

MANAGEMENT INFORMATION SYSTEM OF *EMPLOYEE SELF SERVICE* (ESS) AS AN EFFORT TO INCREASE HUMAN RESOURCE SECTION PERFORMANCE CITY SUBREGIONAL POLICE BANDUNG IN PANDEMIC COVID-19

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ABSTRACT

The development of technology in the 4.0 era also facilitates administration and operations, so it can help with human resource data management in Bandung City Regional Police. In order to follow the medical procedure, personnel operations can be done online without going to the office and personnel department of the Bandung city police department, such as permits and leave, overtime.

This study uses the Software Development Lifecycle (SDLC) method. The SDLC model was chosen because it has the advantage of being able to identify problems with older systems in more detail and determine the need for a well-developed new system. The SDLC model used in this study is the waterfall model. The waterfall model is called a waterfall because it has to go through stages to wait for the previous steps to finish and work in sequence.

Based on the result of the system analysis that was running so it is proposed to design a new system, where the new system was expected could handle some problems. In modeling the new system, the author uses UML (Unified Modeling Language). With this ESS, employees can make the process easier administration such as requesting leave, etc. Because they can apply for administration at any time as long as there is an internet connection.

Keywords: *ess, employee, police*

INTRODUCTION

Covid-19 not only hinder economic outgrowth, but also it has hindered society movement such like operational activity, office and education. Covid-19 transmission which is getting expanding in Indonesia it's give effect society have to increase

discipline on obey to health protocol such as keep the distance, avoiding the crowded, using a mask and washing hand with the soap. Pandemic also give effect to policy that was made by the government to prevent this virus transmission more expanding, such as applied of restrictions on large scales social (PSBB) and social distancing in the some areas.

Social distancing also was done by learning, working and praying in the home. Thursday, March 19, 2020, head of Indonesian National Police made a notice Number Mak/2/III/2020 about submission to government policy on handling corona virus transmission (Covid-19) to follow the instruction of president to applied social distancing.

Not only public society of city subregional police Bandung also have to increase discipline on obey the health protocol in the middle of police duty which is always heavy.

Development of technology to 4.0 era also giving easiness on administration and operational activity, so that it's expected could help on manage the human resource data in city subregional police Bandung. To obey health protocol it's expected activity of human resource could be done by online without come to office and human resource section of city subregional police Bandung, such as permit and furlough, overtime activity until attenuation of assignment letter.

Aulia Esa (2018) on her research stated that ESS also allow task administrative such as apply for furlough, observe worksheet, asking about loan programme that available, asking to pay of overtime, looking for compensation history, and giving slip substitution. With the appearance of ESS, employee could be communicated with HRD without physical appearance that was considered not relevant on some transaction. ESS could be operated in company's internet or by using web service[1].

Employee Self Service (ESS) is a feature that was offered by system of Human Resource Information System (HRIS) which is modern and advanced. ESS is a portal that could be used by employees to sign in to their account and to access their human resource data. Data that could be accessed include private information and amount of furlough. Beside that, the employee also could use ESS to deliver furlough request, sick or permit to their manager. ESS give advantage to employee and company itself. Employee become more easier to change the information about personal data, such as address and phone number that could be contacted. And easiness on process to submission to permit, furlough or sick become more comfortable, easy and fast for the employee because they could submission whenever and wherever as long as they have internet access and could be accessed in the computer, laptop, and smartphone. The leader also could checkup directly of submission and giving approval for the administration activity that was submitted by their staff from smartphone[2].

It's also supported by the result of research that was written by [3] they are stated that the system which integrated on human resource management very required by company so being needs to manage employee presence better and needs on taking a decision which is more appropriate about admission new employee, employee evaluation, position placement, employee training, employee task, and discharge employee. Because the needs so it's be required a system that integrated on handling on presence process until discharge employee. So it could be help a company on doing an analysis, manage employee presence data which is better by minimize fraud occurs, reduce paper used and save a working time of human resource section on recap presence and help human resource manager on taking decision which is related appropriate based on the process that available in the company such s helping on decide the good employee on occupy a position base on the position of qualification with the ability on the employee.

Beside that, [4] doing a research about employee self service development where this system information technology very useful when employee on long distance and having a high of mobile rate on the organization.

Based on the many data of personnel at city subregional police Bandung until reach around more 3.000 personnel could be imagine how important of human resource collection data digitaly.

