



IJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 9 Issue: III Month of publication: March 2021

DOI: <https://doi.org/10.22214/ijraset.2021.33359>

www.ijraset.com

Call:  08813907089

E-mail ID: ijraset@gmail.com

Comparative Analysis of Zend and Laravel Framework (PHP 7)

Amitvikram. C. Nawalagatti¹, Dr. Prakash R. Kolhe², Dr. Anoop Sharma³

¹ Ph.D. Student, School of Computer Science and IT, Singhania University, Rajasthan

² Assoc. Prof., Dr. Balasaheb Sawant Kokan Krishi Vidyapeeth, Dapoli (Maharashtra)

³ Asst. Prof, Singhania University Rajasthan

Abstract: Over the years, PHP has become a popular and powerful language for web applications, without a system PHP web based application can be confusing and nearly impossible to maintain or develop the given framework is one of the those system that can run session and it consist of buiil ORM_s and templates validation saves programmers time by providing essential component for many web applications. This study compares Laravel and Zend (PHP 7) framework compatible with various applications these comparison is based on execution results of Apache J meter reference tool depending on the results of test being run recommendation have been made to help web engineers choose the right decision for these real web application. This paper based on comparative study of Laravel and Zend framework.

Keywords: PHP, CakePHP, Larval, Zend

I. INTRODUCTION

PHP has been the leading language for creating powerful pages for many years. It started in 1995 and was originally called a 2PHP product by Rasmus lerd of[1].One of PHP's main goals at the time was to easily deliver effective content to websites. In 1998 PHP 3was renamed to PHP Hypertext word pre-processor. This is because the language is complete not for those who follow their tastes. Currently current managements systems(CMS) such as Drupal, joomla word processor, facebook are written entirely using PHP language. One of the main reason of popularity of PHP is that PHP is at the root of the problem ,Another reason is the fact that it is easy to implement PHP can be integrated into any operating system and PHP work fast for all operating systems, it is Hypertext Solution is an optimized scripting language related to web development, although it has different uses. As w3techs.com points out, PHP is the most widely used scripting language on the Internet, with a total number of 82% [4]. Many PHP-based systems have evolved in the last two decades. Systems like Laravel, Cake PHP, Code Igniter, Zend are used everywhere and asitepoint.com points out some programme are very useful the main thing of this context need to know when visiting the website of the system is assurance that you are behind the general public when you visi the Larvel's site, The main features you see as trademark such as numbers. The code igniter team describe their system as a little stayed and powerful ' web developers looking to built projects that require PHP as a language to keep improving is one of the specification priorities. So how do you choose a standard PHP for the system, which is later meet your performance need because you are using a process , to answer all this questions this study was presented which created four web applications corresponding to the review manuals that evaluated performance of each the system mentioned above. Earlier documentation described Codeigniter PHP 7 support system3.1.9 and CAKE PHP 3.6 for web applications [This document compares Laravel 5.6, Zend Framework 3 for digital web applications.](#)

II. LITERATURE SURVEY

Various studies have been concluded to evaluate and compare different PHP system .The Zend Framework can be used to create web applications and management as the main source of open source PHP(7). Use of MVC configure to isolate different parts of your application to drive continuous monitoring process. Development of support section, roof design add on files and independent technology. The designed website relies on the Zend Framework and update other features such as registration ,logging, product management page views search and email. The part associated with the design concept are drawn. The result also will be displayed this experiments have shown the improved web applications can be properly configured with the zend system .Elhekeem and barry (8) decided to understand the problems associated with page attack and devlop a basic feasible security model to protect sites from attack such as those using ZEND system applications. The security model is based on set of steps and is created with combination tools. Testing of multiple text attack between pages shows the probability and relevance of the proposed product. The introduced model takes the MVC model and uses an open source web application system called Zend Framework that transmit client input.This system is integrated with tools to keep the script clean of multiple pages and solve some system risks.

The quality of the model was confirmed by experimenting with different XSS attacks on the designed model. The author uses various application process. The Laravel MVC relies on the standard UML material. Sentinel Web allows partners to analyze updated data, view and download data for specific dates, generate system bug reports, and monitor customer profiles. This white paper describes the display of the most demanding recent data. This will be displayed along with a process for confirming new information. This Sentinel website has been tested and tested on other internet platforms and browsers. In the resolution test, the site accuracy was up to 88%, although it didn't reach 100%. This is true. all in this recommendation. Web Sentinel is 100% successful. This website requires use of new web features and Laravel system capabilities. Further fixes and improvements required are maintenance of SMS, single letter quality, and measurement statistics. The design and implementation of the original Laravel model with robotic preparation for the model and the design components has been demonstrated in [10]. As a result of research and data simulation, the website system, which is based on the Laravel frame work and ZEND system, offers strong resilience and acceptance for the development of creative knowledge. Laravel has developed a development strategy that addresses many commercial and non commercial logical reasons. An extensible communication platform for e-University (XCPU) web applications is described in [11]. It aims to improve communication between students, teachers and higher education institutions so that data can be retrieved from the basic leadership process. The XCPU business is defined by the terms and conditions of the trademark. The search includes integrated systems such as CodeIgniter, Symfony, Zend Framework, CakePHP, Yii and Laravel. Research has shown that Yii and Zend are great for designing web applications. However, the family survey of the selected criteria suggests that different approaches may not be very helpful for several applications and for the several reasons. For example, CodeIgniter has proven very useful for loading running applications. This model suggests that it is very important to select suitable criteria and upload them for further analysis in order for the system to reach the end of the project

