

# Web-Based Population Census Design In Neighborhood Building

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## Abstract

*The population census at the neighborhood level is usually still processed using a manual system. However, the obstacles that arise due to manual processing are quite troublesome, especially when searching for information because the majority of the population works so it is difficult to process data. This study aims to produce an information system for population census management that is faster, more effective, effective and efficient in the neighborhood. The method used in compounding and making this application is by utilizing software development methods, namely the waterfall method which includes analysis, design, coding and testing. The results of this study are the creation of a web to make it easier for residents and heads to manage population censuses, assist in the process of inputting data, searching data, and reporting residents.*

**Keywords:** Neighborhood Unit, processing population data

## 1. Introduction

Information Technology (IT) is one part of human life that must be applied correctly. Basically, information technology is developed to make it easier for the general public to obtain information that is suitable for consumption. By utilizing Information Technology, it is expected to be able to assist in work, processing / processing important data and services as expected by the community. At present the implementation of Regional Governments with greater authority in the regions is one of the essence of decentralization and regional autonomy. Preparations for the principle of decentralization and the provision of autonomy to the regions will further support regional independence in formulating policies in accordance with local desires, needs and characteristics. With the birth of Law Number 22 Year 1999, the implementation of governance in the regions is descriptive and contains the meaning of empowerment.

In addition, the Regional Government prioritizes the implementation of technical work units to follow and implement regional priority programs that were left behind. Computerization is expected to increase the efficiency of the regional administration of the administration, especially at the level of Neighborhood Unit while accommodating the increasing number of data processing needs.

One important policy that needs to be done by the Government in developing information technology is to build a system that accommodates population data and makes it easier for the Head of RT to carry out data collection and processing of population data as a form of implementation of Good Government.

At present the description of the information system processing the population census in the Neighborhood Unit is still manually, namely population data is still recorded in the main book provided by the Chairperson of the RT and the method is not yet computerized. As for the census processing system, the current population sometimes encounters many problems, including difficulties in finding information because the majority of the population in the Neighborhood Association works so that it is difficult to ask for data. With this system, it can facilitate and assist residents and RT heads in managing the population census, assisting in the process of inputting data, searching data, and reporting residents.

## 2. Research Method

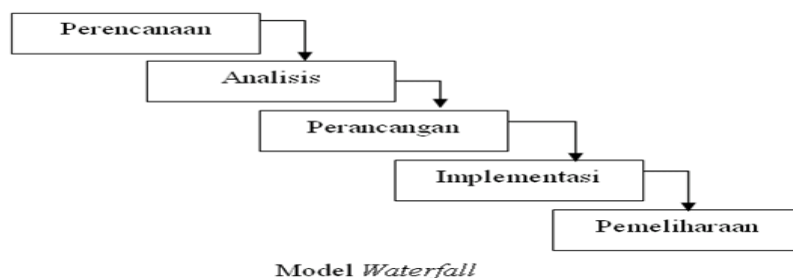


Figure 1. Waterfall

According to Pressman (2015: 42), the waterfall model is a classic model that is systematic, sequential in building software. The name of this model is actually "Linear Sequential Model". This model is often called the "classic life cycle" or the waterfall method.

### 2.1 Requirement Analysis

In this study a direct survey of activities will be carried out on the Chairman of RT 02 Taman Royal 2 Housing when taking data.

### 2.2 Data Collection

- a. Observasi
- b. Conduct research by observing the activities carried out at the RT Chair during the Population Census.
- c. Identification of the problem is to know and determine the problem to be discussed in this study, namely the problem of processing the population census in the Neighborhood Pillar 02 royal garden housing 2 which each uses a manual system by visiting the house to house.
- d. Conducting Library Studies  
In this stage data collection is done by finding references to books and journals.

