JURNAL TEKNOLOGI DAN OPEN SOURCE
Vol. 4, No. 1, June 2021, pp. 71~77
e-ISSN: 2622-1659, accredited Four Grade by Kemenristekdikti, Decree No: 36/E/KPT/2019
DOI: 10.36378/jtos.v4i1.1381

WEB-BASED LAWYER INFORMATION SYSTEM DESIGN AT *NURHADISIGIT* LAW OFFICE

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Article Info

Article history:

Received 17 May, 2021
Revised 09 June, 2021
Accepted 09 June, 2021

Keywords:

Sistem Informasi
Pengacara
Waterfall
NurhadiSigit
Law Officer

ABSTRACT

The presence of information systems today can be felt by almost all elements of society. In the elements of government, education, public and private industry, even UMKN has started to use information systems in carrying out their activities. The development of information system technology has not fully touched the current field, one of them is the element of the profession as a lawyer. In the 4.0 revolution era, lawyers should use a website-based information system. This is done to make easy for clients to get information quickly and accurately. Making information systems using the waterfall method can run effectively, because it has phase of system requirements analysis, design, coding, and testing. With the support of the HTML, PHP, Javascript, and CodeIgniter programming languages so that the process of creating a lawyer information system at *NurhadiSigit* Law Officer runs as expected and can be implemented optimally.

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1. Introduction

The presence of information systems today can be felt by almost all elements of society. The elements of government, education, public and private industry, even UMKN have started to use information systems in carrying out their activities. An example of the use of the development of information systems in government is the existence of booking information system in the process of making website-based E-KTPs [1], in this study was found that the community eases of process of submitting E-KTPs [2]. In education field, information systems can be used as a desktop-based payment administration medium at SMAN I Cikampek [3], this study found the right solution in the payment administration process. The other study about information system catering process at CV Harum Karawang easily [4], in this study the catering order transaction process can be done quickly. Also catering sales omzet can increase rapidly, because the catering information system can be seen by anyone brows it.

The development of information system technology has not fully touched the existing fields, one of them is the element of the profession as a lawyer. A lawyer is someone who presents the facts of the incident resulted in a

dispute from the client, and tries to comply the legal rules [5] [6]. Various types of court cases discuss criminal and civil law[7]. The struggle for legal position always occur[8][9]. As a lawyer, it should be able to compete with other professions, because the lawyer profession is very important for the wider community. The form of disseminating information in the legal field or the legal process experienced by a person often encounters a path of uncertainty, this is due to lack of understanding of the importance of having a lawyer in law judgement..

Based on the problems above. The presence of information technology can be a solution in disseminating information, even the presence of an information system can make client consultation media and promotional media for a lawyer. In this study, the maximum possible collaboration between the information system and the professional services of lawyer by using waterfall method.

2. Research Method

The research method is divided into two parts, the first is the field research method, and the second is the method of making information systems (waterfall). In the field research method, several phase are carried out as follows:

1. Field Method

a. Observation method

The observation method can be positioned as part of the methodology of proportional data collection techniques and strategies [10]. In this part, the researcher goes directly to the field to gather support facts the research.

b. Interview Method

The interview method is a method asking directly to related parties [11]. This method is used to obtain information directly related to the need for creating a lawyer website.

c. Library Study Method

The library study method or literature study is an analytical method carried out by searching for library sources or related literature [12]. In this study, literature study is used by searching, collecting and making references as research reinforcement. References used in this research are journals or scientific articles and books.

2. Waterfall Method

According to Solikhah et.al in Basri et.al [13] "The waterfall method is a classic model in building information systems in designing software. There are several phase in waterfall method including:

a. System Requirements Analysis

Analysis of system requirements is phase to study information system requirements based on observations and interviews. The need is obtained at this time is how the information system can make online consulting services through website so that clients can communicate directly with lawyers.

b. Design

The design in this study uses a diagram or database symbol. Database is used to describe the front end (user or member) and back end (admin) [14]. According to Kristanto in Muharam, et al. Database is collection of data, which can be described as the activities of one or more related organizations [15]. According to Sukamto and Shalahudin in Nurfitriana, et al. Concluded that "entity relationship diagram (ERD) is a diagram used to design relationships between tables in a database [16]. According to Nugraha and Octasia in Apriliah, et al (2018: 30) concluded that LRS is a representation of the structure of records in tables formed based on the results of relationships between entities contained in the E-R diagram [17]. ERD is also used to visualize the relationship between an entity that has a number of attributes with other entities in a system designer to be modeled into data and be developed into a database later [18].

