



## Urgency Using The RUP Method in Developing Information System Disdukcapil Services, Subang District

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### ARTICLE INFO

#### Article history:

Received: 15/01/2021

Revised: 30/01/2021

Accepted: 28/02/2021

**Keywords:** Information System,  
RUP Method, Disdukcapil  
Subang Regency.

### ABSTRACT

The information system is defined as the process of delivering messages to one another, Disdukcapil of Subang district has problems in delivering messages, this study sees the urgency of development This research uses the RUP (Rational Unified Process) development method used when identifying a running system and describing the design. the system to be built with the aim of getting a system that is right for BPSB. The development analysis uses the RUP (Rational Unified Process) method as a tool in order to model the required business processes (business modeling) and define the system requirements to be created. In addition, this study uses the UML (Unified Modeling Language) tool. This study uses a case study as a method for data collection and retrieval where the research process begins by identifying a case to find a solution in the form of system development. Based on the results of the analysis, the running system still uses conventional methods, which results in the process of delivering information to consumers not optimal. Therefore, it is urgent to use the RUP method at Disdukcapil to make it easier for the public to control reports, KTP status and to be able to display data so that information delivery can run optimally. which resulted in the process of delivering information to consumers not optimal. Therefore, it is urgent to use the RUP method at Disdukcapil to make it easier for the public to control reports, KTP status and to be able to display data so that information delivery can run optimally. Therefore, it is urgent to use the RUP method at Disdukcapil to make it easier for the public to control reports, KTP status and to be able to display data so that information delivery can run optimally.

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## 1. Introduction

Population records are the most important thing in an area so that data collection and registration numbers for births and deaths are owned by the Subang district civil population records office (Gunaidi, 2018).

The Department of Population and Civil Registry has several work systems and fields in civil registration, Disdukcapil of Subang Regency has an online temporary residence certificate application that is accessed by anyone and verified by officers, this application does not run optimally so that it makes people feel less service.

There are several problems that occur in the implementation process (Sutanta, 2012), such as officers having to check and enter Microsoft Excel data one by one the names of the people whose KTPs have been printed, then make a data record which is then posted on the announcement board, so that people have to go back and forth to Disdukcapil to find out the status of the KTP has been printed or not.

Urgency Information systems (IS) involves a variety of information technologies (IT) such as computers, software, databases, communication systems, internet, mobile devices and many more, to perform specific tasks, interact with and inform various actors in various social organizations (Hartanto, 2019). Therefore, of general interest to the IS field is all aspects of the development, deployment, implementation, use and impact of IS in organizations and society. (Sebastian, 2015)

Information system is a combination of the words system and information, a system is a collection or set of elements, components, or variables that are organized, interact with each other, depend on each other,



and are integrated (Maulana, 2016)). This means that in the system a process will be carried out by the sub-process or system components based on predetermined input to produce a predetermined output (Jaja, 2020).

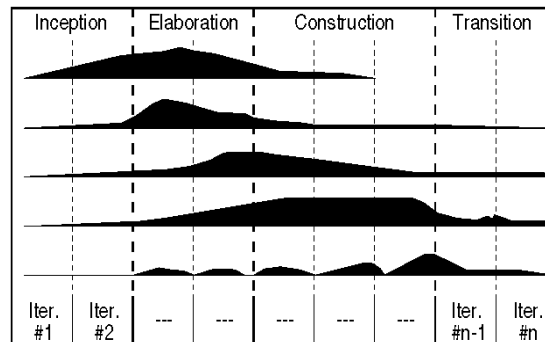
From the things that have been described, the RUP Rational Unified Process method approach is used when carrying out the identification process of the running system and describing the system design that will be built based on the problems that occur with the aim of getting a system that is right for the Department of Population and Civil Registry of Subang Regency. .

Based on the description of the above problems, the urgency of developing an information system using the RUP method is a solution in solving problems in the management of KTP at the Disdukcapil of Subang Regency. Because information systems with web technology have advantages including being accessible anytime and anywhere so that checking the status of KTP can be done quickly, precisely and accurately, and is able to increase the efficiency and effectiveness of the work of the parties concerned. In addition, it can also reduce paper use, so that government institutions can reduce the cost of procuring paper.

## 2. Research methodology

### 2.1. Information Systems Development Methods

The stages of system development in designing an information system for ordering a KTP list using the RUP (Rational Unified Process) methodology is an iterative software development approach, focusing on architecture (architecture-centric), more directed based on use cases use case driven (Latief, 2017). Deep phasesThe RUP methodology consists of:



**Fig 1** The RUP methodology consists of:  
Phasednature of the RUP

The phases in the RUP rational unified process development model are (Setiawan, 2017):

- a. Inception Beginning  
This stage is more on modeling the required business processes business modeling and defining the requirements for the system to be created requirements.
- b. Elaboration Expansion / Planning  
This stage is more focused on planning the system architecture. This stage can also detect whether the desired system architecture can be made or not. Detect risks that may occur from the architecture created. This stage is more on the stage of analysis and system design and system implementation that focuses on the system prototype.
- c. Construction  
This stage focuses on the development of system components and features. This stage is more on the implementation and testing of systems that focus on software implementation in program code. This stage produces software products which are a requirement of the Initial Operational Capability Milestone or initial operational capability limits.
- d. Transition  
This stage is more on the deployment or installation of the system so that it can be understood by the user. This stage produces a software product which is a requirement of the Initial Operational Capability Milestone or initial operational capability limits. Activities at this stage include user training, maintenance and testing of the system whether it meets user expectations.