III. RESULT ANALYSIS AND DISCUSSION

The Study as we discussed in the whole paper for the execution and analysis process describes Laravel is a fully compatible with ZEND framework as both results shown in table, open source ZP framework (MCV) supported by PHP 7. This research leads to the implementation of contact number scripts in Laravel 5.6 however the Zend Framework is an open source PHP web application developed and developed by Taylor Otwell and a network of developers. The game (PHP format) and follows the MVC architecture. Laravel tall is one of the most popular PHP frameworks. Since the launch of the third cigarette, Laravel has quickly become one of the most popular and widely used PHP systems. Developers worldwide are using Laravel to built user friendly and sustainable web applications with powerful Laravel features such as built in authentication session management and data integration. Laravel considers a complete framework for web development this means that you can handle every part of your web application design from storing and managing data using packages to displaying the UI using template engine. The Laravel team simplifies many of the day to day tasks that the web designer experiences wasting creating web applications and many more. ZEND framework the ZEND system was developed in 2005 under the auspices of ZEND technologies Ltd, an Isaraeli company founded by leading PHP developers Andi Gutmans and Zeev Suraski. One of the leading partner of ZEND technology Ltd. Including Adobe, IBM, GOOGLE, MICROSOFT organizations offer a variety of business items. However Zend framework is an open source company released under the new BSD approved 'Licence company' this is a library that you can use as needed and shows that MVC system make sense. This low expectations of data collection and improves efficiency. The data is good and the source code may be accurate. This is because it is actually structured by objects and everything has been tested Zend system is one of the most popular architechure for over 314 millions various language functions to provide complete standard code. Below are the initial features of the Zend whenever is collection of professional PHP package is collected together Bobin code is providing using 100% standard language function.

The PHP 7 support system for Laravel 5.6 and Zend Framework 3 enhances a web application that represents contact information with six fields for each number: first name, last name, email address, cell phone number, age, name and gender.

The model function is an implementation of the CODE, READ, TRUTH, and DELETE (CRUD) functions. Each application has a different tab to implement CRUD functionality

This simulation conducted eight different operations i.e eight benchmarks for each of the frameworks is done. Each benchmark simulated 100 users requesting the single page 10 times each, hence the total number of requests would be 1000.

Number of Threads (users) = 100

Ramp-up Period (in seconds) = 100Loop count

= 10 Total Requests = 1000 = No of Users *

Loop count

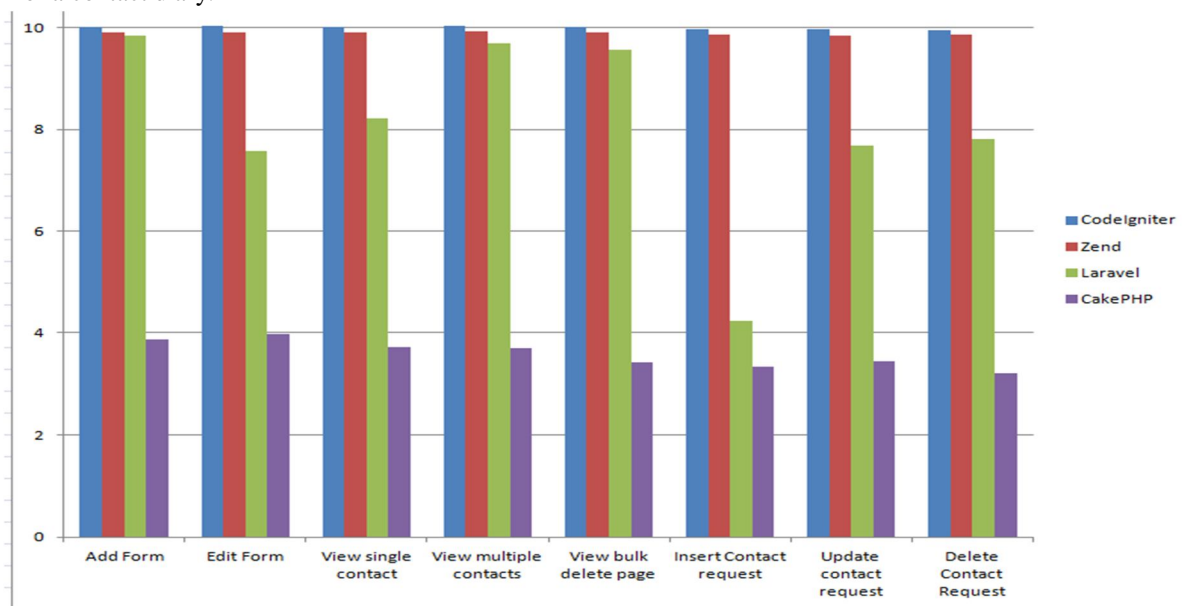
The benchmarks are executed utilizing the Apache JMeter benchmarking tool and both the applications are deployed on the same. The measurements are taken after 4000 requests so that the JIT's (Just In Time compiler) effects are eliminated. The results obtained for Laravel and Zend Frameworks are given below.