Table 1

City Subregional Police’s Bandung Personnel Data on January 2021

NO	POSITION	TOTAL		DESC
		Civil Servant List of Personnel Structure	Riil	
City Subregional Police Bandung				
1	Middle Police Officer	925	27	
2	First Officer		122	
3	Bintara		956	
4	ASN	75	52	
	Amount	1000	1157	
Sector Police				
1	Middle Police Officer	2422	28	
2	First Officer		309	
3	Bintara		1615	
4	ASN	54	30	
	Amount	2476	1982	
	Total of Amount			
	City Subregional Police	1000	1157	
	Sector Police	2476	1982	
	Amount	3476	3139	337

Table 2

Recapitulation of Indonesian National Police and Civil Servant of Indonesian National Police for Grade of City Subregional Police Bandung and array of month : January 2021

No	Sub of Work Unit	Civil Servant RIIL	Civil Servant List of Personnel Structure	Total Indonesian National Police & Civil Servant
City Subregional Police Bandung				
1	Head of City Subregional Police Bandung	0		1
2	Vice of City Subregional Police	0		1

	Bandung			
3	Operational Section	0	3	40
4	Ren Section	4	5	16
5	Resource Section	19	6	103

Source: Resource Section of City Subregional Police Bandung, 2021

In the table 1.1 and 1.2 above was indicated that section of human resource that amount 103 personnel have to could to accommodate total 3476 personnel of City Sub regional Police Bandung in the beginning on 2021 year. The table above as if support the research that was done by [5] that stated a process to submission and approval of employee administration in the company that have big enough employee could give an effect an administration process not efektiv. Therefore writer would to propose the title research of management information system employee self service (ESS) as a an effort to increase human resource section performance City Subregional Police Bandung in pandemicCovid-19.

If we has seen from the advantage of ESS like a research that was done by [6] conclude that information system of human resource could be used to help on manage human resource. On this research is show that ESS system could be implement and human resource management after using ESS easier and faster from a time, such as make it easy to submission furlough and looking for employee data, and save paper out as amount 97%.

Meanwhile, the research that was done by Lestari Margatama with the title “development and implementation of human resource information system based self service employee. Case study : BCP Indonesia”. This research if focused to human resource administration PT. BCP on making and implement ESS with developing of prototype system and modeling tools of UML. This result of research was prove that system which is designed could be quickly access the information and company’s procedure to shorten administration time and employee document BCP and ESS could handling human error on furlough, health allowance, and calculate of overtime quota also make easier to evaluate.

Research that was done by [7]with the tittle “Analysis and planning to design the employee self service system based on web in the management of PT. MCI”. This research was focused to the development of employee self service by using prototype methodology and problem analysis using PIECES analysis, whereas planning to design the system by using UML. This result of research was prove that ESS could make easier admin on administration process because admin doesn’t need to looking for the data such a physical document because data has been saved in the databse.

Research that was done by [8] with the tittle “Development of ESS System Using Mobile Application on PT. Mastersystem Infotama”. This research focused to ESS (*Employee Self Service*) as presence system by company’s portal web. Presence is done by ESS if mobile employee (meeting, doing some project in customer, etc) doesn’t have face print as long as stay at office. ESS not only as replacement of face stamp, but also to submission furlough, permit, or when the employee getting sick. ESS on this research was proved better if it equipped with the G-maps feature when user updating presence so it could be seen where is the user there.

Beside that, based on the research that was done by [9]with the tittle “Human Resource Information System on Modul Bandung Techno Park Employee Self Service”. Information System Of Employee Self Service that was made able to speed up process of service on making application letter to treatment information, salary, and furlough without have to waiting a presence of human resource – general affair staff on their room.

It be expected with arranged a planning to design management information system of employee self service (ESS) as an effort to increase human resource section performance city subregional police Bandung in pandemic Covid-19, service of city subregional police Bandung could be more better because organization internal activity could be done efficiently and effectively, beside that also could be support the government policy on doing restrictions on large scales social (PSBB) to push down a spread of Covid19 virus that still be held until this time.

LITERATURE REVIEW

Management Information System

Information system according to [10] is an organization system that meet a need of management daily transaction, operational supporting, managerial and strategic activity from an organization and reserve special external party with reports that was need management information system is one of variety information system that produce information that was used to made some decision and also could be help to united some business information function that has been computerized (database)

Management information system or MIS according to [11] on paper of management information system is planning system as a part of internal control some business such as human use, document, technology, and procedure by management accounting to solve business problem like cost of product, services, or some business strategic.

Employee Self Service

ESS (Employee Self Service) application according to Endang Sri Palupi on paper of Ikraith-informatika is an application that was provided by human resource development to give easiness of employee interaction with data of the employee affair, both of information such as presence, payment slip and master data of employee. Nor some transaction that could be done directly by employee like furlough and overtime. Also to make safety awake every transaction directly was done by employee and confidentiality principle of private information, so every employee that could log in to this application only could to access and having transaction for active employee data in this application and also this application was accompanied with the multi approval method (Graded Validation) by direct supervisor on every transaction.

