



Design of Small Business Licensing Information System PTSP Kelurahan Pulogadung Jakarta

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ABSTRACT

The demand for better and more satisfying public services for the people is a need that must be met by the government. The One-Stop Integrated Service Office is a Pulogadung village government agency tasked with providing licensing services, one of which is the making of micro-small business licensing which is considered less effective and efficient because the process is still done manually. The purpose of this research is to create an information system for licensing and request for licensing recommendations at the Pulogadung Village PTSP Office on a web-based basis to provide better services. The system development model used is the waterfall method and structured analysis modeling. In making this information system there are two requirements analysis needed, namely, software analysis and system design analysis. This system is made with PHP, SQL, Javascript and to arrange website structure using HTML and CSS programming languages. With the web-based information system design in the Pulogadung Village PTSP Office, it is expected to provide convenience to the public who want to open a business in managing micro-small business permits. Besides that, employees can manage the application data submitted by the applicant quickly and accurately and transparently, this study using the waterfall methodology.

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1. Introduction

The demand for the improvement of good and satisfying public services is a necessity that must be fulfilled by the government. The government must be able to change poor public services for the better. Poor portraits of public services such as service uncertainty, the absence of clear and easily understood service standards leave the public in a weak position when dealing with public service providers. Also, long procedures and long periods in the process of public service become a public problem that often occurs (Syaeful et al., 2017).

One of the public services that is most often accessed by the public is licensing services. As it is known that people's lives will not be separated from licensing. Licensing is needed when building, commercial businesses, minimarkets, doctor practices, midwife practices, pharmacies and many other types of licensing (Syaeful et al., 2017).

The more rapid development of the times with the use of information technology should be a solution to the existing public service problems. Information technology can be utilized to improve services more quickly, transparently so that public services become more effective and efficient. Information technology-based public services need to be applied to reduce the risk of discrimination in





providing services, uncertainty about the time or cost of services and of course reduce (Syaeful et al., 2017).

Referring to Presidential Instruction Number 3 of 2003 concerning "National Policies and Strategies for e-Government Development", efforts to develop governance based on (electronic) use to improve the quality of public services effectively and efficiently. Through the development of e-government, management systems and work processes will be structured in the government environment by optimizing the use of information technology. The One Door Integrated Service Office in Pulogadung Urban Village is a government agency tasked with providing licensing services, one of which is the licensing of small micro-businesses. To facilitate the application for a recommendation for a micro-small business permit, it requires an information system as an initiative to provide effective and efficient services to overcome problems in the service that have been running manually.

The problems faced by Pulogadung Kelurahan are to provide solutions to overcome problems in the management, control, and issuance of micro small business permits at the Pulogadung Kelurahan One-Stop Integrated Service Office, and to provide convenience, fast, precise and accurate to businesses in managing micro-small business permits. ., as well as implementing the design of a small micro-business permit information system at the One-Stop Terpadu Service Office in Pulogadung, Jakarta to make it easier to manage, collect data and issue licenses.

2. Theory

2.1. Understanding of Information Systems

A system is a group of elements that are closely related to one another and simultaneously function to achieve certain goals. Sutabri (2012) (Imaniawan & Nur, 2019)

Information is data that is processed into a form that is more useful and more meaningful for the recipient. Hutahean (2014: 9)

Information system is a system within an organization that meets the needs of daily transaction management, supports operations, is managerial, and strategic activities of an organization and provides certain outsiders with reports. Hutahean (2014: 13)

2.2. Website

The website or site can be interpreted as a collection of pages that are used to display text information, still or motion pictures, animations, sounds and or a combination of both static and dynamic nature that form a series of interrelated buildings. Hidayat (2010: 2) in (Kusniawan & Sardiarinto, 2016)

The internet is a network that is used to inform the website. Abdulloh (2016) in (Imaniawan & Nur, 2019) Web Server is an application program that has a function as a place to store web documents. Brief (2011) in (Imaniawan & Nur, 2019). A web browser is used to display the results of websites that have been made ". The most commonly used web browsers, including Mozilla Firefox, Google Chrome, Internet Explorer, Opera, and Safari. Abdulloh (2016) in (Imaniawan & Nur, 2019).

2.3. Entity Relationship Diagram (ERD) and LRS (Logical Record Structure)

Entity Relationship Diagrams (ERD) are diagrams that show information created, stored, and used in business systems. Al-Bahra (2005: 84) (Rahmayu, 2016).

LRS (Logical Record Structure) is a representation of the structure of records in tables that are formed from the results of a set of entities. (Sukamaindrayana & Rahman Sidik, 2017).