Execution Results of ZEND / LARAVEL

Form	Number of samples	Average	Median	Deviation	Throughput/minute
Add form	1000	186/353	183/309	16/228	594.148/590.743
Edit form	1000	206/2359	199/1459	29/4489	594.407/454.356
Single Contact Card	1000	195/1935	193/1504	18/3575	594.813/492.485
MultipleContact Card	1000	223/506	204/466	50/157	595.085/581.796
Bulk delete page	1000	199/596	195/487	23/490	594.642/573.921
InsertContact Request	1000	251/14266	242/16026	47/7318	591.663/253.346
UpdateContact Request	1000	269/1974	260/1290	43/4147	590.784/461.368
DeleteSingle Contact	1000	153/2866	132/1931	52/4165	597.033/468.856

As shown in the table various values ,number of samples average median deviation ,throughput/minute is shown above as per both Laravel and Zend framework system

The graph in figure below compares the throughput values for the four frameworks CodeIgniter 3.1.9, CakePHP 3.6, Laravel 5 .6, Zend Framework 3 (the results for CodeIgniter 3.1.9 and CakePHP 3.6 were obtained from the previous study). Hence, from the results obtained it can be inferred that the CodeIgniter and Zend are the most suitable frameworks for developing the web application of a contact diary.



Comparison of Aggregated Throughput for all the frameworks

IV. CONCLUSION

In this study we use the Apache J Meter reference tool to optimize the magazine communication with Larvel and Zend framework supported bt PHP 7 and compare the two applications compatibility in terms of performance. We also provide a comparison of the Codeigniter and cake PHP result from previous studies, with those of Laravel and Zend. Therefore, from the results we have obtained, we can conclude that CodeIgniter and Zend are the most suitable frameworks for developing our contact website applications.



REFERENCES

- [1] PHP documentation. "History of PHP" php.net. [Online; accessed 19- Mars-2015]. Available: <http://php.net/manual/en/history.php.php>
- [2] D. Powers, "PHP Solutions: Dynamic Web Design Made Easy". Apress, 2006.
- [3] W3techs. "W3Techs - World Wide Web Technology Surveys", w3techs.com. [Online; accessed 19-Mars-2015]. Available: <http://w3techs.com>
- [4] W3Techs. "Usage of server-side programming languages for websites." W3techs.com. [Online; accessed 17-Mars-2015]. Available: http://w3techs.com/technologies/overview/programming_language/all
- [5] B. Skvorc. (2013, December). "Best PHP Frameworks for 2014". Sitepoint [Online; accessed 17-Mars-2015]. Available: <http://www.sitepoint.com/best-php-frameworks-2014>
- [6] Laravel. "Laravel: The official website" laravel.com. [Online; accessed 17-Mars-2015]. Available: <http://laravel.com>
- [7] ZHANG, Z. Y., XIONG, S. H., & HENG, L. (2011). Website Design and Implementation Based on Zend Framework [J]. Computer Technology and Development, 11.
- [8] Elhakeem, Y. F. G. M., & Barry, B. I. (2013, August). Developing a security model to protect websites from cross-site scripting attacks using ZEND framework application. In 2013 International Conference on Computing, Electrical and Electronic Engineering (Iccee) (pp. 624-629). IEEE.
- [9] Alfat, L., Triwiyatno, A., & Isnanto, R. R. (2015, October). Sentinel web: Implementation of Laravel framework in web based temperature and humidity monitoring system. In 2015 2nd International Conference on Information Technology, Computer, and Electrical Engineering (ICITACEE) (pp. 46-51). IEEE.
- [10] He, R. Y. (2015, January). Design and implementation of web based on Laravel framework. In 2014 International Conference on Computer Science and Electronic Technology (ICCSET 2014). Atlantis Press.
- [11] Zurkiewicz, A., & Miłosz, M. (2015). Selecting a PHP framework for a web application project-The method and case study. In Conference: 9th international Technology, Education and Development Conference (No. s 1712).
- [12] Das, R., & Saikia, L. P. (2016). Comparison of Procedural PHP with Codeigniter and Laravel Framework. International Journal of Current Trends in Engineering & Research, 2(6), 42-8.
- [13] Surguy, M. (2014). Laravel: my first framework. Birmingham: Leanpub.



10.22214/IJRASET



45.98



IMPACT FACTOR:
7.129



IMPACT FACTOR:
7.429



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24*7 Support on Whatsapp)