The software product is also adapted to the requirements defined at the inception stage (Hutahean, 2019). If all the objective criteria are met, it is deemed to have met the Product Release Milestone product launch limit / milestone and software development is complete (Young, 2018).

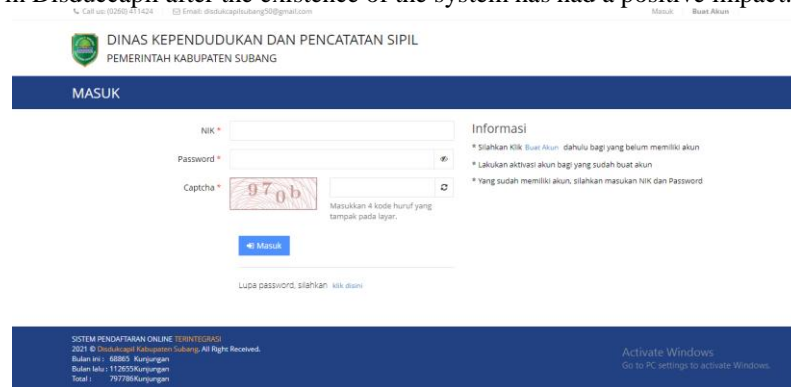
### 3. Results and Discussion

#### 3.1 The Urgency of Information System Development Based on the RUP Method

This study produces a design and visual design of a system built based on the RUP model workflow and conformity to user requests. The following are the design results in stage one, namely requirements planning, which is described by design using the UML tool unified modeling language by designing using a use case, activity diagrams and sequence diagrams.

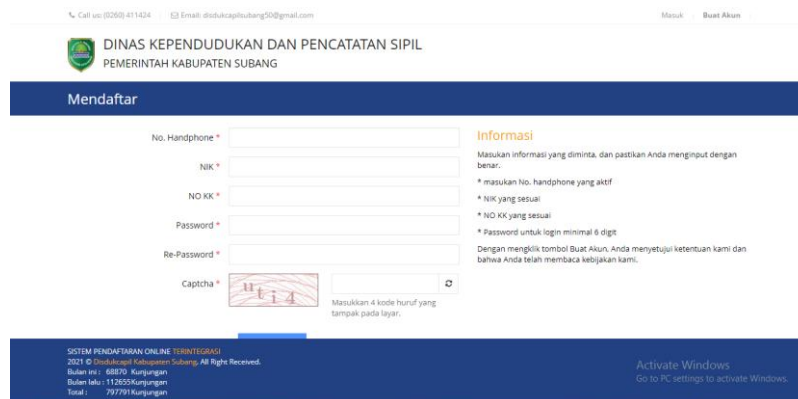
Urgency is defined as an urgent need and the development of information systems must be carried out immediately by customer satisfaction, research (Darmanta, 2020) determines 5 variables to measure the success of information systems, these variables are high levels of use, satisfaction with system usage, positive attitudes, use of system, the achievement of information systems and financial returns.

The results of this study indicate that the response from the community regarding the process of obtaining a KTP in Disduccapil after the existence of the system has had a positive impact.



**Fig 2:** Sistem Information Login Disdukcapil Subang

After the user, especially the system manager, has successfully logged in, the view will appear as shown in Fig 2, there is a profile link to be able to update, the master menu gives special rights to managers that are not found on users as citizens who apply for moving transfers. On the master menu there are two menu, namely, see submissions that contain public submission data to validate the validity of documents, report data on submission of moving letters, on this link data printing can be done according to the criteria provided by the system being built. The logout link is used to exit the system, this is important so that sessions or cookies are completely clean, so that when another officer uses the computer, he really uses his own login, so the system is safer.



**Fig 3:** Menu Register KTP Disdukcapil Subang

View Fig 3, a visual form of submission to move domicile to another area. The top column shows the amount of data that is currently submitting a transfer, and the bottom box contains detailed information on the transfer request, which contains the name, NIK, KK number, new address and reason for moving soul. The reason for moving is deliberately given because in the future it can be seen and grouped based on existing reasons, then there is a possibility that it can be used as a correction to existing policies or future planning. From this discussion it can provide an illustration, that converting the way of working from conventional to digital provides many conveniences, time efficiency and high accuracy as well as providing convenience in terms of archiving population data

#### 4. Conclusions

From the description of the design and research results, it can be concluded that the transfer of work patterns from manual to digitalized with the help of web-based computers is proven to ease the work of disdukcapil officers in serving the mutation needs of the community. the system can be eliminated so that accurate data is obtained. On the other hand, the public can monitor the progress of their submission requests. For further development, this system can be applied in sub-districts / villages in the mission of serving data submissions for the community, it can even be implemented in the Android system.

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