2.4. UML (Unified Modeling Language)

Unified Modeling Language (UML) is a family of graphical notations supported by a single meta-model, which helps to describe and design software systems, especially systems built using object-oriented programming. (Isa & Hartawan, 2017)

UML is described by several diagrams including:

a. Use Case Diagrams

Use Case diagrams are used to illustrate the system from the user's point of view. so that the use of case use diagrams is more focused on the functionality that is on the system, not based on the flow or sequence of events. A use case diagram presents an interaction between actors and the system.

b. Activity Diagram

Describes a series of streams of activities, used to describe activities that are formed in operation so that they can also be used for other activities. Making activity diagrams at the beginning of modeling the



process can help understand the whole process. Activity diagrams are also used to illustrate the interactions between several use cases.

c. Class Diagram

Class is a specification that will produce objects and is the core of object-oriented development and design. The class describes the state (attribute or property) of a system while offering services to manipulate that state (method or function). The class has three main areas, namely:

- 1) Name (Class Name)
- 2) Attributes
- 3) Method (Operation)

d. Sequence Diagram

Describe interactions between a number of objects in chronological order. Its function is to show the sequence of messages sent between objects as well as interactions between objects that occur at a certain point in the system's execution.

3. Results and Conclusions

3.1. System Design Stage

A. Analysis of Needs

a. User Needs

A1 Staff requirements scenario

- a) View the Main Page
- b) Add application data
- c) Editing application data
- d) Delete application data
- e) Can see the application data

A2 Unit Head Requirement Scenario

- a) View the Main Page
- b) Manage application data
- c) Approve the application letter
- d) Printing application letter
- e) Print the village recommendation letter
- f) Printing a micro small business permit
- g) Manage staff data

b. System Requirements

- 1) Users can log in
- 2) Users can see the main page
- 3) Users can view the application data page
- 4) The user can approve the application letter
- 5) Users can print application letters, recommendation letters, and micro-small business permits.
- 6) Users can see staff data
- 7) The user must log out after completing using the application
- 8) The system can display a login page
- 9) The system can validate the officer's username and password
- 10) The system can display the main page
- 11) The system can display request data
- 12) The system can display the request data form
- 13) The system can store request data
- 14) The system can display detailed application data and document data
- 15) The system can display details of the application letter
- 16) The system can display detailed recommendation letters
- 17) The system can display details of micro small business licenses
- 18) The system can display staff data pages
- 19) The system can display staff data forms
- 20) The system can process staff data storage
- 21) The system can display edit staff data



22) The system can process delete staff data

B. Design of Use Document Document

a. Diagram Use Case Staff

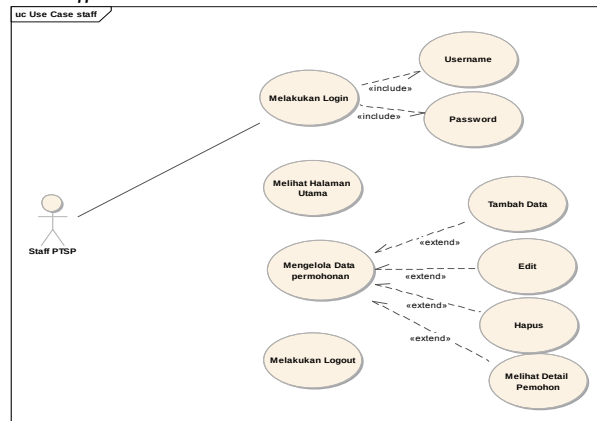


Fig 1. Use Case Diagram of Proposed Micro Small Business Licensing Information System Staff.

b. Design of Activity Salt

1) Activity Diagram Staff Doing Login

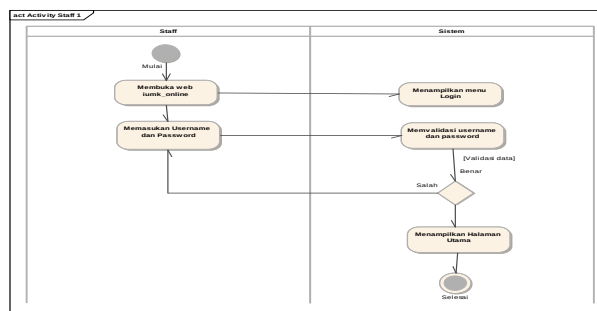


Fig 2. Activity Diagram Staff login.

1) Activity Staff Diagram Managing Application Data

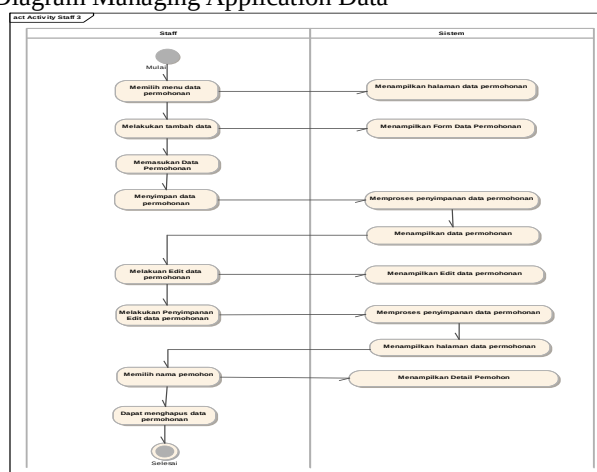


Fig 3. Activity Staff Diagram Managing Application Data



e. Logical Record Structure (LRS)

