

Make a web-based management management application

Ardiansah^{a,*}, Jimmie^b

^{a,b} Muhammadiyah University of Palembang, Palembang, Indonesia

ARTICLE INFORMATION

Article History:

Received: 09 January 2022

Final Revision: -

Published Online: 01 April 2022

KEYWORDS

Website
Codeigniter
Framework

CORRESPONDENCE

E-mail: Ardia6095@gmail.com*

ABSTRACT

Thesis is a scientific work that must be written by undergraduate students as part of the final requirements for academic education. Muhammadiyah University of Palembang is one of the universities in Palembang that educates its students to obtain a bachelor's degree. This study aims to develop a web-based online thesis system using the Waterfall method through the analysis, design and testing stages. This online thesis uses the PHP language with the Codeigniter and Mysql Framework. With the creation of this system, it can make it easier for students and universities in making thesis.

I. Introduction

In the Big Indonesian Language Dictionary ("KBBI Online" 2018) Thesis is a scientific essay that must be written by students as part of the final requirements of their academic education. Thesis is also a requirement for undergraduates in every university. Judging from the guidebook for writing proposals and thesis reports at Muhadi Setiabudi University, Brebes, the process of writing a thesis is as follows:

- Submission of thesis title
- Submission of thesis proposal
- Thesis proposal seminar
- Research
- Thesis trial
- Revision (Hamid S.Sos. M.SI and Rachman M.M., M.SI, n.d.).

The problem that occurs in the preparation of the thesis is that the administration is still done manually so it is difficult to schedule the implementation of the proposal exam and thesis final exam, determining the supervisor or examiner and supervising the students who are doing the thesis. The secretary of the department also finds it difficult to notify lecturers and students about the exam schedule, whether it's a proposal or thesis. lecturers also have difficulty having definite data regarding the number

of students they supervise, both students who have completed their thesis and those who have not. Students also have difficulty in submitting thesis ideas because they have to fill out forms provided by the university and wait for the title to be approved by the campus which takes a lot of time.

In response to this problem, Information and Communication Technology (ICT) was developed. In the current era of globalization, Information and Communication Technology has become a basic need in everyday life. By utilizing ICT problems such as productivity, budget, time, efficiency and so on can be overcome. In the world of education, ICT is a means of educational management and administration information that is useful for educators and educational staff as well as students in improving the quality, productivity, and access to education. One of the technologies that can be used is a website.

Quoted from the Niagahoster site (Waryanto 2018) A website is a collection of interconnected web pages that can be accessed via the home page using a browser. The website can be accessed by entering the website address in the browser column. Websites can be used to obtain information or share information with others. Websites have a core language of almost all web content called HTML (HyperText Markup Language) and CSS

(Cascading Style Sheet). To access a website, you need the Internet (Interconnection-Networking) which according to Irawan (2011:2) quoted from the Journal of Information Technology and Management (Firmansyah and Udi 2018) suggests that "Internet is short for the word Internetwork which means a series of computers connected into several network network". The reason for using the web as a thesis process system is because it can be accessed anywhere using only a laptop or smartphone, users do not need to install applications that may be burdensome.

From the problems above, the researcher tries to provide a solution by utilizing web-based Information Technology in this case is the development of a Web-Based Online Thesis Process Information System. With this system, it is hoped that it will provide convenience for students, lecturers and heads of study programs in the thesis process where they can submit thesis, monitor student guidance cards, provide information about seminar and trial schedules, make it easier for students to get information related to their thesis, and make the thesis process.

II. Method

2.1. Information System

Information system is divided into two words, namely System and Information. Where the system is a group of elements that are closely related to one another (Sutabri 2012). Meanwhile, information is data that has been clarified or processed or interpreted for use in the decision-making process (Sutabri 2012).

2.2. Thesis

Thesis is a scientific work that must be written by students as one of the requirements for graduating from college that discusses a problem / phenomenon in a particular field of science (Hamid S.Sos. M.SI and Rachman M.M., M.SI, n.d.). Thesis aims to provide students with an understanding of how to think scientifically and logically about a particular phenomenon and present it in a structured and systematic manner. Students who are able to write a thesis are considered capable of integrating knowledge. In general, the process of writing a thesis is as follows:

- (1) Title Submission
- (2) Submission of Thesis Proposal
- (3) Thesis Proposal Seminar
- (4) Research
- (5) Final Assignment Session
- (6) Thesis Session
- (7) Revision.

