitude of a person or society caused by cultural factors that do not want to try to improve the level of life despite the efforts of outsiders who try to help. Fourth, chronic poverty, caused by several things, namely socio-cultural conditions that encourage unproductive attitudes and habits of people's lives, limited resources and isolation and low levels of education and health care degrees, limited employment opportunities from following the market. Fifth, temporary poverty, occurs due to changes in the economic cycle from normal condition to economic crisis, seasonal changes such as those found in the poverty of fishermen and food crop farmers, natural disaster or the impact of a policy that causes a decline in the level of community welfare. Sumodiningrat, 1999 (in journal of Dyah Ayu Mustikowati, 2013).

## 2.2 Definition of System

The system can be interpreted as a collection of several components that are interconnected with one another to form a unity to achieve certain goals (Jogianto, 2009).

The system can be defined as an entity consisting of two or more components or subsystems (smaller systems) that are interconnected and related to achieve a goal (Rudi Tantara, 2012).

## 2.3 Definition of Information

Information is the result of processing data (fact) into a meaningful and valuable decision making, information cannot be separated from aspects of human life. Whoever, whenever and wherever, someone will need information (Bonnie Soeherman and Marion Pinontoan, 2008).

Information is a collection of facts (data) that are organized in a certain way so they have meaning for the recipient (Sutarman, 2009).

## 2.4 Definition of Information System

Information system is a collection of various procedures within a company to produce the required information (Rudi Tantara, 2012). Information system is a group of interconnected subsystems gathered together and form a single unit, interacting and working together between parts of one another (Edhy Sutanta 20, 11).

## 2.5 Definition of Microsoft Visual Basic 6.0

Visual Basic 6.0 is one of the programming languages that work within the scope of Ms. Windows which is widely used today (Abdul Razaq, 2004).

Visual Basic is a visual programming application that has a programming language that is quite popular and easy to learn (Tamim Abdillah, 2008).

## 2.6 Definition of Database

Database is a system of compiling and managing records by using computer to store or record and maintain complete operational data of an organization or company so it is able to provide optimal information needed by users for the decision making process. Linda Marlinda, 2004 (in the journal Muhammad Luqman, 2012).

Database is a collection of data that can search thoroughly and sys-

tematically to maintain and to retrieve information (Janner Simarmata, 2007)

### 2.7 Definition of Sub-district

According to Law No.32 year 2004 concerning Regional Government:

a. Article 26 paragraph 1 states that sub-district is established in regency / city areas with regional regulation guided by government regulation.

b. Article 26 paragraph 2 states that a sub-district is an apparatus of a regency and city area which is led by a Camat in which the implementation of its task obtains the delegation of part of the regent or mayor's authority to handle part of regional autonomy matters.

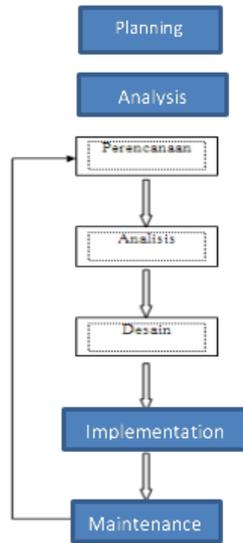
### 2.8 Definition of Khilau Way

The word Way Khilau is taken from Lampung Language, way means river and khilau means sparkling. Way Khilau is one of the names of the Sub-districts in the Pesawaran District, Lampung Province. Way Khilau is a new sub-district, this sub-district is the result of the expansion of Kedondong Sub-District, Pesawaran District, Lampung. Way Khilau Sub-district was inaugurated on February 9, 2013, this sub-district is led by Mr. Muhammad Rizal, S, Sos. In this sub-district, there are nine villages including: Kubu Batu Village, Gunung-sari, Kota Jawa, Kertasana, Padang Cermin, Sukajaya, Bayasjaya, Penengan and Madajaya.

## 3. METHODOLOGY

The type of method used in this research was to use the System Development Life Cycle (SDLC) method.

SDLC is a method that uses a system approach called the waterfall approach in which each stage of the system will be worked in a sequence descending from planning, analysis, design, implementation, and maintenance. Aji Supriyanto, 2005 (in the journal Titik Nihayah, Teguh Bratha Adji, 2009)



### 3.1 System Planning

The system planning stage is the initial stage of system development that defines estimate of resource requirements such as physical, human, methods (technique and operation), and budget that is still general (not yet in detail).

### 3.2 System Analysis

Systems analysis is a study of an existing system with the aim of designing a new or updated system

### 3.3 System Design

The system design is the stage after the system analysis that determines the process and data needed by the new system with the aim of meeting the needs of the users, as well as providing a clear picture and complete design to the computer programmers and engineers involved.

### 3.4 Implementation

Implementation is the stage where the system design is formed into a code (program) that is ready to operate

### 3.5 Maintenance

System maintenance is the stage that is carried out after implementation, which includes the use, system audit, maintenance, repair, and improvement of the system.

## 4. ANALYSIS AND IMPLEMENTATION

### 4.1 Context Diagram

Context Diagram is a depiction pattern that serves to show the interaction of the information system with the environment where the system is placed (Budi Sotedjo Dharma Oetomo, 2002).

