

Web-based information system design of Graveyard licensing Administration in Grogol Selatan sub-district

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Abstract: The role of service is very important in the current era of globalization, especially in government agencies engaged in services which will be needed by the applicant or the community. With time constraints and the impact of the Covid pandemic which has closed access to direct communication, it will make it difficult for some applicants or the public to apply for permits. The purpose of this research is to build a website that helps the One Stop Integrated Service (PTSP), so that applicants can apply online as one of the government's main functions in efforts to fulfill applications in the field of licensing services. Governor Regulation No. 47 of 2017 concerning instructions for the Implementation of One Stop Integrated Services (PTSP) for submitting applications for the issuance of Graveyard Land Use Permits (IPTM). This research is based on the waterfall software development method and data collection techniques with the results of observing the Web-Based Information System of Graveyard Licensing Administration in Grogol Selatan Sub-District.

Keywords: Web-Based, Information System Design, Graveyard Licensing Administration, Waterfall Method, System Development Life Cycle.

INTRODUCTION

According to Mulyanto in (Purba, 2022) "An information system is a system consisting of a collection of system components, namely software, hardware and brainware that processes information into output that is useful for achieving certain goals within an organization".

One-Stop Integrated Service (PTSP) is an activity of administering licensing and non-licensing based on delegation or delegation of authority from institutions or agencies that have non-licensing licensing authority whose processing starts from the application stage to the document issuance stage which is carried out in one place. The intent and purpose is clear, namely to provide licensing and non-licensing services that are fast, transparent and provide legal certainty and realize the rights of the community and investors to obtain licensing services in the licensing sector, (dunianotaris.com, 2018).

The population growth in the city of Jakarta has a fairly dense level of density in the community, so that the availability of cemeteries in Jakarta has been much reduced. The City of Jakarta Parks Service is one of the government agencies that has an important role in supporting the submission of a City of Jakarta, especially in managing landscaping and

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cemeteries with government agencies, one of which is engaged in this cemetery. However, in reality the Funeral Service is really needed by the people of the City of Jakarta apart from the government agency itself, the place of cemetery is under the supervision of the local government. This is because the death rate in Jakarta during the pandemic increased, and residents who were buried in Jakarta reached 17,937 people from January to April 2020.

To overcome the availability of burial land, one of them is holding overlapping graves, provided that they are still in the same family or obtain written permission from the heirs of the corpse concerned. Therefore, processing in order to produce a clear and accurate service. So far, applications for permits to use grave land have been carried out online, but the problem is that the applicant must come to the Grogol Selatan Sub-District Office to apply directly with several processes that are quite time-consuming, namely filling in the manual form and submitting the physical requirements file, then making payments at The bank then returns to the Kelurahan Office to confirm payment and receive a printed IPTM.

Then the problem above, the author discusses about the Web-Based Information System of Graveyard Licensing Administration in Grogol Selatan Sub-District, with the aim of time efficiency and making it easy for people who want to apply for a Cemetery Land Use Permit through online submissions.

LITERATURE REVIEW

Governor of DKI Jakarta 2012-2014, Joko Widodo, has the thought of creating government services that are easily accessible to the public. Joko Widodo at that time hoped that there would be an agency capable of providing fast and uncomplicated licensing and non-licensing services.

The One-Stop Integrated Service Agency (PTSP) is a regional work unit formed based on Regional Regulation Number 12 of 2013 concerning the implementation of One-Stop Integrated Services. This work unit has the task of serving licensing and non-licensing one-door systems.

Now applicants no longer need to go to each related agency, just come to the BPTSP office as a one stop service in DKI Jakarta as follows:

Improving licensing and non-licensing services ;

Making it easy for the public to obtain licensing and non-licensing services ;

Increasing the certainty of licensing and non-licensing services.

Information System Design is an analysis that provides a starting point for design while design provides a starting point for implementation so that analysis and design document the results to coordinate the work of many people and to communicate with various activities.

According to Satzinger, Jackson and Burd, 2016 in (Yendrianof, 2022)

According to (Rizki Wahyudi, 2017) "The waterfall model provides a sequential or sequential software lifeflow approach starting from analysis, design, coding, testing, and support stages".

The stages of the waterfall method can be seen in the image below:

Analysis

At this stage the system developer needs communication that aims to understand the software expected by the user and the limitations of the software. This information can usually be obtained through interviews, discussions or direct surveys. Information is analyzed to obtain the data needed by users.