2.3. Web Framework

Web Application Framework (WAF), or often abbreviated as web framework, is a collection of code in the form of libraries and tools that are combined as possible into a framework to simplify and accelerate the process of developing web applications (Raharjo 2018).

2.4. Codeigniter

Codeigniter is a web framework for the PHP programming language, created by Rick Ellis in 2006, founder and founder of EllisLab.

2.5. MySQL

MySQL is the most popular open source Database management system, developed, distributed, and supported by Oracle Corporation.

Database Management System itself is a structured collection of data.

2.6. Bootstrap

Bootstrap is an open source design tool developed with HTML, CSS, and JS quoted from the official Bootstrap website (Alfarabi Hadi 2016).

2.7. Visual Studio Code

Visual Studio Code is an open source code editor application developed by Microsoft for Windows, Linux, and MacOS operating systems. Visual Code makes it easy to write code that supports several types of programming, such as C++, C#, Java, Python, PHP, GO. In addition, another feature is the ability to add extensions where developers can add extensions to add features that are not in Visual Studio Code.

2.8. UML

UML is a standard language for defining, visualizing, building, and documenting software system artifacts created by the Object Management Group (OMG) in January 1997. UML is not a programming language but a tool that can be used to generate code in various languages using UML diagrams.

Entity Relationship Diagram (ERD)

ERD is a diagram that shows the visible entities in a system and the relationships or relationships between these entities.