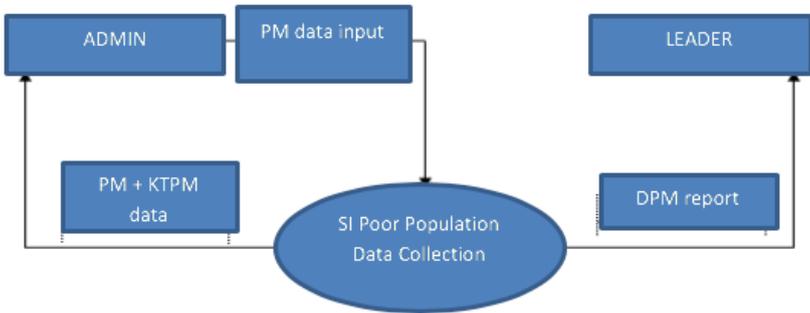


Figure 4.1. Context Diagram

### 4.2 DFD (Data Flow Diagram)

Data Flow Diagram is a logical model of data or process that is made in more detail than allowed context diagram, it can be achieved by developing original diagram developed into more detailed content involving three to nine processes and showing the storage of new data and data flow at a level that is lower. Kendall, 2003 (in journal of Muhammad Luqman, 2012)

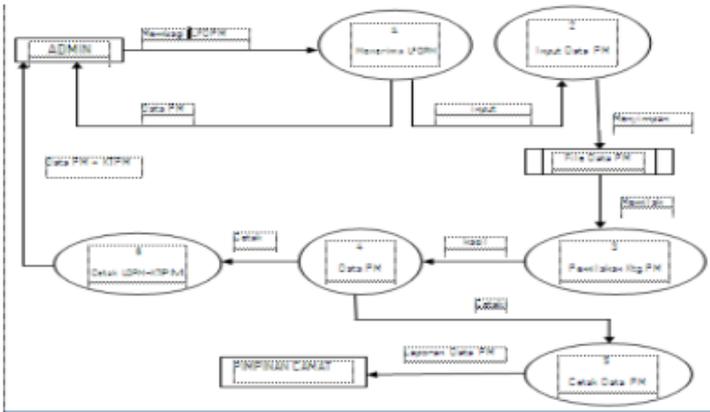


Figure 4.2 DFD (Data Flow Diagram)

### 4.3 ERD (Entity Relationship Diagram)

Entity Relationship Diagram is the final result of the system analysis process that is reviewed by a system analyst. After an analyst surveys the system to be made, the next step is to design the system into a particular model. Imam Haryanto, 2007 (in journal of Dyah Ayu Mustikowati, 2013).

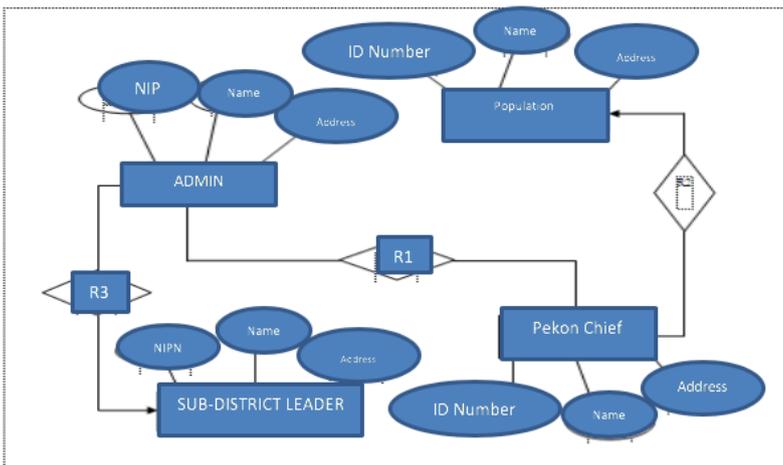


Figure 4.3. ERD (Entity Relationship Diagram)