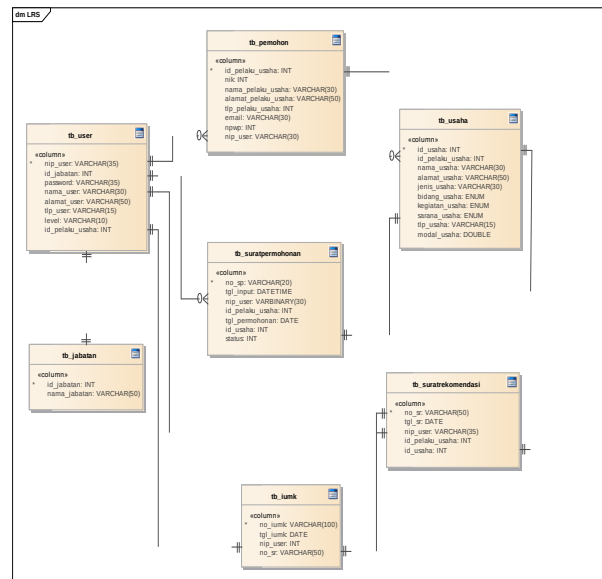


Fig 9. Logical Record Structure (LRS)

f. Class Diagram

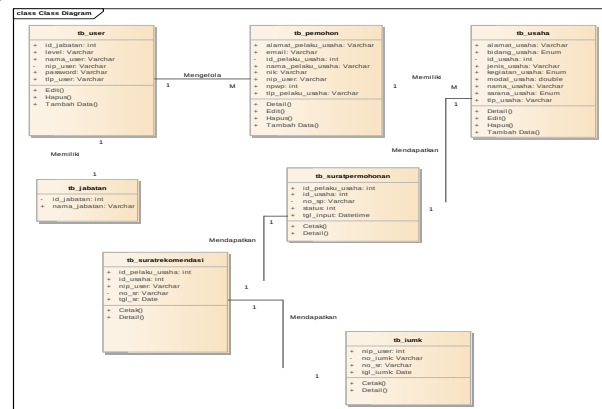


Fig 10. Class Diagram.

4. Conclusion

The design of information systems for licensing micro-small business with the waterfall method in the Pulogadung Village PTSP Office can provide work effectiveness. Broadly speaking, based on the results of the design and manufacture of applications for licensing information systems that have been carried out can be collected as follows:

- 1) By using this system, the business licensing service process that occurs between the user and the business actor will be well organized at the time of inputting the applicant's data and printing a business license.
- 2) This information system can be a tool for users in managing data applications stored neatly.
- 3) The user is also assisted in carrying out a more effective and efficient process for approving the application letter.
- 4) Development of a licensing information system at the Pulogadung Village PTSP Service by using a database and PHP. This website design consists of the main page menu, request data menu, letter menu, and data menu staff can run the licensing service quickly and precisely to produce real-time information.



5. References

- [1]. Abdulloh, R. (2016). *Easy and Simpel Web Programing* (1 ed.).
- [2] Hutahean, J. (2014b). *Konsep Sistem Infromasi* (1 ed.). Yogyakarta: Deepublish.
- [3] Imaniawan, F. F. D., & Nur, H. M. (2019). Perancangan dan Pembuatan Website Penjualan Biji Kopi Pada Society Coffee House Purwokerto. *Jurnal Evolusi*, 7(1), 61–67.
- [4] Isa, I. G. T., & Hartawan, G. P. (2017). Perancangan Aplikasi Koperasi Simpan Pinjam Berbasis Web (Studi. *Jurnal Ilmiah Ilmu Ekonomi*, 5(10), 139–151.
- [5] Kusniawan, A., & Sardiarinto, S. (2016). Perancangan Website Jasa Desain Interior Sebagai Media Pemasaran Studi Kasus: CV. Focalpoint Interior. *EVOLUSI - Jurnal Sains dan Manajemen AMIK BSIPurwokerto*, 4(2), 1–10. Diambil dari <http://ejournal.bsi.ac.id/ejurnal/index.php/evolusi/article/view/694>
- [6] Rahmayu, M. (2016). Rancang Bangun Sistem Informasi Pada Rumah Sakit Dengan Layanan Intranet Menggunakan Metode Waterfall. *Jurnal Evolusi*, 4(2), 33–40. <https://doi.org/https://doi.org/10.3929/ethz-b-000238666>
- [7] Sukamaindrayana, A., & Rahman Sidik. (2017). Aplikasi grosir Toko RSIDIK BUNGUSARI