

The background features abstract blue watercolor-style shapes and lines. In the top left, there are two overlapping light blue circles. In the top right, there are several thin, curved, parallel blue lines. In the bottom left, there is a cluster of small blue dots. In the bottom right, there is a large, light blue, irregular shape.

MEETING 1

Introduction to Web Framework

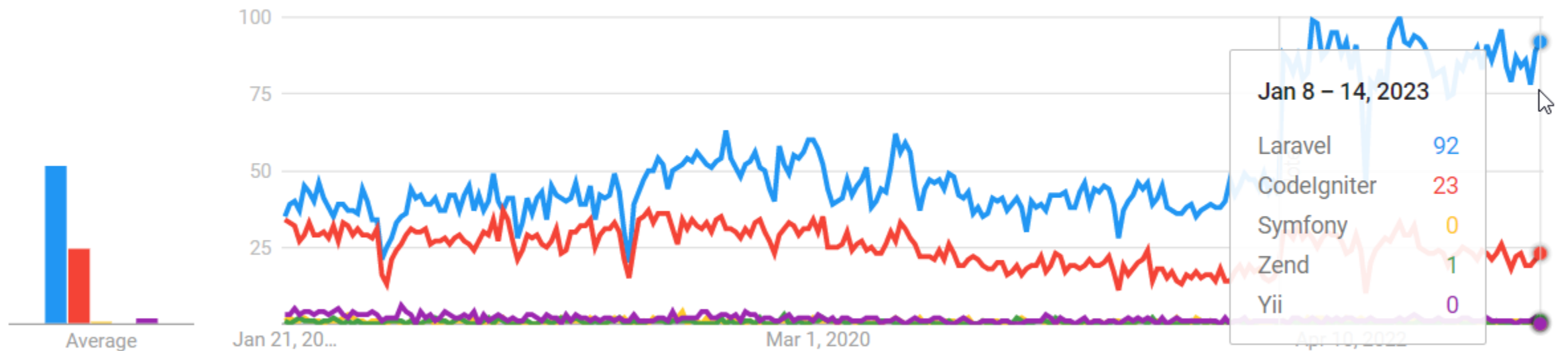
Dosen Pengampu :
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Definition of FRAMEWORK

- Framework can be interpreted as a **collection of scripts** (especially classes and functions) that can help developers / programmers in handling various problems in programming such as connections to databases, calling variables, files, etc. so that developers are more focused and faster to build applications
- A framework is a **programming component** that **is ready to be re-used** at any time, so programmers **don't have to create the same script** for the same task
- A framework is a **collection of libraries** - in order to use a library in a framework, developers must be able to conform to the rules of that framework

PHP framework


Interest over time



(Duniaikom, 2023)



Introduction to LARAVEL

- Laravel is a free and open-source PHP framework created by Taylor Otwell.
 - Laravel has various features that can increase the speed of web development. Laravel can save a lot of time for developers who want to create a website from scratch.
 - Laravel offers a set of tools and application architectures that combine the best features of various other frameworks such as CodeIgniter, Yii, ASP.NET MVC, Ruby on Rails, Sinatra, etc.
 - Websites built using Laravel are more secure. Laravel prevents attacks aimed at websites.
 - Laravel also implements model–view–controller (MVC).
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Laravel Version



Prologue

Getting Started

Architecture Concepts

The Basics

Digging Deeper

Security

Database

Eloquent ORM

Testing

Packages

Q Search

Laravel Documentation

You can find the online version of the Laravel documentation at

<https://laravel.com/docs>

Contribution Guidelines

If you are submitting documentation for the **current stable release**, submit it to the corresponding branch. For example, documentation for Laravel 10 would be submitted to the **10.x** branch. Documentation intended for the next release of Laravel should be submitted to the **master** branch.