Design

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The requirements specifications from the previous stage will be studied in this phase and the system design is prepared. The system design helps in determining the hardware and system requirements and also helps in defining the overall system architecture.

Coding

At this stage, the system is first developed in small programs called units, which are integrated in later stages. Each unit developed and tested for functionality is referred to as unit testing

Testing

All units developed in the implementation phase are integrated into the system after testing is carried out for each unit. After integration, the entire system is tested to check for any failures or errors.

Implementation of the Maintenance Program

The final stage in the waterfall model. Finished software, run and perform maintenance. Maintenance includes fixing errors that were not found in the previous step. Improved system unit implementation and increased system services as new requirements.

METHOD

The author collects data through the waterfall method. According to (Wahyudi & Lutfi, 2017) "The waterfall model provides a sequential or sequential approach to the software life flow starting from analysis, design, coding, testing, and support stages".

The stages of the waterfall method are:

Analysis and software requirements

At this stage the authors makes the process of gathering needs carried out automatically intensively to specify software requirements in order to understand, what kind of software is needed by the Admin for graveyard licensing. The system requirements at this stage are, the user must log in first to get access to this application by using username and password so that the privacy of each user is maintained, the system can input data, manage and also print results needed.

Design

At this stage the authors designs the design and design stages that will be carried out by making Entity Relationship Diagram (ERD), Use Case, Logical Relational Structure (LRS), Activity Diagrams.

Generating program code

At this stage the authors makes the program code using a programming language PHP (Personal Home Page), CSS (Casading Style Sheet), and databases MySQL.

Testing

At the program testing stage, the authors ensures that some programs there are already running according to needs and usability. Testing done after the program code is complete and the program can operate. At the testing stage, authors uses Black Box Testing.

The data collection methods carried out in the study are :

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Observation

The authors make direct observations of activities related to the problems taken, from the observations that are used as material for the Final Project. For the place the author is going to, namely the Grogol Selatan Village Office, one of the Government agencies in the One-Stop Integrated Services (PTSP) section with observations of Web-Based Information System of Graveyard Licensing Administration in Grogol Selatan Sub-District.

Interview

The authors obtained complete information to carry out a question and answer method regarding all activities related to the good. To the Head of the PTSP Unit, Mr. Gamal Aksha who is on duty to obtain information and data and add scientific insight regarding matters that are not yet known to the authors

Literature Studies

This method is used by authors to add information in the form of theory or results of studies in the same field of science with the aim of increasing the content of information based on literature or references.

RESULT

Based on the results of observations, several problems were identified, namely:
 Because they still use 2 different web applications (the Parks and Cemeteries Service Application, and the Erred Application) for IPTM applications;
 System errors often occur;
 Cannot be accessed by applicants or independent data input.
 In order to fix the problems that occur, a system is needed that can handle these problems, namely by using an independent web-based computerized system, so that the system that runs in Grogol Selatan Sub-District can be used publicly. The authors designed an independent web-based information system with the hope that it would be useful for overcoming existing problems and making it easier for each applicant to submit permits.
 To simplify and provide comfort to users in accessing the system and for the smooth operation of the system, the authors carry out an analysis of user needs as illustrated in the use case in Figure 1.

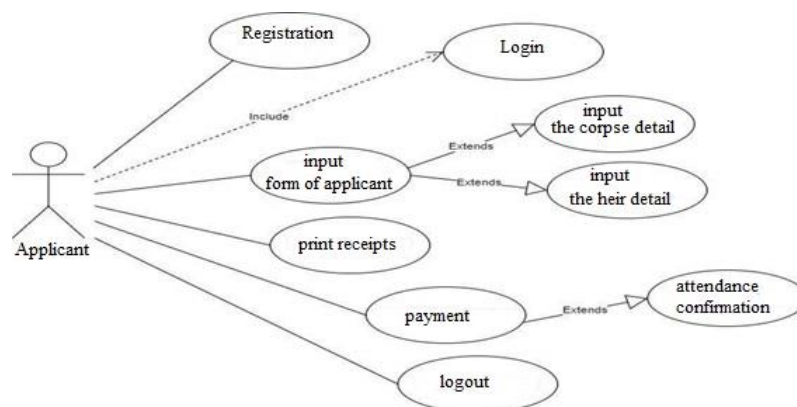


Figure 1. Use Case Diagram for User (Applicant)

The prototype design proposed by the authors is :

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Login The login page is the initial page when the program is run. In this page the user must enter the username and password to enter into the system.