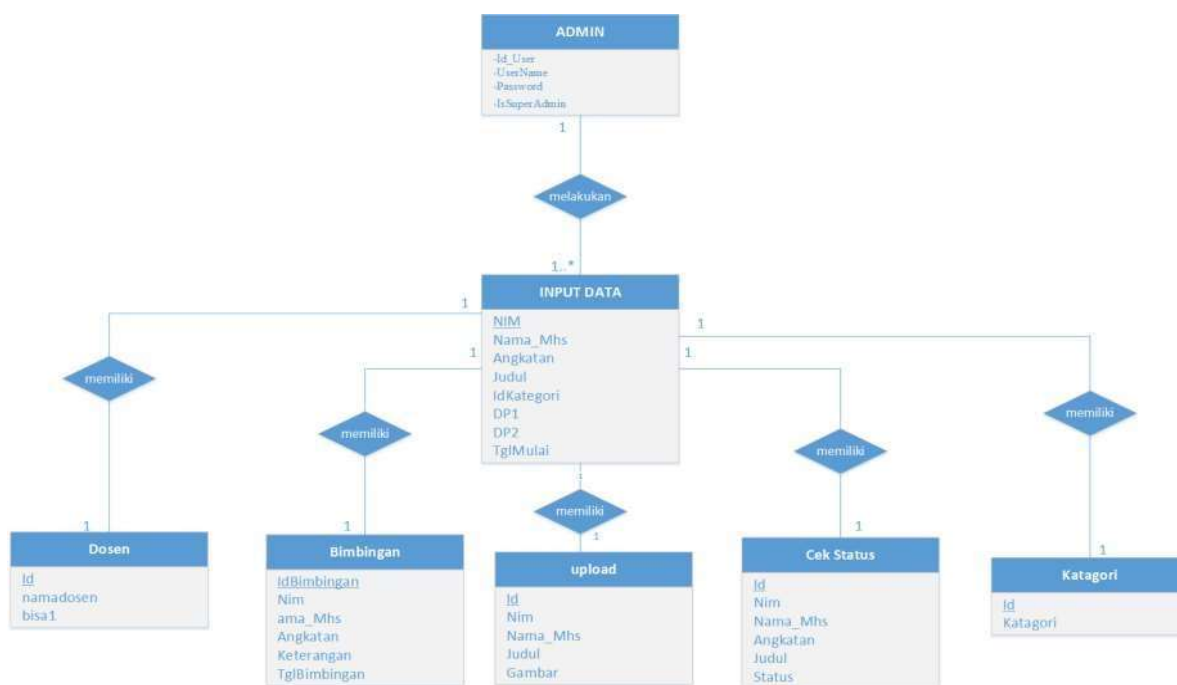


Figure 1. Entity Relationship Diagram

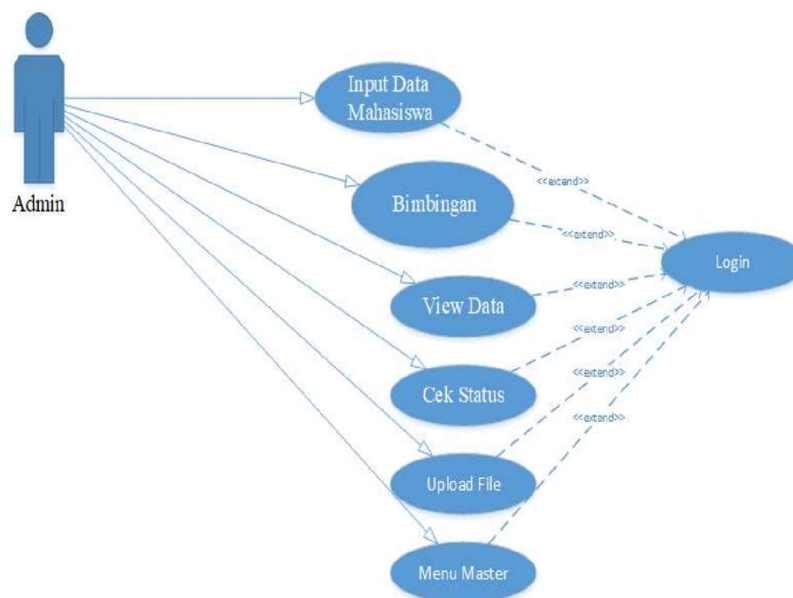


Figure 2. Use Case

III. Results and Discussion

Users are asked to enter their nim / nik / username and password and will be directed to their respective pages according to the user's status.

First the system is implemented, the system can only log in using an admin account where it looks like the following. Admins are asked to enter majors and

concentration data according to the university's needs via the department button where when clicked the form will appear as follows. After filling out the majors form, at the bottom of the concentration button, a table of the majors entered will be displayed, then the admin will fill in the concentration form for that department via the button below which will display the following form. The concentration table will be displayed on the right side of

the department table if we click on the name of the faculty and the concentration name will appear according to the faculty form that we input.

Figure 3. Dashboard Login

Figure 4. Student form

After getting the email and password, students will be able to access the TA submission and submit the title by filling in the biodata and the title of the thesis that has been submitted.

Figure 5. Final assignment submission form

After the title is submitted, the Head of Study Program will receive the title.

The Head of Study Program has the choice of rejecting or accepting the thesis title. If the Head of Study Program accepts the title, automatically all thesis titles submitted by the student will disappear and the student will receive a notification.

NO	NAMA	NIM	JURUSAN	JUDUL TA	STATUS	P_TAT	P_TAT2	TANGGAL	PROPOSAL	CETAK	EDIT	HAPUS
1	yogi syafandi	11453101903	Sistem Informasi	Analisa Pengaruh Variable X Terhadap Variable Y dengan Metode Regresi Linear	DITERIMA	validasi	2017-05-28	Download				
2	Uli Herta	11453101901	Sistem Informasi	Rancang Bangun Website Dinas Pariwisata Pekanbaru	DITOLAK		2017-05-29	Download				
3	Rangga Restia	11453101901	Teknik Informatika	Toko Online berbasis Android	DITERIMA	validasi	2017-05-28	Download				
4	Rama Dewi	11453101907	Sistem Informasi	Rancang Bangun Aplikasi Toko Online	Proses		2017-05-29	Download				
5	aisyah	123	Teknik Elektro	rancangan komunikasi	DITOLAK		2020-12-03	Download				

Figure 6. Validation form

IV. Conclusion

Based on the research conducted, it can be drawn from several conclusions, namely as follows:

- 1) Making a thesis guidance application for android-based students using the PHP and Mysql programming languages.
- 2) With the making of this thesis guidance application, hopefully it can help and advance in the thesis guidance process, as well as control for students who carry out guidance, especially for final students.
- 3) With the creation of a mobile web-based Thesis Guidance Application, hopefully it can help students in the thesis guidance process and can improve services to students.

References

- [1] T. Sutabri, Konsep Sistem Informasi. Yogyakarta: Andi, 2012.
- [2] Aplikasi Web DataBase dengan Dreamweaver dan PHP-MySQL. ANDI. Yogyakarta
- [3] Mulhim, I 2014, Membuat Web Mobile untuk Orang Awam. Maxikom. Palembang
- [4] Rossa A.S, dan M.S 2014, Rekayasa Perangkat Lunak. Informatika. Bandung
- [5] Sugiyono, 2011. Metode Penelitian Kuantitatif Kualitatif dan R & B, Bandung: Alfabeta. Jurnal Teknologi Informasi Mura Harna Oktafia Lingga Wijaya Vol. 11 No.02, Desember 2019 Khorina Universitas Bina Insan Lubuklinggau 117