VERSION

10.x

Master

10.x

9.x

8.x

7.x

6.x

5.8

5.7

5.6

5.5

5.4

5.3

5.2

5.1

5.0

4.2

Advantages


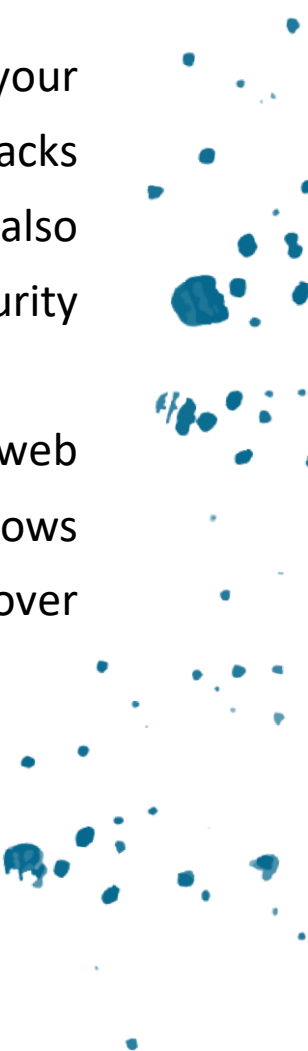
- ✓ **Strong Ecosystem:** Laravel has a vast and active ecosystem, which includes excellent documentation and a vibrant community. Laravel's official documentation is complete and easy to understand, providing a step-by-step guide to learning the framework from basic to advanced. The Laravel community is also very active, with many forums, discussion groups, and other online resources available for help and knowledge sharing.
- ✓ **Expressive Syntax:** One of the main advantages of Laravel is its expressive and easy-to-understand syntax. By using consistent conventions and clean code, Laravel allows developers to write code quickly and efficiently. For example, using features like "fluent query builder" makes writing database queries more intuitive and easy to learn.
- ✓ **Eloquent ORM:** Eloquent is an ORM included with Laravel, which allows developers to interact with databases using PHP objects. This allows developers to write cleaner, easier-to-understand code, as well as reduces the need to write SQL queries directly. Eloquent also provides features such as object relations, search, filtering, and data validation, which make application development easier and more efficient.

Keunggulan

- ✓ **Powerful Routing:** Laravel provides a powerful and easy-to-use routing system, which allows developers to route their app's URLs easily. It allows developers to route HTTP requests to appropriate functions, and organize their application code in a structured and easy-to-maintain manner.
- ✓ **Integrated Testing:** Laravel provides robust support for unit testing, providing integrated tools and frameworks for writing and running automated tests. This allows developers to ensure that their code works correctly and avoid regression when they make changes. Laravel also provides features for testing various aspects of the application, including controller, model, and display testing.
- ✓ **Blade Templating:** Laravel uses a templating system called Blade, which allows developers to create app views easily and efficiently. Blade provides a clean and intuitive syntax for writing HTML views, as well as features such as layout inheritance, loops, and conditionals. It allows developers to create dynamic and attractive views easily.



Keunggulan

- ✓ **Integrated Security:** Laravel provides a variety of integrated security features, which help protect your applications from common web attacks. For example, Laravel provides protection against CSRF attacks by providing automated features to generate and inspect CSRF tokens on HTML forms. Laravel also provides features to protect applications from XSS attacks, SQL Injection, and other web security attacks.
 - ✓ **Built-in Packages:** Laravel comes with a variety of packages that are useful for common tasks in web development, such as user authentication, session management, and job scheduling. This allows developers to build applications quickly and efficiently, without the need to rewrite the same code over and over again.
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Laravel Installation

Installation Preparation

No	System	Information
1	Laragon - Web Server	Application for webserver, same as XAMPP. Install Components: <ul style="list-style-type: none">– Apache Webserver– MySQL– PHP 8.2
2	Database Management Application: PhpMyAdmin	Application Database Management
2	Text Editor(can choose) <ul style="list-style-type: none">1. VS Code2. PHPStorm	Text editor for writing program code. For PHPStorm, you can get a free license by registering using a student account/email
3	Composer	It is a dependency manager tool for PHP programming language. To manage the PHP libraries we want to use.
4	GIT	Is version control that is used to manage versions and is in charge of recording every change to the program code file that we write.
5	Additional Tools to manage actions for GIT <ul style="list-style-type: none">– Git Fork	Additional applications for actions on GIT (clone, pull, commit, push, etc.). Actually, there are similar features in VSCode and PHPStorm text editors, but this can be for other options besides using text editors
6	Notepad++	Additional applications for second text editor



Installation Preparation

Must have a github account (register to <https://github.com/>)