c. Encoding

Writing code or coding is design must be translated into software [19]. Various programming languages are developing so fast, that program developers continue to explore in making software. According to Kristian in Puspita, et al. PHP programming language is (abbreviation: hypertext preprocessor) a web-based programming language [20]. Codeigniter is a basic code application (open source) form of framework with an MVC model (model, view, controller), used to create a website dynamically [21]. In addition to the MVC framework used, there is a need for a script to create an action or simply validate events. Javascript is a popular scripting language used to create web pages so they can interact with users and respond to events on web pages [22].

d. Testing

Testing on waterfall method is carried out to obtain maximum results in making information systems. Testing a software can be done by validating. Validation is a process of checking whether software fulfill specifications and objectives or not [23]. The importance of software testing is indispensable for assessing the quality of existing software, so software can operate and run according to user expectations [24]. Testing in this study

using black box testing. Black box testing is used in obtaining conformity in existing functional specifications [25].

3. Result and Discussion

In this section, the researcher discusses the results and discussion from the existing research results. Based on the background and research methods, the following research results were obtained:

1. System Requirements Analysis

a. Admin

- Admin can login to the lawyer information system (Admin Home Page).
- Admin can add user accounts.
- Admin can change password or password.
- Admin can delete the account.
- Admin can add articles.
- Admin can change articles.
- Admin can delete articles.
- Admin can view the mailbox page.
- Admin can reply on message reply page.

b. User

- User can see the user's home page.
- User can view profile page.
- User can view profile details.
- User can view about page.
- User can view contacts.
- Users can view the article page.
- Users can register for consultation and log in.
- Users can ask questions via website.

1. Design

a. ERD (Entity Relationship Diagram)

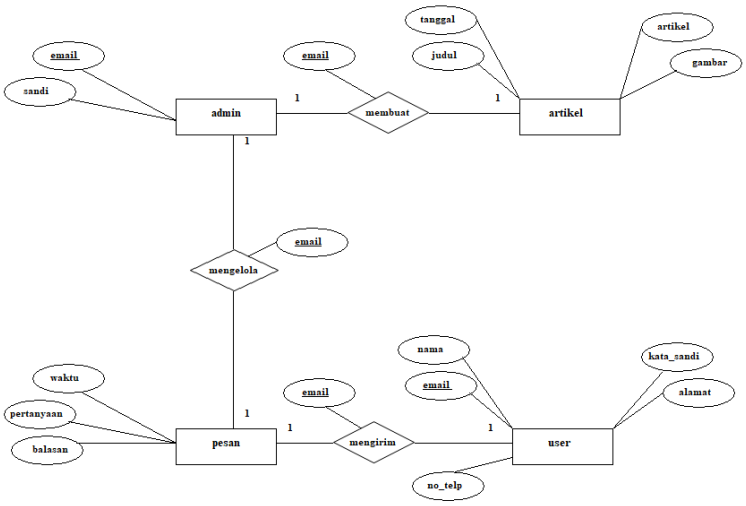

Figure 1. ERD

The ERD diagram contained in Figure.1. is a visualization of database created, each entity has an attribute becomes its own identity. One entity with another has interrelated relations, making easy process of creating a lawyer information system. There are 3 entities used in creation of a lawyer's information system, namely: admin entity, user entity, article entity, message entity. Each entity has a key attribute that distinguishes one entity from another.

b. LRS (Logical Record Structure)

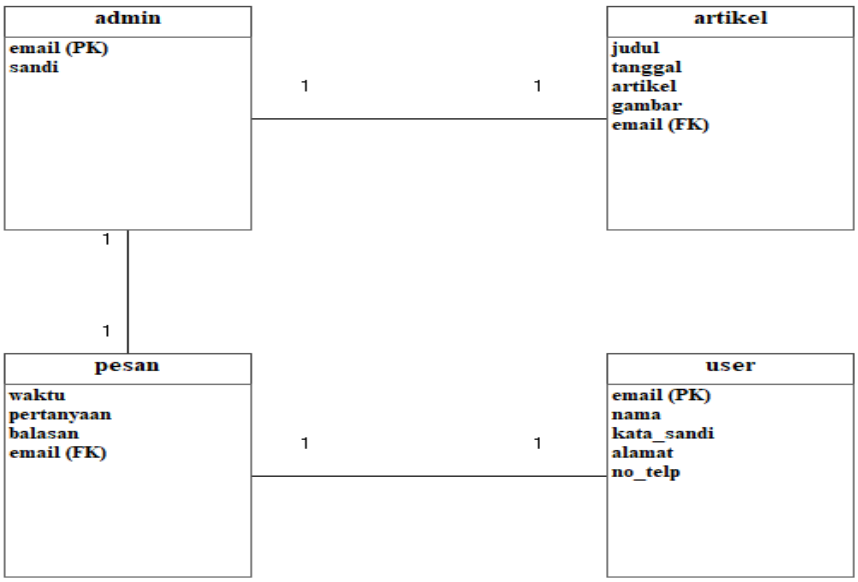

Figure 2. LRS

Logical record structure in Figure 2. Is a representation of the records in the lawyers information system database. The relationship or cardinality in Figure 2. LRS is a one to one relationship or cardinality. This means that the relationship between one entity and another occurs privately.