#### 4.4 Program Design

##### 4.4.1 Login Menu



Figure 4.4.1. Design of the Login Menu

##### 4.4.1.1 Employee Data Input Menu

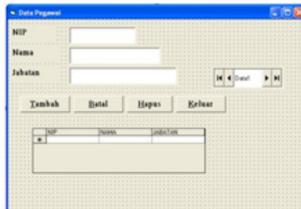


Figure 4.4.2. Design of Employee Data Input

##### 4.4.2 Data Input Menu of Poor Population

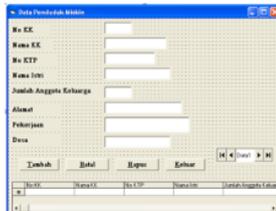


Figure 4.4.3 Design Data Input for the Poor Population

#### 4.4.3 Main Menu

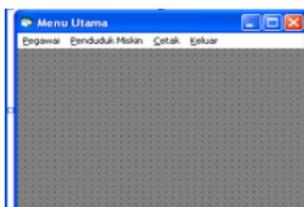


Figure 4.4.4. Main Menu Design

### 4.5 Implementation

#### 4.5.1 Main Menu

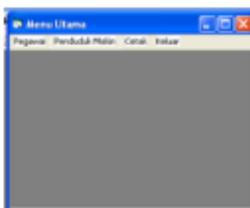


Figure 4.5.1 Main Menu

#### 4.5.2 Login Menu



Figure 4.5.2 Login Menu

#### 4.5.3 Employee Data Menu



Figure 4.5.3 Employee Data Menu

#### 4.5.4 Poor Population Data Menu



Figure 4.5.4 Data Menu of Poor Population

#### 4.5.5 Print of Poor Population Report

No. KK	No. KK1	No. KK2	No. KK3	No. KK4	No. KK5	No. KK6	No. KK7	No. KK8	No. KK9	No. KK10	No. KK11	No. KK12	No. KK13	No. KK14	No. KK15	No. KK16	No. KK17	No. KK18	No. KK19	No. KK20	No. KK21	No. KK22	No. KK23	No. KK24	No. KK25	No. KK26	No. KK27	No. KK28	No. KK29	No. KK30	No. KK31	No. KK32	No. KK33	No. KK34	No. KK35	No. KK36	No. KK37	No. KK38	No. KK39	No. KK40	No. KK41	No. KK42	No. KK43	No. KK44	No. KK45	No. KK46	No. KK47	No. KK48	No. KK49	No. KK50
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	

Figure 4.5.5 Print of Poor Population Report

#### 4.5.6 Print of Poor Identity Card

No. KK	No. KK1	No. KK2	No. KK3	No. KK4	No. KK5	No. KK6	No. KK7	No. KK8	No. KK9	No. KK10	No. KK11	No. KK12	No. KK13	No. KK14	No. KK15	No. KK16	No. KK17	No. KK18	No. KK19	No. KK20	No. KK21	No. KK22	No. KK23	No. KK24	No. KK25	No. KK26	No. KK27	No. KK28	No. KK29	No. KK30	No. KK31	No. KK32	No. KK33	No. KK34	No. KK35	No. KK36	No. KK37	No. KK38	No. KK39	No. KK40	No. KK41	No. KK42	No. KK43	No. KK44	No. KK45	No. KK46	No. KK47	No. KK48	No. KK49	No. KK50
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	

Figure 4.5.6. Print of Poor Identity Card

### 5. Conclusion and Suggestion

#### 5.1 Conclusion

- a. Way Khilau Sub-district, Pesawaran Regency has not utilized computer effectively in carrying out its work. For example, in recording data on poor population was still done manually
- b. To help handle the workload required a computerized system, in this case using a poor population information system
- c. With the information system of the poor population of Way Khilau Sub-District, the problems that often arose could be reduced to the maxi-

mum extent possible.

## 5.2 Suggestion

a. The information system built is only limited to information on the poor population, for further the author hope the development in the future

b. The information system of the poor population has not provided information about assistance provided to the poor, for the future the author hope to add and complete the existing deficiencies.

## REFERENCES

- Abillah, Tamim.2008."Microsoft Visual Basic 6.0 untuk Pemula".  
Jogjakarta:Percetakan Andi
- DharmaOetomo, Budi Sutedjo.2002."Perencanaan dan Pengembangan Sistem Informasi". Jogjakarta:Percetakan Andi
- Dyah Ayu Mustikowati. Pembangunanana Sistem Informasi Pendataan Rumah Tangga  
Miskin Kecamatan Tulakan Kabupaten Pacitan, Indonesia Jurnal on Computer Science – Speed (IJCSS) 16 FTI UNSA Vol 10 No 2 –Mei 2003
- Jogianto. 2009."Sistem Informasi Teknologi Informasi". Yogyakarta : Andi Offset
- Pemerintahan Kecamatan Way Khilau, 2013– 2017
- Rajaq, Abdul. 2004."Visual Basic 6.0". Yogyakarta : Andi Offset
- Simarmata, Janner.2007."Perancangan Basis Data". Jogjakarta:Percetakan Andi
- Sutantan, Edhy. 2011."Basis Data dalam Tinjauan Konseptual". Yogyakarta : Percetakan Andi
- Sutarman,S.Kom, M.Kom. 2009."Pengantar Teknologi Informasi". Jakarta : PT. Bumi Aksara
- Soeherman, Bonnie & Marion Pinontoan. 2008."Designing Information System".Jakarta : Elex Media Komputindo
- Lukman, Muhammad. 2011. Perancangan Sistem Informasi Penjualan Laptop pada COMMANDITAIRE VENNOTSCHAAP (CV) SEMBILAN  
SEMBILAN, Universitas Surakarta Tantara, Rudi. 2012."Manajemen Proyek Sistem Informasi".yogyakarta : Andi Offset
- Titik Nihayah, Teguh Bratha Adji. Sistem Informasi Transaksional di

SPBU

Jogyakarta dengan Visual Basic 6.0, Jurnal Teknik Elektro Vol 1 No 2 Juli  
Desember 2009

UU Republik Indonesia Nomor 11 Tahun 2009 Tentang Kesejahteraan Sosial

UU Republik Indonesia Nomor 32 Tahun 2004 Tentang Pemerintahan  
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