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Web Programming Learning Application using Codeigniter

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ABSTRACT

Website applications that can be done using a framework such as a CMS (Content Management System) as a solution to provide solutions in web management. One of the software that is currently popular in building this CMS is CodeIgniter. CodeIgniter is included in a framework for running or implementing a webase application or mobile device. CodeIgnite develops according to its version so that we develop an application for learning during this pandemic by implementing CodeIgnite so that all needs can be in a web that was created with CodeIgnite both in the form of multimedia-based information.

Keyword : Framework Codeigniter,php,mvc,cms.

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1. INTRODUCTION

Increasing information technology that develops rapidly and is able to have a positive impact on society. This development can produce so many services to the community in its services even in the world of education. Today's technology has had a major influence on the way of life and lifestyle of humans,such as the development of technology in education, which is commonly known as e-learning.

Online learning (E-learning) today with many developments in the field of multimedia such as audio, video, and animation, can be aimed at helping students learn independently without having to depend on a teacher, as well as having a major influence in the transformation of the world of education from conventional towards digital form.

Learning is one way of understanding how the material is conveyed well on both sides, for example between lecturers and students. Good learning when understanding the material by the lecturer. Learning that aims to gain a variety of experiences that include experience knowledge, experience skills, and experience values that function as controlling attitudes and behavior to increase, both in quantity and quality.(Titu, 2015). Programming is an activity that writes a sequence of commands to the computer to do something, where the instructions use a language understood by the computer or known as a programming language (Wibawanto, 2017).

CodeIgniter is an open source or open source application that is based on the PHP framework with the MVC model or commonly called the Model View Controller which has the function of building a dynamic website using PHP code. Codeigniter can also make it easier for developers to create PHP-based web applications, because the framework already has a framework so there is no need to write all program code from scratch.

2. LITERATURE REVIEW

A. Definition of Application

According to (Hendrayudi in Virdi Gunawan, 2019) defines that "an application is a collection of program commands needed to do certain (special) jobs". (Betha, 2019) Explaining that "Web-based applications are the current trend application by utilizing internet and web technology including databse applications. (Murhada & Ceng, 2011) revealed that "Application Software is actually a program specifically designed to solve specific user problems, such as doing document typing tasks, photo manipulation, designing buildings".

B. Understanding Programming Learning

Learning programming according to (Shopan & Kurniawati, 2018) reveals that Programming Learning is the main thing in similar study programs. With this, there are still many students who do not

understand the basics of programming, so that they have difficulty working on assignments that require programming skills.

Several factors according to (Shopan & Kurniawati, 2018) that cause obstacles in learning programming, namely:

1. Programming is not learning that is easy to understand because it is pleased with abstract concepts, library sources that make student references in learning not so much.
2. Students who do not understand instructions in programming.
3. Teachers have difficulty in designing methods that are suitable for the needs of each student in class room learning that involves many students with different abilities.

C. Understanding Codeigniter

Codeigniter according to (Rahman & Ratna, 2018) is an open application or open sorce which is based on the PHP framework with the MVC model or also commonly called the Model View Controller which is used to build a dynamic website using PHP code. According to another opinion (Sulistiono, 2018) states, "Codeigniter is an open source application in the form of a framework or framework for building websites using the PHP programming language. With the aim of allowing faster project development than writing basic code or structural code, by providing the many libraries that are usually used in the construction. CodeIgniter also has very comprehensive documentation which is along with examples of code implementations. So that this complete documentation is one of the strong reasons why many people choose CodeIgniter as the framework of choice.

3. RESULTS AND DISCUSSION

At the design stage of this system, the process of making a traditional programming learning application using Codeigniter will be explained so that the process flow is clearer using a system flow diagram model.

A. Use Case Diagram

A use case describes a sequence of interactions between one or more actors and the system.

a) Use Case Diagram Admin

The use case diagram below explains how the admin logs into the application so that they can enter the next menu and carry out other processes such as: admin profiles, management modules, material management and user lists. Where the admin does module input, material input and user edit.