3. Encoding

Writing program code for the attorney information system uses the programming language HTML, PHP and Javascript. All programming languages are built into a CodeIgniter framework.

Home.php ×

d: > Web Tanya Pengacara > Controller > Home.php > Home > profil

```php
<?php
defined('BASEPATH') or exit('No direct script access allowed');

class Home extends CI_Controller
{

    public function index()
    {
        $this->load->view('landing/index');
    }

    public function home2()
    {
        $this->load->view('landing/home');
    }

    public function profil()
    {
        $this->load->view('landing/profil');
    }

    public function sigit()
    {
        $this->load->view('landing/sigit');
    }

    public function deskripsi()
    {
        $this->load->view('landing/deskripsi/deskripsi');
    }

```

Figure 3. Soure Code Controller Website of Lawyer

```
    public function deskripsi2()
    {
        $this->load->view('landing/deskripsi/deskripsi2');
    }

    public function deskripsi3()
    {
        $this->load->view('landing/deskripsi/deskripsi3');
    }

    public function deskripsi4()
    {
        $this->load->view('landing/deskripsi/deskripsi4');
    }

    public function deskripsi5()
    {
        $this->load->view('landing/deskripsi/deskripsi5');
    }

    public function kontak()
    {
        $this->load->view('landing/kontak');
    }

    public function artikel()
    {
        $var['artikel'] = $this->db->query('SELECT * FROM artikel ORDER BY tgl DESC')->result();
        $this->load->view('landing/form_artikel', $var);
    }
}
```

Figure 4. Soure Code Controller Website of Advanced Lawyer

In Figure 3. and Figure 4 are one of the source codes of the lawyer's information system. The source code describes the home controller. The controller makes it easy to call from related pages/forms

4. Testing

Testing was carried out information systems of lawyer use black box testing.

Table.1. Black Box Testing

No	Test Name	Result	Conclusion
1	*Beranda User*	*Tampil Beranda User*	Valid
2	*Halaman Profil*	*Tampil Halaman Profil*	Valid
3	*Halaman Tentang*	*Tampil Halaman Tentang*	Valid
4	*Halaman Kontak*	*Tampil Halaman Kontak*	Valid
5	*Halaman Registrasi dan Login*	*Tampil Halaman Registrasi dan Login*	Valid
6	*Halaman Tanya Jawab*	*Tampil Halaman Tanya Jawab*	Valid
7	*Halaman Beranda Admin*	*Tampil Halaman Beranda Admin*	Valid
8	*Halaman Tambah Akun*	*Tampil Halaman Tambah Akun*	Valid
9	*Halaman Ubah Sandi*	*Tampil Halaman Ubah Sandi*	Valid
10	*Halaman Hapus Akun*	*Tampil Halaman Hapus Akun*	Valid
11	*Halaman Tambah dan Hapus Artikel*	*Tampil Halaman Tambah dan Hapus Artikel*	Valid
12	*Halaman Kontak Pesan*	*Tampil Halaman Kontak Pesan*	Valid

In table 1. Black box testing runs as expected. All pages in the lawyer's information system run as expected

5. Result Display Interface

a. User Interface Display Results

Figure 5. User Home

On the user's home page, there are menu options for clients who visit the lawyer's information system website. The menus on this page are: profile, about, contact, and articles.

c. Result interface sidplay *Halaman Tentang*

Figure 6. *Tentang* Page

On the page about, the client will be easy to understand the lawyer's information system website. Clients who visit will receive service information about legal opinions, licensing, employment, and operational aspects, as well as special legal aspects such as company finances, both conventional transactions and Sharia transactions.

4. Conclusion

Based on the results of research related to the creation of a lawyer website. The development of lawyer's information system is built using waterfall method, in this method using several programming languages, including: HTML, PHP, Javascript, CodeIgniter Frame Work. For database design using ERD and LRS to makes easy in the process of implementing the lawyers information system requirement of NurhadiSigit Law Officer.

Acknowledgement

Thanks for Nusa Mandiri University for supporting this research process to completion. Thanks to JTOS (Journal of Technology and Open Source) Kuantan Singingi University for publishing the author's work.

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