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The essentials

This chapter describes the essential aspects of your workspace setup. The things you definitely need to know, understand and setup on your computer before you can start developing Laravel applications in this course.

Essential Prerequisites

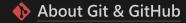
Each framework might expect some additional software to be installed on your working environment before you can start working. Laravel requires a pretty comprehensive set of software that either must be installed or they recommend to install. The things that must be installed are:

- A specific version of PHP (In Laravel 10 it's PHP 8.1-8.2)
- A PHP dependency manager called **Composer**
- A localhost webserver like NGinx or Apache
- A localhost (MySQL) database server

You can decide to install these tools for yourself (e.g. by using a suite like XAMPP). But, if you decide to dig a bit deeper (see the Digging Deeper chapter), you may find a more convenient method.

Version Control

This course uses Git as the version control software and GitHub as the platform of choice for sharing projects. We assume that you already are familiar with Git and GitHub. If not, you can read the following introduction:



We advise you to apply for the GitHub Student Developer Pack. For more info:



The GitHub Student Developer Pack is all you need to learn how to code. Get your Pack now.

https://education.github.com/pack

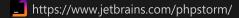


Development environment

Besides the essential software, you should also have the tools in place that help you develop your code: the Integrated Development Environment. You are free to use any code editor you wish when developing Laravel applications and you may already installed and used Visual Studio Code. but the Laravel community widely adopted PhpStorm as weapon of choice. It offers extensive support for Laravel and its ecosystem and provides a community maintained plugin that offers a variety of helpful IDE augmentations, including code generation.



PhpStorm is a development tool for PHP and Web projects. It's a perfect PHP IDE for working with Laravel, Symfony, Drupal,



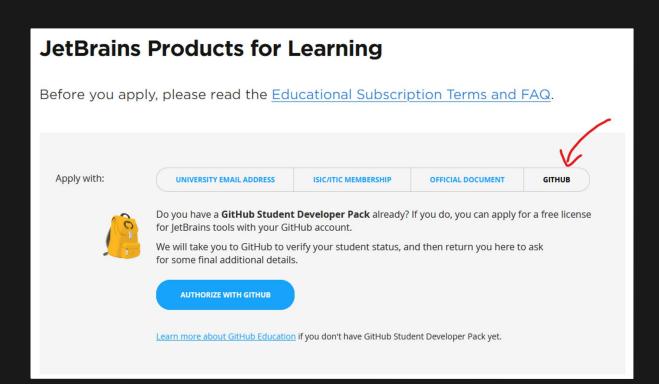


This editor requires a paid license. However it provides for a special **free licence** for students: the *PHPStorm Educational License*. Therefore we advice you to apply for this license with your HZ email address and install PHPStorm. If you already have access to the Github Student Developer Pack (which you should!), then getting the free license is as easy as clicking "GitHub" from the JetBrains registration page and then authorizing with your GitHub account. See:

Free Educational Licenses - Community Support

Learn or teach how to code with best-of-industry tools from

https://www.jetbrains.com/community/education/#students



We at HZ decided on a specific workspace setup in order to make certain steps like publishing assignments or support easier. Things that should be installed and configured before you start working on a Laravel app

Digging deeper

The SHOULDs about this topic, described as links with some extra information to help understanding the content of the link

Recommended things to install

Besides the required prerequisites Laravel advises you to install some other tools. The most noteworthy for now are:

- Node and NPM for other dependencies
- Some other applications like a mail testing environment like Mailhog, which you might need later

Docker and Sail

Take a look at the prerequisites. You can install this yourself. However, Laravel also provide several options to make this simpler. One of them is by using a tool called Docker and Sail.

Imagine you have a computer, and you want to run different programs or apps on it. However, sometimes these programs need specific settings or dependencies that might conflict with each other or the computer's existing setup.

Docker helps solve this problem by allowing you to package these programs, along with all the necessary settings and dependencies, into something called a "container"

Containers are like self-contained boxes that hold everything a program needs to run: the code, system tools, libraries, and settings. Docker makes it easy to create, manage, and run these containers on any computer, regardless of the underlying operating system or hardware.

It's kind of like shipping containers used in the real world: they standardize the way goods are packaged, making it easy to ship and run them in different places without worrying about the specifics of each location.

So, Docker enables developers to build and share applications in these containers, ensuring they work consistently across different environments. It streamlines the process of deploying and managing applications, making development and deployment smoother and more efficient.

Laravel uses Docker to publish a uniform development environment. This means that you have a webserver and database server perfectly configured for your application ready without you needed to install and configure any other software.

Sail is a Laravel package that serves as a command line interface for interacting with Laravel's default Docker development environment. Sail provides a great starting point for building a Laravel application without requiring prior Docker experience.

Read the following manual if you want to get started with Docker:



Installing Docker

Further reading

The MAYs about this topic. Just inspiration and links If you want to know more about Laravel Sail:

Laravel - The PHP Framework For Web Artisans

Laravel is a PHP web application framework with expressive, elegant syntax. We've already laid the foundation — freeing you

https://laravel.com/docs/sail



A good reference about installing a Laravel project cloned from GitHub

How to Setup a Laravel Project You Cloned from Gith...

So you found a cool Laravel project off Github.com and want to use it locally to play around with it, or learn from it. Or maybe

https://devmarketer.io/learn/setup-laravel-project-cloned-gith...