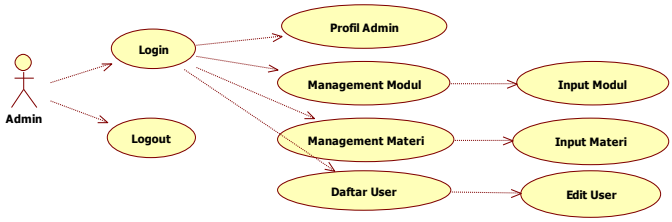

Fig. 1 Use Case Diagram Admin

b) Use Case Diagram User

The flow of the use case diagram shows that, if we are logged in as a user, we can register, login and logout. Before logging in, we have to do the register process. After registering, we can log in and carry out learning by selecting many learning modules.

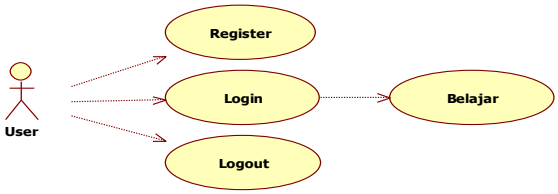

Fig. 2 Use Case Diagram User

System design in general describes the system design in general, namely by describing the proposed system procedure, as for the design required as follows:

1. Home Page

This home page is the main page that will appear. where on this home page there is a register / login button, with this login button we can register or log in as admin:

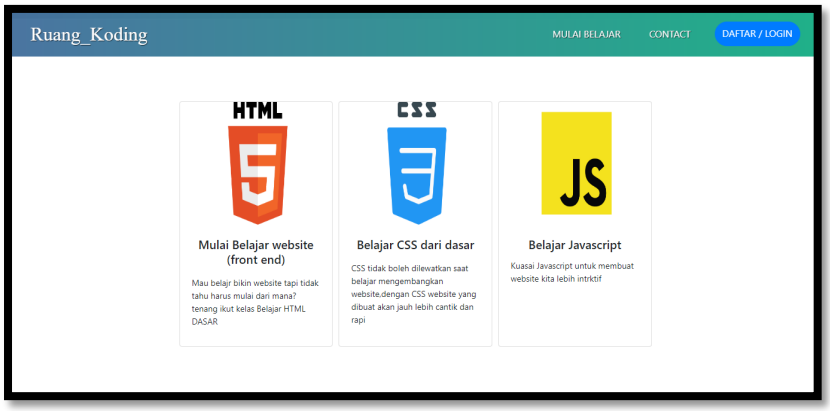

Fig. 3 Home Page Display

2. Login page

displays a login menu form that can be accessed by many users and admins. Where the user / member, if you want to enter the main page, must log in using a username and password as follows:

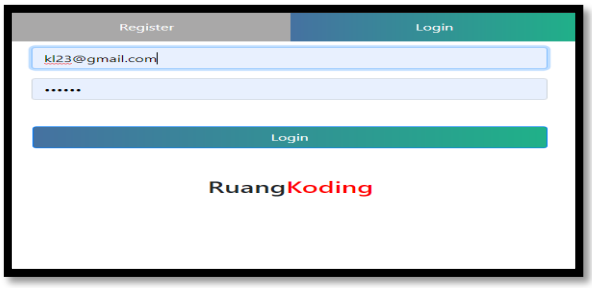

Fig. 4 Login Page

3. Register Page Display

On this register page we can register or register as a user or admin by entering the full name, email, gender and password:

Fig.4 Register Page Display

4. Display Login As Admin Page

This admin login page contains several admin menus such as management modules, material management, user lists and logout. Login page as admin