Performance

According to [11] performance is an element of recording work result human resource from time to time so it could be known how far work result human resource and what kind of improvement that have to be done so in the future will be better. To achieve a target and company's goal, organization was arranged on smaller work units, with the division of work, work system and clear mechanism of work.

Method

This research is using Software Development Life Cycle (SDLC) method. SDLC model was chosen because this model have advantage such as could be identified a problem on old system in more detail and also allow us to determine a need of new system that would be properly developed. SDLC model that was used on this research is waterfall model. Waterfall model or Classic Life Cicle is a model the most used on Software Enginnering (SE). it's called waterfall because step by step that

should be passed to waiting finishing of previous step and working sequentially. This method have structured development step that could be depicted as follows :

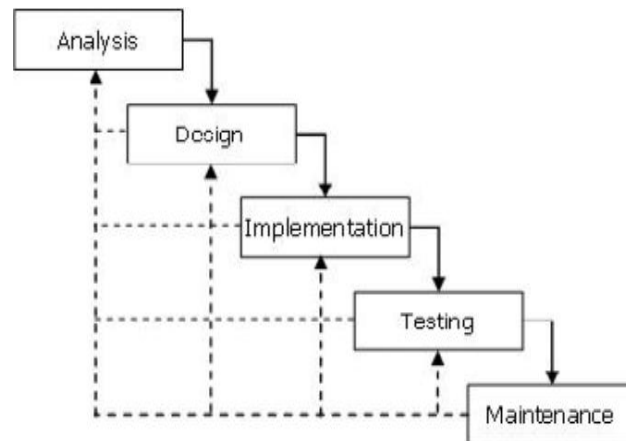


Figure 3.1 Waterfall Method

Every step was explained as follows :

1. System Requirements Analysis

In this step was done an observation directly to collect software function requirements based on the problem that happen

2. System Planning Design

Software planning design is process of multi-step that focused to four different program attributes; structure of data, architect of software, representation of interface, and detail of procedure. Process to design is meaning a need to some software representation that could be estimated for quality before start code generation.

3. Coding

Design have to translated into kind of machine that could be read. Step to making a code doing this task. If the design was done by the complete way, making a code could be finished step by step.

4. Testing

Testing process have focused to internal logic and need of functional from software with to make sure that all question have been tested by directing a testing to find problems and to make sure that input that was limited would give actual result which based on the result that was need. Output that was produce by system have to noticed, is it has been suitable with you want or not.

5. Maintenance

Software would having a change after it was given to the customer. The change would be happened mistakes, because software have to adjust to accommodate changes on external environment.

RESULT AND DISSCUSSION

Based on the result of system analysis that was running so it be proposed to design new system, where on new system was expected could be handle some problems.