### 2.3 Literature Review

In this research has been based on several theories that support this research, namely:

1. This research was conducted by Dwi Priyanti, Siska Iriani (2013) entitled "Population Data Information System in Bogoharjo Village, Ngadirojo District, Pacitan Regency". This website aims to facilitate the Bogoharjo village office in the process of managing population data, assisting in the process of inputting data, searching data, and reporting residents.
2. This research was conducted by Ponidi, Sandy Fitrajaya (2015) entitled "Designing a Web Based Population Data Collection Information System Using the Waterfall Method in Gadingrejo District". This web facilitates the function of control and supervision of the population. Population data can be obtained easily without having to do data collection directly to where the population lives.
3. This research was conducted by Didik Setiawan, Yhoni Agus Setya Mahendra (2015) entitled "Designing Population Information Systems at Kebonsari Village Offices". this system obtained convenience in registering population records because the system that the author designed the officer directly enter the data so that it is easier for officers to work than before.
4. This research was conducted by Aprilia Arisanti Entitled "Designing a Web-Based Population Data Collection Information System Using the Waterfall Method in Bogorejo Village, Gedongtataan Subdistrict". This information system for population data collection at the village level will greatly help the Mendatan village officials within the scope of a village.

### 3. Findings

#### 3.1 Problem

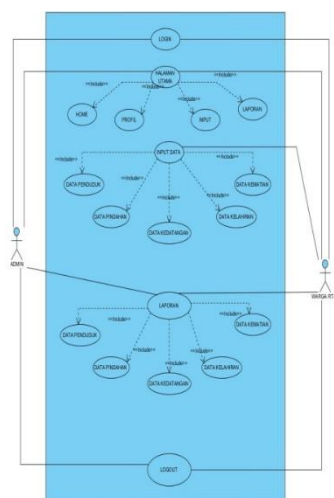
The problem faced is inputing data that is still manual so that it can cause data errors when inputting data constraints arising from manual processing is quite troublesome, especially when searching for information because the majority of the population works so it is difficult to process data. This problem is very detrimental to the head of the pillars aboutga and society.

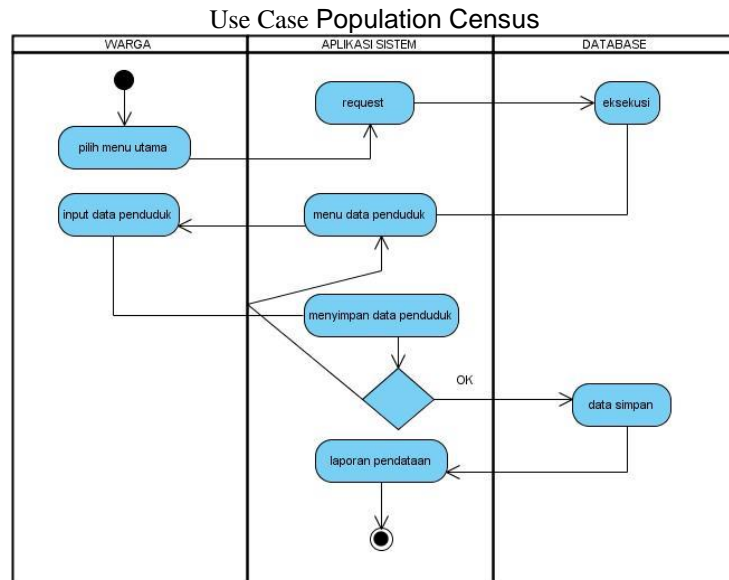
#### 3.2 Research Implementation

The system to be designed is expected to later be able to run or be carried out on a system that is as minimal as possible in order to provide economic benefits. To design this information system, software is needed as a media design system. Among them:

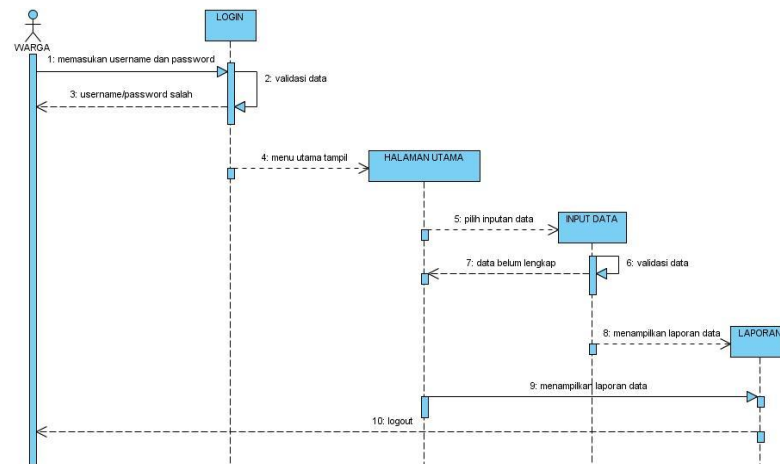
- a. Microsoft Windows 10
- b. Notepad ++
- c. XAMPP
- d. Software editor ( PHP dan HTML)

##### 3.2.1 Display System Design





Activity Diagram Population Cencus

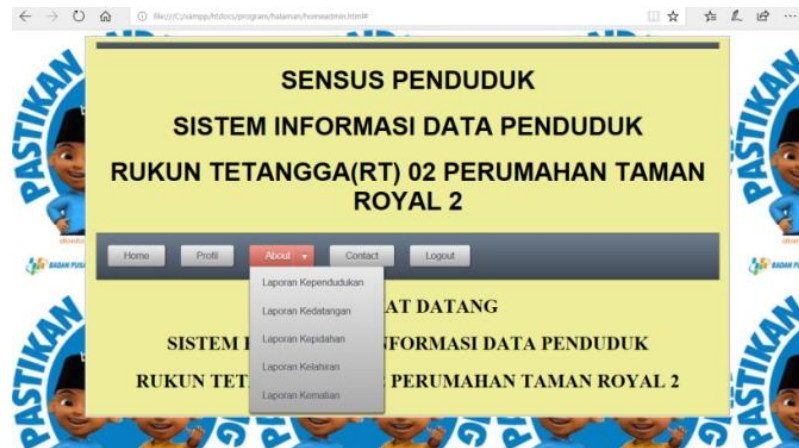


Sequence Diagram Population Cencus

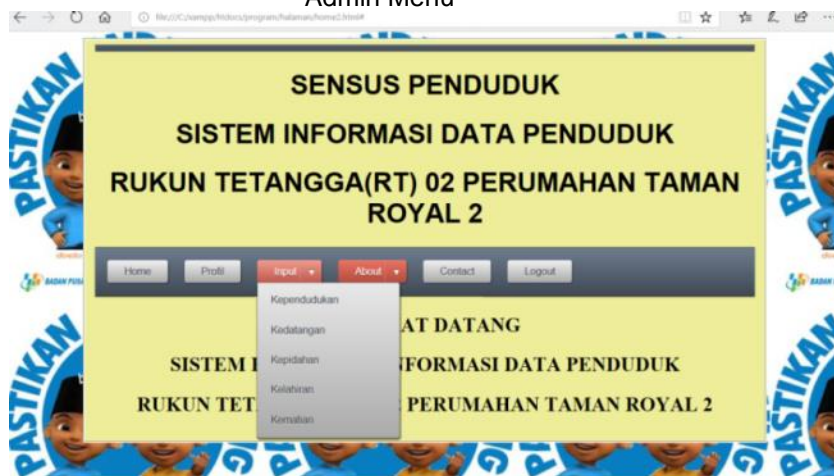
### 3.2.2 Design the Program Display



Admin and User



Admin Menu



User Menu



Move data input

Birth data input

Death data input

#### 4. Conclusion

1. Research RT 02 Taman Royal 2 Housing is an activity devoted to students through research, finding problems, solving problems and providing solutions to problems that occur on RT 02.
2. This application can provide detailed and accurate information about the population system online, so that all parties find it helpful in getting data effectively and efficiently. Solve a problem and provide a solution to the problem that occurs on.
3. Besides that, it can also save time and energy in processing population data.

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