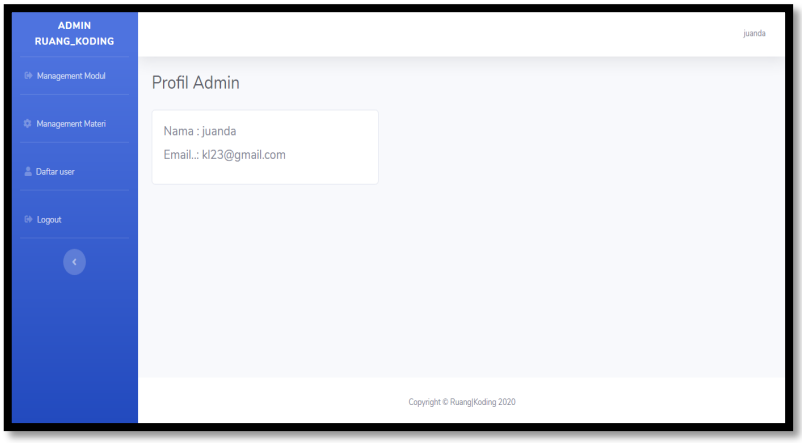

Fig.5 Display Login As Admin Page

5. Management Module Page View Admin

This module management page is a page where we input the module along with its image or cover. In each module that has been inputted, there are 2 actions that the admin can do, namely edit and delete:

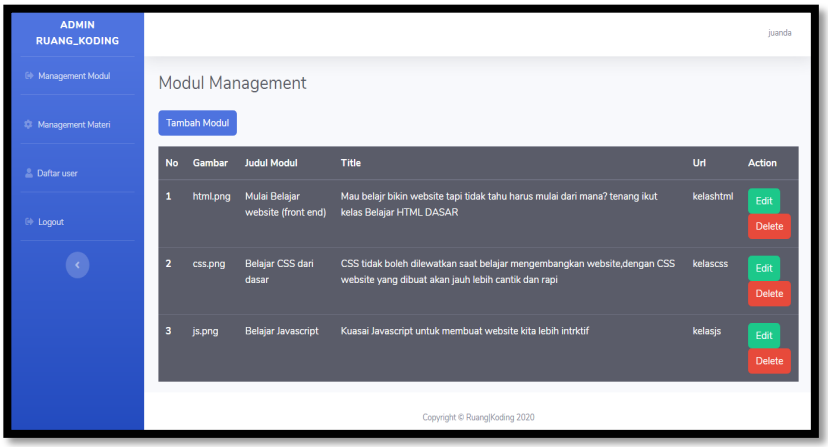

Fig.5 Display Management Module Page View Admin

6. User Page Display When Accessing Class

This page shows how the user accesses the class according to the modules and materials that have been selected:

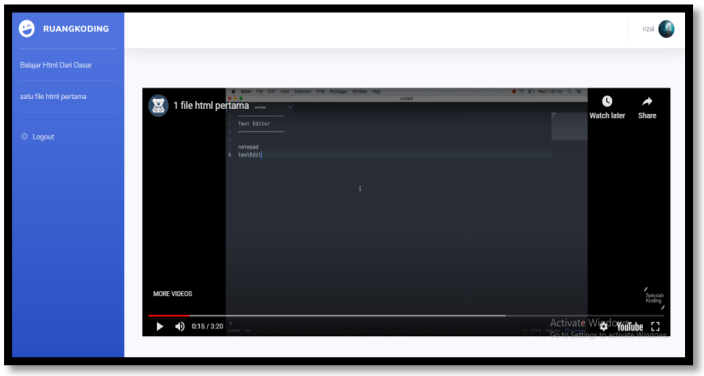

Fig.6 User Page Display When Accessing Class

4. CONCLUSION

Based on the discussion above about web programming learning applications using CodeIgniter, the authors conclude below:

The quality of the system is very good and makes it easy for admins to control user activities, making it easier for admins to input material, manage modules and new material,To solve the problems that occur, a web programming learning application was built using codeigniter, which functions to minimize time, cost, and place, because users can view information and register to become residents online, the author has built an application using codeigniter, with that the author can build applications a simple one that is easy for all users to understand and provides an attractive display service for learning, so it doesn't give a monotonous impression.

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