1. Proposed System Planning Design

Proposed use case system

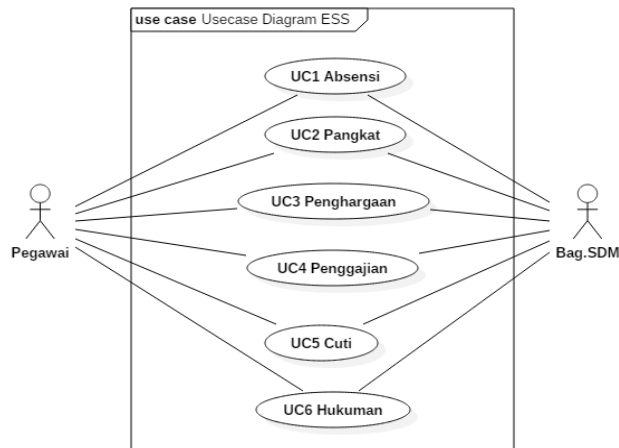


Figure 4.1 Use case Diagram ESS

Pegawai = employee

UC1 Absensi = UC1 Presence

UC2 Pangkat = Position

UC3 Penghargaan = Reward

UC4 Penggajian = Payroll

UC5 Cuti = Furlough

UC6 Hukuman = Punishment

Bag. SDM = Human resource section

Following is diagram activity sample for use case UC5 Furlough

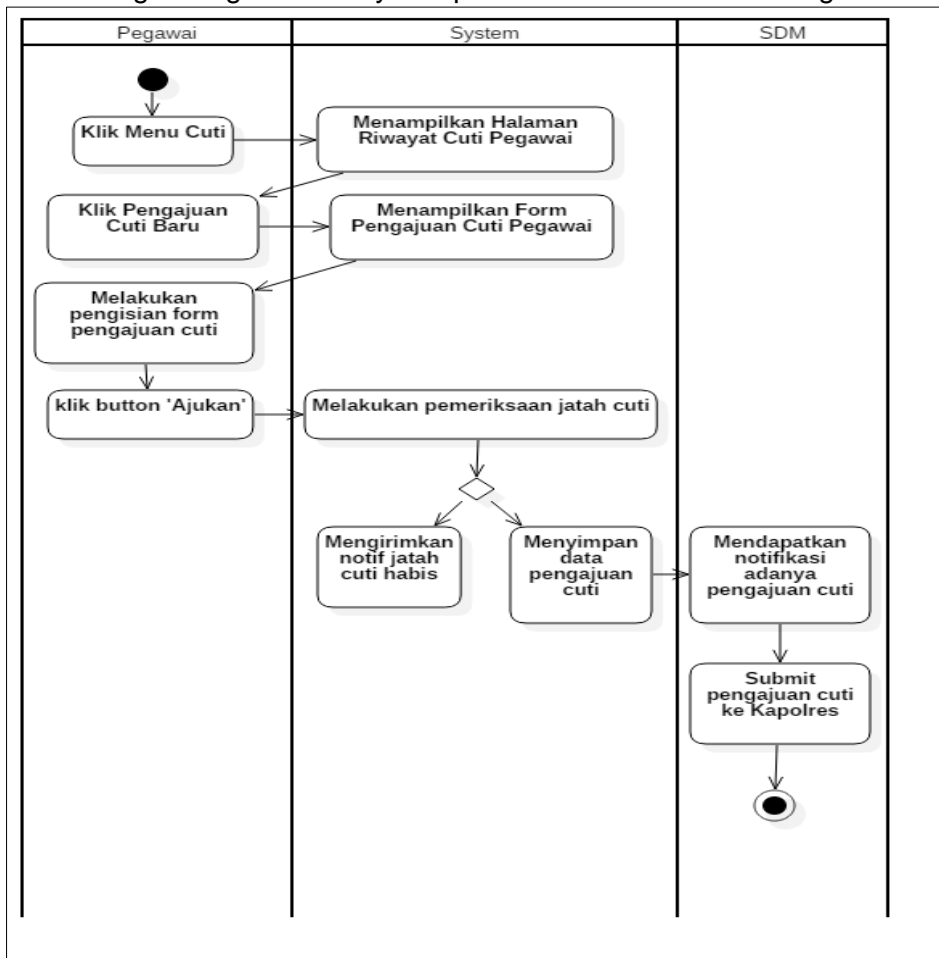


Figure 4.2 Diagram Activity of Furlough Submission

Pegawai = Employee
 Click the furlough menu
 Click the submission to furlough
 Fill submission furlough form
 Click the button 'apply'
 System = system
 Show employee furlough history page
 Show submission furlough form
 Checkout furlough capacity
 Mengirimkan notif jatah cuti habis = send empty furlough capacity notification
 Menyimpan data pengajuan cuti = save the submission furlough data

Human resource

Mendapatkan notifikasi adanya pengajuan cuti = getting submission furlough notification

Submit pengajuan cuti ke kaplores = submit submission furlough to head of subregional police

2. Software Implementation
 - a. Windows Operation System 7 Ultimate
 - b. Xampp
 - c. Programming using Framework laravel
 - d. Database using PHP
 - e. Access to web could be use Google crome, Avast Secure Browser

3. Hardware Implementation

To running this information system so it need some hardware as supporting. The hardware that was need are :

- a. Processor that used with the speed up 4,0Ghz
- b. Minimum RAM is 4 GB
- c. Minimum harddisc is 250 GB
- d. Mouse, keyboard and monitor also printer

4. ESS Application Menu Structure

Program structure that was used is main page program structure (front-end) and administration page (back-end)

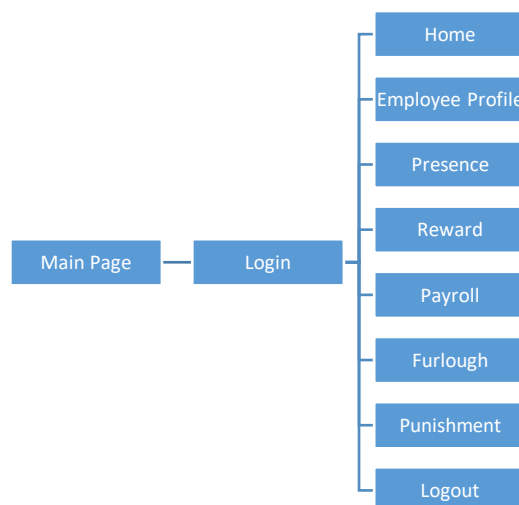


Figure 4.3 Structure Menu ESS

CONCLUSION

With this ESS, employees can make the process easier administration such as requesting leave, etc. Because they can apply for administration at any time as long as there is an internet connection.

SUGGESTION

In order to obtain optimal results, further development is needed in the manufacture of ESS based on this research.

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