Figure 2. Registration Page

Registration form, serves to fill in biodata that aims to participate in an activity. So that the form is paper that is printed according to a predetermined format. The format can then be filled in according to the type information required by the person or company that created the form.

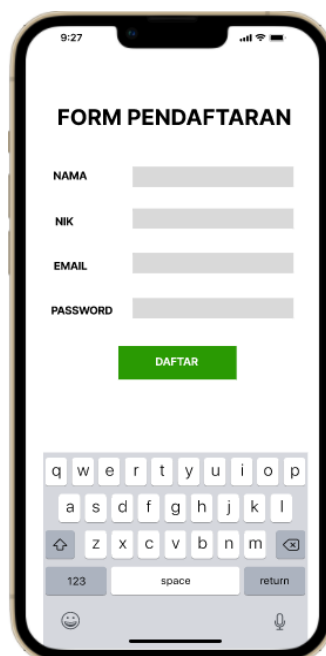


Figure 3. Registration Form

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Login interface It is a requirement to be able to take advantage of the program as a whole. In this login menu there are two data that must be entered, namely:

User Name: Is a user who has been registered and authorized to use the application.

Password: An absolute requirement to be able to enter the system.



Figure 4. Login Interface

The menu is a list of commands of a software (program) which when executed will carry out a certain command from the application.



Figure 5. Menu Interface

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Corpse Biodata Form

9:27

Form Data Jenazah

Nama Jenazah

NIK

Alamat

Tanggal Meninggal

Tanggal Dikubur

Unit

Blok

TPU

Upload KTP Pemohon Upload Surat Kematian

Selesai

Figure 6. Corpse Biodata Form Interface

Heir Biodata Form

9:27

Form Data Ahliwaris

Nama Ahli Waris

NIK

Alamat

Hubungan Keluarga

Agama

No.Handphone

Kewarganegaraan

Selesai

Figure 7. Heir Biodata Form Interface

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Retribution Print / Print Receipt



Figure 8. Print Retribution

Payment Interface

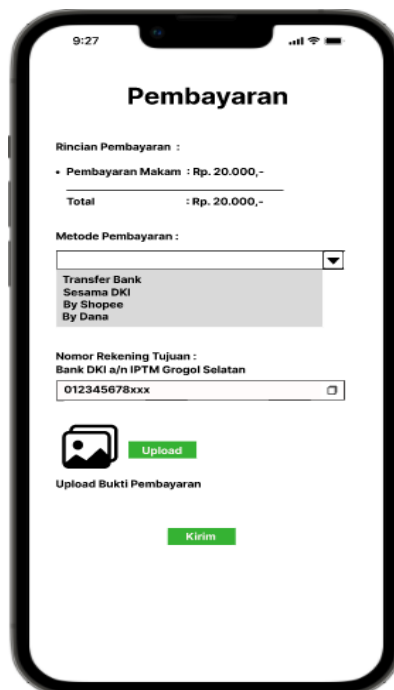


Figure 9. Print Payment

Advent Schedule Form

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Figure 10. Advent Schedule Interface

DISCUSSIONS

One-Stop Integrated Service (PTSP) is an activity of administering licensing and non-licensing based on delegation or delegation of authority from an institution or agency that has non-licensing licensing authority whose processing starts from the application stage to the document issuance stage which is carried out in one place. The intent and purpose is clear, namely to provide licensing and non-licensing services that are fast, transparent and provide legal certainty and realize the rights of the community and investors to obtain licensing services in the licensing sector (dunianotaris.com, 2018)

CONCLUSION

Based on the results of research regarding the Design of a Web-Based Cemetery Licensing Administration Information System in Grogol Selatan Village, the authors conclude that: Generate fast and accurate information to assist and facilitate the process of designing and developing a Web-Based Cemetery Land Licensing Administration Information System in Grogol Selatan Sub-District.

Transparent Be open about information on licensing/non-licensing services given time, procedures and costs to assist, serve, provide solutions and convenience.

This method is used by the author to add information in the form of theory or the results of studies in the same field of science with the aim of increasing the content of information based on literature or references.

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