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Hypertext preprocessor framework in the development of web applications

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Abstract. This writing paper aims to determine the Hypertext Preprocessor (PHP) framework that is widely used and analyze the benefits of the framework in making a web application. A review systematically through a review article about a PHP framework. Article search is accessed from an internet database search. articles are taken from 2014 to 2019. The PHP framework can simplify the process of developing web applications because the concept has already been determined. Whereas if you use regular PHP, a programmer makes coding, folder structure or configuration is made as he wishes. Usually, the PHP framework uses the concept of Model-View-Controller (MVC), its function model is for database queries, its View function is for displaying HTML (Hypertext Markup Language), the controller functions for calculations or logic. The result is that PHP Laravel and CodeIgniter frameworks are the most widely used in building a web application. PHP Framework makes the development of applications web becomes much faster and more stable. The selection of a PHP framework that is appropriate for the project of making the application web also can affect the outcome performance was obtained after the application of the web was completed.

1. Introduction

The PHP framework is a collection of functions, classes, and rules. In contrast with the library that nature for a particular course, the framework is thoroughly regulated how we build applications [1]. Various types of f FRAMEWORK PHP has been much used in the development of applications web, for example Phalcon [2], Symfony2 [2-4], laravel [3,5,6], CodeIgniter [3,5,7] CakePHP [4,8,9]. Each framework has advantages and drawbacks. For example, the Phalcon Framework has the advantage of being very easy to install on a Windows operating system. Just stay add an extension just xampp that we have. And change a few settings on our windows. but has the disadvantage that is quite complicated to install on Ubuntu. But overall can if we follow step by step how.

In the development of applications web, in general, framework PHP has a lot of benefits, which may be able to speed up the work and make the application unstable [3]. Given the benefits of various kinds of frameworks FHP, then the study is going to learn the PHP framework that most lots are used and analyze the benefits in the making of an application web by using the method of literature review with 2 stages. First, find and choose relevant study literature. Furthermore, put through the identification and concluded findings that.

2. Method

System review through engineering article review to identify the PHP framework in web application development. The criteria for including articles used is the PHP framework in web application development, while the criteria for exceptions are articles with abstracts, articles that do not use English and articles that appear are not full text. Search articles are only limited to articles in English that can be accessed from Internet database searches, namely: Google Scholar and Scientdirect with keywords PHP framework, web applications. Articles that meet the inclusion criteria are systematically collected and inspected. Look for literature published from 2014 to 2019. With keywords searching for php, laravel, codeiginiter, yii2 and cakePHP frameworks.

3. Results and discussion

Based on the results of the search obtained as much as 27 articles were considered under the purpose of research and then made one and then do a screening whether the title of the article that there are equal or not. Having performed screening obtained there are 13 articles were titled the same, of the 13 articles of this later in screening eligibility by the criteria of inclusion and exclusion obtained 10 articles for further carried out a review. Research that is worthy consisting of several studies was carried out in various countries. Analysis of 10 articles that show that 4 articles by the design of quantitative descriptive and comparative methods, 6 articles with the design of quantitative with the cross-sectional study.

Table 1. The PHP framework being analysed.

No	PHP Framework type	Advantages	Disadvantages
1	Laravel	Allows developers to specify custom HTTPS Routes. The developer also has the authority to create specific URLs for each route. Laravel further guarantees the security of transmitted data by adding https: // before the URL automatically	Laravel is relatively heavier when compared to the Codeigniter framework. This is reasonable because Laravel loads a lot of files and assets to run the application. But this has been overcome by Laravel 5, which has simplified the heavy version 4 of Laravel.
2	CodeIgniter	Very fast performance: one of the reasons for not using the framework is that the execution is slower than PHP from the Scracth, but Codeigniter is very fast and maybe arguably Codeigniter is the fastest framework compared to other frameworks.	Does not support full use of HTTPS route. Developers must manage URL Helper to make data transmission secure with development of PATS.
3	Yii	Excellent caching. Another advantage of YII is the ability to do caching optimally. At YII, caching is done to make a dynamic website look like a static website, so that the access speed on the website will be faster.	Framework is fairly old school. Created in 2006, YII is more than 12 years old. Along with the times, and the development of programming languages, it is feared that YII could not keep up with these developments.
4	CakePHP	Support AJAX and ORM Continued development has now reached version 1.3.7. Supports PHP4 and PHP5 The real OOP and MVC architecture All functions in CodeIgniter already exist in CakePHP has a unique technique that is not found in other frameworks (deep impression)	There are too many rules compared to CodeIgniter (but this side has a positive value, which makes it easier to develop because the naming of files and databases has all been set by CakePHP, so Developers can't PLAY)
5	Symfony	Many libfony libraries and functions are available. Almost even approaching CMS. So some say "Symphony is a CMS with a heart of a framework."	Does not support PHP4. It takes a relatively long time to understand this framework. The installation and configuration is quite complicated.

Based on the analysis of articles that were obtained gives the results of the test are used to determine a comparison of each framework PHP test in each research. The first study conducted a Phalcon and Symfony2 framework performance test with the Apache Benchmark tool. The result Phalcon provides

performance beyond the ordinary and exceed the results Symfony [10]. Second, by using the method QSOS Framework laravel beyond the framework CodeIgniter and Symfony [3]. Then, Record and analyze based on parameters and indicators that are set Framework PHP laravel more superior than CodeIgniter [11]. From the results of the CodeIgniter performance test, in general, has the best performance compared to Laravel and CakePHP [8]. CodeIgniter is better than the performance compared with laravel [1]. The Laravel Framework is better than the Yii2 Framework [6]. Based on the articles of research that earned a PHP framework when conducted tests particularly a performance that is different when it is used [12-21].

PHP Framework makes the development of applications web becomes much faster and more stable. Selection of a PHP framework that is appropriate for the project of making the application web also can affect the outcome performance was obtained after the application of web was completed made

4. Conclusion

Literature Review is an analysis article about the use of framework PHP in the development of applications web. In terms of this, some databases have to take the article which was published in the period 2014 to 2019. To fulfill the purpose of the search literature review of this, all the articles that are found are classified by the author, year of publication, type of article, the context and the type of framework PHP are used either to apply and to compare the performance. Purpose others to determine the framework PHP which is much used in between the researchers. The result is that the PHP Laravel and CodeIgniter frameworks are widely used in building a web application. The findings most clearly that emerged from the literature review of this is that applying the framework PHP is not only to facilitate the development of applications web but also to compare its performance to do a test that could be a recommendation for web developers who will build a web. By using the PHP framework makes the development of applications web becomes much faster and more stable. The selection of a PHP framework that is appropriate for the project of making the application web also can affect the outcome performance was obtained after the application of the web was completed.

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